UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q

(Mark One)

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2019

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition Period from to

Commission File Number: 001-34885

AMYRIS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization) 55-0856151
(I.R.S. Employer Identification No.)

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, CA 94608
(510) 450-0761
(Address and telephone number of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

<table>
<thead>
<tr>
<th>Title of each class</th>
<th>Trading Symbol(s)</th>
<th>Name of each exchange on which registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock, $0.0001 par value per share</td>
<td>AMRS</td>
<td>The Nasdaq Stock Market, LLC</td>
</tr>
</tbody>
</table>

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer x
Accelerated filer o
Non-accelerated filer o
Smaller reporting company x
Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

Shares outstanding of the Registrant's common stock:

<table>
<thead>
<tr>
<th>Class</th>
<th>Outstanding as of October 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock, $0.0001 par value per share</td>
<td>105,502,887</td>
</tr>
</tbody>
</table>
As described in additional detail in the Explanatory Note to our Annual Report on Form 10-K filed on October 1, 2019 for the fiscal year ended December 31, 2018 (the 2018 Form 10-K), on April 5, 2019 and May 14, 2019, the Audit Committee of the Board of Directors of the Company (the Board) and the Board, respectively, determined that the Company would restate its interim condensed consolidated financial statements for the quarterly and year-to-date periods ended March 31, 2018, June 30, 2018 and September 30, 2018 (collectively, the 2018 Non-Reliance Periods). The Company also disclosed that investors should no longer rely upon (i) the Company’s previously released condensed consolidated financial statements for the 2018 Non-Reliance Periods, (ii) earnings releases for the 2018 Non-Reliance Periods and (iv) other communications relating to the Company’s previously released condensed consolidated financial statements for the 2018 Non-Reliance Periods. The restated financial statements for such periods are included in Part II, Item 8 of the 2018 Form 10-K/A filed on October 4, 2019.

This Quarterly Report on Form 10-Q for the three and nine months ended September 30, 2019 reflects the comparative restated quarterly financial data for the three and nine months ended September 30, 2018 contained in the 2018 Form 10-K/A filed on October 4, 2019.
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<thead>
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<th>Description</th>
<th>Page</th>
</tr>
</thead>
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<td></td>
<td>Condensed Consolidated Balance Sheets as of September 30, 2019 and December</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>31, 2018</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Management’s Discussion and Analysis of Financial Condition and Results of</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Operations</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Controls and Procedures</td>
<td>54</td>
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<tr>
<td></td>
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<td>11</td>
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<tr>
<td>1</td>
<td>Legal Proceedings</td>
<td>55</td>
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<tr>
<td>1A.</td>
<td>Risk Factors</td>
<td>55</td>
</tr>
<tr>
<td>2.</td>
<td>Unregistered Sales of Equity Securities and Use of Proceeds</td>
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<td>3.</td>
<td>Defaults Upon Senior Securities</td>
<td>55</td>
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<td>5.</td>
<td>Other Information</td>
<td>56</td>
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<tr>
<td>6.</td>
<td>Exhibits</td>
<td>57</td>
</tr>
</tbody>
</table>

SIGNATURES
PART I

ITEM 1. FINANCIAL STATEMENTS

AMYRIS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

(In thousands, except shares and per share amounts)

<table>
<thead>
<tr>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Current assets:</td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$1,632</td>
</tr>
<tr>
<td>Restricted cash</td>
<td>476</td>
</tr>
<tr>
<td>Accounts receivable, net of allowance of $116 and $642</td>
<td>17,072</td>
</tr>
<tr>
<td>Accounts receivable - related party, net of allowance of $21 and $0</td>
<td>3,692</td>
</tr>
<tr>
<td>Contract assets</td>
<td>2,567</td>
</tr>
<tr>
<td>Accounts receivable, unbilled - related party</td>
<td>—</td>
</tr>
<tr>
<td>Inventories</td>
<td>15,944</td>
</tr>
<tr>
<td>Deferred cost of products sold - related party</td>
<td>968</td>
</tr>
<tr>
<td>Prepaid expenses and other current assets</td>
<td>12,849</td>
</tr>
<tr>
<td>Total current assets</td>
<td>55,200</td>
</tr>
<tr>
<td>Property, plant and equipment, net</td>
<td>24,436</td>
</tr>
<tr>
<td>Accounts receivable, unbilled, noncurrent - related party</td>
<td>1,203</td>
</tr>
<tr>
<td>Deferred cost of products sold, noncurrent - related party</td>
<td>15,894</td>
</tr>
<tr>
<td>Restricted cash, noncurrent</td>
<td>960</td>
</tr>
<tr>
<td>Recoverable taxes from Brazilian government entities</td>
<td>2,866</td>
</tr>
<tr>
<td>Right-of-use assets under leases (Note 2)</td>
<td>21,936</td>
</tr>
<tr>
<td>Other assets</td>
<td>5,620</td>
</tr>
<tr>
<td>Total assets</td>
<td>$128,115</td>
</tr>
</tbody>
</table>

| **Liabilities, Mezzanine Equity and Stockholders' Deficit** |                   |
| Current liabilities: |                   |
| Accounts payable | $24,925 | $26,844 |
| Accrued and other current liabilities | 42,686 | 28,979 |
| Lease liabilities (Note 2) | 7,973 | —     |
| Contract liabilities | 4,737 | 8,236 |
| Debt, current portion (instrument measured at fair value $63,152 and $57,918, respectively) | 65,495 | 124,010 |
| Related party debt, current portion | 13,221 | 23,667 |
| Total current liabilities | 159,037 | 211,736 |
| Long-term debt, net of current portion | 20,045 | 43,331 |
| Related party debt, net of current portion | 105,482 | 18,689 |
| Lease liabilities, net of current portion (Note 2) | 15,472 | —     |
| Derivative liabilities | 9,357 | 42,796 |
| Other noncurrent liabilities | 26,801 | 23,192 |
| Total liabilities | 336,194 | 339,744 |

| Commitments and contingencies (Note 8) |                   |
| Mezzanine equity: |                   |
| Contingently redeemable common stock (Note 5) | 5,000 | 5,000 |
| Stockholders’ deficit: |                   |
| Preferred stock - $0.0001 par value, 5,000,000 shares authorized as of September 30, 2019 and December 31, 2018, and 14,656 shares issued and outstanding as of September 30, 2019 and December 31, 2018, respectively | — | — |
| Common stock - $0.0001 par value, 250,000,000 shares authorized as of September 30, 2019 and December 31, 2018; 103,480,207 and 76,564,829 shares issued and outstanding as of September 30, 2019 and December 31, 2018, respectively | 10 | 8 |
| Additional paid-in capital | 1,507,298 | 1,346,996 |
| Accumulated other comprehensive loss | (44,545) | (43,343) |
| Accumulated deficit | (1,676,779) | (1,321,417) |
| Total Amyris, Inc. stockholders’ deficit | (214,016) | (217,756) |
| Noncontrolling interest | 937 | 937 |
| Total stockholders’ deficit | (213,079) | (216,819) |
| Total liabilities, mezzanine equity and stockholders’ deficit | $128,115 | $127,925 |

See the accompanying notes to the unaudited condensed consolidated financial statements.
AMYRIS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

Three Months Ended September 30, 2019

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewable products</td>
<td>$17,363</td>
<td>$9,639</td>
</tr>
<tr>
<td>Licenses and royalties</td>
<td>$2,305</td>
<td>$142</td>
</tr>
<tr>
<td>Grants and collaborations</td>
<td>$15,285</td>
<td>$4,534</td>
</tr>
<tr>
<td>Total revenue</td>
<td>$34,953</td>
<td>$14,315</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost and operating expenses:</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of products sold</td>
<td>$20,654</td>
<td>$8,574</td>
</tr>
<tr>
<td>Research and development</td>
<td>$19,032</td>
<td>$16,445</td>
</tr>
<tr>
<td>Total cost and operating expenses</td>
<td>$39,686</td>
<td>$25,019</td>
</tr>
<tr>
<td>Loss from operations</td>
<td>$73,027</td>
<td>$52,258</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other income (expense):</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss on divestiture</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Interest expense</td>
<td>($16,857)</td>
<td>($9,180)</td>
</tr>
<tr>
<td>Loss from change in fair value of derivative instruments</td>
<td>($398)</td>
<td>(24,797)</td>
</tr>
<tr>
<td>Loss from change in fair value of debt</td>
<td>($2,055)</td>
<td>—</td>
</tr>
<tr>
<td>Loss upon extinguishment of debt</td>
<td>($2,721)</td>
<td>—</td>
</tr>
<tr>
<td>Other income (expense), net</td>
<td>($1,076)</td>
<td>($2,533)</td>
</tr>
<tr>
<td>Total other expense, net</td>
<td>($20,955)</td>
<td>($38,510)</td>
</tr>
<tr>
<td>Loss before income taxes</td>
<td>($59,029)</td>
<td>($74,435)</td>
</tr>
<tr>
<td>Provision for income taxes</td>
<td>($533)</td>
<td>($533)</td>
</tr>
<tr>
<td>Net loss attributable to Amyris, Inc.</td>
<td>($59,562)</td>
<td>($74,968)</td>
</tr>
<tr>
<td>Less: deemed dividend to preferred shareholder on issuance and modification of common stock warrants</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Less: deemed dividend related to proceeds discount and issuance costs upon conversion of Series D preferred stock</td>
<td>—</td>
<td>(8,586)</td>
</tr>
<tr>
<td>Less: losses allocated to participating securities</td>
<td>$1,655</td>
<td>$4,491</td>
</tr>
<tr>
<td>Net loss attributable to Amyris, Inc. common stockholders</td>
<td>$57,907</td>
<td>($76,414)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Loss per share attributable to common stockholders, basic and diluted</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted-average shares of common stock outstanding used in computing loss per share of common stock, basic and diluted</td>
<td>103,449,612</td>
<td>60,960,071</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nine Months Ended September 30, 2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue:</td>
<td></td>
</tr>
<tr>
<td>Renewable products (includes related party revenue of $0, $113, $2 and $308, respectively)</td>
<td>$41,367</td>
</tr>
<tr>
<td>Licenses and royalties (includes related party revenue of $0, ($39), $40,302 and $7,366, respectively)</td>
<td>$43,387</td>
</tr>
<tr>
<td>Grants and collaborations (includes related party revenue of $844, $1,197, $3,886 and $3,667, respectively)</td>
<td>$27,267</td>
</tr>
<tr>
<td>Total revenue (includes related party revenue of $844, $1,171, $44,190 and $11,341, respectively)</td>
<td>$112,021</td>
</tr>
</tbody>
</table>

See the accompanying notes to the unaudited condensed consolidated financial statements.
AMYRIS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited)

Three Months Ended September 30, 2019 2018
Nine Months Ended September 30, 2019 2018

(In thousands)

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive loss:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net loss attributable to Amyris, Inc.</td>
<td>$(59,562)</td>
<td>$(74,453)</td>
<td>$(163,893)</td>
<td>$(181,637)</td>
</tr>
<tr>
<td>Foreign currency translation adjustment</td>
<td>$1,886</td>
<td>$1,944</td>
<td>$2,022</td>
<td>$1,158</td>
</tr>
<tr>
<td>Comprehensive loss attributable to Amyris, Inc.</td>
<td>$(60,628)</td>
<td>$(74,647)</td>
<td>$(165,915)</td>
<td>$(182,795)</td>
</tr>
</tbody>
</table>

See the accompanying notes to the unaudited condensed consolidated financial statements.
<table>
<thead>
<tr>
<th>Description</th>
<th>Shares</th>
<th>Amount</th>
<th>Additional Paid-in Capital</th>
<th>Accumulated Other Comprehensive Loss</th>
<th>Accumulated Deficit</th>
<th>Noncontrolling Interest</th>
<th>Total Non-Preferred Stock</th>
<th>Mezzanine Equity - Preferred Stock</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On January 1, 2019</strong></td>
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</tr>
<tr>
<td>Balances at December 31, 2018</td>
<td>14,656</td>
<td>5,000</td>
<td></td>
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<tr>
<td>Conservation of change in accounting principle for ASU 2017-11 (see “Recently Adopted Accounting Pronouncements” in Note 1)</td>
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<tr>
<td>Issuance of common stock upon exercise of warrants</td>
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<tr>
<td>Issuance of common stock and payment of minimum employee taxes withheld upon net share settlement of restricted stock</td>
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<tr>
<td>Stock-based compensation</td>
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<tr>
<td>Fair value of bifurcated embedded conversion feature in connection with debt modification</td>
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<tr>
<td>Foreign currency translation adjustment</td>
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<tr>
<td>Net loss</td>
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<tr>
<td><strong>Balances at March 31, 2019</strong></td>
<td>14,656</td>
<td>5,000</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Issuance of common stock in private placement, net of issuance costs</td>
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<tr>
<td>Issuance of common stock in private placement - related party, net of issuance costs</td>
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<tr>
<td>Issuance of common stock upon conversion of debt</td>
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<tr>
<td>Issuance of common stock upon exercise of warrants</td>
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<tr>
<td>Issuance of common stock and payment of minimum employee taxes withheld upon net share settlement of restricted stock</td>
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<tr>
<td>Stock-based compensation</td>
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<tr>
<td>Foreign currency translation adjustment</td>
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<tr>
<td>Net loss</td>
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</tr>
<tr>
<td><strong>Balances at June 30, 2019</strong></td>
<td>14,656</td>
<td>5,000</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Issuance of common stock and warrants upon conversion of debt</td>
<td></td>
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</tr>
<tr>
<td>Issuance of common stock and payment of minimum employee taxes withheld upon net share settlement of restricted stock</td>
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<td></td>
</tr>
<tr>
<td>Issuance of warrants in connection with related party debt issuance</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Issuance of warrants in connection with related party debt modification</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Issuance of warrants in connection with debt account set at fair value</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Foreign currency translation adjustment</td>
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<td></td>
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<tr>
<td>Net loss</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balances at September 30, 2019</strong></td>
<td>14,656</td>
<td>5,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balances at December 31, 2018</td>
<td>14,656</td>
<td>5,000</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT AND MEZZANINE EQUITY, Continued

(Unaudited)

<table>
<thead>
<tr>
<th>Period Ending (except number of shares)</th>
<th>Preferred Stock</th>
<th>Common Stock</th>
<th>Additional Paid-in Capital</th>
<th>Accumulated Other Comprehensive Loss</th>
<th>Accumulated Deficit</th>
<th>Net Loss</th>
<th>Noncontrolling Interest</th>
<th>Total Non-GAAP Deficit</th>
<th>Mezzanine Equity - Common Stock</th>
</tr>
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<tbody>
<tr>
<td>Shares</td>
<td>Amount</td>
<td>Shares</td>
<td>Amount</td>
<td>Capital</td>
<td></td>
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<td>$132,672</td>
<td>$31,080,120</td>
<td>44,898,933</td>
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<tr>
<td>Shares at December 31, 2017</td>
<td>22,171</td>
<td>$45,437,415</td>
<td>5</td>
<td>$1,114,546</td>
<td>(82,314)</td>
<td>(1,290,420)</td>
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<td>$17</td>
<td>22,171</td>
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<tr>
<td>Cumulative effect of change in accounting principle for ASC 606 (see &quot;Significant Accounting Policies&quot; in Note 1)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>(803)</td>
<td>--</td>
<td>--</td>
<td>(803)</td>
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</tr>
<tr>
<td>Issuance of common stock upon exercise of warrants</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
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<td>85</td>
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<tr>
<td>Issuance of common stock in private placement, net of issuance costs</td>
<td>--</td>
<td>--</td>
<td>132,209</td>
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<td>Issuance of common stock upon exercise of stock options</td>
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</tr>
<tr>
<td>Issuance of common stock and payment of minimum employee taxes withheld upon net share settlement of restricted stock</td>
<td>--</td>
<td>30,450</td>
<td>(58)</td>
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<td>--</td>
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<tr>
<td>Stock-based compensation</td>
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<td>1,278</td>
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<td>--</td>
<td>1,278</td>
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<td>Other</td>
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<td>--</td>
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<td>Foreign currency translation adjustment</td>
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<td>--</td>
<td>(137)</td>
<td>(137)</td>
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<td>(137)</td>
<td>--</td>
</tr>
<tr>
<td>Net loss</td>
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<td>--</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td>Shares at March 31, 2018</td>
<td>22,171</td>
<td>$45,437,415</td>
<td>5</td>
<td>$1,114,546</td>
<td>(82,314)</td>
<td>(1,290,420)</td>
<td></td>
<td>$17</td>
<td>22,171</td>
</tr>
<tr>
<td>Issuance of common stock upon exercise of warrants</td>
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<tr>
<td>Issuance of warrants</td>
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<td>--</td>
<td></td>
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<tr>
<td>Issuance of common stock in private placement, net of issuance costs</td>
<td>--</td>
<td>101,679</td>
<td>1,323</td>
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<td>--</td>
<td>1,323</td>
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<tr>
<td>Issuance of common stock upon conversion of preferred stock</td>
<td>(2,037)</td>
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<tr>
<td>Issuance of common stock upon ESOP purchase</td>
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<td>67,760</td>
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<tr>
<td>Issuance of common stock and payment of minimum employee taxes withheld upon net share settlement of restricted stock</td>
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<td>41,189</td>
<td>(147)</td>
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<td>Stock-based compensation</td>
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<td>Foreign currency translation adjustment</td>
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<td>(827)</td>
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<td>(827)</td>
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<td>(827)</td>
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</tr>
<tr>
<td>Net loss</td>
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<tr>
<td>Shares at June 30, 2018</td>
<td>10,334</td>
<td>$36,340,645</td>
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<td>$1,154,625</td>
<td>(43,120)</td>
<td>(1,390,477)</td>
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<td>10,334</td>
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<td>Issuance of common stock upon exercise of warrants</td>
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<tr>
<td>Issuance of warrants</td>
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<td>--</td>
</tr>
<tr>
<td>Issuance of common stock in private placement, net of issuance costs</td>
<td>--</td>
<td>12,372,721</td>
<td>1,003,778</td>
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<td>80,979</td>
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<tr>
<td>Issuance of common stock upon exercise of stock options</td>
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<td>30,079</td>
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<tr>
<td>Stock-based compensation</td>
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<td>--</td>
<td>2,937</td>
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<tr>
<td>Issuance of common stock upon exercise of stock options</td>
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<td>16,095</td>
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</tr>
<tr>
<td>Issuance of common stock upon conversion of preferred stock</td>
<td>(4,678)</td>
<td>--</td>
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<tr>
<td>Issuance of common stock and payment of minimum employee taxes withheld upon net share settlement of restricted stock</td>
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<td>1,086,173</td>
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</tr>
<tr>
<td>Foreign currency translation adjustment</td>
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<td>(194)</td>
<td>--</td>
<td>(194)</td>
<td></td>
<td>--</td>
<td>(194)</td>
<td>--</td>
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<tr>
<td>Net loss</td>
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<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td>Shares at September 30, 2018</td>
<td>14,656</td>
<td>$64,099,645</td>
<td>0</td>
<td>$1,380,679</td>
<td>(43,314)</td>
<td>(1,472,060)</td>
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<td>$17</td>
<td>14,656</td>
</tr>
<tr>
<td>Cumulative effect of change in accounting principle for ASC 606 (see &quot;Significant Accounting Policies&quot; in Note 1)</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<td>--</td>
<td></td>
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</tr>
</tbody>
</table>

See the accompanying notes to the unaudited condensed consolidated financial statements.
AMYRIS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

Nine Months Ended September 30,

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net loss</td>
<td>$(163,893)</td>
<td>$(181,637)</td>
</tr>
<tr>
<td>Adjustments to reconcile net loss to net cash used in operating activities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss from change in fair value of debt</td>
<td>18,629</td>
<td>—</td>
</tr>
<tr>
<td>Stock-based compensation</td>
<td>10,061</td>
<td>6,115</td>
</tr>
<tr>
<td>Amortization of debt discount</td>
<td>9,701</td>
<td>12,244</td>
</tr>
<tr>
<td>Amortization of right-of-use assets under operating leases</td>
<td>10,237</td>
<td>—</td>
</tr>
<tr>
<td>Expense for warrants issued for covenant waivers</td>
<td>5,358</td>
<td>—</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>2,691</td>
<td>3,957</td>
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<tr>
<td>Loss from change in fair value of derivative liability</td>
<td>2,437</td>
<td>61,164</td>
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<tr>
<td>Impairment of property, plant and equipment</td>
<td>1,263</td>
<td>—</td>
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<tr>
<td>Loss on disposal of property, plant and equipment</td>
<td>122</td>
<td>943</td>
</tr>
<tr>
<td>Gain on foreign currency exchange rates</td>
<td>(361)</td>
<td>(1,132)</td>
</tr>
<tr>
<td><strong>Changes in assets and liabilities:</strong></td>
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<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>(3,482)</td>
<td>2,226</td>
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<tr>
<td>Contract assets</td>
<td>(2,567)</td>
<td>—</td>
</tr>
<tr>
<td>Inventories</td>
<td>8,021</td>
<td>7,457</td>
</tr>
<tr>
<td>Deferred cost of products sold - related party</td>
<td>(13,545)</td>
<td>—</td>
</tr>
<tr>
<td>Prepaid expenses and other assets</td>
<td>(4,445)</td>
<td>(2,387)</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>(2,050)</td>
<td>(4,795)</td>
</tr>
<tr>
<td>Accrued and other liabilities</td>
<td>22,310</td>
<td>8,348</td>
</tr>
<tr>
<td>Lease liabilities</td>
<td>(12,453)</td>
<td>—</td>
</tr>
<tr>
<td><strong>Net cash used in operating activities</strong></td>
<td>(113,467)</td>
<td>(89,447)</td>
</tr>
<tr>
<td><strong>Investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchases of property, plant and equipment</td>
<td>(9,013)</td>
<td>(6,362)</td>
</tr>
<tr>
<td><strong>Net cash used in investing activities</strong></td>
<td>(9,013)</td>
<td>(6,362)</td>
</tr>
<tr>
<td><strong>Financing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from issuance of debt, net of issuance costs</td>
<td>89,217</td>
<td>36,643</td>
</tr>
<tr>
<td>Proceeds from issuance of common stock in private placements, net of issuance costs - related party</td>
<td>39,500</td>
<td>—</td>
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<tr>
<td>Proceeds from issuance of common stock in private placements, net of issuance costs</td>
<td>14,221</td>
<td>1,415</td>
</tr>
<tr>
<td>Proceeds from issuance of common stock upon ESPP purchase</td>
<td>464</td>
<td>269</td>
</tr>
<tr>
<td>Proceeds from exercises of common stock options</td>
<td>13</td>
<td>329</td>
</tr>
<tr>
<td>Proceeds from exercises of warrants</td>
<td>1</td>
<td>60,544</td>
</tr>
<tr>
<td>Principal payments on debt</td>
<td>(63,075)</td>
<td>(41,870)</td>
</tr>
<tr>
<td>Payment of minimum employee taxes withheld upon net share settlement of restricted stock units</td>
<td>(627)</td>
<td>(224)</td>
</tr>
<tr>
<td>Principal payments on financing leases</td>
<td>(372)</td>
<td>(846)</td>
</tr>
<tr>
<td><strong>Net cash provided by financing activities</strong></td>
<td>78,742</td>
<td>56,160</td>
</tr>
<tr>
<td>Effect of exchange rate changes on cash, cash equivalents and restricted cash</td>
<td>(248)</td>
<td>(101)</td>
</tr>
<tr>
<td><strong>Net decrease in cash, cash equivalents and restricted cash</strong></td>
<td>(43,986)</td>
<td>(39,758)</td>
</tr>
<tr>
<td>Cash, cash equivalents and restricted cash at beginning of period</td>
<td>47,054</td>
<td>61,012</td>
</tr>
<tr>
<td><strong>Cash, cash equivalents and restricted cash at end of the period</strong></td>
<td>$3,068</td>
<td>$21,262</td>
</tr>
<tr>
<td><strong>Reconciliation of cash, cash equivalents and restricted cash to the condensed consolidated balance sheets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$1,632</td>
<td>19,045</td>
</tr>
<tr>
<td>Restricted cash, current</td>
<td>476</td>
<td>1,258</td>
</tr>
<tr>
<td>Restricted cash, noncurrent</td>
<td>960</td>
<td>959</td>
</tr>
<tr>
<td><strong>Total cash, cash equivalents and restricted cash</strong></td>
<td>$3,068</td>
<td>$21,262</td>
</tr>
</tbody>
</table>

See the accompanying notes to the unaudited condensed consolidated financial statements.
## Supplemental disclosures of cash flow information:

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash paid for interest</td>
<td>$10,390</td>
<td>$14,783</td>
</tr>
<tr>
<td>Right-of-use assets under operating leases recorded upon adoption of ASC 842 (Note 2)</td>
<td>$29,713</td>
<td>—</td>
</tr>
<tr>
<td>Lease liabilities recorded upon adoption of ASC 842 (Note 2)</td>
<td>$33,052</td>
<td>—</td>
</tr>
<tr>
<td>Cumulative effect of change in accounting principle for ASU 2017-11 (Note 2)</td>
<td>$41,043</td>
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</tr>
<tr>
<td>Issuance of common stock upon conversion of convertible notes</td>
<td>$42,479</td>
<td>—</td>
</tr>
<tr>
<td>Fair value of warrants recorded as debt discount in connection with debt issuances - related party</td>
<td>$16,155</td>
<td>—</td>
</tr>
<tr>
<td>Fair value of warrants recorded as debt discount in connection with debt issuances</td>
<td>$8,965</td>
<td>—</td>
</tr>
<tr>
<td>Acquisition of right-of-use assets under operating leases</td>
<td>$2,361</td>
<td>—</td>
</tr>
<tr>
<td>Accrued interest added to debt principal</td>
<td>$986</td>
<td>$2,029</td>
</tr>
<tr>
<td>Fair value of warrants recorded as debt discount in connection with debt modification</td>
<td>$98</td>
<td>—</td>
</tr>
<tr>
<td>Acquisition of property, plant and equipment under accounts payable, accrued liabilities and notes payable</td>
<td>$134</td>
<td>$763</td>
</tr>
<tr>
<td>Derecognition of derivative liabilities upon exercise of warrants</td>
<td>—</td>
<td>$85,912</td>
</tr>
<tr>
<td>Financing of equipment</td>
<td>—</td>
<td>$764</td>
</tr>
</tbody>
</table>

See the accompanying notes to the unaudited condensed consolidated financial statements.
1. Basis of Presentation and Summary of Significant Accounting Policies

Amyris, Inc. (Amyris or the Company) is a leading industrial biotechnology company that applies its technology platform to engineer, manufacture and sell high performance, natural, sustainably-sourced products into the Health & Wellness, Clean Beauty, and Flavor & Fragrance markets. The Company's proven technology platform enables the Company to rapidly engineer microbes and use them as catalysts to metabolize renewable, plant-sourced sugars into large volume, high-value ingredients. The Company's biotechnology platform and industrial fermentation process replace existing complex and expensive manufacturing processes. The Company has successfully used its technology to develop and produce many distinct molecules at commercial volumes.

The accompanying unaudited condensed consolidated financial statements of Amyris, Inc. should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K/A for the year ended December 31, 2018 (the 2018 Form 10-K/A), from which the condensed consolidated balance sheet as of December 31, 2018 is derived. The accompanying condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, since they are interim statements, the accompanying condensed consolidated financial statements do not include all of the information and notes required by U.S. GAAP for complete financial statements. The accompanying condensed consolidated financial statements reflect all adjustments, consisting of normal recurring adjustments, that are, in the opinion of management, necessary to a fair statement of the results for the interim periods presented. Interim results are not necessarily indicative of results for a full year.

Raizen Joint Venture Agreement

On May 10, 2019, the Company and Raizen Energia S.A. (Raizen) entered into a joint venture agreement relating to the formation and operation of a joint venture relating to the production, sale and commercialization of alternative sweetener products. In connection with the formation of the joint venture, among other things, (i) the joint venture will construct a manufacturing facility on land owned by Raizen and leased to the joint venture (the Sweetener Plant), (ii) the Company will grant to the joint venture an exclusive, royalty-free, worldwide, license to certain technology owned by the Company relevant to the joint venture’s business, and (iii) the Company and Raizen will enter into a shareholders agreement setting forth the rights and obligations of the parties with respect to, and the management of, the joint venture. The formation of the joint venture is subject to certain conditions, including certain regulatory approvals and the achievement of certain technological and economic milestones relating to the Company’s existing production of its alternative sweetener product. If such conditions are not satisfied by December 31, 2019, the joint venture will automatically terminate. However, the termination date can be extended by mutual agreement of the parties. In addition, notwithstanding the satisfaction of the closing conditions, Raizen may elect not to consummate the formation and operation of the joint venture, in which event, the Company will retain the right to construct and operate the Sweetener Plant.

Upon the closing of the joint venture, each party will make an initial capital contribution to the joint venture of 2.5 million Brazilian Real (R$2.5 million) and the joint venture will be owned 50% by the Company and 50% by Raizen. Within 60 days of the formation, the parties will make an aggregate cash contribution to the joint venture of U.S.$9.0 million to purchase certain fixed assets currently owned by the Company and located at the site of the Company’s former joint venture with Sao Martinho S.A. in Pradopolis, Brazil for U.S.$3.0 million, as well as to pay for costs related to the removal and transportation of such assets to the site of the Sweetener Plant. In addition, within six months of the formation, the Company will contribute to the joint venture its existing supply agreements related to its alternative sweetener product, subject to certain exceptions, in exchange for shares of dividend-bearing preferred stock in the joint venture, which will be entitled, for a period of 10 years commencing from the initial date of operation of the Sweetener Plant, to certain priority fixed cumulative dividends including, in the event that certain technological and economic milestones are met in any fiscal quarter, a percentage of the operating cash flow of the joint venture in such quarter.

After the formation of the joint venture, subject to certain exceptions, the parties will not conduct activities similar or identical to the joint venture except through the joint venture. In the event that certain technological and economic milestones are not met in any fiscal year beginning with the third fiscal year after formation of the joint venture and ending with the seventh fiscal year after formation of the joint venture, Raizen shall have the right to sell all of its shares in the joint venture to the Company at a price per share equal to the higher of the book value and the amount of Raizen’s investments in the joint venture, as adjusted for Raizen’s cost of capital.
The Company is evaluating the accounting treatment for its future interest in the joint venture under ASC 810, Consolidations and ASC 323, Equity Method and Joint Ventures and will conclude once the corporate governance and economic participation structure is finalized and the formation of the joint venture is consummated.

Going Concern

The Company has incurred significant operating losses since its inception and expects to continue to incur losses and negative cash flows from operations for at least the next 12 months following the issuance of these condensed consolidated financial statements. As of September 30, 2019, the Company had negative working capital of $103.8 million (compared to negative working capital of $119.5 million as of December 31, 2018), and an accumulated deficit of $1.7 billion.

As of September 30, 2019, the Company's debt (including related party debt), net of debt discount of $37.5 million, totaled $204.2 million, of which $78.7 million is classified as current. The Company's debt service obligations through September 30, 2020 are $109.3 million, including $27.4 million of anticipated cash interest payments. The Company's debt agreements contain various covenants, including certain restrictions on the Company's business that could cause the Company to be at risk of defaults, such as restrictions on additional indebtedness and cross-default clauses. A failure to comply with, or cure non-compliance events or obtain waivers for covenant violations, and other provisions of the Company's debt instruments, including any failure to make a payment when required, would generally result in events of default under such instruments, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it would generally constitute an event of default under the Company's other outstanding indebtedness, permitting acceleration of a substantial portion of the Company's outstanding indebtedness. On September 16, 2019, the Company failed to pay an aggregate of $63.6 million of outstanding principal and accrued interest on the Second Exchange Note (see Note 4, “Debt”), when due. Such failure resulted in an event of default under the Second Exchange Note and also triggered cross-defaults under other debt instruments of the Company with an aggregate principal amount of approximately $148.7 million, which permitted the holders of such indebtedness to accelerate the amounts owing under such instruments. The Company subsequently received waivers from all the holders of the $148.7 million principal amount of such debt instruments to waive their right to accelerate. As a result, the indebtedness with respect to which the Company has obtained such waivers continues to be classified as long-term debt on the Company's balance sheet. The indebtedness reflected by the Second Exchange Note continues to be classified as a current liability on the Company's balance sheet. On November 8, 2019, the Company entered into a Securities Exchange Agreement with certain private investors (the "Investors"), pursuant to which, upon the purchase by the Investors of the Second Exchange Note, the Second Exchange Note would be exchanged for new senior convertible notes with an aggregate principal amount of $66.0 million (see Note 12, “Subsequent Events”). In connection with the entry into the Securities Exchange Agreement, (i) the holder of the Second Exchange Note and the Investors entered into a Securities Purchase Agreement providing for the purchase by the Investors of the Second Exchange Note and (ii) the company and the holder of the Second Exchange Note entered into an agreement by which such holder agreed to immediately dismiss its complaint against the Company (see Note 8, “Commitments and Contingencies”) with prejudice upon the purchase of the Second Exchange Note by the Investors.

Cash and cash equivalents of $1.6 million as of September 30, 2019 are not sufficient to fund expected future negative cash flows from operations and cash debt service obligations through September 30, 2020. These factors raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date that these condensed consolidated financial statements are issued. The condensed consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty. The Company's ability to continue as a going concern will depend, in large part, on its ability to raise additional capital through equity offerings or debt financings and extend or refinance existing debt maturities by restructuring a majority of its convertible debt, which is uncertain and outside the control of the Company. Further, the Company's operating plan for the 12 months ending September 30, 2020 contemplates a significant reduction in its net operating cash outflows as compared to the year ended December 31, 2018, resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) significantly increased cash inflows from grants and collaborations, and (iii) reduced production costs as a result of manufacturing and technical developments. If the Company is unable to complete these actions, it expects to be unable to meet its operating cash flow needs and its obligations under its existing debt facilities. This could result in an acceleration of its obligation to repay all amounts outstanding under those facilities, and it may be required to obtain additional equity or debt financing, which may not occur timely or on reasonable terms, if at all, and/or liquidate its assets. In such a scenario, the value the Company receives for its assets in liquidation or dissolution could be significantly lower than the value reflected in these condensed consolidated financial statements.

Significant Accounting Policies

Note 1, “Basis of Presentation and Summary of Significant Accounting Policies”, to the audited consolidated financial statements in the 2018 Form 10-K/A includes a discussion of the significant accounting policies and estimates used in the preparation of the Company’s consolidated financial statements. There have been no material changes to the Company’s significant accounting
policies and estimates during the three and nine months ended September 30, 2019, except for the Company's adoption of these accounting standards on January 1, 2019:

- Accounting Standards Codification (ASC) Topic 842 (ASC 842), Leases; and
- ASU 2017-11, Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): Accounting for Certain Financial Instruments with Down Round Features.

Revenue Recognition

The Company recognizes revenue from the sale of renewable products, licenses of and royalties from intellectual property, and grants and collaborative research and development services. Revenue is measured based on the consideration specified in a contract with a customer and recognized when, or as, the Company satisfies a performance obligation by transferring control over a product or service to a customer. The Company generally does not incur costs to obtain new contracts. The costs to fulfill a contract are expensed as incurred.

The Company accounts for a contract when it has approval and commitment to perform from both parties, the rights of the parties are identified, payment terms are established, the contract has commercial substance and collectability of the consideration is probable. Changes to contracts are assessed for whether they represent a modification or should be accounted for as a new contract. The Company considers the following indicators among others when determining whether it is acting as a principal in the transaction and recording revenue on a gross basis: (i) the Company is primarily responsible for fulfilling the promise to provide the specified goods or service, (ii) the Company has inventory risk before the specified good or service has been transferred to a customer or after transfer of control to the customer and (iii) the Company has discretion in establishing the price for the specified good or service. If a transaction does not meet the Company's indicators of being a principal in the transaction, then the Company is acting as an agent in the transaction and the associated revenues are recognized on a net basis.

The Company's significant contracts and contractual terms with its customers are presented in Note 10, “Revenue Recognition” in Part II, Item 8 of the 2018 Form 10-K/A.

The Company recognizes revenue when control has passed to the customer. The following indicators are evaluated in determining when control has passed to the customer: (i) the Company has a right to payment for the product or service, (ii) the customer has legal title to the product, (iii) the Company has transferred physical possession of the product to the customer, (iv) the customer has the significant risk and rewards of ownership of the product and (v) the customer has accepted the product. The Company's renewable products are delivered to customers from the Company's facilities with shipping terms typically specifying F.O.B. shipping point.

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. The Company's contracts may contain multiple performance obligations if a promise to transfer the individual goods or services is separately identifiable from other promises in the contracts and, therefore, is considered distinct. For contracts with multiple performance obligations, the Company determines the standalone selling price of each performance obligation and allocates the total transaction price using the relative selling price basis.

The following is a description of the principal goods and services from which the Company generates revenue.

Renewable Product Sales

Revenues from renewable product sales are recognized as a distinct performance obligation on a gross basis as the Company is acting as a principal in these transactions, with the selling price to the customer recorded net of discounts and allowances. Revenues are recognized at a point in time when control has passed to the customer, which typically is upon the renewable products leaving the Company’s facilities with the first transportation carrier. The Company, on occasion, may recognize revenue under a bill and hold arrangement, whereby the customer requests and agrees to purchase product but requests delivery at a later date. Under these arrangements, control transfers to the customer when the product is ready for delivery, which occurs when the product is identified separately as belonging to the customer, the product is ready for shipment to the customer in its current form, and the Company does not have the ability to direct the product to a different customer. It is at this point that the Company has the right to payment, the customer obtains legal title, and the customer has the significant risks and rewards of ownership. The Company’s renewable product sales do not include rights of return. Returns are accepted only if the product does not meet product specifications and such nonconformity is communicated to the Company within a set number of days of delivery. The Company offers a two-year assurance-type warranty to replace squalane products that do not meet Company-established criteria as set forth in the
Company’s trade terms. An estimate of the cost to replace the squalane products sold is made based on a historical rate of experience and recognized as a liability and related expense when the renewable product sale is consummated.

Licenses and Royalties

Licensing of Intellectual Property: When the Company’s intellectual property licenses are determined to be distinct from the other performance obligations identified in the arrangement, revenue is recognized from non-refundable, up-front fees allocated to the license at a point in time when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For intellectual property licenses that are combined with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front-fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognized.

Royalties from Licensing of Intellectual Property: The Company earns royalties from the licensing of its intellectual property whereby the licensee uses the intellectual property to produce and sell its products to its customers and the Company shares in the profits.

When the Company’s intellectual property license is the only performance obligation, or it is the predominant performance obligation in arrangements with multiple performance obligations, the Company applies the sales-based royalty exception and revenue is estimated and recognized at a point in time when the licensee’s product sales occur. Estimates of sales-based royalty revenues are made using the most likely outcome method, which is the single amount in a range of possible amounts derived from the licensee’s historical sales volumes and sales prices of its products and recent commodity market pricing data and trends.

When the Company’s intellectual property license is not the predominant performance obligation in arrangements with multiple performance obligations, the royalty represents variable consideration and is allocated to the transaction price of the predominant performance obligation which generally is the supply of renewable products to the Company’s customers. Revenue is estimated and recognized at a point in time when the renewable products are delivered to the customer. Estimates of the amount of variable consideration to include in the transaction price are made using the expected value method, which is the sum of probability-weighted amounts in a range of possible amounts determined based on the cost to produce the renewable product plus a reasonable margin for the profit share. The Company only includes an amount of variable consideration in the transaction price to the extent it is probable that a significant reversal in the cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Also, the transaction price is reduced for estimates of customer incentive payments payable by the Company for certain customer contracts.

Grants and Collaborative Research and Development Services

Collaborative Research and Development Services: The Company earns revenues from collaboration agreements with customers to perform research and development services to develop new molecules using the Company’s technology and to scale production of the molecules for commercialization and use in the collaborator’s products. The collaboration agreements generally include providing the Company’s collaborators with research and development services and with licenses to the Company’s intellectual property to use the technology underlying the development of the molecules and to sell its products that incorporate the technology. The terms of the Company’s collaboration agreements typically include one or more of the following: advance payments for the research and development services that will be performed, nonrefundable upfront license payments, milestone payments to be received upon the achievement of the milestone events defined in the agreements, and royalty payments upon the commercialization of the molecules in which the Company shares in the customer’s profits.

Collaboration agreements are evaluated at inception to determine whether the intellectual property licenses represent distinct performance obligations separate from the research and development services. If the licenses are determined to be distinct, the non-refundable upfront license fee is recognized as revenue at a point in time when the license is transferred to the licensee and the licensee is able to use and benefit from the license while the research and development service fees are recognized over time as the performance obligations are satisfied. The research and development service fees represent variable consideration. Estimates of the amount of variable consideration to include in the transaction price are made using the expected value method, which is the sum of probability-weighted amounts in a range of possible amounts. The Company only includes an amount of variable consideration in the transaction price to the extent it is probable that a significant reversal in the cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Revenue is recognized over time using either an input-based measure of labor hours expended or a time-based measure of progress toward the satisfaction of the performance obligations. The measure of progress is evaluated each reporting period and, if necessary, adjustments are made to the measure of progress and the related revenue recognized.
Collaboration agreements that include milestone payments are evaluated at inception to determine whether the milestone events are considered probable of achievement and estimates are made of the amount of the milestone payments to include in the transaction price using the most likely amount method which is the single amount in a range of possible amounts. If it is probable that a significant revenue reversal will not occur, the estimated milestone payment amount is included in the transaction price. Each reporting period, the Company re-evaluates the probability of achievement of the milestone events and any related constraint and, if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative basis, which would affect collaboration revenues in the period of adjustment. Generally, revenue is recognized using an input-based measure of progress towards the satisfaction of the performance obligations, which can be based on labor hours expended or time-based in proportion to the estimated total project effort or total projected time to complete. The measure of progress is evaluated each reporting period and, if necessary, adjustments are made to the measure of progress and the related revenue recognized. Certain performance obligations are associated with milestones agreed between the Company and its customer. Revenue generated from the performance of services in accordance with these milestones is recognized upon confirmation from the customer that the milestone has been achieved. In these cases, amounts recognized are constrained to the amount of consideration received upon achievement of the milestone.

The Company generally invoices its collaborators on a monthly or quarterly basis, or upon the completion of the effort or achievement of a milestone, based on the terms of each agreement. Contract liability arises from amounts received in advance of performing the research and development activities and is recognized as revenue in future periods as the performance obligations are satisfied.

**Grants:** The Company earns revenues from grants with government agencies to, among other things, provide research and development services to develop molecules using the Company’s technology, and create research and development tools to improve the timeline and predictability for scaling molecules from proof of concept to market by reducing time and costs. Grants typically consist of research and development milestone payments to be received upon the achievement of the milestone events defined in the agreements.

The milestone payments are evaluated at inception to determine whether the milestone events are considered probable of achievement and estimates are made of the amount of the milestone payments to include in the transaction price using the most likely amount method which is the single amount in a range of possible amounts. If it is probable that a significant revenue reversal will not occur, the estimated milestone payment amount is included in the transaction price. Each reporting period, the Company re-evaluates the probability of achievement of the milestone events and any related constraint and, if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative basis, which would affect collaboration revenues in the period of adjustment. Revenue is recognized over time using a time-based measure of progress towards the satisfaction of the performance obligations. The measure of progress is evaluated each reporting period and, if necessary, adjustments are made to the measure of progress and the related revenue recognized.

For descriptions of the Company’s other significant accounting policies, see the 2018 Form 10-K/A.

**Accounting Standards or Updates Recently Adopted**

In the nine months ended September 30, 2019, the Company adopted these accounting standards or updates:

**Leases** In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842).* The standard requires the recognition of lease liabilities and right-of-use (ROU) assets on the balance sheet arising from lease transactions at the lease commencement date and the disclosure of key information about leasing arrangements. In July 2018, the FASB issued ASU 2018-11, *Leases (Topic 842): Targeted Improvements,* which provided entities the option to use the effective date as the date of initial application on transition to the new guidance. The Company elected this transition method, and as a result, the Company did not adjust comparative information for prior periods. The Company elected additional practical expedients permitted by the new guidance allowing the Company to carry forward historical accounting related to lease identification and classification for existing leases upon adoption.

The Company adopted this standard on January 1, 2019 using the modified retrospective approach and elected the package of practical expedients permitted under transition guidance, which allowed the Company to carry forward its historical assessments of: (1) whether contracts are or contain leases, (2) lease classification and (3) initial direct costs, where applicable. The Company did not elect the practical expedient allowing the use-of-hindsight which would require the Company to reassess the lease term of its leases based on all facts and circumstances through the effective date and did not elect the practical expedient pertaining to land easements as this is not applicable to the Company’s current contracts. The Company elected the post-transition practical expedient to not separate lease components from non-lease components for all leases of manufacturing equipment. The Company
also elected a policy of not recording leases on its condensed consolidated balance sheets when the leases have a term of 12 months or less and the Company is not reasonably certain to elect an option to purchase the leased asset.

The adoption of this standard had the net effect of increasing both assets and liabilities by $25.7 million, after considering prepaid and other current and noncurrent assets previously recorded on the condensed consolidated balance sheet, but did not have a material impact on the condensed consolidated statements of operations or cash flows. The most significant impact relates to (1) the recognition of new ROU assets and lease liabilities on the balance sheet for the Company's operating leases; and (2) providing significant new disclosures about the Company's leasing activities.

Upon adoption, the Company recognized operating lease liabilities of $33.6 million, based on the present value of the remaining minimum rental payments under current leasing standards for existing operating leases. The Company also recognized ROU assets of $29.7 million, which represents the operating lease liability, adjusted for prepaid expenses and deferred rent. The difference between the operating lease ROU assets and lease liabilities reflects the net of advanced rent payments and deferred rent balances that were derecognized at the time of adoption.

Financial Instruments with "Down Round" Features
In July 2017, the FASB issued ASU 2017-11, Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): Accounting for Certain Financial Instruments with Down Round Features. The amendments of this ASU update the classification analysis of certain equity-linked financial instruments, or embedded features, with down round features, as well as clarify existing disclosure requirements for equity-classified instruments. When determining whether certain financial instruments should be classified as liabilities or equity instruments, a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. The accounting standard update became effective in the first quarter of fiscal year 2019, and the Company adopted the standard using a modified retrospective approach. Since the adoption of ASU 2017-11 would have classified the warrants effected as equity at inception, the cumulative-effect adjustment should (i) record the issuance date value of the warrants as if they had been equity classified at the issuance date, (ii) reverse the effects of changes in the fair value of the warrants that had been recorded in the statement of operations of each period, and (iii) eliminate the derivative liabilities from the balance sheet. Upon adoption, the Company (i) recorded an increase of $32.5 million to additional paid-in capital, (ii) recorded a decrease to accumulated deficit of $8.5 million and (iii) decreased the warrant liability by $41.0 million.

Recent Accounting Standards or Updates Not Yet Effective

Fair Value Measurement
In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement, which amends ASC 820, Fair Value Measurement. ASU 2018-13 modifies the disclosure requirements for fair value measurements by removing, modifying or adding certain disclosures. The accounting standard update will be effective beginning in the first quarter of fiscal 2020, with removed and modified disclosures to be adopted on a retrospective basis, and new disclosures to be adopted on a prospective basis. The Company is in the initial stages of evaluating the impact of the standard on its condensed consolidated financial statements.

Collaborative Revenue Arrangements
In November 2018, the FASB issued ASU 2018-18, Clarifying the Interaction between Topic 808 and Topic 606, that clarifies the interaction between the guidance for certain collaborative arrangements and Topic 606, the new revenue recognition standard. A collaborative arrangement is a contractual arrangement under which two or more parties actively participate in a joint operating activity and are exposed to significant risks and rewards that depend on the activity’s commercial success. The ASU provides guidance on how to assess whether certain transactions between collaborative arrangement participants should be accounted for within the revenue recognition standard. The accounting standard update will be effective beginning in the first quarter of fiscal year 2020 retroactively. The Company does not believe that the impact of the new standard on its condensed consolidated financial statements will be material.

Credit Losses
In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments. ASU 2016-13 requires entities to measure all expected credit losses for most financial assets held at the reporting date based on an expected loss model which includes historical experience, current conditions, and reasonable and supportable forecasts. Entities will now use forward-looking information to better form their credit loss estimates. ASU 2016-13 also requires enhanced disclosures to help financial statement users better understand significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an entity's portfolio. ASU 2016-13 will become effective for the Company beginning in the first quarter of fiscal year 2020. The Company does not believe that the impact of the new standard on its condensed consolidated financial statements will be material.
Use of Estimates and Judgements

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates, judgements and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the condensed consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates, and such differences may be material to the condensed consolidated financial statements.

2. Balance Sheet Details

<table>
<thead>
<tr>
<th>Inventories</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>$5,753</td>
<td>$3,901</td>
</tr>
<tr>
<td>Work-in-process</td>
<td>$2,243</td>
<td>$539</td>
</tr>
<tr>
<td>Finished goods</td>
<td>$7,948</td>
<td>$5,253</td>
</tr>
<tr>
<td>Inventories</td>
<td>$15,944</td>
<td>$9,693</td>
</tr>
</tbody>
</table>

Deferred cost of products sold - related party

<table>
<thead>
<tr>
<th>Deferred cost of products sold - related party</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred cost of products sold, noncurrent - related party</td>
<td>$968</td>
<td>$489</td>
</tr>
<tr>
<td>Total</td>
<td>$15,894</td>
<td>$2,828</td>
</tr>
</tbody>
</table>

$16,862 $3,317

In November 2018, the Company amended the supply agreement with DSM to secure capacity at the Brotas 1 facility for sweetener production through 2022. See Note 10, “Revenue Recognition” in Part II, Item 8 of the 2018 Form 10-K/A for information regarding the November 2018 Supply Agreement Amendment. The supply agreement was included as an element of a combined transaction with DSM, which resulted in a fair value allocation of $24.4 million to the manufacturing capacity fees, of which $3.3 million was recorded as deferred cost of products sold at December 31, 2018. During the nine months ended September 30, 2019, the Company paid an additional $14.1 million of reservation capacity fees, which was recorded as additional deferred cost of products sold. The remaining $6.9 million capacity fees will be recorded as deferred cost of products sold in the period the additional payments are made to DSM. The deferred cost of products sold asset is expensed to cost of products sold on a units of production basis as the Company’s sweetener product is sold over the five-year term of the supply agreement. Each quarter, the Company evaluates its future production volumes and adjusts the unit cost to be expensed over the remaining estimated production volume. During the three and nine months ended September 30, 2019, the Company expensed $0.4 million and $0.5 million, respectively, of the deferred cost of products sold asset to cost of products sold. The deferred cost of products sold asset is evaluated for recoverability at each period end.

17
Prepaid expenses and other current assets

(In thousands) September 30, 2019 December 31, 2018
Prepayments, advances and deposits $ 3,706 $ 5,644
Recoverable taxes from Brazilian government entities 3,270 631
Other 5,873 4,291
Total prepaid expenses and other current assets $ 12,849 $ 10,566

Property, Plant and Equipment, Net

(In thousands) September 30, 2019 December 31, 2018
Machinery and equipment $ 47,960 $ 43,713
Leasehold improvements 41,152 39,922
Computers and software 10,305 9,987
Furniture and office equipment, vehicles and land 3,330 3,016
Construction in progress 650 1,749
Less: accumulated depreciation and amortization (78,961) (78,631)
Property, plant and equipment, net $ 24,436 $ 19,756

During the three and nine months ended September 30, 2019 and 2018, the Company capitalized the following amounts of internal labor costs required to automate, integrate and ready certain laboratory and plant equipment for its intended use:

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>Three Months Ended September 30,</th>
<th>Nine Months Ended September 30,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Capitalized internal labor</td>
<td>$ —</td>
<td>$ 501</td>
</tr>
</tbody>
</table>

During the three and nine months ended September 30, 2019 and 2018, Depreciation and amortization expense, including amortization of assets under capital leases, was as follows:

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>Three Months Ended September 30,</th>
<th>Nine Months Ended September 30,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Depreciation and amortization expense</td>
<td>$ 969</td>
<td>$ 1,013</td>
</tr>
</tbody>
</table>

Leases

Operating Leases

The Company has entered into operating leases primarily for administrative offices, laboratory equipment and other facilities. The operating leases have remaining terms that range from 1 year to 5 years, and often include one or more options to renew. These renewal terms can extend the lease term from 1 to 5 years and are included in the lease term when it is reasonably certain that the Company will exercise the option. The operating leases are classified as ROU assets under operating leases on the Company’s September 30, 2019 Consolidated Balance Sheet and represent the Company’s right to use the underlying asset for the lease term. The Company’s obligation to make operating lease payments is included in “Lease liabilities” and “Lease liabilities, net of current portion” on the Company’s September 30, 2019 Consolidated Balance Sheet. Based on the present value of the lease payments for the remaining lease term of the Company’s existing leases, the Company recognized right-of-use assets of $29.7 million and lease liabilities for operating leases of $33.6 million on January 1, 2019. Operating lease right-of-use assets and liabilities commencing after January 1, 2019 are recognized at commencement date based on the present value of lease payments over the lease term. As of September 30, 2019, total right-of-use assets and operating lease liabilities were $21.9 million and $23.1 million, respectively. All operating lease expense is recognized on a straight-line basis over the lease term. In the three and nine months ended September 30, 2019, respectively, the Company recorded $4.7 million and $14.1 million of operating lease amortization that was charged to expense, of which $1.7 million and $5.2 million was recorded to cost of products sold.
Because the rate implicit in each lease is not readily determinable, the Company uses its incremental borrowing rate to determine the present value of the lease payments. The Company has certain contracts for real estate and marketing which may contain lease and non-lease components which it has elected to treat as a single lease component.

Information related to the Company’s right-of-use assets and related lease liabilities were as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Nine Months Ended September 30, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash paid for operating lease liabilities, in thousands</td>
<td>$15,908</td>
</tr>
<tr>
<td>Right-of-use assets obtained in exchange for new operating lease obligations(1)</td>
<td>$32,074</td>
</tr>
<tr>
<td>Weighted-average remaining lease term</td>
<td>2.6</td>
</tr>
<tr>
<td>Weighted-average discount rate</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

(1) Includes $29.7 million for operating leases existing on January 1, 2019 and $2.4 million for operating leases that commenced during the nine months ended September 30, 2019.

**Financing Leases**

The Company has entered into financing leases primarily for laboratory and computer equipment. Assets purchased under financing leases are included in “Property, plant and equipment, net” on the condensed consolidated balance sheets. For financing leases, the associated assets are depreciated or amortized over the shorter of the relevant useful life of each asset or the lease term. Property, plant and equipment, net includes $2.3 million and $5.0 million of machinery and equipment under financing leases as of September 30, 2019 and December 31, 2018, respectively. Accumulated amortization of assets under financing leases totaled $1.1 million and $2.3 million as of September 30, 2019 and December 31, 2018, respectively.

**Maturities of Financing and Operating Leases**

Maturities of lease liabilities as of September 30, 2019 were as follows:

<table>
<thead>
<tr>
<th>Years ending December 31: (In thousands)</th>
<th>Financing Leases</th>
<th>Operating Leases</th>
<th>Total Leases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 (remaining three months)</td>
<td>$116</td>
<td>$3,346</td>
<td>$3,462</td>
</tr>
<tr>
<td>2020</td>
<td>198</td>
<td>9,652</td>
<td>9,850</td>
</tr>
<tr>
<td>2021</td>
<td>1</td>
<td>7,220</td>
<td>7,221</td>
</tr>
<tr>
<td>2022</td>
<td>—</td>
<td>7,392</td>
<td>7,392</td>
</tr>
<tr>
<td>2023</td>
<td>—</td>
<td>3,033</td>
<td>3,033</td>
</tr>
<tr>
<td>Thereafter</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total lease payments</td>
<td>315</td>
<td>30,643</td>
<td>30,958</td>
</tr>
</tbody>
</table>

Less: amount representing interest

| Total lease liability                   | $307            | $23,138         | $23,445      |

Current lease liability

Noncurrent lease liability

Total lease liability

**Other Assets**

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingent consideration</td>
<td>$4,286</td>
<td>$4,286</td>
</tr>
<tr>
<td>Deposits</td>
<td>293</td>
<td>2,465</td>
</tr>
<tr>
<td>Other</td>
<td>1,041</td>
<td>1,207</td>
</tr>
<tr>
<td>Total other assets</td>
<td>$5,620</td>
<td>$7,958</td>
</tr>
</tbody>
</table>

**Accrued and Other Current Liabilities**
Other accrued and other current liabilities

<table>
<thead>
<tr>
<th>Description</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrued interest</td>
<td>$15,297</td>
<td>$3,853</td>
</tr>
<tr>
<td>Payroll and related expenses</td>
<td>7,677</td>
<td>9,220</td>
</tr>
<tr>
<td>Contract termination fees</td>
<td>5,241</td>
<td>4,092</td>
</tr>
<tr>
<td>Ginkgo partnership payments obligation</td>
<td>3,267</td>
<td>2,155</td>
</tr>
<tr>
<td>Asset retirement obligation</td>
<td>2,990</td>
<td>3,063</td>
</tr>
<tr>
<td>Professional services</td>
<td>2,854</td>
<td>1,173</td>
</tr>
<tr>
<td>Tax-related liabilities</td>
<td>2,402</td>
<td>2,139</td>
</tr>
<tr>
<td>Other</td>
<td>2,958</td>
<td>3,284</td>
</tr>
<tr>
<td>Total accrued and other current liabilities</td>
<td>$42,686</td>
<td>$28,979</td>
</tr>
</tbody>
</table>

Other noncurrent liabilities

<table>
<thead>
<tr>
<th>Description</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refund liability</td>
<td>$12,500</td>
<td>—</td>
</tr>
<tr>
<td>Liability for unrecognized tax benefit</td>
<td>7,115</td>
<td>6,582</td>
</tr>
<tr>
<td>Ginkgo partnership payments obligation</td>
<td>4,937</td>
<td>6,185</td>
</tr>
<tr>
<td>Contract liability, net of current portion</td>
<td>1,449</td>
<td>1,587</td>
</tr>
<tr>
<td>Deferred rent, net of current portion (1)</td>
<td>—</td>
<td>6,440</td>
</tr>
<tr>
<td>Contract termination fees, net of current portion</td>
<td>—</td>
<td>1,530</td>
</tr>
<tr>
<td>Other</td>
<td>800</td>
<td>868</td>
</tr>
<tr>
<td>Total other noncurrent liabilities</td>
<td>$26,801</td>
<td>$23,192</td>
</tr>
</tbody>
</table>

(1) Deferred rent at December 31, 2018 was reclassified to ROU asset upon the adoption on January 1, 2019 of ASC 842, "Leases".

In April 2019, the Company assigned the Value Sharing Agreement to DSM. See Note 9, "Revenue Recognition and Contract Assets and Liabilities" for further information. The assignment was accounted for as a contract modification under ASC 606 that resulted in $12.5 million of prepaid variable consideration to the Company. The $12.5 million of prepaid variable consideration is recorded as a refund liability and represents a stand ready obligation to refund some or all of the $12.5 million prepaid consideration if certain criteria outlined in the assignment agreement is not met before December 2021. The Company will update its assessment of amounts it expects to be entitled to keep at the end of each reporting period, by reducing the refund liability and recording additional license and royalty revenue, as the criterion is met.

3. Fair Value Measurement

Liabilities Measured and Recorded at Fair Value on a Recurring Basis

The following tables summarize liabilities measured at fair value, and the respective fair value by input classification level within the fair value hierarchy:

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level 1</td>
<td>Level 2</td>
</tr>
<tr>
<td>6% Convertible Notes</td>
<td>$63,152</td>
<td>$63,152</td>
</tr>
<tr>
<td>Outstanding derivative instruments in connection with the issuance of debt</td>
<td>$8,325</td>
<td>$8,325</td>
</tr>
<tr>
<td>and equity instruments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embedded derivative instruments in connection with the issuance of debt</td>
<td>$1,032</td>
<td>$1,032</td>
</tr>
<tr>
<td>Total liabilities measured and recorded at fair value</td>
<td>$72,509</td>
<td>$72,509</td>
</tr>
</tbody>
</table>

There were no transfers between levels during the periods presented.

6% Convertible Notes

The Company issued $60.0 million of 6% Convertible Notes on December 10, 2018 and elected the fair value option of accounting for this instrument. At September 30, 2019, outstanding principal was $62.8 million, and the fair value was $63.2 million, which was measured at the noteholders’ put option price of 125% of outstanding principal. See Note 4, “Debt” for further information related to this debt instrument and the noteholders’ put option. For the nine months ended September 30, 2019, the Company recorded a $18.6 million loss from change in fair value of debt in connection with the 6% Convertible Notes, as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>September 30, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value at December 31, 2018</td>
<td>$57,918</td>
</tr>
<tr>
<td>Less: principal paid</td>
<td>(13,395)</td>
</tr>
<tr>
<td>Loss on change in fair value</td>
<td>18,629</td>
</tr>
<tr>
<td>Fair value at September 30, 2019</td>
<td>$63,152</td>
</tr>
</tbody>
</table>

Derivative Liabilities Recognized in Connection with the Issuance of Debt and Equity Instruments
The following table provides a reconciliation of the beginning and ending balances for the Company's derivative liabilities recognized in connection with the issuance of debt and equity instruments – either freestanding or compound embedded – measured at fair value using significant unobservable inputs (Level 3):

<table>
<thead>
<tr>
<th>[in thousands]</th>
<th>Equity-related Derivative Liability</th>
<th>Debt-related Derivative Liability</th>
<th>Total Derivative Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at December 31, 2018</td>
<td>$41,272</td>
<td>$1,524</td>
<td>$42,796</td>
</tr>
<tr>
<td>Derecognition upon adoption of ASU 2017-11</td>
<td>$(39,513)</td>
<td>$(1,524)</td>
<td>$(41,037)</td>
</tr>
<tr>
<td>Fair value of derivative liabilities issued during the period</td>
<td>—</td>
<td>8,959</td>
<td>8,959</td>
</tr>
<tr>
<td>Change in fair value of derivative liabilities</td>
<td>2,039</td>
<td>398</td>
<td>2,437</td>
</tr>
<tr>
<td>Derecognition on extinguishment</td>
<td>(3,798)</td>
<td>—</td>
<td>(3,798)</td>
</tr>
<tr>
<td>Balance at September 30, 2019</td>
<td>—</td>
<td>$9,357</td>
<td>$9,357</td>
</tr>
</tbody>
</table>

As of September 30, 2019, a $3.8 million derivative liability recorded in connection with the November 2018 Securities Purchase Agreement with DSM was settled and extinguished through a cash payment in April 2019.

Also, during the three and nine months ended September 30, 2019, the Company issued three debt instruments with an embedded mandatory redemption feature and a related freestanding liability classified warrant with conversion rate adjustment and antidilution provisions. See Note 4, “Debt” for a description of the transactions and the initial accounting treatment for these debt related derivatives. There is no current observable market for these types of derivatives and, as such, the Company determined the fair value of the embedded mandatory redemption feature using a probability weighted discounted cash flow model measuring the fair value of the debt instrument both with and without the embedded feature and the freestanding warrant derivative using a Black-Scholes option pricing model. See Note 6, “Stockholders’ Deficit” for information regarding the initial Black-Scholes assumptions used to fair value the freestanding liability warrant.

The freestanding liability warrant issued on September 10, 2019 had an initial fair value of $7.9 million and was recorded as a derivative liability and a debt discount. The warrant will be remeasured each reporting period until settled or extinguished with subsequent changes in fair value recorded through the statement of operations as a gain or loss on change in fair value of derivative liabilities. At September 30, 2019 the warrant derivative had a fair value of $8.3 million. The $0.4 million increase in fair value was recorded as a loss on change in fair value of derivative liabilities in the statement of operations during the three and nine months ended September 30, 2019.

The embedded mandatory redemption features were measured using a probability weighted discounted cash flow model to determine if the debt instruments would be called or held at each decision point. Within the model, the following assumption is made: the note will be called early if the change in control redemption value is greater than the holding value. If the note is called, the holder will maximize their value by finding the optimal decision between (i) redeeming at the redemption price and (ii) holding the instrument until maturity. Using this assumption, the Company valued the embedded derivatives on a “with-and-without method”, where the fair value of each note including the embedded derivative is defined as the “with”, and the fair value of each note excluding the embedded derivatives is defined as the “without”. This method estimates the fair value of the embedded derivatives by comparing the fair value differential between the with and without mandatory redemption feature. The model incorporates the mandatory redemption price, time to maturity, risk-free interest rate, estimated credit spread and estimated probability of a change in control default event. The collective fair value of the three embedded derivatives totaled $1.0 million at issuance date and was recorded as a derivative liability and a debt discount. There has been no change to the collective fair value of the three derivatives from issuance date to September 30, 2019.

Assets and Liabilities Recorded at Carrying Value

Financial Assets and Liabilities

The carrying amounts of certain financial instruments, such as cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities and low market interest rates, if applicable. Loans payable, credit facilities and convertible notes are recorded at carrying value (except for the 6% Convertible Notes, which are recorded at fair value), which is representative of fair value at the date of acquisition. For loans payable and credit facilities recorded at carrying value, the Company estimates fair value using observable market-based inputs (Level 2); for convertible notes, the Company estimates fair value based on rates currently offered for instruments with similar maturities and terms (Level 3). The carrying amount (the total amount of debt presented on the balance sheet) of the Company's debt at September 30, 2019, excluding the 6% Convertible Notes that the Company records at fair value, was $141.1 million. The fair value of such debt at September 30, 2019 was $153.8 million and was determined by (i) discounting expected cash flows using current market
discount rates estimated for certain of the debt instruments and (ii) using third-party fair value estimates for the remaining debt instruments.

4. Debt

Net carrying amounts of debt are as follows:

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Principal</td>
<td>Unamortized Debt</td>
</tr>
<tr>
<td>Convertible notes payable</td>
<td>$62,825</td>
<td>—</td>
</tr>
<tr>
<td>August 2013 financing convertible note</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2015 Rule 144A convertible notes</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2014 Rule 144A convertible notes</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Related party convertible notes payable</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2014 Rule 144A convertible notes</td>
<td>9,705</td>
<td>—</td>
</tr>
<tr>
<td>Loans payable and credit facilities</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>August 2013 Financing Convertible Note</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Related party loans payable</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>GACP secured term loan facility</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Foris secured term loan facility</td>
<td>71,041</td>
<td>(8,029)</td>
</tr>
<tr>
<td>Foris unsecured note</td>
<td>19,000</td>
<td>(6,681)</td>
</tr>
<tr>
<td>DSM notes</td>
<td>33,000</td>
<td>(6,311)</td>
</tr>
<tr>
<td>Naxyris note</td>
<td>10,957</td>
<td>(4,403)</td>
</tr>
<tr>
<td>Total debt</td>
<td>241,430</td>
<td>(37,514)</td>
</tr>
<tr>
<td>Long-term debt, net of current portion</td>
<td>$125,527</td>
<td>—</td>
</tr>
</tbody>
</table>

August 2013 Financing Convertible Note

On January 14, 2019, Wolverine Flagship Fund Trading Limited (Wolverine) agreed to waive payment of the August 2013 Financing Convertible Note held by Wolverine at its January 15, 2019 maturity until July 15, 2019 in exchange for a fee, payable on or prior to July 15, 2019, of $0.6 million. The due date of the waiver fee was extended to October 13, 2019 and was subsequently paid on October 29, 2019. The Company concluded that the maturity date extension represented a debt modification, and the fee was accounted for as additional debt discount to be amortized over the remaining term.

On July 8, 2019, $5.1 million principal balance of the convertible note and unpaid interest was exchanged for 1.8 million shares of common stock with a total fair value of $5.9 million or $3.30 per share and a warrant to purchase 1.1 million shares of common stock with a fair value of $1.9 million. The Company recorded a $2.7 million loss on debt extinguishment in the three and nine months ended September 30, 2019 for the difference between the carrying value of the debt and the sum of the fair values of the common stock and warrant. See Note 6, “Stockholders’ Deficit” for additional information regarding the fair value measurement of the common stock and warrant issued in connection with this exchange.

Foris Credit Agreements

On April 8, 2019, the Company and Foris entered into a credit agreement to make available to the Company an unsecured credit facility in an aggregate principal amount of $8.0 million (the April Foris Credit Agreement), which the Company borrowed in full on April 8, 2019 and issued to Foris a promissory note in the principal amount of $8.0 million (the April Foris Note). The April Foris Note has a maturity date of October 14, 2019, which has no stated interest rate. The Company agreed to pay Foris a
fee of $1.0 million, payable on or prior to the maturity date; provided, that the fee will be reduced to $0.5 million if the Company repays the April Foris Note in full by July 15, 2019. The Company accrues this fee as interest expense over the six-month term of the note.

On June 11, 2019, the Company and Foris entered into a credit agreement to make available to the Company an unsecured credit facility in an aggregate principal amount of $8.5 million, which the Company borrowed in full on June 11, 2019 and issued to Foris a promissory note in the principal amount of $8.5 million (the June Foris Note). The June Foris Note (i) accrues interest at a rate of 12.5% per annum and is payable on the maturity date or the earlier repayment or other satisfaction of the June Foris Note, and (ii) matured on August 28, 2019.

On July 10, 2019, the Company and Foris entered into a credit agreement to make available to the Company an unsecured credit facility in an aggregate principal amount of $16.0 million (the July Foris Credit Agreement), of which the Company borrowed $8.0 million on July 10, 2019 and $8.0 million on July 26, 2019 and issued to Foris promissory notes, each in the principal amount of $8.0 million, on such dates (the July Foris Notes). The July Foris Notes (i) accrue interest at a rate of 12.5% per annum, which is payable on the maturity date or the earlier repayment or other satisfaction of the applicable July Foris Note, and (ii) mature on December 31, 2019.

In connection with the entry into the July Foris Credit Agreement, the Company and Foris amended the warrant issued to Foris on August 17, 2018 to reduce the exercise price of such warrant from $7.52 per share to $2.87 per share. The warrant modification resulted in $4.0 million of incremental value which was accounted for as a debt discount to the $16 million July Foris Notes.

On August 14, 2019, the April Foris Note, the June Foris Note and the July Foris Notes were added to the loans under the LSA, made subject to the LSA and secured by the security interest in the collateral granted to Foris under the LSA, and such notes were cancelled in connection therewith. See “LSA Assignment, Amendments and Waiver” below for further information.

2015 and 2014 Rule 144A Convertible Notes

On April 16, 2019, the Company repaid in cash the $37.9 million outstanding principal, as well as accrued and unpaid interest, under its 9.50% Convertible Senior Notes due 2019 (the 2015 Rule 144A Convertible Notes).

On May 10, 2019, the Company exchanged $13.5 million aggregate principal amount of its 6.50% Convertible Senior Note (the 2014 Rule 144A Convertible Notes) held by certain non-affiliated investors, including accrued and unpaid interest thereon for an aggregate of 3.5 million shares of common stock and warrants to purchase an aggregate of 1.4 million shares of common stock at an exercise price of $5.02 per share, with an exercise term of two years from issuance, in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act of 1933, as amended (the Securities Act).

On May 14, 2019, the Company exchanged $5.0 million aggregate principal amount of the 2014 Rule 144A Convertible Notes held by Foris, including accrued and unpaid interest thereon, for 1.1 million shares of common stock and a warrant to purchase up to 0.4 million shares of common stock at an exercise price of $4.56 per share, with an exercise term of two years from issuance, in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. On August 28, 2019, the Company and Foris agreed to reduce the exercise price of such warrant from $4.56 per share to $3.90 per share. See “August 2019 Foris Credit Agreements” below and Note 6, “Stockholders’ Deficit” for additional information.

On May 15, 2019, the Company exchanged $10.0 million aggregate principal amount of the 2014 Rule 144A Convertible Notes held by Maxwell (Mauritius) Pte Ltd for 2.5 million shares of common stock in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act.

The Company evaluated the May 2019 exchanges described above and concluded that the transactions resulted in a debt extinguishment. The Company recorded a $5.9 million loss on debt extinguishment of the 2014 144A Convertible Notes in the three months ended June 30, 2019. The loss represented the difference between the $30.8 million fair value of 7.1 million common shares issued upon exchange, $3.8 million fair value of warrants issued to purchase 1.7 million shares of common stock and $0.4 million of fees incurred, less the $29.1 million carrying value of the debt that was extinguished. See Note 6, “Stockholders’ Deficit” for further information regarding the fair value measurement of the common stock and warrants issued in connection with the May 2019 exchanges discussed above.

On May 15, 2019, the Company exchanged $9.7 million aggregate principal amount of the 2014 Rule 144A Convertible Notes held by Total Raffinage Chimie (Total) for a new senior convertible note with an equal principal amount and with substantially identical terms, except that the new note had a maturity date of June 14, 2019, in a private exchange pursuant to the exemption
from registration under Section 3(a)(9) of the Securities Act. Effective June 14, 2019, the Company and Total agreed to extend the maturity date of the new note from June 14, 2019 to July 18, 2019.

Effective July 18, 2019, the Company and Total agreed to (i) further extend the maturity date of the new note from July 18, 2019 to August 28, 2019 and (ii) increase the interest rate on the new note to 10.5% per annum, beginning July 18, 2019. Effective August 28, 2019, the Company and Total agreed to (i) further extend the maturity date of the new note from August 28, 2019 to October 28, 2019 and (ii) increase the interest rate on the new note to 12% per annum, beginning August 28, 2019. See Note 12, “Subsequent Events” for information regarding further modifications to the new note subsequent to September 30, 2019.

The Company accounted for the series of exchanges with Total as a debt modification; however, no additional fees were paid, and the modifications had no impact on the debt discount or interest expense in the three and nine months ended September 30, 2019.

6% Convertible Notes Exchanges

On May 15, 2019 and June 24, 2019, the Company exchanged $53.3 million and $4.7 million principal amount, respectively, of the 6% Convertible Notes, including accrued and unpaid interest thereon, representing all then-outstanding 6% Convertible Notes, for new senior convertible notes with an equal principal amount and warrants to purchase up to 2.0 million and 0.2 million shares of common stock, respectively, at an exercise price of $5.12 per share, with an exercise term of two years from issuance, in private exchanges pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. The new notes have substantially identical terms as the 6% Convertible Notes being exchanged, except that (i) the holders agreed to waive, until July 22, 2019, certain covenants relating to the effectiveness of the registration statement covering the shares of common stock issuable upon conversion of, or otherwise pursuant to, the new notes and the filing by the Company of reports with the SEC and (ii) during the period from July 22, 2019 to July 29, 2019, inclusive, the holders have the right to require the Company to redeem the new notes, in whole or in part, at a price equal to 125% of the principal amount being redeemed. Since the Company has elected the fair value accounting option for the 6% Convertible Notes and records all changes in fair value through the gain/loss on change in fair value of debt line item in the statement of operations each reporting period, this exchange is not required to be evaluated for modification or extinguishment accounting treatment. However, the Company considered the issuance of the warrant as compensation to the noteholders for waiving certain covenant violations during the period, and recorded a $4.4 million increase to additional paid in capital and a charge to interest expense for the fair value of the equity-classified May 15, 2019 and June 24, 2019 warrants. See Note 6, “Stockholders’ Deficit” for information regarding the fair value measurement and issuance of this warrant.

On July 24, 2019, the Company further exchanged $53.3 million principal amount of the previously-exchanged 6% Convertible Senior Notes, as well as the warrant to purchase up to 2.0 million shares of common stock issued on May 15, 2019, for a new senior convertible note with a principal amount of $68.3 million (the Second Exchange Note) and a new warrant to purchase up to 2.0 million shares of common stock at an exercise price of $2.87 per share, with an exercise term of two years from May 15, 2019 (the Second Exchange Warrant) in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. The Second Exchange Note and Second Exchange Warrant have substantially similar terms as the note and warrant, respectively, issued on May 15, 2019, except that (i) the principal amount of the Second Exchange Note would be $68.3 million, reflecting accrued and unpaid interest and late charges under the exchanged note and a 25% premium accruing as a result of the Company’s failure to make an installment payment on the exchanged note due July 1, 2019 in the amount of $6.4 million, provided that upon an event of default under the Second Exchange Note, the Company would not be required to redeem the Second Exchange Note in cash at a price greater than the intrinsic value of the shares of common stock underlying the Second Exchange Note, (ii) the Second Exchange Note bears interest at a rate of 18% per annum, (iii) the holder agreed to extend its waiver of certain covenant breaches relating to the failure by the Company to timely file periodic reports with the SEC from July 22, 2019 to September 16, 2019, (iv) the Company is required to (A) make principal payments on the Second Exchange Note in the amount of $3.2 million on each of August 2, 2019 and August 22, 2019, and (B) pay all remaining amounts then outstanding under the Second Exchange Note on September 16, 2019, and if the Company fails to make any such payment on the applicable payment date, the conversion price of the Second Exchange Note would be reset to the volume-weighted average price of the common stock on the trading day immediately following the Company’s filing of a Current Report on Form 8-K with respect to its failure to make the payment due on September 16, 2019, if such volume-weighted average price is lower than the conversion price of the Second Exchange Note then in effect, subject to a price floor and (v) the Second Exchange Warrant has an exercise price of $2.87 per share. Since the Company has elected the fair value accounting option for the 6% Convertible Notes and records all changes in fair value through the gain/loss on change in fair value of debt line item in the statement of operations each reporting period, this second note exchange is not required to be evaluated for modification or extinguishment accounting treatment. However, the Company considered the modification of the warrant as compensation to the noteholder for waiving certain covenant violations during the period, and recorded a $0.9 million increase to additional paid in capital and a charge to interest expense for the
On July 26, 2019, one of the holders of $4.7 million principal amount of the 6% Convertibles Notes issued on June 24, 2019, exercised their right to require the Company to redeem such note in whole at a price equal to 125% of the principal amount being redeemed, plus accrued and unpaid interest on such note to the date of repayment. Redemption of such note was initially due on July 30, 2019 and subsequently extended to August 30, 2019. The Company redeemed such note in full on August 30, 2019.

On September 16, 2019, the Company failed to pay an aggregate of $63.6 million of outstanding principal and accrued interest on the Second Exchange Note when due. The failure resulted in an event of default under the Second Exchange Note and also triggered cross-defaults under other debt instruments of the Company which permitted the holders of such indebtedness to accelerate the amounts owing under such instruments. The Company subsequently received waivers from all holders of such other debt instruments to waive the right to accelerate. As a result, the indebtedness with respect to which the Company has obtained such waivers continues to be classified as long-term on the Company’s balance sheet. The indebtedness reflected by the Second Exchange Note continues to be classified as a current liability on the Company’s balance sheet. In addition, as a result of the payment default, the conversion price of the Second Exchange Note is subject to adjustment in accordance with the terms of the Second Exchange Note.

On November 8, 2019, the Company entered into a Securities Exchange Agreement with certain private investors (the “Investors”), pursuant to which, upon the purchase by the Investors of the Second Exchange Note, the Second Exchange Note would be exchanged for new senior convertible notes with an aggregate principal amount of $66.0 million (see Note 12, “Subsequent Events”). In connection with the entry into the Securities Exchange Agreement, (i) the holder of the Second Exchange Note and the Investors entered into a Securities Purchase Agreement providing for the purchase by the Investors of the Second Exchange Note and (ii) the Company and the holder of the Second Exchange Note entered into an agreement by which such holder agreed to immediately dismiss its complaint against the Company (see Note 8, “Commitments and Contingencies”) with prejudice upon the purchase of the Second Exchange Note by the Investors.

**Nikko Loan Agreement**

On July 29, 2019, the Company and Nikko Chemicals Co., Ltd. (Nikko) entered into a loan agreement (the Nikko Loan Agreement) to make available to the Company secured loans in an aggregate principal amount of $5.0 million, to be issued in separate installments of $3.0 million and $2.0 million, respectively, with each installment being subject to certain closing conditions, including the entry into certain commercial agreements and other arrangements relating to the Aprinnova JV (see Note 11, “Related Party Transactions” in Part II, Item 8 of the 2018 Form 10-K/A). On July 30, 2019, the Company borrowed the first installment of $3.0 million under the Nikko Loan Agreement and received net cash proceeds of $2.8 million, with the remaining $0.2 million being withheld by Nikko as prepayment of the interest payable on such loan through the maturity date. On August 8, 2019, the Company borrowed the remaining $2.0 million available under the Nikko Loan Agreement and received net cash proceeds of $1.9 million, with the remaining $0.1 million being withheld by Nikko as prepayment of the interest payable on such loan through the maturity date. The loans (i) mature on December 18, 2020, (ii) accrue interest at a rate of 12.8% per annum from and including the applicable loan date through the maturity date, which interest is required to be prepaid in full on the date of the applicable loan, and (iii) are secured by a first-priority lien on 12.8% of the Aprinnova JV interests owned by the Company.

**Aprinnova Working Capital Loan**

Effective July 31, 2019, the Company and Nikko agreed to extend the term of the Second Aprinnova Note (see Note 5, “Debt” in Part II, Item 8 of the 2018 Form 10-K/A) from August 1, 2019 to August 1, 2020.

**LSA Assignment, Amendments and Waivers**

On April 4, 2019, the Company and GACP Finance Co., LLC (GACP) amended the Loan and Security Agreement, dated June 29, 2018 (as amended, the LSA), to (i) effective December 31, 2018, eliminate the conditions giving rise to the early maturity date, so that loans under the GACP Term Loan Facilities would have a maturity date of July 1, 2021, (ii) remove certain Company intellectual property related to the Cannabinoid Agreement from the lien granted by the Company to GACP under the LSA, (iii) eliminate the Company's ability to obtain an incremental term loan facility, (iv) eliminate the Company’s reinvestment rights with respect to mandatory prepayments upon asset sales, (v) restrict the Company’s ability to pay interest and principal on other indebtedness without the consent of GACP, and (vi) provide that the Company must have at all times at least $15 million of unrestricted, unencumbered cash subject to a control agreement in favor of GACP. Also, on April 4, 2019, the Company and GACP entered into a waiver agreement, pursuant to which GACP agreed to waive breaches of certain covenants under the LSA occurring prior to, as of and after December 31, 2018 through April 8, 2019, including covenants related to quarterly minimum revenues,
minimum liquidity amounts and a minimum asset coverage ratio. In connection with such waiver, the Company agreed to pay GACP fees of $0.8 million, which the Company paid in April 2019. This waiver fee was recorded as interest expense in the statement of operations in the nine months ended September 30, 2019.

On April 15, 2019, the Company, GACP and Foris Ventures, LLC (Foris), an entity affiliated with director John Doerr of Kleiner Perkins Caufield & Byers, a current stockholder, and an owner of greater than five percent of the Company's outstanding common stock) entered into a Loan Purchase Agreement, pursuant to which Foris agreed to purchase and assume from GACP, and GACP agreed to sell and assign to Foris, the outstanding loans under the LSA and all documents and assets related thereto. In connection with such purchase and assignment, the Company agreed to repay Foris $2.5 million of the purchase price and accrued interest paid by Foris to GACP (the LSA Obligation). The Company accounted for the LSA Obligation as a debt modification and recorded the $2.5 million fee as additional debt discount to be amortized to interest expense under the effective interest method over the remaining term of the LSA. The closing of the loan purchase and assignment occurred on April 16, 2019.

On August 14, 2019, the Company and Foris entered into an Amendment No 5 and Waiver to the LSA (the LSA Amendment and Waiver), pursuant to which (i) the maturity date of the loans under the LSA was extended from July 1, 2021 to July 1, 2022, (ii) the interest rate for the loans under the LSA was modified from the sum of (A) the greater of (x) the prime rate as reported in the Wall Street Journal or (y) 4.75% plus (B) 9% to the greater of (A) 12% or (B) the rate of interest payable with respect to any indebtedness of the Company, (iii) the amortization of the loans under the LSA was delayed until December 16, 2019, (iv) certain accrued and future interest and agency fee payments under the LSA were delayed until December 16, 2019, (v) certain covenants under the LSA, including related definitions, were amended to provide the Company with greater operational and financial flexibility, including, without limitation, to permit the incurrence of the indebtedness under the Naxyris Loan Facility (as described below) and the granting of liens with respect thereto, subject to the terms of an intercreditor agreement between Foris and Naxyris S.A. (Naxyris) governing the respective rights of the parties with respect to, among other things, the assets securing the Naxyris Loan Agreement (as defined below) and the LSA (the Intercreditor Agreement), (vi) certain outstanding unsecured promissory notes issued by the Company to Foris on April 8, 2019, June 11, 2019, July 10, 2019 and July 26, 2019 (as described in the “Foris Credit Agreements” section above), in an aggregate principal amount of $32.5 million, as well as the $2.5 million LSA Obligation, were added to the loans under the LSA, made subject to the LSA and secured by the security interest in the collateral granted to Foris under the LSA, and such promissory notes and contractual obligation were canceled in connection therewith, and (vii) Foris agreed to waive certain existing defaults under the LSA, including with respect to covenants related to quarterly minimum revenues, minimum liquidity amounts and a minimum asset coverage ratio. After giving effect to the LSA Amendment and Waiver, there is $71.0 million aggregate principal amount of loans outstanding under the LSA. The Company also issued to Foris a warrant (the LSA Warrant) on August 14, 2019 to purchase up to 1.4 million shares of common stock at an exercise price of $2.87 per share, with an exercise term of two years from issuance. The warrant had a fair value of $2.9 million which was measured using a Black-Scholes option pricing model. See Note 6, “Stockholders’ Deficit” for further information regarding the fair value measurement and issuance of this warrant.

Due to multiple changes in key provisions of the LSA from April 15, 2019 through August 14, 2019, the Company analyzed the before and after cash flows resulting from the increased principal balance, decreased interest rate, extended maturity date, waiver of default interest and the fair value of the new LSA Warrant provided to Foris in order to determine if these changes result in a modification or extinguishment of the original LSA. Based on the combined before and after cash flows of the five separate note balances making up the new principal balance of the LSA and the fair value of the LSA warrant, the change in cash flows was not significantly different. Consequently, the LSA Amendment and Waiver was accounted for as a debt modification with the $2.9 million fair value of the LSA Warrant recorded as an increase to additional paid in capital and as a debt discount to be amortized to interest expense under the effective interest method over the remaining term of the LSA.

See Note 12, “Subsequent Events” for more information regarding the LSA.

Naxyris Loan and Security Agreement

On August 14, 2019, the Company, certain of the Company’s subsidiaries (the Subsidiary Guarantors) and, as lender, Naxyris, an existing stockholder of the Company and an investment vehicle owned by Naxos Capital Partners SCA Sicar, which is affiliated with NAXOS S.A.R.L. (Switzerland), for which director Carole Piwnica serves as director, entered into a Loan and Security Agreement (the Naxyris Loan Agreement) to make available to the Company a secured term loan facility in an aggregate principal amount of up to $10.4 million (the Naxyris Loan Facility), which the Company borrowed in full on August 14, 2019. In connection with the funding of the Naxyris Loan Facility, the Company paid Naxyris an upfront fee of $0.4 million.

Loans under the Naxyris Loan Facility have a maturity date of July 1, 2022 and accrue interest at a rate per annum equal to the greater of (i) 12% or (ii) the rate of interest payable with respect to any indebtedness of the Company plus 25 basis points,
which interest will be payable monthly in arrears, provided that all interest accruing from and after August 14, 2019 through December 1, 2019 shall be due and payable on December 15, 2019.

The obligations of the Company under the Naxyris Loan Facility are (i) guaranteed by the Subsidiary Guarantors and (ii) secured by a perfected security interest in substantially all of the assets of the Company and the Subsidiary Guarantors (the Collateral), junior in payment priority to Foris subject to certain limitations and exceptions, as well as the terms of the Intercreditor Agreement.

Mandatory prepayments of the outstanding amounts under the Naxyris Loan Facility will be required upon the occurrence of certain events, including asset sales, a change in control, and the incurrence of additional indebtedness, subject to certain exceptions and reinvestment rights. Outstanding amounts under the Naxyris Loan Facility must also be prepaid to the extent that the borrowing base exceeds the outstanding principal amount of the loans under the Naxyris Loan Facility. In addition, the Company may at its option prepay the outstanding principal amount of the loans under the Naxyris Loan Facility in full before the maturity date. Any prepayment of the loans under the Naxyris Loan Facility prior to the maturity date, whether pursuant to a mandatory or optional prepayment, is subject to a prepayment charge equal to one year’s interest at the then-current interest rate for the Naxyris Loan Facility. Upon any repayment of the loans under the Naxyris loan facility, whether on the maturity date or earlier pursuant to an optional or mandatory prepayment, the Company will pay Naxyris an end of term fee based on a percentage of the aggregate amount borrowed. In addition, (i) the Company will be required to pay a fee equal to 6% of any amount the Company fails to pay within three business days of its due date and (ii) any interest that is not paid when due will be added to principal and will bear compound interest at the applicable rate.

The affirmative and negative covenants in the Naxyris Loan Agreement relate to, among other items: (i) payment of taxes; (ii) financial reporting; (iii) maintenance of insurance; and (iv) limitations on indebtedness, liens, mergers, consolidations and acquisitions, transfers of assets, dividends and other distributions in respect of capital stock, investments, loans and advances, and corporate changes. The Naxyris Loan Agreement also contains financial covenants, including covenants related to minimum revenue, liquidity, and asset coverage.

The Naxyris Loan Facility also contained a mandatory redemption feature that was not clearly and closely related to the debt host instrument, and thus, required bifurcation and separate accounting as a derivative liability. The embedded feature had an initial fair value of $0.3 million and was recorded as a derivative liability and a debt discount to be amortized to interest expense under the effective interest method over the term of the Naxyris Loan Facility. See Note 3, “Fair Value Measurements” for information regarding the fair value measurement and subsequent accounting for the embedded mandatory redemption feature.

In connection with the entry into the Naxyris Loan Agreement, on August 14, 2019 the Company issued to Naxyris a warrant (the Naxyris LSA Warrant) to purchase up to 2.0 million shares of common stock at an exercise price of $2.87 per share, with an exercise term of two years from issuance. See Note 6, “Stockholders’ Deficit” for information regarding the relative fair value and issuance of this warrant. The warrant had a $4.0 million Black-Scholes fair value and a $3.0 million relative fair value after allocating the Naxyris Loan Facility proceeds to the $0.3 million fair value of the embedded mandatory redemption feature contained in the Naxyris Loan Facility, and allocating on a residual basis, to the relative fair values of the Naxyris Loan Facility and the Naxyris LSA Warrant. The $3.0 million relative fair value of the Naxyris LSA Warrant was recorded as an increase to additional paid in capital and as a debt discount to be amortized to interest expense under the effective interest method over the term of the Naxyris Loan Agreement.

In addition to the $3.0 million relative fair value of the Naxyris LSA Warrant and the $0.3 million fair value of the embedded mandatory redemption feature, the Naxyris Loan Facility contained $0.4 million original issue discount, $0.5 million mandatory end of term fee and $0.3 million of issuances costs, all totaling $4.5 million. All such amounts were recorded as a debt discount to be amortized as interest expense over the term of the Naxyris Loan Agreement.

See Note 12, “Subsequent Events” for more information regarding the Naxyris Loan Agreement.

August 2019 Foris Credit Agreements

On August 28, 2019, the Company and Foris entered into a credit agreement to make available to the Company an unsecured credit facility in an aggregate principal amount of $9.0 million (the August 2019 Foris Credit Agreement), which the Company borrowed in full on August 28, 2019 and issued to Foris a promissory note in the principal amount of $19.0 million (the August 2019 Foris Note). The August 2019 Foris Note (i) accrues interest at a rate of 12% per annum from and including August 28, 2019, which interest is payable quarterly in arrears on each March 31, June 30, September 30 and December 31, beginning December 31, 2019, and (ii) matures on January 1, 2023. The Company may at its option repay the amounts outstanding under the August
In connection with the entry into the August 2019 Foris Credit Agreement, on August 28, 2019, the Company issued to Foris a warrant (the August 2019 Foris Warrant) to purchase up to 3.9 million shares of common stock issued to Foris on April 26, 2019 to reduce the exercise price of such warrant from $3.90 per share to $3.90 per share, and amended the warrant to purchase up to 0.4 million shares of common stock issued to Foris on May 14, 2019 to reduce the exercise price of such warrant from $4.56 per share to $3.90 per share. The warrant modifications resulted in $1.1 million of incremental value which was recorded as an increase to additional paid in capital and as a debt discount to be amortized to interest expense under the effective interest method over the effective interest method over the term of the August 2019 Foris Note. The $5.2 million relative fair value of the August 2019 Foris Warrant was recorded as an increase to additional paid in capital and as a debt discount to be amortized to interest expense under the effective interest method over the term of the August 2019 Foris Note.

In addition to the $5.2 million relative fair value of the August 2019 Foris Warrant, the $0.5 million fair value of the embedded mandatory redemption feature, and $1.1 million incremental value related to the warrant modifications, the Company incurred $0.1 million of legal fees in connection the issuing the August 2019 Foris Note. These amounts totaled $6.8 million and were recorded as a debt discount to be amortized as interest expense under the effective interest method over the term of the August 2019 Foris Note.

**September 2019 Credit Agreements**

On September 10, 2019, the Company entered into separate credit agreements (the Investor Credit Agreements) with each of Schottenfeld Opportunities Fund II, L.P., Phase Five Partners, LP and Koyote Trading, LLC (the Investors) to make available to the Company unsecured credit facilities in an aggregate principal amount of $12.5 million, which the Company borrowed in full on September 10, 2019 and issued to the Investors separate promissory notes in the aggregate principal amount of $12.5 million (the Investor Notes). Each Investor Note (i) accretes interest at a rate of 12% per annum from and including September 10, 2019, which interest is payable quarterly in arrears on each March 31, June 30, September 30 and December 31, beginning December 31, 2019, and (ii) matures on January 1, 2023. The Company may at its option repay the amounts outstanding under the Investor Notes before the maturity date, in whole or in part, at a price equal to 100% of the amount being repaid plus accrued and unpaid interest on such amount to the date of repayment.

The Investor Notes also contained a mandatory redemption feature that was not clearly and closely related to the debt host instrument, and thus, required bifurcation and separate accounting as a derivative liability. The embedded feature had an initial fair value of $0.3 million and was recorded as a derivative liability and a debt discount to be amortized to interest expense under the effective interest method over the term of the Investor Notes. See Note 3, “Fair Value Measurements” for information regarding the fair value measurement and subsequent accounting for the embedded mandatory redemption feature.

In connection with the September 10, 2019 Investor Credit Agreements, the Company issued to the Investors warrants (the September 2019 Investor Warrants) to purchase up to an aggregate of 3.2 million shares of common stock at an exercise price of $3.90 per share, with an exercise term of two years from issuance in a private placement pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act. See Note 6, “Stockholders’ Deficit” for information regarding the fair value measurement and issuance of these warrants. The September 2019 Investor
Warrants had a $7.9 million fair value which was recorded as a derivative liability and a debt discount to be amortized to interest expense under the effective interest method over the term of the Investor Notes.

**DSM Credit Agreement**

On September 17, 2019, the Company and DSM entered into a credit agreement (the 2019 DSM Credit Agreement) to make available to the Company a secured credit facility in an aggregate principal amount of $8.0 million, to be issued in separate installments of $3.0 million, $3.0 million and $2.0 million, respectively, with each installment being subject to certain closing conditions, including the payment of certain existing obligations of the Company to DSM. On September 17, 2019, the Company borrowed the first installment of $3.0 million under the 2019 DSM Credit Agreement, all of which proceeds were used to pay certain existing obligations of the Company to DSM, and issued to DSM a promissory note in the principal amount of $3.0 million. On September 19, 2019, the Company borrowed the second installment of $3.0 million under the 2019 DSM Credit Agreement, all of which proceeds were used to pay certain existing obligations of the Company to DSM, and issued to DSM a promissory note in the principal amount of $3.0 million. On September 23, 2019, the Company borrowed the final installment of $2.0 million under the 2019 DSM Credit Agreement, $1.5 million of which proceeds were used to pay certain existing obligations of the Company to DSM, and issued to DSM a promissory note in the principal amount of $2.0 million. The promissory notes issued under the 2019 DSM Credit Agreement (i) mature on August 7, 2022, (ii) accrue interest at a rate of 12.5% per annum from and including the applicable date of issuance, which interest is payable quarterly in arrears on each January 1, April 1, July 1 and October 1, beginning January 1, 2020, and (iii) are secured by a first-priority lien on certain Company intellectual property licensed to DSM. The Company may at its option repay the amounts outstanding under the 2019 DSM Credit Agreement before the maturity date, in whole or in part, at a price equal to 100% of the amount being repaid plus accrued and unpaid interest on such amount to the date of repayment. In addition, the Company is required to repay the amounts outstanding under the 2019 DSM Credit Agreement (i) in an amount equal to the gross cash proceeds, if any, received by the Company upon the exercise by DSM of any of the common stock purchase warrants issued by the Company to DSM on May 11, 2017 or August 7, 2017 (see Note 7, “Stockholders’ Deficit” in Part II, Item 8 of the 2018 Form 10-K/A) and (ii) in full upon the request of DSM at any time following the receipt by the Company of at least $50.0 million of gross cash proceeds from one or more sales of equity securities of the Company on or prior to June 30, 2020. In connection with issuance of the 2019 DSM Credit Agreement, the Company incurred $0.3 million of legal fees which were recorded as a debt discount to be amortized as interest expense under the effective interest method over the term of the 2019 DSM Credit Agreement.

**Ginkgo Note Amendment**

On September 29, 2019, in connection with Ginkgo Bioworks, Inc. (Ginkgo) granting certain waivers under the November 2017 Ginkgo Note and the Ginkgo Partnership Agreement (see Note 5, “Debt” and Note 10, “Revenue Recognition” in Part II, Item 8 of the 2018 Form 10-K/A), (i) the Company and Ginkgo amended the November 2017 Ginkgo Note to increase the interest rate from 10.5% per annum to 12% per annum, beginning October 1, 2019 and (ii) the Company agreed to pay Ginkgo a cash waiver fee of $1.3 million, payable in installments on December 15, 2019 and March 31, 2020. The Company accounted for this amendment as a modification and accrued the $1.3 million waiver fee in other current liabilities and a charge to interest expense during the three months ended September 30, 2019.

See Note 12, “Subsequent Events” for information regarding debt transactions subsequent to September 30, 2019.

**Future Minimum Payments**

Future minimum payments under the Company's debt agreements as of September 30, 2019 are as follows:
5. Mezzanine Equity

Mezzanine equity at September 30, 2019 and December 31, 2018 is comprised of proceeds from shares of common stock sold on May 10, 2016 to the Bill & Melinda Gates Foundation (Gates Foundation). In connection with the stock sale, the Company and the Gates Foundation entered into an agreement under which the Company agreed to expend an aggregate amount not less than the proceeds from the stock sale to develop a yeast strain that produces artemisinic acid and/or amorphadiene at a low cost and to supply such artemisinic acid and amorphadiene to companies qualified to convert artemisinic acid and amorphadiene to artemisinin for inclusion in artemisinin combination therapies used to treat malaria. If the Company defaults in its obligation to use the proceeds from the stock sale as set forth above or defaults under certain other commitments in the agreement, the Gates Foundation will have the right to request that the Company redeem, or facilitate the purchase by a third party, the shares then held by the Gates Foundation at a price per share equal to the greater of (i) the closing price of the Company’s common stock on the trading day prior to the redemption or purchase, as applicable, or (ii) an amount equal to $5.12 plus a compounded annual return of 10%.

As of September 30, 2019, the Company’s remaining research and development obligation under this arrangement was $0.5 million.

6. Stockholders’ Deficit

Private Placements

On April 16, 2019, the Company sold and issued to Foris 6,732,369 shares of common stock at a price of $2.87 per share, for aggregate proceeds to the Company of $20.0 million (the Foris Investment), as well as a warrant to purchase up to 5.4 million shares of common stock at an exercise price of $2.87 per share, with an exercise term of two years from issuance, in a private placement pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act, for aggregate cash proceeds to the Company of $20.0 million. The Company evaluated the warrants for derivative liability treatment and concluded that the instruments met the indexation criteria to be accounted for in equity.

On April 26, 2019, the Company sold and issued (i) 2,832,440 shares of common stock at a price of $5.12 per share, as well as a warrant to purchase up to 4.0 million shares of common stock at an exercise price of $5.12 per share, with an exercise term of two years from issuance, to Foris and (ii) an aggregate of 2,043,781 shares of common stock at a price of $4.02 per share, as well as warrants to purchase up to an aggregate of 1.6 million shares of common stock at an exercise price of $5.02 per share, with an exercise term of two years from issuance, to certain other non-affiliated investors, in each case in private placements pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act, for aggregate cash proceeds to the Company of $15.0 million from Foris and $8.2 million from non-affiliated investors, for a total of $23.2 million. The Company evaluated the warrants for derivative liability treatment and concluded that the instruments met the indexation criteria to be accounted for in equity.

On April 29, 2019, the Company sold and issued (i) 913,529 shares of common stock at a price of $4.76 per share, as well as warrants to purchase up to an aggregate of 1.2 million shares of common stock at an exercise price of $4.76 per share, with an exercise term of two years from issuance, to affiliates of Vivo Capital LLC (Vivo), an entity affiliated with director Frank Kung.

<table>
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<tr>
<th>Year</th>
<th>Convertible Notes</th>
<th>Loans Payable and Credit Facilities</th>
<th>Related Party Convertible Notes</th>
<th>Related Party Loans Payable and Credit Facilities</th>
<th>Total</th>
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<td>2019 (remaining three months)</td>
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<td>2,737 $</td>
<td>10,124 $</td>
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<td>89,322 $</td>
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<td>—</td>
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<td>2023</td>
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<td>12,899</td>
<td>—</td>
<td>19,000 $</td>
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<td>—</td>
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<td>Total future minimum payments</td>
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<td>159,524</td>
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and which owns greater than five percent of our outstanding common stock and has the right to designate one member of the Company’s Board of Directors) and (ii) an aggregate of 0.3 million shares of common stock at a price of $4.02 per share, as well as warrants to purchase up to an aggregate of 0.3 million shares of common stock at an exercise price of $5.02 per share, with an exercise term of two years from issuance, to certain other non-affiliated investors, in each case in private placements pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act, for aggregate cash proceeds to the Company of $4.5 million from Vivo and $1.3 million from non-affiliated investors, for a total of $5.8 million. The Company evaluated the warrants for derivative liability treatment and concluded that the instruments met the indexation criteria to be accounted for in equity.

On May 3, 2019, the Company sold and issued 1.2 million shares of common stock at a price of $4.02 per share, as well as a warrant to purchase up to 1.0 million shares of common stock at an exercise price of $5.02 per share, with an exercise term of two years from issuance, to a non-affiliated investor in a private placement pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act, for aggregate cash proceeds to the Company of $5 million. The Company evaluated the warrants for derivative liability treatment and concluded that the instruments met the indexation criteria to be accounted for in equity.

The exercise price of the warrants issued in the foregoing private placements is subject to standard adjustments but does not contain any anti-dilution protection, and the warrants only permit “cashless” or “net” exercise after the six-month anniversary of issuance of the applicable warrant, and only to the extent that there is not an effective registration statement covering the resale of the shares of common stock underlying the applicable warrant. In addition, in connection with the foregoing private placements, the Company agreed not to effect any exercise or conversion of any Company security, and the investors agreed not to exercise or convert any portion of any Company security, to the extent that after giving effect to such exercise or conversion, the applicable investor, together with its affiliates, would beneficially own in excess of 19.99% of the number of shares of common stock outstanding immediately after giving effect to such exercise or conversion, and the warrant contained a similar limitation. The Company is seeking stockholder approval for Foris to exceed such limitation in accordance with Nasdaq rules and regulations at its 2019 annual meeting of stockholders.

**August 2013 FinancingConvertible Note Conversion into Equity**

On July 8, 2019, Wolverine exchanged $5.1 million principal and accrued unpaid interest related to its August 2013 Financing Convertible Note for 1.8 million shares of common stock and a warrant to purchase 1.1 million shares of common stock in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. The common stock had a fair value of $5.9 million or $3.30 per share and the warrant had a fair value of $1.9 million. The Company concluded the warrant is a freestanding instrument that is legally detachable and separately exercisable from the convertible note and will be classified in equity as the warrant is both indexed to the Company’s own stock and meets the equity classification criteria. As such, the Company will account for the fair value of the warrant within equity and will not subsequently remeasured to fair value at each reporting period, unless new events trigger a requirement for the warrant to be reclassified to an asset or liability. The fair value of the warrant was measured using the Black-Scholes option pricing model, with the following parameters: stock price $3.33, strike price $2.87, volatility 94%, risk-free interest rate 1.88%, and expected dividend yield 0%. See Note 4, “Debt” for additional information regarding the loss on debt extinguishment.

**2014 Rule 144A Convertible Notes Exchanges**

On May 10, 2019, the Company exchanged $13.5 million aggregate principal amount of the 2014 Rule 144A Convertible Notes held by certain non-affiliated investors, including accrued and unpaid interest thereon, for an aggregate of 3.5 million shares of common stock and warrants to purchase an aggregate of 1.4 million shares of common stock at an exercise price of $5.02 per share, with an exercise term of two years from issuance, in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act.

On May 14, 2019, the Company exchanged $5.0 million aggregate principal amount of the 2014 Rule 144A Convertible Notes held by Foris, including accrued and unpaid interest thereon, for 1.1 million shares of common stock and a warrant to purchase up to 0.4 million shares of common stock at an exercise price of $4.56 per share, with an exercise term of two years from issuance, in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. On August 28, 2019, the Company and Foris agreed to reduce the exercise price of such warrant from $4.56 per share to $3.90 per share. See “August 2019 Foris Warrant Issuance” below for additional information.

On May 15, 2019, the Company exchanged $10.0 million aggregate principal amount of the 2014 Rule 144A Convertible Notes held by Maxwell (Mauritius) Pte Ltd for 2.5 million shares of common stock in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act.
The Company issued 7.1 million shares of common stock with a fair value totaling $30.8 million based on the Company's closing stock price at the date of each exchange upon exchange of the 2014 Rule 144A Convertible Notes described above. The Company also issued warrants to purchase a total of 1.7 million shares of common stock with a fair value of $3.8 million. The Company concluded the warrants are freestanding instruments that are legally detachable and separately exercisable from the convertible notes and will be classified in equity as the warrants are both indexed to the Company's own stock and meet the equity classification criteria. As such, the Company will account for the fair value of the warrants within equity and will not subsequently remeasured to fair value at each reporting period, unless new events trigger a requirement for the warrants to be reclassified to an asset or liability. The warrants were measured using the Black-Scholes option pricing model with the following parameters: stock price $4.27 - $4.54, strike price $4.56 - $5.02, volatility 96%, risk-free interest rate 2.20% - 2.26%, and expected dividend yield 0%. The warrant had a fair value of $5.9 million that was recorded as a loss of debt extinguishment. See Note 4, "Debt" for information about the accounting treatment for this debt exchange and fair value of the warrant.

The exercise price of the warrants issued in the foregoing exchanges is subject to standard adjustments but does not contain any anti-dilution protection, and the warrants only permit “cashless” or “net” exercise after the six-month anniversary of the exercisability of the applicable warrant, and only to the extent that there is not an effective registration statement covering the resale of the shares of common stock underlying the applicable warrant. In addition, (i) the exercisability of the warrant issued to Foris is subject to stockholder approval in accordance with Nasdaq rules and regulations, which the Company is seeking at its 2019 annual meeting of stockholders, and (ii) each other warrant provides that the Company may not effect any exercise of such warrant to the extent that, after giving effect to such exercise, the applicable holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of common stock outstanding after giving effect to such exercise.

**Standstill Agreement**

In connection with the September 10, 2019 entry into the Investor Credit Agreements discussed in Note 4, “Debt” and the issuance of the September 2019 Investor Warrants discussed in the “Warrant - September 2019 Investor Warrants” section below, the Company and the Investors entered into a Standstill Agreement (the Investor Standstill Agreement), pursuant to which the Investors agreed that, until the earliest to occur of (i) the Investors no longer beneficially owning any shares underlying the warrants, (ii) the Company entering into a definitive agreement involving the direct or indirect acquisition of all or a majority of the Company's equity securities or all or substantially all of the Company’s assets or (iii) a person or group, with the prior approval of the Company's Board of Directors (the Board), commencing a tender offer for all or a majority of the Company's equity securities, neither the Investors nor any of their respective affiliates (together, the Investor Group) will (without the prior written consent of the Board), among other things, (i) acquire any loans, debt securities, equity securities, or assets of the Company or any of its subsidiaries, or rights or options with respect thereto, except that the Investor Group shall be permitted to (a) purchase the shares underlying the warrants pursuant to the exercise of the warrants and (b) acquire beneficial ownership of up to 6.99% of the Company's common stock, or (ii) make any proposal, public announcement, solicitation or offer with respect to, or otherwise solicit, seek or offer to effect, or instigate, encourage, or assist any third party with respect to: (a) any business combination, merger, tender offer, exchange offer, or similar transaction involving the Company or any of its subsidiaries; (b) any restructuring, recapitalization, liquidation, or similar transaction involving the Company or any of its subsidiaries; (c) any acquisition of any of the Company's loans, debt securities, equity securities or assets, or options or rights or options with respect thereto; or (d) any proposal to seek representation on the Board or otherwise seek to control or influence the management, Board, or policies of the Company, in each case subject to certain exceptions.

**Warrants**

In connection with various debt and equity transactions (see Note 4, “Debt” above and Note 5, “Debt” and Note 7, “Stockholders’ Deficit” in Part II, Item 8 of the 2018 Form 10-K/A), the Company has issued warrants exercisable for shares of common stock. The following table summarizes warrants activity for the current year interim periods ended September 30, 2019:
Due to certain down-round adjustments to other equity-related instruments during the three months ended June 30, 2019, approximately 8.1 million shares became available under the May 2017 and August 2017 cash and dilution warrants and the Temasek Funding Warrant (see Note 7, “Stockholders’ Deficit” in Part II, Item 8 of the 2018 Form 10-K/A). Approximately 2.6 million shares were exercised during the May 2017 and August 2017 dilution warrants and the Temasek Funding Warrant during the nine months ended September 30, 2019, which resulted in zero proceeds to the Company. A portion of the warrant exercises occurring during the nine months ended September 30, 2019 was net share settled, and 2.5 million shares were issued upon exercise of warrants during the nine months ended September 30, 2019.

**July 2019 Foris Credit Agreement Warrant Modification**

In connection with the entry into the July Foris Credit Agreement on July 10, 2019 (see Note 4, “Debt”), the Company and Foris amended a warrant to purchase up to 4.9 million shares of common stock issued to Foris on August 17, 2018 to reduce the exercise price of such warrant from $7.52 per share to $2.87 per share. The warrant modification was measured on a before and after modification basis using a Black-Scholes option pricing model with the following parameters: stock price $9.16 per share, with an exercise term of two years from issuance, in private exchanges pursuant to the exemption. The warrant had an incremental fair value of $4.0 million, which was accounted for as an increase in additional paid in capital and a debt discount to the face amount of the debt.

**6% Convertible Note Exchange Warrants and Modification**

In connection with the May 15, 2019 and June 24, 2019 6% Convertible Note Exchanges (see Note 4, “Debt”), the Company issued warrants to purchase up to 2.0 million and 0.2 million shares of common stock, respectively, at an exercise price of $5.12 per share, with an exercise term of two years from issuance, in private exchanges pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. The exercise price of the warrants is subject to standard adjustments, but the warrants do not contain anti-dilution protection, and the warrants only permit “cashless” or “net” exercise after the six-month anniversary of issuance, and only to the extent that there is not an effective registration statement covering the resale of the shares of common stock underlying the applicable warrant. In addition, the holders may not exercise the warrants, and the Company may not affect any exercise of the warrants, to the extent that, after giving effect to such exercise, the applicable holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of common stock outstanding after giving effect to such exercise.

The Company concluded the warrants are freestanding instruments that are legally detachable and separately exercisable from the convertible notes and will be classified in equity as the warrants are both indexed to the Company’s own stock and meet the equity classification criteria. As such, the Company will account for the fair value of the warrants within equity and will not subsequently remeasured to fair value at each reporting period, unless new events trigger a requirement for the warrants to be reclassified to an asset or liability. The fair value of the warrants totaled $4.4 million and were measured using the Black-Scholes option pricing model with the following parameters: 94% - 96% volatility, 1.72% - 2.16% risk-free interest rate, $3.55 - $4.39 issuance-date stock price, term 2.0 years, and 0% expected dividend yield. The Company concluded that the $4.4 million fair value...
of the equity-classified May 15, 2019 and June 24, 2019 warrants should be recorded as an increase to additional paid in capital and a charge to interest expense in the statement of operations at the date of issuance. See Note 4, “Debt” for additional information regarding the accounting for the fair value of these warrants.

Further, on July 24, 2019, Company exchanged the May 15, 2019 warrant to purchase up to 2.0 million shares of common stock, for a new warrant to purchase up to 2.0 million shares of common stock at an exercise price of $2.87 per share, with an exercise term of two years from May 15, 2019 (the Second Exchange Warrant) in a private exchange pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. The Second Exchange Warrant has substantially identical terms as the original warrant issued on May 15, 2019, except that the exercise price was reduced from $5.12 to $2.87 per share. The warrant modification was measured on a before and after modification basis using a Black-Scholes option pricing model with the following parameters: strike price $2.87, volatility 93%, risk-free interest rate 1.86%, term 1.8 years, and expected dividend yield 0%; and resulted in $0.9 million of incremental fair value. The Company concluded that the increase in the fair value of the Second Exchange Warrant should be recorded as an increase to additional paid in capital and a charge to interest expense in the statement of operations at the date of modification. See Note 4, “Debt” for additional information regarding the charge to interest expense in connection with the fair value of this warrant.

LSA Warrant Issuance

In connection with the entry into the LSA Amendment and Waiver (see Note 4, “Debt”), on August 14, 2019 the Company issued to Foris a warrant to purchase up to 1.4 million shares of Common Stock at an exercise price of $2.87 per share, with an exercise term of two years from issuance. The exercise price of the warrant is subject to standard adjustments but does not contain any anti-dilution protection, and the warrant only permit “cashless” or “net” exercise after the six-month anniversary of issuance, and only to the extent that there is not an effective registration statement covering the resale of the shares of common stock underlying the warrant. Pursuant to the terms of the warrant, Foris may not exercise the LSA Warrant to the extent that, after giving effect to such exercise, Foris, together with its affiliates, would beneficially own in excess of 19.99% of the number of shares of common stock outstanding after giving effect to such exercise, unless the Company has obtained stockholder approval to exceed such limit in accordance with Nasdaq rules and regulations, which the Company is seeking at its 2019 annual meeting of stockholders. The Company concluded the warrant is a freestanding instrument that is legally detachable and separately exercisable from the LSA Amendment and Waiver and will be classified in equity as the warrant is both indexed to the Company’s own stock and meet the equity classification criteria. As such, the Company will account for the fair value of the warrant within equity and will not subsequently remeasured to fair value at each reporting period, unless new events trigger a requirement for the warrants to be reclassified to an asset or liability. The warrant was measured using the Black-Scholes option pricing model with the following parameters: stock price $3.59, strike price $2.87, volatility 94%, risk-free interest rate 1.58%, term 2.0 years, and expected dividend yield 0%. The warrant had a fair value of $2.9 million which was recorded as an increase to additional paid in capital in and as a debt discount to be amortized to interest expense under the effective interest method over the remaining term of the LSA. See Note 4, “Debt” for further information regarding the accounting treatment for the fair value of this warrant.

Naxyris LSA Warrant Issuance

In connection with the entry into the Naxyris Loan Agreement (see Note 4, “Debt”), on August 14, 2019 the Company issued to Naxyris a warrant to purchase up to 2.0 million shares of the Company’s common stock, par value $0.0001 per share at an exercise price of $2.87 per share, with an exercise term of two years from issuance. The exercise price of the warrant is subject to standard adjustments and permits “cashless” or “net” exercise any time after issuance. The Company concluded the warrant is a freestanding instrument that is legally detachable and separately exercisable from the Naxyris Loan Facility and will be classified in equity as the warrant is both indexed to the Company’s own stock and meet the equity classification criteria. As such, the Company will account for the fair value of the warrant within equity and will not subsequently remeasured to fair value at each reporting period, unless new events trigger a requirement for the warrants to be reclassified to an asset or liability. The warrant was measured using the Black-Scholes option pricing model with the following parameters: stock price $3.59, strike price $2.87, volatility 94%, risk-free interest rate 1.58%, term 2.0 years, and expected dividend yield 0%. The warrant had a $4.0 million Black-Scholes fair value and a $3.0 million relative fair value after allocating the Naxyris Loan Facility proceeds to the $0.3 million fair value of an embedded mandatory redemption feature contained in the Naxyris Loan Facility, and allocating on a residual basis, to the relative fair values of the Naxyris Loan Facility and the Naxyris LSA Warrant. See Note 4, “Debt” for further information regarding the initial accounting treatment for the embedded mandatory redemption feature and the accounting treatment for the relative fair value of this warrant, and see Note 3, “Fair Value Measurements” for information regarding the fair value measurement and subsequent accounting for the embedded mandatory redemption feature.

August 2019 Foris Warrant Issuance
In connection with the entry into the August 2019 Foris Credit Agreement (see Note 4, “Debt”), on August 28, 2019 the Company issued to Foris a warrant to purchase up to 4.9 million shares of Common Stock at an exercise price of $3.90 per share, with an exercise term of two years from issuance in a private placement pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act. The exercise price of the warrant is subject to standard adjustments but does not contain any anti-dilution protection, and the warrant only permits “cashless” or “net” exercise after the six-month anniversary of issuance, and only to the extent that there is not an effective registration statement covering the resale of the shares of common stock underlying the warrant. In addition, Foris may not exercise the warrant to the extent that, after giving effect to such exercise, Foris, together with its affiliates, would beneficially own in excess of 19.99% of the number of shares of common stock outstanding after giving effect to such exercise, unless the Company has obtained stockholder approval to exceed such limit in accordance with Nasdaq rules and regulations, which the Company is seeking at its 2019 annual meeting of stockholders. The Company concluded the warrant is a freestanding instrument that is legally detachable and separately exercisable from the August 2019 Foris Note and will be classified in equity as the warrant is both indexed to the Company’s own stock and meet the equity classification criteria. As such, the Company will account for the fair value of the warrant within equity and will not subsequently remeasured to fair value at each reporting period, unless new events trigger a requirement for the warrants to be reclassified to an asset or liability. The warrant was measured using the Black-Scholes option pricing model with the following parameters: stock price $3.90, volatility 94%, risk-free interest rate 1.50%, term 2.0 years, and expected dividend yield 0%. The warrant had a $8.7 million Black-Scholes fair value and a $5.2 million relative fair value after allocating the August 2019 Foris Note proceeds to the $0.5 million fair value of an embedded mandatory redemption feature contained in the August 2019 Foris Note, and allocating on a residual basis, to the relative fair values of the August 2019 Foris Note and the August 2019 Foris Warrant. See Note 4, “Debt” for further information regarding the initial accounting treatment for the embedded mandatory redemption feature and the accounting treatment for the relative fair value of this warrant, and see Note 3, “Fair Value Measurements” for information regarding the fair value measurement and subsequent accounting for the embedded mandatory redemption feature.

Also, on August 28, 2019 in connection with the entry into the August 2019 Foris Credit Agreement, the Company and Foris amended the warrant to purchase up to 3.9 million shares of common stock issued to Foris on April 26, 2019 to reduce the exercise price of such warrant from $5.12 per share to $3.90 per share, and amended the warrant to purchase up to 0.4 million shares of common stock issued to Foris on May 14, 2019 to reduce the exercise price of such warrant from $4.56 per share to $3.90 per share (see above under “Private Placements” for more information regarding these warrants). The warrant modifications were measured on a before and after modification basis using a Black-Scholes option pricing model with the following parameters: stock price $3.67, strike price $3.90, volatility 98% - 100%, risk-free interest rate 1.50%, term 1.7 years, and expected dividend yield 0%, resulting in $1.1 million of incremental fair value, which was accounted for as an increase to additional paid in capital and a debt discount to the $19 million August 2019 Foris Note. See Note 4, “Debt” for additional information regarding the debt discount recorded in connection with the modification of these warrants.

September 2019 Investor Warrants Issuance

In connection with the entry into the August 2019 Foris Credit Agreement (see Note 4, “Debt”), on September 10, 2019, the Company issued to Foris a warrant to purchase up to an aggregate of 3.2 million shares of common stock at an exercise price of $3.90 per share, with an exercise term of two years from issuance in a private placement pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act. The exercise price of the warrants is subject to standard adjustments but does not contain any anti-dilution protection, and the warrants only permit “cashless” or “net” exercise after the six-month anniversary of issuance of the applicable warrant, and only to the extent that there is not an effective registration statement covering the resale of the shares of common stock underlying the applicable warrant. In addition, no Investor may exercise its warrant to the extent that, after giving effect to such exercise, such Investor, together with its affiliates, would beneficially own in excess of 9.99% of the number of shares of common stock outstanding after giving effect to such exercise. The Company, together with its affiliates, would beneficially own in excess of 19.99% of the number of shares of common stock outstanding after giving effect to such exercise. In addition, the Company agreed to file a registration statement providing for the resale by the Investors of the shares of common stock underlying the warrants with the SEC within 60 days following the date of the issuance of the warrants and to use commercially reasonable efforts to (i) cause such registration statement to become effective within 120 days following the date of the issuance of the warrants and (ii) keep such registration statement effective until the Investors no longer beneficially own any such shares of common stock or such shares of common stock are eligible for resale under Rule 144 under the Securities Act without regard to volume limitations. If the Company fails to file the registration statement by the filing deadline or the registration statement is not declared effective by the effectiveness deadline, or the Company fails to maintain the effectiveness of the registration statement as required by the warrants, then the exercise price of the warrants will be reduced by 10%, and by an additional 5% if such failure continues for longer than 90 days, subject to an exercise price floor of $3.31 per share, provided that upon the cure by the Company of such failure, the exercise price of the warrants will revert to $3.90 per share.

The Company concluded the Investor Warrants are freestanding instruments that are legally detachable and separately exercisable from the Investor Notes and should be classified and accounted for as a liability because the warrants contain certain price and share count adjustment protection and other modification protection provisions that cause the warrants to not meet the
fixed-for-fixed criterion, and thus, are not considered indexed to the Company’s stock. As such, the Company has accounted for the Investor Warrants as a liability and will subsequently remeasure to fair value at each reporting period with changes in fair value recorded in the statement of operations. The warrants were measured using the Black-Scholes option pricing model with the following parameters as of the September 10, 2019 issuance date and September 30, 2019 balance sheet date, respectively: stock price $4.56 and $4.76, strike price $3.90, volatility 94% and 95%, risk-free interest rate 1.67% and 1.63%, term 2.0 years, and expected dividend yield 0%. The warrants had an initial fair value of $7.9 million and was recorded as a derivative liability and debt discount to be amortized to interest expense under the effective interest method over the term of the Investor Notes; at September 30, 2019, the fair value of the warrants was $8.3 million. See Note 4, “Debt” for further information regarding the initial accounting treatment for this liability classified warrant and see Note 3, “Fair Value Measurements” for information regarding the subsequent fair value measurement.

See Note 12, “Subsequent Events” for information regarding warrant issuances subsequent to September 30, 2019.

7. Loss per Share

For the three and nine months ended September 30, 2019 and September 30, 2018, basic loss per share was the same as diluted loss per share, because the inclusion of all potentially dilutive securities outstanding was antidilutive.

The Company follows the two-class method when computing net loss per common share when shares are issued that meet the definition of participating securities. The two-class method requires income available to common stockholders for the period to be allocated between common stock and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed. The two-class method also requires losses for the period to be allocated between common stock and participating securities based on their respective rights if the participating security contractually participates in losses. The Company’s convertible preferred stock are participating securities as they contractually entitle the holders of such shares to participate in dividends and contractually require the holders of such shares to participate in the Company’s losses.

The following table presents the calculation of basic and diluted loss per share:

<table>
<thead>
<tr>
<th>(In thousands, except shares and per share amounts)</th>
<th>Three Months Ended September 30</th>
<th>Nine Months Ended September 30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Net loss attributable to Amyris, Inc.</td>
<td>$(59,562)</td>
<td>$(74,453)</td>
</tr>
<tr>
<td>Less: deemed dividend to preferred shareholder on issuance and modification of common stock warrants</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Less: deemed dividend related to proceeds discount and issuance costs upon conversion of Series D preferred stock</td>
<td>—</td>
<td>$(6,852)</td>
</tr>
<tr>
<td>Losses allocated to participating securities</td>
<td>1,655</td>
<td>4,491</td>
</tr>
<tr>
<td>Net loss attributable to Amyris, Inc. common stockholders</td>
<td>$(57,907)</td>
<td>$(76,814)</td>
</tr>
<tr>
<td>Denominator: Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted</td>
<td>103,449,612</td>
<td>60,966,071</td>
</tr>
<tr>
<td>Loss per share attributable to common stockholders, basic and diluted</td>
<td>$(0.56)</td>
<td>$(1.26)</td>
</tr>
<tr>
<td>Denominator: Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic and diluted</td>
<td>103,449,612</td>
<td>60,966,071</td>
</tr>
<tr>
<td>Loss per share attributable to common stockholders, basic and diluted</td>
<td>$(0.56)</td>
<td>$(1.26)</td>
</tr>
</tbody>
</table>

The following outstanding shares of potentially dilutive securities were excluded from the computation of diluted loss per share of common stock because including them would have been antidilutive:

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>Three Months Ended September 30</th>
<th>Nine Months Ended September 30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Period-end stock options to purchase common stock</td>
<td>5,398,834</td>
<td>5,449,701</td>
</tr>
<tr>
<td>Convertible promissory note(1)</td>
<td>14,259,214</td>
<td>14,259,214</td>
</tr>
<tr>
<td>Period-end common stock warrants</td>
<td>52,612,330</td>
<td>52,612,330</td>
</tr>
<tr>
<td>Period-end restricted stock units</td>
<td>4,543,190</td>
<td>5,324,092</td>
</tr>
<tr>
<td>Period-end preferred stock</td>
<td>2,955,732</td>
<td>2,955,732</td>
</tr>
<tr>
<td>Total potentially dilutive securities excluded from computation of diluted loss per share</td>
<td>79,768,300</td>
<td>49,113,091</td>
</tr>
</tbody>
</table>

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The potentially dilutive effect of convertible promissory notes was computed based on conversion ratios in effect as of the respective period end dates. A portion of the convertible promissory notes issued carries a provision for a reduction in conversion price under certain circumstances, which could potentially increase the dilutive shares outstanding. Another portion of the convertible promissory notes issued carries a provision for an increase in the conversion rate under certain circumstances, which could also potentially increase the dilutive shares outstanding.

8. Commitments and Contingencies

Contingencies

The Company has levied indirect taxes on sugarcane-based biodiesel sales that took place several years ago by Amyris Brasil Ltda. (see Note 13, “Divestiture” in Part II, Item 8 of the 2018 Form 10-K/A) to customers in Brazil, based on advice from external legal counsel. In the absence of definitive rulings from the Brazilian tax authorities on the appropriate indirect tax rate to be applied to such product sales, the actual indirect rate to be applied to such sales could differ from the rate the Company levied.

On April 3, 2019, a securities class action complaint was filed against Amyris and our CEO, John G. Melo, and former CFO (and current Chief Business Officer), Kathleen Valiasek, in the U.S. District Court for the Northern District of California. The complaint seeks unspecified damages on behalf of a purported class that would comprise all persons and entities that purchased or otherwise acquired our securities between March 15, 2018 and March 19, 2019. The complaint alleges securities law violations based on statements and omissions made by the Company during such period. Subsequent to the filing of the securities class action complaint described above, on June 21, 2019 and October 1, 2019, respectively, two separate purported shareholder derivative complaints were filed in the U.S. District Court for the Northern District of California (Bonner v. Doerr, et al., Case No. 4:19-cv-03621 and Carlson v. Doerr, et al., Case No. 4:19-cv-06230) based on similar allegations to those made in the securities class action complaint described above. On October 18, 2019, the first of these derivative cases was dismissed. The remaining derivative complaint names Amyris, Inc. as a nominal defendant and certain of the Company’s current and former officers and directors as additional defendants. The derivative lawsuit seeks to recover, on the Company’s behalf, unspecified damages purportedly sustained by the Company in connection with allegedly misleading statements and omissions made in connection with the Company’s securities filings. The derivative complaint also seeks a series of changes to the Company’s corporate governance policies, restitution to the Company from the individual defendants, and an award of attorneys’ fees. This case is in the initial pleadings stage. The Company believes that complaint lacks merit, and intends to defend itself vigorously. Given the early stage of these proceedings, it is not yet possible to reliably determine any potential liability that could result from these matters.

On November 1, 2019 CVI Investments, Inc. (“CVI”) filed a complaint against the Company in the United States District Court for the Southern District of New York. The complaint contained causes of action for breach of contract and declaratory judgment. Both causes of action arise out of the Company’s alleged failure to issue shares under a Senior Convertible Note originally issued by the Company to CVI in December 2018 (the “Note”). Under the Note, as modified in two subsequent amendments (See Note 4, Debt, 6% Convertible Notes Exchanges), the Company would repay in cash or common stock over time with interest and certain other charges. Through the complaint, CVI sought to convert certain amounts owed under the Note into shares of the Company’s common stock. The complaint was never served on the Company. On November 8, 2019 the Company and CVI entered into an agreement by which CVI agreed to immediately dismiss its complaint with prejudice upon the satisfaction by the Company of all amounts due under the Note pursuant to the Second Note Exchange Agreement.

The Company is subject to disputes and claims that arise or have arisen in the ordinary course of business and that have not resulted in legal proceedings or have not been fully adjudicated. Such matters may arise in the ordinary course of business are subject to many uncertainties and outcomes are not predictable with reasonable assurance and therefore an estimate of all the reasonably possible losses cannot be determined at this time. Therefore, if one or more of these legal disputes or claims resulted in settlements or legal proceedings that were resolved against the Company for amounts in excess of management's expectations, the Company's consolidated financial statements for the relevant reporting period could be materially adversely affected.

Other Matters

Certain conditions may exist as of the date the condensed consolidated financial statements are issued, which may result in a loss to the Company but will only be recorded when one or more future events occur or fail to occur. The Company's management assesses such contingent liabilities, and such assessment inherently involves an exercise of judgement. In assessing loss contingencies related to legal proceedings that are pending against and by the Company or unasserted claims that may result in such proceedings, the Company's management evaluates the perceived merits of any legal proceedings or unasserted claims as well as the perceived merits of the amount of relief sought or expected to be sought.

If the assessment of a contingency indicates that it is probable that a material loss has been incurred and the amount of the liability can be estimated, then the estimated liability would be accrued in the Company's financial statements. If the assessment indicates that a potential material loss contingency is not probable but is reasonably possible, or is probable but cannot be reasonably
estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material would be disclosed. Loss contingencies considered to be remote by management are generally not disclosed unless they involve guarantees, in which case the guarantee would be disclosed.


Disaggregation of Revenue

The following table presents revenue by major product and service, as well as by primary geographical market, based on the location of the customer:

### Three Months Ended September 30, (In thousands)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Renewable Products</td>
<td>Licenses and Royalties</td>
<td>Grants and Collaborations</td>
<td>Total</td>
</tr>
<tr>
<td>Europe</td>
<td>$2,609</td>
<td>$2,305</td>
<td>$1,354</td>
<td>$6,268</td>
</tr>
<tr>
<td>United States</td>
<td>9,927</td>
<td>—</td>
<td>9,114</td>
<td>19,041</td>
</tr>
<tr>
<td>Asia</td>
<td>2,398</td>
<td>—</td>
<td>4,789</td>
<td>7,187</td>
</tr>
<tr>
<td>South America</td>
<td>2,272</td>
<td>—</td>
<td>28</td>
<td>2,300</td>
</tr>
<tr>
<td>Other</td>
<td>157</td>
<td>—</td>
<td>157</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$17,363</td>
<td>$2,305</td>
<td>$15,285</td>
<td>$34,953</td>
</tr>
</tbody>
</table>

### Nine Months Ended September 30, (In thousands)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Renewable Products</td>
<td>Licenses and Royalties</td>
<td>Grants and Collaborations</td>
<td>Total</td>
</tr>
<tr>
<td>Europe</td>
<td>$7,565</td>
<td>$43,387</td>
<td>$6,180</td>
<td>$57,132</td>
</tr>
<tr>
<td>United States</td>
<td>22,806</td>
<td>—</td>
<td>16,015</td>
<td>38,821</td>
</tr>
<tr>
<td>Asia</td>
<td>8,015</td>
<td>—</td>
<td>5,038</td>
<td>13,053</td>
</tr>
<tr>
<td>South America</td>
<td>2,787</td>
<td>—</td>
<td>34</td>
<td>2,821</td>
</tr>
<tr>
<td>Other</td>
<td>194</td>
<td>—</td>
<td>194</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$41,367</td>
<td>$43,387</td>
<td>$27,267</td>
<td>$112,021</td>
</tr>
</tbody>
</table>

Significant Revenue Agreements During the Nine Months Ended September 30, 2019

Cannabinoid Agreement

On May 2, 2019, the Company consummated a research, collaboration and license agreement (the Cannabinoid Agreement) with LAVVAN, Inc., a newly formed investment-backed company (Lavvan), for up to $300 million to develop, manufacture and commercialize cannabinoids, subject to certain closing conditions. Under the agreement, the Company would perform research and development activities and Lavvan would be responsible for the manufacturing and commercialization of the cannabinoids developed under the agreement. The Cannabinoid Agreement is being principally funded on a milestone basis, with the Company also entitled to receive certain supplementary research and development funding from Lavvan. The Company could receive aggregate funding of up to $300 million over the term of the Cannabinoid Agreement if all of the milestones are achieved. Additionally, the Cannabinoid Agreement provides for profit share to the Company on Lavvan's gross profit margin once products are commercialized; these payments will be due for the next 20 years. On May 2, 2019, the parties consummated the transactions contemplated by the Cannabinoid Agreement, including the formation of a special purpose entity to hold certain intellectual property created during the collaboration (the Cannabinoid Collaboration IP), the licensing of certain Company intellectual property to Lavvan, the licensing of the Cannabinoid Collaboration IP to the Company and Lavvan, and the granting by the Company to Lavvan of a lien on the Company background intellectual property being licensed to Lavvan under the Cannabinoid Agreement, which lien would be subordinated to the lien on such intellectual property under the LSA (see Note 5, “Debt” in Part II, Item 8 of the 2018 Form 10-K/A).
The Cannabinoid Agreement is accounted for as a revenue contract under ASC 606, with the total transaction price estimated and updated on a quarterly basis, subject to the variable consideration constraint guidance in ASC 606 using the most likely outcome method to estimate the variable consideration associated with the identified performance obligations, which the Company concluded to be research and development services. The Company estimated the total unconstrained transaction price to be $135 million, based on a high probability of achieving certain underlying milestones. As of September 30, 2019, the Company has constrained $165 million of variable consideration related to milestones that have not met the criteria under ASC 606 necessary to be included in the transaction price. The Company determined the performance obligation is delivered over time and that revenue recognition is based on an input measure of progress of hours incurred compared to total estimated hours to be incurred (i.e., proportional performance). Estimates of variable consideration are updated quarterly, with cumulative adjustments to revenue recorded as necessary. The Company recognized $62.2 million and $11.7 million of collaboration revenue under the Cannabinoid Agreement for the three and nine months ended September 30, 2019 based on proportional performance delivered to date. At September 30, 2019, $1.7 million of the $11.7 million of collaboration revenues recognized in the nine months ended September 30, 2019 was recorded as a contract asset. See the "Contract Assets and Liabilities" section below for further information regarding this contract asset.

**DSM Agreements**

On April 16, 2019, the Company assigned to DSM, and DSM assumed, all of the Company’s rights and obligations under the December 2017 DSM Value Sharing Agreement, as amended, for aggregate consideration to the Company of $57.0 million, which included $7.4 million of the third and final annual royalty payment due under the original agreement received on March 29, 2019 (see Note 10, “Revenue Recognition” in Part II, Item 8 of the 2018 Form 10-K/A). On April 16, 2019, the Company received net cash of $21.7 million, with the remaining $27.9 million used by the Company to offset past due trade payables (including interest) under the 2017 Supply Agreement, the obligation under the November 2018 Securities Purchase Agreement, and manufacturing capacity fees under the provisions of Amendment No. 1 to the 2017 Supply Agreement (see Note 11, “Related Party Transactions” in Part II, Item 8 of the 2018 Form 10-K/A). The original Value Sharing Agreement was accounted for as a single performance obligation in connection with a license with fixed and determinable consideration and variable consideration that was accounted for pursuant to the sales-based royalty scope exception. The April 16, 2019 assignment of the Value Sharing Agreement was accounted for as a contract modification under ASC 606, resulting in additional fixed and determinable consideration of $37.1 million and variable consideration of $12.5 million in the form of a stand ready refund obligation. The effect of the contract modification on the transaction price, and on the Company’s measure of progress toward complete satisfaction of the performance obligation, was recognized as an adjustment to revenue at the date of the contract modification on a cumulative catch-up basis. As a result, the Company recognized $37.1 million of licenses and royalties revenue in the nine months ended September 30, 2019, due to fully satisfying the performance obligation. The $12.5 million of prepaid variable consideration is recorded as a refund liability in other noncurrent liabilities and represents a stand ready obligation to refund some or all of the $12.5 million prepaid consideration if certain criteria outlined in the assignment agreement is not met before December 2021. The Company will update its assessment of amounts it expects to be entitled to keep at the end of each reporting period, by reducing the refund liability and recording additional license and royalty revenue as the criteria is met. The Company also recognized $3.6 million of previously deferred revenue under the December 2017 DSM Value Sharing Agreement, as the remaining underlying performance obligation was fully satisfied through the April 16, 2019 assignment of the Value Sharing Agreement to DSM.

In addition, on April 16, 2019 the Company and DSM entered into amendments to the 2017 Supply Agreement and the 2017 Performance Agreement, as well as the Quota Purchase Agreement relating to the December 2017 sale of Amyris Brasil to DSM (see Note 10, “Revenue Recognition” and Note 13, “Divestiture” in Part II, Item 8 of the 2018 Form 10-K/A), pursuant to which (i) DSM agreed to reduce certain manufacturing costs and fees paid by the Company related to the production of farnesene under the Supply Agreement through 2021, as well as remove the priority of certain customers over the Company with respect to production capacity at the Brotas, Brazil facility, (ii) the Company agreed to provide DSM rights to conduct certain process and downstream recovery improvements under the Performance Agreement at facilities other than the Brotas, Brazil facility in exchange for DSM providing the Company with a license to such improvements and (iii) the Company released DSM from its obligation to provide manufacturing and support services under the Quota Purchase Agreement in connection with the Company’s planned new manufacturing facility, which is no longer to be located at the Brotas, Brazil location.

In connection with the significant revenue agreements discussed above and others previously disclosed (see Note 10, “Revenue Recognition” in Part II, Item 8 of the 2018 Form 10-K/A), the Company recognized the following revenues for the three and nine months ended September 30, 2019 and 2018:
### Three Months Ended September 30, 2019 and 2018

<table>
<thead>
<tr>
<th></th>
<th>2019 (In thousands)</th>
<th>2018 (In thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Renewable Products</td>
<td>Licenses and Royalties</td>
</tr>
<tr>
<td>DSM - related party</td>
<td>$ 3,712</td>
<td>$ 234</td>
</tr>
<tr>
<td>Givaudan</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Firmenich</td>
<td>4,556</td>
<td>844</td>
</tr>
<tr>
<td>Lavvan</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Subtotal revenue from significant revenue agreements</strong></td>
<td><strong>7,208</strong></td>
<td><strong>2,605</strong></td>
</tr>
<tr>
<td>Revenue from all other customers</td>
<td>9,495</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total revenue from all customers</strong></td>
<td><strong>16,703</strong></td>
<td><strong>2,605</strong></td>
</tr>
</tbody>
</table>

### Nine Months Ended September 30, 2019 and 2018

<table>
<thead>
<tr>
<th></th>
<th>2019 (In thousands)</th>
<th>2018 (In thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Renewable Products</td>
<td>Licenses and Royalties</td>
</tr>
<tr>
<td>DSM - related party</td>
<td>$ 40,302</td>
<td>—</td>
</tr>
<tr>
<td>Givaudan</td>
<td>6,127</td>
<td>—</td>
</tr>
<tr>
<td>Firmenich</td>
<td>6,439</td>
<td>3,085</td>
</tr>
<tr>
<td>Lavvan</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Subtotal revenue from significant revenue agreements</strong></td>
<td><strong>12,568</strong></td>
<td><strong>43,387</strong></td>
</tr>
<tr>
<td>Revenue from all other customers</td>
<td>28,799</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total revenue from all customers</strong></td>
<td><strong>41,367</strong></td>
<td><strong>43,387</strong></td>
</tr>
</tbody>
</table>

### Contract Assets and Liabilities

When a contract results in revenue being recognized in excess of the amount the Company has invoiced or has the right to invoice to the customer, a contract asset is recognized. Contract assets are transferred to accounts receivable, net when the rights to the consideration become unconditional.

Contract liabilities consist of payments received from customers, or such consideration that is contractually due, in advance of providing the product or performing services such that control has not passed to the customer.

Trade receivables related to revenue from contracts with customers are included in accounts receivable on the condensed consolidated balance sheets, net of the allowance for doubtful accounts. Trade accounts receivable are recorded at the point of renewable product sale or in accordance with the contractual payment terms for licenses and royalties, and grants and collaborative research and development services for the amount payable by the customer to the Company for sale of goods or the performance of services.

### Contract Balances

The following table provides information about accounts receivable, contract liabilities and refund liability from contracts with customers:
Accounts receivable, unbilled - related party decreased from December 31, 2018 to September 30, 2019, primarily as the result of issuing an $8.0 million invoice and receiving early payment from DSM in April 2019 for the final installment of the December 2017 minimum guaranteed value share payments originally due on December 31, 2019. The Company received a $7.4 million cash payment in April 2019 and the $0.6 million difference between the original amount due and the $7.4 million cash payment was recorded as a $0.4 million reduction of royalty revenue during the quarter and a $0.2 million charge to interest expense. The contract asset balance at September 30, 2019 consists of $1.7 million related to the Lavvan collaboration agreement and $0.8 million related to the Yifan collaboration agreements (see Note 10, “Revenue Recognition” in Part II, Item 8 of the 2018 Form 10-K/A for information regarding the Yifan collaboration agreements), for which the Company does not yet have the contractual right to bill.

Remaining Performance Obligations

The following table provides information regarding the estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) based on the Company’s existing agreements with customers as of September 30, 2019.

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts receivable, net</td>
<td>$17,072</td>
<td>$16,003</td>
</tr>
<tr>
<td>Accounts receivable - related</td>
<td>$3,692</td>
<td>$1,349</td>
</tr>
<tr>
<td>party, net</td>
<td>2,567</td>
<td>—</td>
</tr>
<tr>
<td>Contract assets</td>
<td>$8,021</td>
<td>1,203</td>
</tr>
<tr>
<td>Accounts receivable, unbilled</td>
<td>8,021</td>
<td>1,203</td>
</tr>
<tr>
<td>noncurrent - related party</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract liabilities, current</td>
<td>4,737</td>
<td>8,236</td>
</tr>
<tr>
<td>Contract liabilities, noncurrent(1)</td>
<td>1,449</td>
<td>1,587</td>
</tr>
<tr>
<td>Refund liability - related</td>
<td>12,500</td>
<td>—</td>
</tr>
<tr>
<td>party</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) As of September 30, 2019 and December 31, 2018, contract liabilities, noncurrent is presented in Other Noncurrent Liabilities in the condensed consolidated balance sheets.

In accordance with the disclosure provisions of ASC 606, the table above excludes estimated future revenues for performance obligations that are part of a contract that has an original expected duration of one year or less or a performance obligation with variable consideration that is recognized using the sales-based royalty exception for licenses of intellectual property. Additionally, approximately $180.9 million of estimated future revenue is excluded from the table above, as that amount represents constrained variable consideration.

10. Related Party Transactions

Related Party Debt

See Note 4, “Debt” above for related party debt as of September 30, 2019 and December 31, 2018.

Related Party Accounts Receivable and Unbilled Receivables

Related party accounts receivable and unbilled receivables as of September 30, 2019 and December 31, 2018 were as follows:
11. Stock-based Compensation

The Company’s stock option activity and related information for the nine months ended September 30, 2019 was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Quantity of Stock Options</th>
<th>Weighted-average Exercise Price</th>
<th>Weighted-average Remaining Contractual Life, in Years</th>
<th>Aggregate Intrinsic Value, in Thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding - December 31, 2018</td>
<td>5,390,270</td>
<td>$11.55</td>
<td>8.5</td>
<td>$29</td>
</tr>
<tr>
<td>Granted</td>
<td>270,633</td>
<td>$3.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercised</td>
<td>(3,612)</td>
<td>$5.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forfeited or expired</td>
<td>(251,557)</td>
<td>$18.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outstanding - September 30, 2019</td>
<td>5,405,734</td>
<td>$10.57</td>
<td>8.1</td>
<td>$705</td>
</tr>
<tr>
<td>Vested or expected to vest after September 30, 2019</td>
<td>4,781,072</td>
<td>$11.28</td>
<td>8.0</td>
<td>$682</td>
</tr>
<tr>
<td>Exercisable at September 30, 2019</td>
<td>1,247,627</td>
<td>$28.74</td>
<td>6.3</td>
<td>$416</td>
</tr>
</tbody>
</table>

The Company’s restricted stock units (RSUs) activity and related information for the nine months ended September 30, 2019 was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Quantity of Restricted Stock Units</th>
<th>Weighted-average Grant-date Fair Value</th>
<th>Weighted-average Remaining Contractual Life, in Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding - December 31, 2018</td>
<td>5,294,803</td>
<td>$5.50</td>
<td>1.7</td>
</tr>
<tr>
<td>Awarded</td>
<td>1,148,866</td>
<td>$3.73</td>
<td></td>
</tr>
<tr>
<td>RSUs released</td>
<td>(1,389,466)</td>
<td>$4.98</td>
<td></td>
</tr>
<tr>
<td>RSUs forfeited</td>
<td>(511,013)</td>
<td>$4.91</td>
<td></td>
</tr>
<tr>
<td>Outstanding - September 30, 2019</td>
<td>4,543,190</td>
<td>$5.07</td>
<td>1.5</td>
</tr>
<tr>
<td>Vested or expected to vest after September 30, 2019</td>
<td>4,196,792</td>
<td>$5.08</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Stock-based compensation expense related to employee and non-employee options, RSUs and ESPP during the three and nine months ended September 30, 2019 and 2018 was allocated to research and development expense and sales, general and administrative expense as follows:

<table>
<thead>
<tr>
<th></th>
<th>Three Months Ended September 30, 2019</th>
<th>Nine Months Ended September 30, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Research and development</td>
<td>$ 663</td>
<td>$ 495</td>
</tr>
<tr>
<td>Sales, general and administrative</td>
<td>$ 2,571</td>
<td>$ 2,442</td>
</tr>
<tr>
<td>Total stock-based compensation expense</td>
<td>$ 3,234</td>
<td>$ 2,937</td>
</tr>
</tbody>
</table>

As of September 30, 2019, there was unrecognized compensation expense of $24.9 million related to stock options and RSUs. The Company expects to recognize this expense over a weighted-average period of 2.8 years.
In February 2019, the Board approved increases to the number of shares available for issuance under the Company's 2010 Equity Incentive Plan (the Equity Plan) and 2010 Employee Stock Purchase Plan (the Purchase Plan). These shares in connection with the Equity Plan represented an automatic annual increase in the number of shares available for grant and issuance under the Equity Plan of 3,828,241 shares. This increase is equal to approximately 5.0% of the 76,564,829 total outstanding shares of the Company's common stock as of December 31, 2018. This automatic increase was effective as of January 1, 2019. These shares in connection with the Purchase Plan represented an automatic annual increase in the number of shares reserved for issuance under the Purchase Plan of 383,824 shares. This increase is equal to approximately 0.5% of the 76,564,829 total outstanding shares of the Company's common stock as of December 31, 2018. This automatic increase was effective as of January 1, 2019.

12. Subsequent Events

LSA Amendments, Additional Loan and Warrant Issuance

On October 10, 2019, the Company, the Subsidiary Guarantors and Foris entered into Amendment No. 6 to the LSA (the October 2019 LSA Amendment), pursuant to which the maximum loan commitment of Foris under the LSA (see Note 4, "Debt") was increased by $10.0 million. In connection with the entry into the October 2019 LSA Amendment, on October 11, 2019, the Company borrowed an additional $10.0 million from Foris under the LSA (the October 2019 LSA Loan), which loan is subject to the terms and provisions of the LSA, including the lien on substantially all of the assets of the Company and the Subsidiary Guarantors. After giving effect to the LSA Loan, there is $81.0 million aggregate principal amount of loans outstanding under the LSA.

Also, in connection with the entry into the October 2019 LSA Amendment, on October 11, 2019 the Company issued to Foris a warrant to purchase up to 2.0 million shares of common stock, at an exercise price of $2.87 per share, with an exercise term of two years from issuance (the October 2019 Foris Warrant). Pursuant to the terms of the October 2019 Foris Warrant, Foris may not exercise the October 2019 Foris Warrant to the extent that, after giving effect to such exercise, Foris, together with its affiliates, would beneficially own in excess of 19.99% of the number of shares of Common Stock outstanding after giving effect to such exercise, unless the Company has obtained stockholder approval to exceed such limit, which the Company is seeking at its 2019 annual meeting of stockholders. The October 2019 Foris Warrant was issued in a private placement pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act.

On October 28, 2019, the Company, the Subsidiary Guarantors and Foris entered into an amended and restated LSA (as amended and restated, the A&R LSA), pursuant to which, among other things, certain covenants and related definitions were amended to permit the incurrence of the indebtedness under the October 2019 Naxyris Loan (as defined below), subject to the terms of an amended and restated intercreditor agreement, dated October 28, 2019, between Foris and Naxyris governing the respective rights of the parties with respect to, among other things, the assets securing the A&R Naxyris LSA (as defined below) and the A&R LSA, and additional covenants were added relating to, among other things, maintenance of intellectual property, compliance with laws, delivery of reports and repayment of indebtedness.

Series B Preferred Stock Beneficial Ownership Limitation

On October 24, 2019, the Company filed a certificate of amendment (the Certificate of Amendment) to the Certificate of Designation (the Certificate of Designation) relating to the Company’s Series B 17.38% Convertible Preferred Stock, par value $0.0001 per share (the Series B Preferred Stock), with the Secretary of State of Delaware. The Company had originally filed the Certificate of Designation on May 8, 2017, pursuant to which the conversion of the Series B Preferred Stock was subject to a beneficial ownership limitation of 4.99%, or such other percentage as determined by the holder, not to exceed 9.99% of the number of shares of the Company’s common stock outstanding after giving effect to such conversion (the Beneficial Ownership Limitation). In addition, pursuant to the Certificate of Designation, each share of Series B Preferred Stock automatically converted on October 9, 2017, subject to the Beneficial Ownership Limitation.

Pursuant to the Certificate of Amendment, the Beneficial Ownership Limitation was eliminated, permitting the conversion of any outstanding shares of Series B Preferred Stock, the conversion of which was previously prevented by the Beneficial Ownership Limitation. As such, on October 24, 2019, the remaining 6,376,28 shares of Series B Preferred Stock, which were all held by Foris, automatically converted into 1.0 million shares of the Company’s common stock, including the related Make-Whole shares (see Note 7, “Stockholders’ Deficit” in Part II, Item 8 of the 2018 Form 10-K/A).
On October 28, 2019, the Company, the Subsidiary Guarantors and Naxyris amended and restated the Naxyris Loan Agreement (as amended and restated, the A&R Naxyris LSA), pursuant to which the maximum loan commitment of Naxyris under the Naxyris Loan Facility (see Note 4, “Debt”) was increased by $10.4 million. In connection with the entry into the A&R Naxyris LSA, on October 29, 2019, the Company borrowed an additional $10.4 million from Naxyris under the A&R Naxyris LSA (the October 2019 Naxyris Loan), which loan is subject to the terms and provisions of the A&R Naxyris LSA, including the lien on substantially all of the assets of the Company and the Subsidiary Guarantors. In connection with the funding of the October 2019 Naxyris Loan, the Company paid Naxyris an upfront fee of $0.4 million. After giving effect to the October 2019 Naxyris LSA Loan, there is $20.9 million aggregate principal amount of loans outstanding under the A&R Naxyris LSA.

Second Exchange Note Exchange Agreement

On November 8, 2019, the Company entered into a Securities Exchange Agreement with certain private investors, pursuant to which, upon the purchase by the investors of the Second Exchange Note (see Note 4, “Debt”) from its current holder, the Second Exchange Note would be exchanged for new senior convertible notes with an aggregate principal amount of $66.0 million (the “New Notes”) that (i) bear interest at 5% per annum, which interest is payable monthly in arrears beginning February 1, 2020, in either cash or, at the Company’s option, subject to the satisfaction of certain equity conditions, in shares of common stock at a discount to the then-current market price, subject to a price floor (the “Installment Conversion Price”), (ii) are convertible into shares of the Company’s common stock at an initial conversion price of $5.00 per share, and (iii) mature on September 30, 2022, in a private exchange pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act, and Regulation D promulgated under the Securities Act.

The New Notes contain customary terms and covenants, including (i) a restriction on the Company’s ability to incur additional indebtedness, (ii) covenants related to minimum revenue, liquidity, financing activity and the conversion or exchange of existing indebtedness into equity, (iii) certain events of default, after which the holders may (A) require the Company to redeem all or any portion of their New Notes in cash at a price equal to 115% of the amount being redeemed and (B) convert all or any portion of their New Notes at a discount to the Installment Conversion Price and (iv) certain other events, after which the holders may convert all or any portion of their New Notes at a discount to the Installment Conversion Price.

The Company may at its option redeem the New Notes, in full, at a price equal to 115% of the greater of (A) the principal amount of the New Notes being redeemed and (B) the intrinsic value of the shares of Common Stock underlying the principal amount of the New Notes being redeemed. In addition, the Company is required to (i) redeem the New Notes in an aggregate amount of $10.0 million following the receipt by the Company of at least $75.0 million of aggregate net cash proceeds from one or more financing transactions, at a price equal to 110% of the amount being redeemed and (ii) redeem the New Notes in an aggregate amount of $10.0 million on December 31, 2019, at a price equal to 110% of the amount being redeemed, in each case unless such redemption is deferred by the holder.

The issuance of shares upon conversion of the New Notes or otherwise is limited by (i) a 4.99% beneficial ownership limitation, and (ii) the limitation imposed by Nasdaq Listing Standard Rule 5635(d), unless the Company’s obtains stockholder approval to exceed such limit. Under the New Notes, the Company will agree to use commercially reasonable efforts to obtain such approval on or prior to May 31, 2020.

The Securities Exchange Agreement prohibits the Company, subject to certain exceptions, from (i) disposing of any common stock or securities convertible into or exchangeable for shares of common stock from the date of the Securities Exchange Agreement through 90 days after the closing of the exchange and (ii) effecting or entering into an agreement to effect a variable rate transaction while the New Notes are outstanding.

The closing of the issuance and sale of the New Notes is expected to occur on or about November 12, 2019, subject to customary closing conditions, including the purchase by the investors of the Second Exchange Note.
Amyris, Inc. (the Company, Amyris, we, us or our) is a leading industrial biotechnology company that applies its technology platform to engineer, manufacture and sell high performance, natural, sustainably-sourced products into the Health & Wellness, Clean Beauty, and Flavor & Fragrance markets. Our proven technology platform enables us to rapidly engineer microbes and use them as catalysts to metabolize renewable, plant-sourced sugars into large volume, high-value ingredients. Our biotechnology platform and industrial fermentation process replace existing complex and expensive manufacturing processes. We have successfully used our technology to develop and produce nine distinct molecules at commercial volumes, leading to more than 15 commercial ingredients used by thousands of leading global brands.

We were founded in 2003 in the San Francisco Bay area by a group of scientists from the University of California, Berkeley. Our first major milestone came in 2005 when, through a grant from the Bill & Melinda Gates Foundation, we developed technology capable of creating microbial strains that produce artemisinic acid, which is a precursor of artemisinin, an effective anti-malarial drug. In 2008, we granted royalty-free licenses to allow Sanofi-Aventis to produce artemisinic acid using our technology. Building on our success with artemisinic acid, in 2007 we began applying our technology platform to develop, manufacture and sell sustainable alternatives to a broad range of markets.

We focused our initial development efforts primarily on the production of Biofene®, our brand of renewable farnesene, a long-chain, branched hydrocarbon molecule that we manufacture through fermentation using engineered microbes. Our farnesene derivatives are sold in thousands of products as nutraceuticals, skincare products, fragrances, solvents, polymers, and lubricant ingredients. The commercialization of farnesene pushed us to create a more cost efficient, faster and accurate development process in the lab and drive manufacturing costs down. This investment has enabled our technology platform to rapidly develop microbial strains and commercialize target molecules. In 2014, we began manufacturing additional molecules for the Flavor & Fragrance industry; in 2015 we began investing to expand our capabilities to other small molecule chemical classes beyond terpenes via our collaboration with the Defense Advanced Research Projects Agency (DARPA); and in 2016 we expanded into proteins.

We have invested over $600 million in infrastructure and technology to create microbes that produce molecules from sugar or other feedstocks at commercial scale. This platform has been used to design, build, optimize and upscale strains producing nine distinct molecules at commercial volumes, leading to more than 15 commercial ingredients used by thousands of leading global brands. Our time to market for molecules has decreased from seven years to less than a year for our most recent molecule, mainly due to our ability to leverage the technology platform we have built.

Our technology platform has been in active use since 2007 and has been integrated with our commercial production since 2011, creating an organism development process that we believe makes us an industry leader in the successful scale-up and commercialization of biotech-produced ingredients. The key performance characteristics of our platform that we believe differentiate us include our proprietary computational tools, strain construction tools, screening and analytics tools, and advanced lab automation and data integration. Having this fully integrated with our large-scale manufacturing process and capability enables us to always engineer with the end specification and requirements guiding our technology. Our state-of-the-art infrastructure
includes industry-leading strain engineering and lab automation located in Emeryville, California, pilot scale production facilities in Emeryville, California and Campinas, Brazil, a demonstration-scale facility in Campinas, Brazil and a commercial-scale production facility in Leland, North Carolina, which is owned and operated by our Aprinnova joint venture to convert our Biofene into squalane and other final products.

We are able to use a wide variety of feedstocks for production, but have focused on accessing Brazilian sugarcane for our large-scale production because of its renewability, low cost and relative price stability. We have also successfully used other feedstocks such as sugar beets, corn dextrose, sweet sorghum and cellulosic sugars at various manufacturing facilities.

Several years ago, we made the strategic decision to transition our business model from collaborating and commercializing molecules in low margin commodity markets to higher margin specialty markets. We began the transition by first commercializing and supplying farnesene-derived squalane as a cosmetic ingredient sold to formulators and distributors. We also entered into collaboration and supply agreements for the development and commercialization of molecules within the Flavor & Fragrance and Clean Beauty markets where we utilize our strain generation technology to develop molecules that meet the customer’s rigorous specifications.

During this transition, we solidified the business model of partnering with our customers to create sustainable, high performing, low-cost molecules that replace an ingredient in their supply chain, commercially scale and manufacture those molecules, and share in the profits earned by our customers once our customers sell their products into these specialty markets. These three steps constitute our collaboration revenues, renewable product revenues, and royalty revenues.

During 2017, we completed several development agreements with DSM and others for new products such as Vitamin A, a human nutrition molecule and others, and in late 2018 we began commercial production and shipment of a new sweetener product developed from the Reb M molecule, which is a superior sweetener and sugar replacement. Our goal is to bring two to three new molecules per year to commercial production in the future.

In 2017, we decided to monetize the use of one of our lower margin molecules, farnesene, in the Vitamin E and Lubricants specialty markets while retaining any associated royalties, and licensed farnesene to Koninklijke DSM N.V. (DSM) for use in these fields. Also in 2017, we sold to DSM our subsidiary Amyris Brasil Ltda. (Amyris Brasil), which operated our purpose-built, large-scale manufacturing facility located in Brotas, Brazil.

The Brotas facility was built to batch manufacture one commodity product at a time (originally for high-volume production of biofuels, a business Amyris has exited), which is an inefficient manufacturing process that is not suited for the high margin specialty markets in which we operate today. We currently manufacture nine specialty products and expect to increase the number of specialty products we manufacture by two to three products a year. The inefficiencies we experienced included having to idle the facility for two weeks at a time to prepare for the next product batch manufacture. These inefficiencies caused our cost of goods sold to be significantly higher. As part of the December 2017 sale of Brotas, we contracted with DSM for the use of Brotas to manufacture products for us to fulfill our product supply commitments to our customers until our new production facility becomes operational.

In 2019, we obtained the necessary permits and broke ground on our Specialty Ingredients Plant (SIP). We expect the facility to be fully operational in Q1 of 2021. This facility will allow us to manufacture five products at once and to produce both our specialty ingredients portfolio and our new sweetener product. During construction, we are manufacturing our products at four contract manufacturing sites in Brazil, the U.S. and Spain.

In addition, in May 2019 we entered into an agreement with Raizen Energia S.A. (Raizen) for the formation and operation of a joint venture relating to the production, sale and commercialization of alternative sweetener products whereby the parties would construct a manufacturing facility exclusively for sweetener molecules on land owned by Raizen and leased to the joint venture; see Note 1, “Basis of Presentation and Summary of Significant Accounting Policies” in Part I, Item 1 of this Quarterly Report on Form 10-Q for more details.

Also, in May 2019, we consummated a research, collaboration and license agreement with LAVVAN, Inc., a newly formed investment-backed company (Lavvan), for up to $300 million to develop, manufacture and commercialize cannabinoids. Under the Cannabinoid Agreement, we would perform research and development activities and Lavvan would be responsible for the commercialization of the cannabinoids developed under the agreement. The Cannabinoid Agreement is being principally funded on a milestone basis, with Amyris also entitled to receive certain supplementary research and development funding from Lavvan. We could receive aggregate funding of up to $300 million over the term of the Cannabinoid Agreement if all of the milestones are achieved. Additionally, the Cannabinoid Agreement provides for profit share to Amyris on Lavvan’s gross profit margin once products are commercialized; these payments will be due for the next 20 years.

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We believe that industrial synthetic biology represents a third industrial revolution, bringing together biology and engineering to generate new, more sustainable materials to meet the growing global demand for bio-based replacements for petroleum-based and traditional animal- or plant-derived ingredients. We continue to build demand for our current portfolio of products through an extensive sales network provided by our collaboration partners that represent leading companies for our target market sectors. We also have a small group of direct sales and distributors who support our Clean Beauty market. Via our partnership model, our partners invest in the development of each molecule to bring it from the lab to commercial scale and use their extensive sales force to sell our ingredients and formulations to their customers as part of their core business. We capture long-term revenue both through the production and sale of the molecule to our partners and through royalty revenues from our partners’ product sales to their customers.

Sales and Revenue

We recognize revenue from product sales, license fees and royalties, and grants and collaborations.

We have research and development collaboration arrangements for which we receive payments from our collaborators, which include DARPA, DSM, Firmenich SA (Firmenich), Givaudan International SA (Givaudan), and others. Some of our collaboration arrangements provide for advance payments to us in consideration for grants of exclusivity or research efforts that we will perform. In 2017 we signed collaboration agreements for an infant nutrition ingredient, and in 2018 we signed a collaboration agreement for two vitamins that we expect will contribute to our collaboration revenue and ultimately product sales. Our collaboration agreements, which may require us to achieve milestones prior to receiving payments, are expected to contribute revenues from product sales and royalties if and when they are commercialized. See Note 10, “Revenue Recognition” in Part II, Item 8 of the 2018 Form 10-K/A for additional information.

All of our non-government partnerships include commercial terms for the supply of molecules we successfully upscale and produce at commercial volumes. The first molecule to generate revenue for us outside of farnesene was a fragrance molecule launched in 2015. Since the launch, the product has continued to grow in sales year over year. In 2016, we launched our second fragrance molecule and in 2017, we launched our third fragrance molecule as well as our first cosmetic active ingredient. Our partners for these molecules are indicating continued strong growth due to their cost advantaged position, high purity and sustainable production method. We are continuing to identify new opportunities to apply our technology and deliver sustainable access to key molecules. As a result, we have a pipeline that we believe can deliver two to three new molecules each year over the coming years with a flavor ingredient, a cosmetic active ingredient and a fragrance molecule. In 2019, we are commercially producing and shipping our Reb M product that we believe is a superior sweetener and sugar replacement for food and beverages.

As part of the DSM acquisition in 2017 of our farnesene for Vitamin E business, we would receive a royalty payment on certain sales by Nenter & Co., Inc. of Vitamin E utilizing farnesene produced and sold by DSM from our technology. In addition, DSM would be obligated to pay us minimum royalties totaling $18.1 million for 2019 and 2020, of which we received $9.3 million as a discounted accelerated payment (from an original payment amount of $10.0 million) during 2018. In April 2019, we assigned the right to receive such royalty payments to DSM for total consideration of $57 million, which included $7.4 million for early payment of the third and final annual royalty payment due under the original Value Sharing Agreement. See Note 9, “Revenue Recognition”, in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional information.

We have several other collaboration molecules in our development pipeline with partners including DSM, Givaudan and Firmenich that we expect will contribute revenues from product sales and royalties if and when they are commercialized.

Critical Accounting Policies and Estimates

Management's discussion and analysis of results of operations and financial condition are based on our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the U.S. (U.S. GAAP). We believe that the critical accounting policies described in this section are those that significantly impact our financial condition and results of operations and require the most difficult, subjective or complex judgements, often as a result of the need to make estimates about the effects of matters that are inherently uncertain. Because of this uncertainty, actual results may vary from these estimates.

Our most critical accounting estimates include:

- Recognition of revenue including arrangements with multiple performance obligations;
- Valuation and allocation of fair value to various elements of complex related party transactions;
- The identification and valuation of freestanding and embedded derivatives, which impacts gains or losses on such derivatives, the carrying value of debt, preferred stock, interest expense and deemed dividends; and
• The valuation of debt for which we have elected fair value accounting.

For more information about our critical accounting estimates and policies, see Note 1, “Basis of Presentation and Summary of Significant Accounting Policies” in Part I, Item 1 of this Quarterly Report on Form 10-Q and in Part II, Item 8 of the 2018 Form 10-K/A.

## Results of Operations

### Revenue

<table>
<thead>
<tr>
<th></th>
<th>Three Months Ended September 30,</th>
<th>Nine Months Ended September 30,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewable products</td>
<td>$17,363</td>
<td>$9,639</td>
</tr>
<tr>
<td>Licenses and royalties</td>
<td>2,305</td>
<td>142</td>
</tr>
<tr>
<td>Grants and collaborations</td>
<td>15,285</td>
<td>4,534</td>
</tr>
<tr>
<td>Total revenue</td>
<td>$34,953</td>
<td>$14,315</td>
</tr>
</tbody>
</table>

**Three Months Ended September 30, 2019 and 2018**

Total revenue increased by 144% to $35.0 million for the three months ended September 30, 2019 compared to the same period in 2018. The increase was comprised of a $10.8 million increase in grants and collaborations revenue, a $7.7 million increase in renewable products revenue, and a $2.2 million increase in licenses and royalties revenue.

Renewable products revenue increased by 80% to $17.4 million for the three months ended September 30, 2019 compared to the same period in 2018, with increases among all renewable products, led by RebM, Squalene and Biossance.

Licenses and royalties revenue increased by $2.2 million for the three months ended September 30, 2019 compared to the same period in 2018.

Grants and collaborations revenue increased by 237% to $15.3 million for the three months ended September 30, 2019 compared to the same period in 2018, primarily due to collaboration revenue from Lavvan.

**Nine Months Ended September 30, 2019 and 2018**

Total revenue increased by 137% to $112.0 million for the nine months ended September 30, 2019 compared to the same period in 2018. The increase was comprised of a $35.8 million increase in licenses and royalties revenue, a $19.9 million increase in renewable products revenue and a $9.1 million increase in grants and collaborations revenue.

Renewable products revenue increased by 93% to $41.4 million for the nine months ended September 30, 2019 compared to the same period in 2018, with increases among all renewable products, led by RebM, Squalene and Biossance.

Licenses and royalties revenue increased by 472% to $43.4 million for the nine months ended September 30, 2019 compared to the same period in 2018, primarily due to $40.3 million of royalty revenue from DSM related to the assignment of the December 2017 Value Sharing Agreement (see Note 9, “Revenue Recognition” in Part I, Item 1 of this Quarterly Report on Form 10-Q) during the current period, as compared to $7.4 million from DSM during the prior year period.

Grants and collaborations revenue increased by 50% to $27.3 million for the nine months ended September 30, 2019 compared to the same period in 2018, primarily due to increases from Lavvan and Yifan collaborations, partly offset by decreases from DARPA, Givaudan and Firmenich.
Costs and Operating Expenses

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>Three Months Ended September 30,</th>
<th>Nine Months Ended September 30,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Cost and operating expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of products sold</td>
<td>$20,654</td>
<td>$8,574</td>
</tr>
<tr>
<td>Research and development</td>
<td>19,032</td>
<td>16,445</td>
</tr>
<tr>
<td>Sales, general and administrative</td>
<td>33,341</td>
<td>27,239</td>
</tr>
<tr>
<td>Total cost and operating expenses</td>
<td>$73,027</td>
<td>$52,258</td>
</tr>
</tbody>
</table>

Cost of Products Sold

Cost of products sold includes the raw materials, labor and overhead, amounts paid to contract manufacturers, inventory write-downs, and costs related to production scale-up. Because of our product mix, our overall cost of products sold does not necessarily increase or decrease proportionately with changes in our renewable product revenues.

Three Months Ended September 30, 2019 and 2018

Cost of products sold increased by 141% to $20.7 million for the three months ended September 30, 2019, compared to the same period in 2018, primarily due to costs associated with an increase in volume of products sold.

Nine Months Ended September 30, 2019 and 2018

Cost of products sold increased by 162% to $53.5 million for the nine months ended September 30, 2019, compared to the same period in 2018, primarily due to an increase in volume of products sold. The remainder of the increase was due to costs associated with ramping up our RebM sweetener production, which we began shipping in late 2018.

Research and Development Expenses

Three Months Ended September 30, 2019 and 2018

Research and development expenses increased by 16% to $19.0 million for the three months ended September 30, 2019, compared to the same period in 2018, primarily due to increases in employee compensation and equipment rental costs, and a decrease in capitalization of labor costs.

Nine Months Ended September 30, 2019 and 2018

Research and development expenses increased by 12% to $56.1 million for the nine months ended September 30, 2019, compared to the same period in 2018, primarily due to an increase in employee compensation and a decrease in capitalization of labor costs.

Sales, General and Administrative Expenses

Three Months Ended September 30, 2019 and 2018

Sales, general and administrative expenses increased by 22% to $33.3 million for the three months ended September 30, 2019, compared to the same period in 2018, primarily due to increases in employee compensation, outside services, audit fees and new product marketing costs. The increase in employee compensation was driven by increased head count, the timing of changes in our compensation plan for most non-executive level employees, and increased stock-based compensation related to increased head count.

Nine Months Ended September 30, 2019 and 2018

Sales, general and administrative expenses increased by 43% to $92.5 million for the nine months ended September 30, 2019, compared to the same period in 2018, primarily due to increases in employee compensation, outside services, audit fees and new product marketing costs. The increase in employee compensation was driven by increased head count, the timing of changes in our compensation plan for most non-executive level employees, and increased stock-based compensation related to increased head count.
Other Expense, Net

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>Three Months Ended September 30,</th>
<th>Nine Months Ended September 30,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Other income (expense):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss on divestiture</td>
<td>$ —</td>
<td>—</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(16,857)</td>
<td>(9,180)</td>
</tr>
<tr>
<td>Loss from change in fair value of derivative instruments</td>
<td>(398)</td>
<td>(24,797)</td>
</tr>
<tr>
<td>Loss from change in fair value of debt</td>
<td>(2,055)</td>
<td>—</td>
</tr>
<tr>
<td>Loss upon extinguishment of debt</td>
<td>(2,721)</td>
<td>—</td>
</tr>
<tr>
<td>Other income (expense), net</td>
<td>1,076</td>
<td>(2,533)</td>
</tr>
<tr>
<td>Total other expense, net</td>
<td>$ (20,955)</td>
<td>$ (36,510)</td>
</tr>
</tbody>
</table>

Three Months Ended September 30, 2019 and 2018

Total other expense, net was $21.0 million for the three months ended September 30, 2019, compared to $36.5 million for the same period in 2018. The $15.6 million decrease was primarily due to a $24.4 million decrease in loss from change in fair value of derivative instruments, partly offset by a $7.7 million increase in interest expense, which was substantially all related to default and penalty interest and waiver fees, a $2.7 million loss upon extinguishment of debt in 2019 and a $2.1 million loss from change in fair value of debt in 2019. The decrease in loss from change in fair value of derivative instruments was due to the extinguishment of certain equity-related derivatives in the second and third quarter of 2018, which no longer impact the 2019 quarters, and in part, as the result of adopting ASU 2017-11, “Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): Accounting for Certain Financial Instruments with Down Round Features” which eliminated the need to record a derivative liability for equity instruments with down-round anti-dilution provisions. See Note 1, “Basis of Presentation and Summary of Significant Accounting Policies” and Note 3, “Fair Value Measurement” in Part I, Item 1 of this Quarterly Report on Form 10-Q for a discussion of the adoption impact to our condensed consolidated financial statements.

Nine Months Ended September 30, 2019 and 2018

Total other expense, net was $73.4 million for the nine months ended September 30, 2019, compared to $93.7 million for the same period in 2018. The $20.4 million decrease was primarily due to a $58.7 million decrease in loss from change in fair value of derivative instruments, partly offset by an $18.6 million loss from change in fair value of debt in 2019, a $15.9 million increase in interest expense, a significant portion of which was related to default and penalty interest and waiver fees, and an $8.6 million increase in loss upon extinguishment of debt. The decrease in loss from change in fair value of derivative instruments was due to the extinguishment of certain equity-related derivatives in the second and third quarter of 2018, which no longer impact the 2019 quarters, and in part, as the result of adopting ASU 2017-11, as described in the previous paragraph.

Provision for Income Taxes

Three and Nine Months Ended September 30, 2019 and 2018

For the three and nine months ended September 30, 2019, we recorded a $0.5 million provision for income taxes related to accrued interest on uncertain tax positions.

For the three and nine months ended September 30, 2018, provision for income taxes was $0.

Liquidity and Capital Resources

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>September 30, 2019</th>
<th>December 31, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working capital deficit</td>
<td>$ (103,837)</td>
<td>$ (119,521)</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$ 1,632</td>
<td>$ 45,353</td>
</tr>
<tr>
<td>Debt and capital lease obligations</td>
<td>$ 227,688</td>
<td>$ 210,376</td>
</tr>
<tr>
<td>Accumulated deficit</td>
<td>$ (1,676,779)</td>
<td>$ (1,521,417)</td>
</tr>
</tbody>
</table>
Liquidity. We have incurred significant operating losses since our inception, and we expect to continue to incur losses and negative cash flows from operations through at least the next 12 months following issuance of the condensed consolidated financial statements. As of September 30, 2019, we had negative working capital of $103.8 million, (compared to negative working capital of $119.5 million as of December 31, 2018), an accumulated deficit of $1.7 billion, and cash and cash equivalents of $1.6 million (compared to $45.4 million as of December 31, 2018).

As of September 30, 2019, our debt (including related party debt), net of deferred discount and issuance costs of $37.5 million, totaled $204.2 million, of which $78.7 million is classified as current. Our debt agreements contain various covenants, including certain restrictions on our business that could cause us to be at risk of defaults, such as restrictions on additional indebtedness and cross-default clauses. A failure to comply with the covenants, or cure non-compliance or obtain waivers for covenants violations, and other provisions of our debt instruments, including any failure to make a payment when required, would generally result in events of default under such instruments, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under our other outstanding indebtedness, permitting acceleration of a substantial portion of our outstanding indebtedness.

On September 16, 2019, we failed to pay an aggregate of $63.6 million of outstanding principal and accrued interest on the Second Exchange Note (see Note 4, “Debt” in Part I, Item 1 of this Quarterly Report on Form 10-Q) when due. The payment failure resulted in an event of default under the Second Exchange Note and also triggered cross-defaults under other debt instruments of Amyris which permitted the holders of such indebtedness to accelerate the amounts owing under such instruments. We subsequently received waivers from all holders of such other debt instruments to waive the right to accelerate. As a result, the indebtedness with respect to which Amyris has obtained such waivers continues to be classified as long-term on our balance sheet. The indebtedness reflected by the Second Exchange Note continues to be classified as a current liability on our balance sheet. In addition, as a result of the payment default, the conversion price of the Second Exchange Note is subject to adjustment in accordance with the terms of the Second Exchange Note. On November 8, 2019, the Company entered into a Securities Exchange Agreement with certain private investors (the “Investors”), pursuant to which, upon the purchase by the Investors of the Second Exchange Note, the Second Exchange Note would be exchanged for new senior convertible notes with an aggregate principal amount of $66.0 million (see Note 12, “Subsequent Events”, in Part I, Item 1 of this Form 10-Q). In connection with the entry into the Securities Exchange Agreement, (i) the holder of the Second Exchange Note and the Investors entered into a Securities Purchase Agreement providing for the purchase by the Investors of the Second Exchange Note and (ii) the Company and the holder of the Second Exchange Note entered into an agreement by which such holder agreed to immediately dismiss its complaint against the Company (see Note 8, “Commitments and Contingencies”, in Part I, Item 1 of this Form 10-Q) with prejudice upon the purchase of the Second Exchange Note by the Investors.

Our condensed consolidated financial statements as of and for the three and nine months ended September 30, 2019 have been prepared on the basis that we will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. Due to the factors described above, there is substantial doubt about our ability to continue as a going concern within one year after the date that these condensed consolidated financial statements are issued. Our ability to continue as a going concern will depend, in large part, on our ability to extend existing debt maturities by restructuring a majority of our convertible debt, which is uncertain and outside management's control. The condensed consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty, which could have a material adverse effect on our financial condition. In addition, if we are unable to continue as a going concern, we may be unable to meet our obligations under our existing debt facilities, which could result in an acceleration of our obligation to repay all amounts outstanding under those facilities, and we may be forced to liquidate our assets. In such a scenario, the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

Our operating plan for the next 12 months contemplates a significant reduction in our net operating cash outflows as compared to the year ended December 31, 2018, resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) significantly increased cash inflows from grants and collaborations, and (iii) reduced production costs as a result of manufacturing and technical developments. If we are unable to complete these actions, we expect to be unable to meet our operating cash flow needs and our obligations under our existing debt facilities.

### Net cash (used in) provided by:

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating activities</td>
<td>$(113,467)</td>
<td>$(89,447)</td>
</tr>
<tr>
<td>Investing activities</td>
<td>$(9,013)</td>
<td>$(6,362)</td>
</tr>
<tr>
<td>Financing activities</td>
<td>$78,742</td>
<td>$56,160</td>
</tr>
</tbody>
</table>

*Note: The table above shows the net cash provided by operating, investing, and financing activities for the nine months ended September 30, 2019, and the year ended September 30, 2018.*

### Nine Months Ended September 30,

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$119.5</td>
<td>$119.5</td>
</tr>
<tr>
<td></td>
<td>$1.7</td>
<td>$1.6</td>
</tr>
<tr>
<td></td>
<td>$37.5</td>
<td>$37.5</td>
</tr>
<tr>
<td></td>
<td>$204.2</td>
<td>$204.2</td>
</tr>
<tr>
<td></td>
<td>$78.7</td>
<td>$78.7</td>
</tr>
</tbody>
</table>

*Note: The table above shows the net cash provided by operating, investing, and financing activities for the nine months ended September 30, 2019, and the year ended September 30, 2018.*
If we are unable to generate sufficient cash contributions from product sales, licenses and royalties, and payments from existing and new collaboration partners, and new financing commitments due to contractual restrictions and covenants, we will need to obtain additional funding from equity or debt financings, which may not occur in a timely manner or on reasonable terms, if at all, agree to burdensome covenants, grant further security interests in our assets, enter into collaboration and licensing arrangements that require us to relinquish commercial rights, or grant licenses on terms that are not favorable.

If we do not achieve our planned operating results, our ability to continue as a going concern would be jeopardized and we may need to take the following actions to support our liquidity needs during the next 12 months:

• Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts;
• Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors;
• Reduce or delay uncommitted capital expenditures, including expenditures related to the construction and commissioning of the new production facility in Brazil, non-essential facility and lab equipment, and information technology projects; and
• Closely monitor our working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

Implementing this plan could have a negative impact on our ability to continue our business as currently contemplated, including, without limitation, delays or failures in our ability to:

• Achieve planned production levels;
• Develop and commercialize products within planned timelines or at planned scales; and
• Continue other core activities.

We expect to fund operations for the foreseeable future with cash and investments currently on hand, cash inflows from collaborations, grants, product sales, licenses and royalties, and equity and debt financings, to the extent necessary. Some of our research and development collaborations are subject to risks that we may not meet milestones. Future equity and debt financings, if needed, are subject to the risk that we may not be able to secure financing in a timely manner or on reasonable terms, if at all. Our planned working capital and capital expenditure needs for the remainder of 2019 are dependent on significant inflows of cash from renewable product sales, license and royalties and existing collaborations, as well as additional funding from new collaborations.

Cash Flows during the Nine Months Ended September 30, 2019 and 2018

Cash Flows from Operating Activities

Our primary uses of cash from operating activities are costs related to the production and sale of our products and personnel-related expenditures, offset by cash received from renewable product sales, licenses and royalties, and grants and collaborations.

For the nine months ended September 30, 2019, net cash used in operating activities was $113.5 million, consisting primarily of a $163.9 million net loss, partially offset by $68.7 million of favorable non-cash adjustments that were primarily comprised of an $18.6 million loss on change in fair value of debt, $10.1 million of stock-based compensation, $9.7 million of debt discount accretion and $10.2 million of amortization of right-of-use assets. Additionally, there was an $18.3 million net increase in working capital balances.

For the nine months ended September 30, 2018, net cash used in operating activities was $89.4 million, consisting of a $181.6 million net loss, $83.3 million of favorable non-cash adjustments and an $8.9 million net decrease in working capital balances. The non-cash adjustments were primarily comprised of a $61.2 million loss from change in fair value of derivative liabilities and $12.2 million of debt discount accretion.

Cash Flows from Investing Activities

For the nine months ended September 30, 2019 and September 30, 2018, net cash used in investing activities was $9.0 million, and $6.4 million, respectively, comprised of property, plant and equipment purchases.

Cash Flows from Financing Activities

For the nine months ended September 30, 2019, net cash provided by financing activities was $78.7 million, primarily comprised of $53.6 million of net proceeds from common stock issuances and $89.2 million of net proceeds from debt issuances, offset by $63.7 million of debt principal payments.
For the nine months ended September 30, 2018, net cash provided by financing activities was $56.2 million, primarily comprised of $60.5 million proceeds from exercises of warrants and $36.6 million of proceeds from debt issuances, offset by $42.0 million of debt principal payments.

**Off-Balance Sheet Arrangements**

At September 30, 2019, we did not have any material off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K.

**Contractual Obligations**

The following is a summary of our contractual obligations as of September 30, 2019:

<table>
<thead>
<tr>
<th>Payable by year ending December 31, (in thousands)</th>
<th>Total</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>Thereafter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal payments on debt</td>
<td>$241,430</td>
<td>$75,658</td>
<td>$12,918</td>
<td>$31,297</td>
<td>$87,803</td>
<td>$31,793</td>
<td>$1,961</td>
</tr>
<tr>
<td>Interest payments on debt (1)</td>
<td>60,981</td>
<td>13,664</td>
<td>18,245</td>
<td>18,008</td>
<td>10,651</td>
<td>106</td>
<td>307</td>
</tr>
<tr>
<td>Financing and operating leases</td>
<td>30,958</td>
<td>3,462</td>
<td>9,050</td>
<td>7,221</td>
<td>7,392</td>
<td>3,033</td>
<td>—</td>
</tr>
<tr>
<td>Manufacturing reservation fee</td>
<td>6,893</td>
<td>6,893</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Partnership payment obligation</td>
<td>11,112</td>
<td>2,381</td>
<td>3,175</td>
<td>3,175</td>
<td>2,381</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Contract termination fee</td>
<td>3,670</td>
<td>1,830</td>
<td>1,840</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>$355,044</td>
<td>$103,888</td>
<td>$46,028</td>
<td>$59,701</td>
<td>$108,227</td>
<td>$34,932</td>
<td>$2,268</td>
</tr>
</tbody>
</table>

(1) Does not include any obligations related to make-whole interest or down-round provisions. Fixed and variable interest rates are described in Note 5, “Debt” in Part II, Item 8 of the Annual Report on Form 10-K/A. Future interest payments shown above for variable-rate debt instruments are measured on the basis of interest rates as of September 30, 2019. The fixed interest rates are more fully described in Note 5, “Debt” in Part II, Item 8 of the Annual Report on Form 10-K/A.
ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. In designing and evaluating the disclosure controls and procedures, management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily is required to apply its judgment in evaluating the cost-benefit of possible controls and procedures.

Under the supervision and with the participation of management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based on this evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were not effective at the reasonable assurance level as of September 30, 2019. This conclusion was based on the material weaknesses in our internal control over financial reporting described in Part II, Item 9A, “Controls and Procedures” of our 2018 Form 10-K/A. The material weaknesses have not been remediated as of September 30, 2019.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the Company’s annual or interim consolidated financial statements will not be prevented or detected on a timely basis. If not remediated, the material weaknesses in our internal control over financial reporting described in the 2018 Form 10-K/A could result in a material misstatement of our annual or interim consolidated financial statements that would not be prevented or detected on a timely basis.

Changes in Internal Control over Financial Reporting

During the fiscal quarter ended September 30, 2019, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well-designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.
On April 3, 2019, a securities class action complaint was filed against Amyris and our CEO, John G. Melo, and former CFO (and current Chief Business Officer), Kathleen Wallasek, in the U.S. District Court for the Northern District of California. The complaint seeks unspecified damages on behalf of a purported class that would comprise all persons and entities that purchased or otherwise acquired our securities between March 15, 2018 and March 19, 2019. The complaint alleges securities law violations based on statements and omissions made by the Company during such period. Subsequent to the filing of the securities class action complaint described above, on June 21, 2019 and October 1, 2019, respectively, two separate purported shareholder derivative complaints were filed in the U.S. District Court for the Northern District of California (Bonner v. Doerr, et al., Case No. 4:19-cv-03621 and Carlson v. Doerr, et al., Case No. 4:19-cv-06230) based on similar allegations to those made in the securities class action complaint described above. The first derivative complaint (Bonner) was dismissed on October 18, 2019, and the remaining derivative complaint (Carlson) names Amyris, Inc. as a nominal defendant and certain of the Company’s current and former officers and directors as additional defendants. The derivative lawsuit seeks to recover, on the Company’s behalf, unspecified damages purportedly sustained by the Company in connection with allegedly misleading statements and omissions made in connection with the Company’s securities filings. The derivative complaint also seeks a series of changes to the Company’s corporate governance policies, restitution to the Company from the individual defendants, and an award of attorneys’ fees. This case is in the initial pleadings stage. We believe the complaint lacks merit, and intend to defend ourselves vigorously. Given the early stage of these proceedings, it is not yet possible to reliably determine any potential liability that could result from these matters.

On November 1, 2019 CVI Investments, Inc. (“CVI”) filed a complaint against the Company in the United States District Court for the Southern District of New York. The complaint contained causes of action for breach of contract and declaratory judgment. Both causes of action arise out of the Company’s alleged failure to issue shares under a Senior Convertible Note originally issued by the Company to CVI in December 2018 (the “Note”). Under the Note, as modified in two subsequent amendments (See Note 4, Debt, 6% Convertible Notes Exchanges), the Company would repay in cash or common stock over time with interest and certain other charges. Through the complaint, CVI sought to convert certain amounts owed under the Note into shares of the Company’s common stock. The complaint was never served on the Company. On November 8, 2019 the Company and CVI entered into an agreement by which CVI agreed to immediately dismiss its complaint with prejudice upon the satisfaction by the Company of all amounts due under the Note pursuant to the Second Note Exchange Agreement.

We may be involved, from time to time, in legal proceedings and claims arising in the ordinary course of our business. Such matters are subject to many uncertainties and there can be no assurance that legal proceedings arising in the ordinary course of business or otherwise will not have a material adverse effect on our business, results of operations, financial position or cash flows.

ITEM 1A. RISK FACTORS

The risks described in Part I, Item 1A, “Risk Factors” in our 2018 Form 10-K could materially and adversely affect our business, financial condition and results of operations, and the trading price of our common stock could decline. These risk factors do not identify all risks that we face; our operations could also be affected by factors that are not presently known to us or that we currently consider to be immaterial to our operations. Due to risks and uncertainties, known and unknown, our past financial results may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. The “Risk Factors” section of the 2018 Form 10-K remains current in all material respects.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

See Note 4, “Debt” and Note 6, “Stockholders’ Deficit” in Part I, Item 1 of this Quarterly Report on Form 10-Q for information regarding unregistered sales of equity securities during the three months ended September 30, 2019.

No underwriters or agents were involved in the issuance or sale of such securities. The securities were issued in private placements pursuant to the exemption from registration under Section 4(a)(2) of the Securities Act and Regulation D promulgated under the Securities Act, or in private exchanges pursuant to the exemption from registration under Section 3(a)(9) of the Securities Act. The investors participating in the offerings or exchanges acquired the applicable securities for investment purposes only and without intent to resell, were able to fend for themselves in these transactions, and are accredited investors as defined in Rule 501 of Regulation D promulgated under Section 3(b) of the Securities Act. These purchasers had adequate access, through their relationships with us, to information about us.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

During the three months ended September 30, 2019, we failed to make required interest and/or principal payments under the November 2017 Ginkgo Note, the LSA and the Second Exchange Note (see Note 5, “Debt” and Note 16, “Subsequent Events”
in Part II, Item 8 of the 2018 Form 10-K/A and Note 4, “Debt” and Note 12, “Subsequent Events” in Part I, Item 1 of this Quarterly Report on Form 10-Q). The total amounts of such defaults were, (a) in respect of interest under the November 2017 Ginkgo Note, $0.2 million for which payment was due July 31 and August 31, (b) in respect of interest and principal under the LSA, failure to pay $1.2 million of interest due on July 1 and August 1, and to pay principal of $0.9 million on July 1, and (c) in respect of interest and principal under the Second Exchange Note, $63.6 million. On August 14, 2019, we received an extension for such interest and principal payments under the LSA until December 16, 2019; see Note 4, “Debt” in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information. On September 29, 2019, we received an extension for such interest payments under the November 2017 Ginkgo Note until December 15, 2019; see Note 4, “Debt” in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

ITEM 5. OTHER INFORMATION

None.
### ITEM 6. EXHIBITS

<table>
<thead>
<tr>
<th>Exhibit No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.01</td>
<td>Form of Common Stock Purchase Warrant issued July 8, 2019 by registrant to Wolverine Flagship Fund Trading Limited (found at Exhibit A, herein)</td>
</tr>
<tr>
<td>4.02</td>
<td>Promissory Note issued July 10, 2019 by registrant to Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.03</td>
<td>Warrant Amendment Agreement, dated July 10, 2019, between registrant and Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.04</td>
<td>Senior Convertible Note Maturity Extension, dated July 24, 2019, between registrant and Total Raffinage Chimie</td>
</tr>
<tr>
<td>4.05</td>
<td>Form of Senior Convertible Note issued July 24, 2019 by registrant to CVI Investments, Inc. (found at Exhibit A, herein)</td>
</tr>
<tr>
<td>4.06</td>
<td>Form of Common Stock Purchase Warrant issued July 24, 2019 by registrant to CVI Investments, Inc. (found at Exhibit B, herein)</td>
</tr>
<tr>
<td>4.07</td>
<td>Promissory Note issued July 26, 2019 by registrant to Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.08</td>
<td>Common Stock Purchase Warrant issued August 14, 2019 by registrant to Nasyris S.A.</td>
</tr>
<tr>
<td>4.09</td>
<td>Common Stock Purchase Warrant issued August 14, 2019 by registrant to Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.10</td>
<td>Promissory Note issued August 28, 2019 by registrant to Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.11</td>
<td>Common Stock Purchase Warrant issued August 28, 2019 by registrant to Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.12</td>
<td>Warrant Amendment Agreement, dated August 28, 2019, between registrant and Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.13</td>
<td>Warrant Amendment Agreement, dated August 28, 2019, between registrant and Foris Ventures, LLC</td>
</tr>
<tr>
<td>4.14</td>
<td>Senior Convertible Note Maturity Extension, dated September 4, 2019, between registrant and Total Raffinage Chimie</td>
</tr>
<tr>
<td>4.15</td>
<td>Form of Promissory Note issued September 10, 2019 by registrant to certain accredited investors (found at Exhibit A, herein)</td>
</tr>
<tr>
<td>4.16</td>
<td>Form of Common Stock Purchase Warrant issued September 10, 2019 by registrant to certain accredited investors</td>
</tr>
<tr>
<td>4.17</td>
<td>Form of Promissory Note issued September 17, 2019, September 19, 2019 and September 23, 2019 by registrant to DSM Finance B.V.</td>
</tr>
<tr>
<td>10.01</td>
<td>Exchange Agreement, dated July 2, 2019, between registrant and Wolverine Flagship Fund Trading Limited</td>
</tr>
<tr>
<td>10.02</td>
<td>Credit Agreement, dated July 10, 2019, between registrant and Foris Ventures, LLC</td>
</tr>
<tr>
<td>10.03</td>
<td>Second Exchange Agreement, dated July 24, 2019, between registrant and CVI Investments, Inc.</td>
</tr>
<tr>
<td>10.04</td>
<td>Loan Agreement, dated July 29, 2019, between registrant and Nikko Chemicals Co., Ltd.</td>
</tr>
<tr>
<td>10.05</td>
<td>Loan and Security Agreement, dated August 14, 2019, among registrant, certain of registrant’s subsidiaries and Nasyris S.A.</td>
</tr>
<tr>
<td>10.06</td>
<td>Amendment No 5 to Loan Agreement and Waiver, dated August 14, 2019, among registrant, certain of registrant’s subsidiaries and Foris Ventures, LLC</td>
</tr>
<tr>
<td>10.07</td>
<td>Credit Agreement, dated August 28, 2019, between registrant and Foris Ventures, LLC</td>
</tr>
<tr>
<td>10.08</td>
<td>Form of Credit Agreement, dated September 10, 2019, between registrant and certain accredited investors</td>
</tr>
<tr>
<td>10.09</td>
<td>Standstill Agreement, dated September 10, 2019, among registrant and certain accredited investors</td>
</tr>
<tr>
<td>10.10</td>
<td>Credit Agreement, dated September 17, 2019, between registrant and DSM Finance B.V.</td>
</tr>
<tr>
<td>31.01</td>
<td>Certification of Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</td>
</tr>
<tr>
<td>31.02</td>
<td>Certification of Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</td>
</tr>
<tr>
<td>32.01*</td>
<td>Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</td>
</tr>
<tr>
<td>32.02*</td>
<td>Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</td>
</tr>
</tbody>
</table>

**Girolindo S.**

XBRL Instance Document

101.SCH  XBRL Taxonomy Extension Schema Document

101.CAL  XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF  XBRL Taxonomy Extension Definition Linkbase Document

101.LAB  XBRL Taxonomy Extension Label Linkbase Document

101.PRE  XBRL Taxonomy Extension Presentation Linkbase Document
Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized.

AMYRIS, INC.

By:  /s/ John G. Melo

John G. Melo
President and Chief Executive Officer
(Principal Executive Officer)
November 12, 2019

By:  /s/ Jonathan Wolter

Jonathan Wolter
Interim Chief Financial Officer
(Principal Financial Officer)
November 12, 2019
Exhibit 4.02

AMYRIS, INC.
PROMISSORY NOTE

$8,000,000

Issue date: July 10, 2019

AMYRIS, INC., a Delaware corporation (the “Company”), for value received, hereby promises to pay to FORIS VENTURES, LLC, or registered assigns (the “Holder”), the principal sum of Eight Million Dollars ($8,000,000), or such lesser amount as shall then equal the outstanding principal amount hereunder, on December 31, 2019 (the "Maturity Date") and to pay interest thereon, from the date of this Note, or from the most recent date to which interest has been paid on this Note, at the rate of twelve and one-half percent (12.5%) per annum (calculated on a simple interest basis) until the Maturity Date or the earlier repayment or other satisfaction of this Note.

Payment of the principal of this Note shall be made upon the surrender of this Note to the Company at its chief executive office (or such other office within the United States as shall be designated by the Company to the holder hereof) on the Maturity Date or such earlier date in accordance with the terms of this Note. All amounts payable in cash with respect to this Note shall be made by wire transfer to the Holder, provided that if the Holder shall not have furnished written wire instructions in writing to the Company no later than the business day immediately prior to the date on which the Company makes such payment, such payment may be made by U.S. dollar check mailed to the address of the Holder as such address shall appear in the Company register. Notwithstanding anything contained herein or in any common stock purchase warrant issued by the Company to the Holder and outstanding as of the date hereof (each, a “Warrant”) to the contrary, the Holder shall be permitted, upon written notice to the Company, to pay the exercise price for any shares of the Company’s common stock, par value $0.0001 per share, issuable upon exercise of any Warrant (the “Warrant Shares”) by surrendering to the Company all, or any portion, of this Note and all or such portion of the outstanding amounts due pursuant to this Note, as applicable, shall be cancelled in exchange for the payment of the exercise price for such Warrant Shares and, if the Holder surrenders less than all of this Note, the Company shall promptly thereafter issue to the Holder a new promissory note for the remaining amounts under this Note.

This Note was issued pursuant to the Credit Agreement, dated as of July 10, 2019 (as amended from time to time, the “Agreement”), by and between the Company and the original holder of this Note and is subject to provisions of the Agreement. Capitalized terms used but not otherwise defined herein shall have the meaning given to such terms in the Agreement.

1. Redemption. This Note is subject to redemption, in whole or from time to time in part (in any amount that is an integral multiple of $1,000), upon not less than five (5) days’ prior written notice in the manner provided in Section 4(b) hereof, at the election of the Company, at a redemption price of 100% of the amount hereof, together with accrued and unpaid interest to, but excluding, the redemption date.

2. Certain Covenants. Until the Obligations hereunder are paid or otherwise satisfied in full:

(a) The Company will maintain or cause to be maintained its corporate or other organizational existence and good standing in its jurisdiction of incorporation and maintain its qualification in each jurisdiction where the failure to so qualify would reasonably be expected to have a Material Adverse Effect.

1
(b) The Company will comply with all applicable statutes, regulation and orders of, and all applicable restrictions imposed by, all governmental bodies, domestic or foreign, in respect of the conduct of its business and the ownership of its property, other than those the noncompliance with which would not have, and which would not reasonably be expected to have, a Material Adverse Effect.

(c) The Company will cause the proceeds of the loans evidenced under this Note to be used solely (a) as working capital and (b) to fund the Company’s general business requirements, and not for personal, family or household purposes.

(d) The Company will execute any further instruments and take any further action as the Holder reasonably requests to effect the purposes of this Note or the Agreement.

3. Events of Default.

(a) “Event of Default”, wherever used herein, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(i) default in the payment of any amount upon this Note when it becomes due and payable;

(ii) default in the performance, or breach, of any covenant of the Company herein (other than a default in the performance or breach of which is specifically dealt with elsewhere in this Section 3(a)) and continuance of such default or breach for a period of 10 days;

(iii) the commencement against the Company of an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated bankrupt or insolvent and such case or proceeding is not dismissed or stayed within 45 days;

(iv) the commencement by the Company of a voluntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated bankrupt or insolvent, or the consent by the Company to the entry of a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against either the Company, or the filing by either the Company of a petition or answer or consent seeking reorganization or similar relief under any applicable Federal or state law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or the making by either the Company of an assignment for the benefit of creditors, or the admission by either the Company in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company in furtherance of any such action;
(v) The Company or any Person acting for the Company makes any representation, warranty, or other statement now or later in this Note or the Agreement or in any writing delivered to the Holder or to induce the Holder in connection with this Note, the Agreement or any other document entered into in connection with this Note or the Agreement or to enter this Note, the Agreement or any other document entered into in connection with this Note or the Agreement, and such representation, warranty, or other statement is incorrect in any material respect when made; or

(vi) at any time, any “person” or “group” (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act), shall become, or obtain rights (whether by means of warrants, options or otherwise) to become, the “beneficial owner” (as defined in Rules 13(d)-3 and 13(d)-5 under the Exchange Act), directly or indirectly, of fifty percent (50.0%) or more of the ordinary voting power for the election of directors of the Company (determined on a fully diluted basis).

(b) Upon the occurrence and during the continuance of an Event of Default, the Holder may (a) declare all Obligations hereunder immediately due and payable (but if an Event of Default described in Section 3(a)(iv) or 3(a)(v) occurs all Obligations hereunder are immediately due and payable without any action by the Holder) and (b) exercise all rights and remedies available to the Holder under this Note, the Agreement or at law or equity. The Company will give the Holder notice, within five (5) business days of the occurrence thereof, of any Event of Default of which it is or becomes aware. Such notice shall be given in the manner provided in Section 4(b).

4. Other.

(a) No provision of this Note shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and interest on this Note at the times and places herein prescribed or to repay or otherwise satisfy this Note as herein provided.

(b) The Company will give prompt written notice to the Holder of any change in the location of the Designated Office. Any notice to the Company or to the Holder shall be given in the manner set forth in the Agreement.

(c) The transfer of this Note is registrable on the register maintained by the Company upon surrender of this Note for registration of transfer at the Designated Office, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company duly executed by, the holder hereof or such holder’s attorney duly authorized in writing, and thereupon one or more new Securities, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees. Such securities are issuable only in registered form without coupons in denominations of $1,000 and any integral multiple thereof. No service charge shall be made for any such registration of transfer, but the Company may require payment of a sum sufficient to recover any tax or other governmental charge payable in connection therewith. Prior to due presentation of this Note for registration of transfer, the Company and any agent of the Company may treat the Person in whose name this Note is registered as the owner thereof for all purposes, whether or not this Note be overdue, and neither the Company nor any such agent shall be affected by notice to the contrary.
(d) This Note shall be governed by and construed in accordance with the internal laws of the State of California, without regard to the conflicts of law provisions of the State of California.

[The remainder of this page is intentionally left blank]
IN WITNESS WHEREOF, the Company has caused this Note to be duly executed.

Dated: July 10, 2019

AMYRIS, INC.

By: /s/ Kathleen Valiasek
Name: Kathleen Valiasek
Title: Chief Business Officer
AMENDMENT TO COMMON STOCK PURCHASE WARRANT

This Amendment to Common Stock Purchase Warrant (this “Amendment”) is made and entered into as of July 10, 2019, by and between Amyris, Inc., a Delaware corporation (the “Company”), and Foris Ventures, LLC (the “Holder”).

RECITALS

WHEREAS, on August 17, 2018, the Company issued to the Holder a Common Stock Purchase Warrant (the “Warrant”), which Warrant is currently exercisable for 4,877,386 shares of the Company’s common stock, par value $0.0001 per share (without regard to any limitations on exercise thereof), at an exercise price of $7.52 per share.

WHEREAS, the Company and the Holder desire to amend the Warrant as set forth herein.

WHEREAS, pursuant to Section 5(l) of the Warrant, the Warrant may be amended with the written consent of the Company and the Holder.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Amendment of Section 2(b) of the Warrant. Section 2(b) of the Warrant is hereby deleted in its entirety and replaced with the following:

   b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be $2.87, subject to adjustment hereunder (the “Exercise Price”).

2. Full Force and Effect. Except as expressly modified by this Amendment, the terms of the Warrant shall remain in full force and effect.

3. Integration. This Amendment and the Warrant constitute the entire agreement and understanding of the parties with respect to the subject matter hereof, and supersede all prior understandings and agreements, whether oral or written, between or among the parties hereto with respect to the specific subject matter hereof.

4. Counterparts; Facsimile. This Amendment may be executed in one (1) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Amendment may be executed and delivered by facsimile, by email in portable document format (.pdf), or by other electronic transmission, and delivery of any signature page by any such method will be deemed to have the same effect as if the original signature had been delivered to the other party.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]
IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first above written.

AMYRIS, INC.

By: /s/ Kathleen Valiasek

Name: Kathleen Valiasek

Title: Chief Business Officer

[Signature Page to Foris Warrant Amendment]
IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first above written.

FORIS VENTURES, LLC

By: /s/ Barbara Hager

Name: Barbara Hager

Title: ________________________

[Signature Page to Foris Warrant Amendment]
Senior Convertible Note Maturity Extension

July 24, 2019

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, California 94608
Attention: Kathleen Valiasek

Re: Extension of Senior Convertible Note due July 18, 2019

Ladies and Gentlemen:

WHEREAS, Total Raffinage Chimie S.A. (the “Investor”) is the holder of that certain Senior Convertible Note due July 18, 2019, issued by Amyris, Inc. (the “Company”) in the principal amount of $9,705,000, (the “Note”; capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Note), which Note is convertible into shares (the “Conversion Shares”, and, together with the Note, the “Securities”) of the Company’s common stock, par value $0.0001 per share (the “Common Stock”), in accordance with the terms of the Note, pursuant and subject to the terms and conditions set forth in that certain Exchange Agreement, dated May 15, 2019, between the Company and the Investor, the Senior Convertible Note Maturity Extension, dated June 20, 2019, between the Company and the Investor, and this agreement (this “Agreement”); and

WHEREAS, the Company and the Investor desire to extend the maturity date of the Note and to make certain other changes to the Note as set forth herein.

NOW, THEREFORE, in consideration of the promises, undertakings and obligations set forth herein, the sufficiency of which consideration is hereby acknowledged, each of the undersigned parties agree with each other as follows:

1. Extension of Maturity Date. Subject to the terms and conditions of this Agreement, effective July 18, 2019, (i) the maturity date of the Note shall be extended to August 28, 2019, (ii) the Note shall bear interest at a rate of 10.50% per year, commencing on July 18, 2019 and (iii) the Note shall provide that the Company shall not effect any conversion thereof, and Investor shall not have the right to convert any portion thereof, to the extent that such Investor (together with such Investor’s Affiliates, and any Persons acting as a group together with such Investor or any of such Investor’s Affiliates) would beneficially own in excess of 9.9% of the Company’s issued and outstanding shares of Common Stock after giving effect to such conversion, unless 61 days’ prior notice to waive such provision is given in writing by the Investor. In connection therewith, the Company shall re-issue the Note in the form set forth in Exhibit A attached hereto, and the Investor shall return the existing Note, each in accordance with the provisions of Section 2 below. For the avoidance of doubt, the Investor waives any failure by the Company to pay the principal of, and accrued and unpaid interest on, the Note on or prior to July 18, 2019.

2. Mechanics of Note Issuance and Cancellation. Within three (3) business days from the date hereof, (i) the Company shall re-issue the Note, in the form set forth in Exhibit A attached hereto, by delivering an originally executed re-issued Note to Investor’s counsel at the offices of Dentons US LLP at 1221 Avenue of the Americas, New York, NY 10020, Attn: Brian Lee, and (ii) the Investor shall return the originally executed existing Note to the Company at its headquarters, for cancellation, if being acknowledged by the Company that the existing Note shall not be cancelled until and unless an attorney at Dentons US LLP acknowledges receipt of the re-issued Note on behalf of Investor. For the avoidance of doubt, the parties agree that the re-issuance of the Note reflecting the terms of this Agreement is solely for the convenience of Investor and shall not be deemed the issuance of a new security distinct from the Note.

3. Representations and Warranties of the Company. The Company represents and warrants to the Investor that, as of the date hereof:

(a) Organization and Standing. The Company and each of its Significant Subsidiaries (as defined in Regulation S-X of the Securities Act) is duly incorporated, validly existing, and in good standing under the laws of the jurisdiction of its incorporation or organization. The Company and each of its Significant Subsidiaries has all requisite power and authority to own and operate its properties and assets and to carry on its business as presently conducted and as proposed to be conducted. The Company and each of its Significant Subsidiaries is qualified to do business as a foreign entity in every jurisdiction in which the failure to be so qualified would have, or would reasonably be expected to have, a material adverse effect, individually or in the aggregate, upon the business, properties, tangible and intangible assets, liabilities, operations, prospects, financial condition or results of operation of the Company or the ability of the Company to perform its obligations under this Agreement or the Note.

(b) Power. The Company has all requisite power to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement.

(c) Authorization. The execution, delivery, and performance of this Agreement by the Company has been duly authorized by all requisite action on the part of the Company and its officers, directors and stockholders, and this Agreement constitutes the legal, valid, and binding obligation of the Company enforceable in accordance with its terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors’ rights generally, and (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

(d) Capitalization. The capitalization of the Company, on a fully diluted basis, is as set forth herein as Schedule 4(d), which information is true, complete and accurate.

(e) Validity of Note and Waiver of Defenses. The Company acknowledges the validity, priority and enforceability of the Note as a debt instrument and any of the obligations thereunder and waives (on behalf of itself, and any other person, entity or other party in interest that may claim by, through, or on the Company’s behalf) any right, claim, or defense to the Note or any of the obligations thereunder on the grounds that they should be recharacterized as or subordinated to the level of equity.

(f) No Events of Default. After giving effect to this Agreement, there has not been any, and there is not any continuing, Event of Default that has not otherwise been cured or waived.

4. Representations and Warranties of the Investor. The Investor hereby represents and warrants to and covenants with the Company that, as of the date hereof:

(a) Organization and Good Standing. The Investor is a corporation, limited partnership, limited liability company or other entity, as the case may be, duly formed, validly existing and in good standing under the laws of the jurisdiction of its formation.

(b) Due Authorization. The Investor has the requisite power and authority to enter into and perform its obligations under this Agreement.

5. Covenants and Negative Covenants of the Company.

(a) Indebtedness. Until such time as the Note is paid in full or converted into Conversion Shares, the Company shall not, without the prior written consent of the Investor, make any cash payment on or with respect to the principal amount of, or purchase, redeem, defease or otherwise settle in whole or in part any Indebtedness of the Company, except that the Company may (i) make regularly scheduled interest payments on Indebtedness of the Company outstanding as of the date hereof, (ii) purchase, redeem, defease or otherwise settle, in whole or in part, any Indebtedness of the Company by means of the conversion of such Indebtedness.
into shares of Common Stock, and (iii) pay up to $200,000 in the aggregate in connection with certain principal amortization payments to holders of Indebtedness of the Company outstanding as of the date hereof. For purposes of this Section 5, “Indebtedness” shall mean any amount, excluding trade payables occurring in the ordinary course of business, that (i) is owed by the Company resulting from borrowed money, or (ii) is evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof).

(b) Removal of Restrictive Legend(s). At such time as the Investor shall be eligible to sell securities of the Company that Investor holds pursuant to Rule 144(b) promulgated under the Securities Act (“Rule 144(b)”), the Company shall use its best efforts to cause the Company’s stock transfer agent to promptly remove any restrictive legend relating to the Securities on Investor’s restricted securities that are eligible to be sold under Rule 144(b) upon such request by the Investor. Such best efforts shall include, but are not limited to, Company’s diligent efforts following the date hereof and prior to Investor becoming Rule 144(b) eligible, to work with its outside counsel and stock transfer agent to prepare forms of documentation relating to removal of the aforementioned restrictive legend(s). The Company agrees that securities of the Company that Investor acquired from the Company (or from an Affiliate of the Company) more than one year prior to the relevant date of determination are eligible for resale under Rule 144(b) beginning on September 18, 2019 (assuming that Investor does not become an “affiliate” of the Company, as that term is defined in Rule 144(a)(1) promulgated under the Securities Act, after the date hereof and on or prior to September 18, 2019) and that the Company will, on or prior to September 18, 2019, assuming that Investor provides the Company with customary representations relating to such legand removal, deliver to its stock transfer agent the documents required on the part of the Company for the Company’s stock transfer agent to effect the removal of the restrictive legend(s) on Investor’s shares of Common Stock.

6. Disclosure. At or prior to 9:00 a.m., New York City time, on the second business day after the date hereof, the Company shall file a press release or Current Report on Form 8-K announcing the execution of this Agreement, which press release or Current Report on Form 8-K the Company acknowledges and agrees will disclose all material non-public information, if any, with respect to the terms of this Agreement.

7. Waiver and Amendment. Neither this Agreement, the Note nor any provisions hereof or thereof shall be modified, changed, discharged, waived or terminated except by an instrument in writing signed by the Company and the Investor.

8. Waiver of Jury Trial. EACH OF THE COMPANY AND THE INVESTOR IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY LEGAL PROCEEDING ARISING OUT OF THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT.

9. Governing Law/Venue. THIS AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAW PRINCIPLES THAT WOULD RESULT IN THE APPLICATION OF ANY LAW OTHER THAN THE LAW OF THE STATE OF NEW YORK. Each of the Company and the Investor (a) agrees that any legal suit, action or proceeding arising out of or relating to this agreement or the transactions contemplated hereby shall be instituted exclusively in the courts of the State of New York located in the City and County of New York or in the United States District Court for the Southern District of New York; (b) waives any objection that it may now or hereafter have to the venue of any such suit, action or proceeding; and (c) irrevocably consents to the jurisdiction of the aforesaid courts in any such suit, action or proceeding.

10. Section and Other Headings. The section and other headings contained in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

11. Counterparts. This Agreement may be executed by one or more of the parties hereto in any number of separate counterparts (including by facsimile or other electronic means, including telecopy, email or otherwise), and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed signature page of this Agreement by facsimile or other transmission (e.g., “.pdf” or “.tif” format) shall be effective as delivery of a manually executed counterpart hereof.

12. Notices. All notices and other communications provided for herein shall be in writing and shall be deemed to have been duly given if delivered personally or sent by prepaid overnight courier or registered or certified mail, return receipt requested, postage prepaid to, in the case of the Company, the following address and, in the case of the Investor, the address provided on the signature page of the Investor hereto (or such other address as any party shall have specified by notice in writing to the other):

If to the Company:

Amyris, Inc.

5885 Hollis Street, Suite 100

Emeryville, California 94608

Fax:

Attention: General Counsel

13. Binding Effect. The provisions of this Agreement shall be binding upon and accrue to the benefit of the parties hereto and their respective heirs, legal representatives, successors and permitted assigns.

14. Severability. If any term or provision (in whole or in part) of this Agreement is determined to be invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

15. Release. In consideration of the agreements of the Investor set forth in this Agreement, the Company, its affiliates and subsidiaries, and all of their respective directors, officers, agents, heirs, personal representatives, predecessors, successors and assigns (individually and collectively, the “Releasors”), hereby fully, finally, and forever release and discharge the Investor, its affiliates and subsidiaries, and its any of their successors, assigns, directors, officers, employees, agents, and representatives (including those on the board of Company or any of its subsidiaries or affiliates) from any and all actions, causes of action, claims, debts, demands, liabilities, obligations, and suits of whatever kind or nature, in law or equity, the Releasors or any of them have, whether known or unknown, in respect of, relating to, or concerning this Agreement, the Securities, or any other potential agreement or transaction relating to the Securities arising from events occurring prior to the date hereof.

[SIGNATURE PAGES FOLLOW TO IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date first written above.

AMYRIS, INC.

By: /s/ Kathleen Valiasek

Name: Kathleen Valiasek

Title: Chief Business Officer

IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date first written above.
INVESTOR:
TOTAL RAFFINAGE CHIMIE S.A.

By: /s/ Frederic Gimenez
Name: Frederic Gimenez
Title: Senior VP Corporate Affairs

Address for Notices:
TOTAL RAFFINAGE CHIMIE
2 place Jean Miller
92400 Courbevoie, FRANCE
Attention
PROMISSORY NOTE

$8,000,000

Issuance date: July 26, 2019

AMYRIS, INC.

FORIS VENTURES, LLC

PROMISSORY NOTE

AMYRIS, INC., a Delaware corporation (the “Company”), for value received, hereby promises to pay to FORIS VENTURES, LLC, or registered assigns (the “Holder”), the principal sum of Eight Million Dollars ($8,000,000), or such lesser amount as shall then equal the outstanding principal amount hereunder, on December 31, 2019 (the “Maturity Date”) and to pay interest thereon, from the date of this Note, or from the most recent date to which interest has been paid on this Note, at the rate of twelve and one-half percent (12.5%) per annum (calculated on a simple interest basis) until the Maturity Date or the earlier repayment or other satisfaction of this Note.

Payment of the principal of this Note shall be made upon the surrender of this Note to the Company at its chief executive office (or such other office within the United States as shall be designated by the Company to the holder hereof) (the “Designated Office”) on the Maturity Date or such earlier date in accordance with the terms of this Note. All amounts payable in cash with respect to this Note shall be made by wire transfer to the holder, provided that if the holder shall not have furnished wire instructions in writing to the Company no later than the business day immediately prior to the date on which the Company makes such payment, such payment may be made by U.S. dollar check mailed to the address of the holder as such address shall appear in the Company register. Notwithstanding anything contained herein or in any common stock purchase warrant issued by the Company to the Holder and outstanding as of the date hereof (each, a “Warrant”) to the contrary, the Holder shall be permitted, upon written notice to the Company, to pay the exercise price for any shares of the Company’s common stock, par value $0.0001 per share, issuable upon exercise of any Warrant (the “Warrant Shares”) by surrendering to the Company all, or any portion, of this Note and all or such portion of the outstanding amounts due pursuant to this Note, as applicable, shall be cancelled in exchange for the payment of the exercise price for such Warrant Shares and, if the Holder surrenders less than all of this Note, the Company shall promptly thereafter issue to the Holder a new promissory note for the remaining amounts under this Note.

This Note was issued pursuant to the Credit Agreement, dated as of July 10, 2019 (as amended from time to time, the “Agreement”). The Company will execute any further instruments and take any further action as the Holder reasonably requests to effect the purposes of this Note or the Agreement. Capitalized terms used but not otherwise defined herein shall have the meaning given to such terms in the Agreement.

1. Redemption. This Note is subject to redemption, in whole or from time to time in part (in any amount that is an integral multiple of $1,000), upon not less than five (5) days’ prior written notice in the manner provided in Section 4(b) hereof, at the election of the Company, at a redemption price of 100% of the amount hereof, together with accrued and unpaid interest to, but excluding, the redemption date.

2. Certain Covenants. Until the Obligations hereunder are paid or otherwise satisfied in full:

(a) The Company will maintain or cause to be maintained its corporate or other organizational existence and good standing in its jurisdiction of incorporation and maintain its qualification in each jurisdiction where the failure to so qualify would reasonably be expected to have a Material Adverse Effect.

(b) The Company will comply with all applicable statutes, regulation and orders of, and all applicable restrictions imposed by, all governmental bodies, domestic or foreign, in respect of the conduct of its business and the ownership of its property, other than those the noncompliance with which would not have, and which would not reasonably be expected to have, a Material Adverse Effect.

(c) The Company will cause the proceeds of the loans evidenced under this Note to be used solely (a) as working capital and (b) to fund the Company’s general business requirements, and not for personal, family or household purposes.

(d) The Company will execute any further instruments and take any further action as the Holder reasonably requests to effect the purposes of this Note or the Agreement.

3. Events of Default.

(a) “Event of Default”, wherever used herein, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(i) default in the payment of any amount upon this Note when it becomes due and payable;

(ii) default in the performance, or breach, of any covenant of the Company herein (other than a default in the performance or breach of which is specifically dealt with elsewhere in this Section 3(a)) and continuance of such default or breach for a period of 10 days;

(iii) commencement against the Company of an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated bankrupt or insolvent and such case or proceeding is not dismissed or stayed within 45 days;

(iv) commencement by the Company of a voluntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by the Company to the entry of a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against either the Company, or the filing by either the Company of a petition or answer or consent seeking reorganization or similar relief under any applicable Federal or state law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or the making by either the Company of an assignment for the benefit of creditors, or the admission by either the Company in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company in furtherance of any such action;

(v) The Company or any Person acting for the Company makes any representation, warranty, or other statement now or later in this Note or the Agreement or in any writing delivered to the Holder or to induce the Holder in connection with this Note, the Agreement or any other document entered into in connection with this Note or the Agreement or to enter this Note, the Agreement or any other document entered into in connection with this Note or the Agreement, and such representation, warranty, or other statement is incorrect in any material respect when made; or...
at any time, any “person” or “group” (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act), shall become, or obtain rights (whether by means of warrants, options or otherwise) to become, the “beneficial owner” (as defined in Rules 13(d)-3 and 13(d)-5 under the Exchange Act), directly or indirectly, of fifty percent (50.0%) or more of the ordinary voting power for the election of directors of the Company (determined on a fully diluted basis).

(b) Upon the occurrence and during the continuance of an Event of Default, the Holder may (a) declare all Obligations hereunder immediately due and payable (but if an Event of Default described in Section 3(a)(iv) or 3(a)(v) occurs all Obligations hereunder are immediately due and payable without any action by the Holder) and (b) exercise all rights and remedies available to the Holder under this Note, the Agreement or at law or equity. The Company will give the Holder notice, within five (5) business days of the occurrence thereof, of any Event of Default of which it is or becomes aware. Such notice shall be given in the manner provided in Section 4(b).

4. Other.

(a) No provision of this Note shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and interest on this Note at the times and places herein prescribed or to repay or otherwise satisfy this Note as herein provided.

(b) The Company will give prompt written notice to the Holder of any change in the location of the Designated Office. Any notice to the Company or to the Holder shall be given in the manner set forth in the Agreement.

(c) The transfer of this Note is registrable on the register maintained by the Company upon surrender of this Note for registration of transfer at the Designated Office, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company duly executed by, the holder hereof or such holder’s attorney duly authorized in writing, and thereupon one or more new Securities, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees. Such securities are issuable only in registered form without coupons in denominations of $1,000 and any integral multiple thereof. No service charge shall be made for any such registration of transfer, but the Company may require payment of a sum sufficient to recover any tax or other governmental charge payable in connection therewith. Prior to due presentation of this Note for registration of transfer, the Company and any agent of the Company may treat the Person in whose name this Note is registered as the owner thereof for all purposes, whether or not this Note be overdue, and neither the Company nor any such agent shall be affected by notice to the contrary.

(d) This Note shall be governed by and construed in accordance with the internal laws of the State of California, without regard to the conflicts of law provisions of the State of California.

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed.

Dated: July 26, 2019

AMYRIS, INC.

By: /s/ Kathleen Valiasek
Name: Kathleen Valiasek
Title: Chief Business Officer
NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAS BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN “ACREDITED INVESTOR” AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

COMMON STOCK PURCHASE WARRANT

AMYRIS, INC.

Warrant Shares: 2,000,000 Issue Date: August 14, 2019

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, Naxyris S.A. or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to the close of business on the two-year anniversary of the Initial Exercise Date (the “Termination Date”) but not thereafter, to subscribe for and purchase from Amyris, Inc., a Delaware corporation (the “Company”), up to 2,000,000 shares (as subject to adjustment hereunder, the “Warrant Shares”) of common stock, par value $0.0001, of the Company (the “Common Stock”). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. As used in this Agreement, the following capitalized terms shall have the following respective meanings. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Loan and Security Agreement, dated August 14, 2019 (the “Loan Agreement”), by and among the Company, certain of the Company’s Subsidiaries party thereto, and the Holder.

(a) “Trading Day” means a day on which the applicable security is traded on a Trading Market.

(b) “Trading Market” means the principal markets or exchanges on which the applicable security is listed or quoted for trading on the date in question, which could include the OTC Bulletin Board, OTCQX Market, OTCQB, OTC Pink, The NYSE MKT, The NASDAQ Capital Market, The NASDAQ Global Market, The NASDAQ Global Select.

Market, the New York Stock Exchange, the Toronto Stock Exchange and the London Stock Exchange.

Section 2. Exercise.

(a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by electronic (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (“Notice of Exercise”). Within two Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.

(b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be $2.87, subject to adjustment hereunder (the “Exercise Price”).

(c) Cashless Exercise. Notwithstanding anything contained herein this Warrant may be exercised, in whole or in part, at any time on times on or after the Initial Exercise Date and on or before the Termination Date at the election of the Holder (in such Holder’s sole discretion) by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing ((A-B) multiplied by (C)) by (A), where:

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(A) = \begin{cases} 
(1) & \text{if the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two hours thereafter (including until two hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof, or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of
\end{cases}
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Exhibit 4.08
the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:00 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market,

the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:00 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Notwithstanding anything herein to the contrary, on the Termination Date, if a registration statement covering the resale of the Warrant Shares is not available for the resale of the Warrant Shares, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

(d) Mechanics of Exercise.

(i) Delivery of Warrant Shares Upon Exercise. Warrant Shares purchased hereunder shall be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144, and otherwise by physical delivery of a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two Trading Days after the delivery to the Company of the Notice of Exercise and (ii) one Trading Day after delivery of the aggregate Exercise Price to the Company (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within two Trading Days following delivery of the Notice of Exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable.

(ii) Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(iii) Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

(iv) Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder’s brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “Buy-In”), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection
with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either restate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder’s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

(v) No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

(vi) Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depositary Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

(vii) Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

Section 3. Certain Adjustments.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event (excluding treasury shares, if any), and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or other similar transaction.

(b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time after the Original Issue Date the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the “Purchase Rights”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issuance or sale of such Purchase Rights.

(c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company declares or makes any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of or on capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction), but excluding any dividend that results in adjustment to the Conversion Price pursuant to Section 3(a) above) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution.

(d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of
Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction (as if the exercise of the Warrant occurred immediately prior to the occurrence of such Fundamental Transaction), at the option of the Holder, the number of shares of common stock of the successor or acquiring corporation or shares of Common Stock of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction. For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction.

(e) **Calculations.** All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(f) **Notice to Holder.**

(i) **Adjustment to Exercise Price.** Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall within two Trading Days deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

(ii) **Notice to Allow Exercise by Holder.** If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant

(a) **Transferability.** Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, the payment of any transfer taxes, the Company shall execute and deliver a new Warrant evidencing the same or a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled.

(b) **New Warrants.** This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the original issue date and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

(c) **Warrant Register.** The Company shall register this Warrant, upon requests to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.
Section 5. Miscellaneous.

(a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

(b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

(c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

(d) Authorized Shares.

(i) During the period the Warrant is outstanding from and after the Initial Exercise Date, the Company covenants that it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

(ii) Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

(iii) Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

(e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Loan Agreement.

(f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

(g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder’s rights, powers or remedies, notwithstanding the fact that all rights hereunder terminate on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys’ fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant here to or in otherwise enforcing any of its rights, powers or remedies hereunder.

(h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Loan Agreement.

(i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.
Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

AMYRIS, INC.

By: /s/ Kathleen Valiasek
    Name: Kathleen Valiasek
    Title: Chief Business Officer

NOTICE OF EXERCISE

TO: AMYRIS, INC.

The undersigned hereby elects to purchase ______ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.
Applicable Exercise Price: $____

Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

__________________________________________________________________________________

The Warrant Shares shall be delivered to the following DWAC Account Number:

__________________________________________________________________________________

__________________________________________________________________________________

__________________________________________________________________________________

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity: ______________________________________________________________

Signature of Authorized Signatory of Investing Entity: _____________________________________

Name of Authorized Signatory: _________________________________________________________

Title of Authorized Signatory: _________________________________________________________

Date: ____________________________________________________________________________

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: ______________________________________

(Please Print)

Address: ______________________________________

(Please Print)

Phone Number: _______________________________

Email Address: _______________________________

Dated: _______________ __, ______

Holder’s Signature: ___________________________

Holder’s Address: ___________________________
NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAS BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND, ACCORDingly, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN “ACCREdITED INVESTOR” AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

COMMON STOCK PURCHASE WARRANT

AMYRIS, INC.

Warrant Shares: 1,438,829           Issue Date: August 14, 2019

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, FORIS VENTURES, LLC or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to the close of business on the two (2) year anniversary of the Initial Exercise Date (the “Termination Date”) but not thereafter, to subscribe for and purchase from Amyris, Inc., a Delaware corporation (the “Company”), up to ONE MILLION FOUR HUNDRED THIRTY EIGHT THOUSAND EIGHT HUNDRED TWENTY NINE (1,438,829) shares (as subject to adjustment hereunder, the “Warrant Shares”) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Loan and Security Agreement, dated June 29, 2018 (as amended or otherwise modified, the “Loan Agreement”), by and among the Company, certain of the Company’s Subsidiaries party thereto, and the Holder.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by electronic (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (“Notice of Exercise”). Within two (2) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be $2.87, subject to adjustment hereunder (the “Exercise Price”).

c) Cashless Exercise. Notwithstanding anything contained herein to the contrary, if a registration statement covering the resale of the Warrant Shares subject to the applicable Notice of Exercise is not available for the resale of such Warrant Shares, at any time after the six month anniversary of the Initial Exercise Date, this Warrant may be exercised, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date at the election of the Holder (in such Holder’s sole discretion) by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing ((A-B) * (X)) by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of
Mechanics of Exercise

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Notwithstanding anything herein to the contrary, on the Termination Date, if a registration statement covering the resale of the Warrant Shares is not available for the resale of the Warrant Shares, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

 delivery of Warrant Shares Upon Exercise. Warrant Shares purchased hereunder shall be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144, and otherwise by physical delivery of a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise and (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within two (2) Trading following delivery of the Notice of Exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable.

Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

Recession Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder’s brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “Buy-In”), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the
shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder’s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder, provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder’s Exercise Limitations. Notwithstanding anything to the contrary contained herein, the Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder’s Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder’s Affiliates (such Persons, “Attribution Parties”)), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below); provided, that the Beneficial Ownership Limitation shall not apply in the event that the Company obtains stockholder approval for issuances of shares of Common Stock in excess of the Beneficial Ownership Limitation and otherwise satisfies the requirements of Nasdaq Stock Market Rule 5635. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company’s most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The “Beneficial Ownership Limitation” shall be 19.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii)
Fundamental Transaction

Pro Rata Distributions

Calculations

Notice to Holder

given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a

upon any exercise of this Warrant following such Fundamental Transaction.

be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives

components of the Alternate Consideration.

apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different

Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall
determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of

Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant).

of shares of common stock of the successor or acquiring corporation or shares of Common Stock, if it is the surviving

Transaction), at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number

right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such

such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be
determined for the grant, issue or sale of such Purchase Rights.

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any
dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of
capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a
dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction, but excluding any
dividend that results in adjustment to the Conversion Price pursuant to Section 3(a) above) (a "Distribution"), at any time after the
issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent
that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete
exercise of this Warrant (without regard to any limitations on exercise hereof) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be
determined for the grant, issue or sale of such Purchase Rights.

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one
or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company,
directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of
its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether
by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or
exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding
Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization
or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively
converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related
transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a
reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other
Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock
held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such
stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, the Holder shall have the
right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such
Fundamental Transaction (as if the exercise of the Warrant occurred immediately prior to the occurrence of such Fundamental
Transaction), at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number
of shares of common stock of the successor or acquiring corporation or shares of Common Stock of the Company, if it is the surviving
corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction
by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental
Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the
determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of
Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall
apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different
components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to
be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives
upon any exercise of this Warrant following such Fundamental Transaction.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as
the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a
given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.
Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date the Holder delivers an assignment form to the Company assigning this Warrant full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date the Holder delivers an assignment form to the Company assigning this Warrant full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, provide to the Company an opinion of counsel selected by the Holder or transferee of this Warrant, as the case may be, and reasonably acceptable to the Company, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of this Warrant under the Securities Act.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.
Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

1. During the period the Warrant is outstanding from and after the Initial Exercise Date, the Company covenants that it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

2. Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

3. Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Loan Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder’s rights, powers or remedies, notwithstanding the fact that all rights hereunder terminate on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys’ fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Loan Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.
k) **Successors and Assigns.** Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) **Amendment.** This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) **Severability.** Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) **Headings.** The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

***************
(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**AMYRIS, INC.**

By: /s/ Kathleen Valiasek

Name: Kathleen Valiasek
Title: Chief Business Officer

NOTICE OF EXERCISE

TO: AMYRIS, INC.

(1) The undersigned hereby elects to purchase _______ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Applicable Exercise Price: $

(3) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(4) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

_______________________________
_______________________________
_______________________________

(4) **Accredited Investor.** The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[signature of Holder]
ASSIGNMENT FORM
(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: ____________ (Please Print)

Address: ____________ (Please Print)

Phone Number: ____________

Email Address: ____________

Dated: ____________ , ____________

Holder’s Signature: ____________

Holder’s Address: ____________

1
AMYRIS, INC.

PROMISSORY NOTE

$19,000,000

Issuance date: August 28, 2019

AMYRIS, INC., a Delaware corporation (the “Company”), for value received, hereby promises to pay to FORIS VENTURES, LLC, or registered assigns (the “Holder”), the principal sum of Nineteen Million Dollars ($19,000,000), or such lesser amount as shall then equal the outstanding principal amount hereunder, on January 1, 2023 (the “Maturity Date”) and to pay interest thereon, from the date of this Note, or from the most recent date to which interest has been paid on this Note, quarterly on March 31, June 30, September 30 and December 31 in each year, commencing December 31, 2019, at the rate of twelve percent (12.0%) per annum (calculated on a simple interest basis) until the Maturity Date or the earlier repayment or other satisfaction of this Note.

This Note is subject to redemption, in whole or from time to time in part (in any amount that is an integral multiple of $1,000), upon not less than five (5) days’ prior written notice in the manner provided in Section 4(b) hereof, at the election of the Company, at a redemption price of 100% of the amount hereof, together with accrued and unpaid interest to, but excluding, the redemption date.

Payment of the principal of this Note shall be made upon the surrender of this Note to the Company at its chief executive office (or such other office within the United States as shall be designated by the Company to the holder hereof) (the “Designated Office”) on the Maturity Date or such earlier date in accordance with the terms of this Note. All amounts payable in cash with respect to this Note shall be made by wire transfer to the holder, provided that if the holder shall not have furnished wire instructions in writing to the Company no later than the business day immediately prior to the date on which the Company makes such payment, such payment may be made by U.S. dollar check mailed to the address of the holder as such address shall appear in the Company register. Notwithstanding anything contained herein or in any common stock purchase warrant issued by the Company to the Holder and outstanding as of the date hereof (each, a “Warrant”) to the contrary, the Holder shall be permitted, upon written notice to the Company, to pay the exercise price for any shares of the Company’s common stock, par value $0.0001 per share, issuable upon the exercise of any Warrant (the “Warrant Shares”) by surrendering to the Company all, or any portion, of this Note and all or such portion of the outstanding amount under this Note, as applicable, shall be cancelled in exchange for the payment of the exercise price for such Warrant Shares and, if the Holder surrenders less than all of this Note, the Company shall promptly thereafter issue to the Holder a new promissory note for the remaining amount under this Note.

This Note was issued pursuant to the Credit Agreement, dated as of August 28, 2019 (as amended from time to time, the “Agreement”), by and between the Company and the original holder of this Note and is subject to provisions of the Agreement. Capitalized terms used but not otherwise defined herein shall have the meaning given to such terms in the Agreement.

1. Redemption. This Note is subject to redemption, in whole or from time to time in part (in any amount that is an integral multiple of $1,000), upon not less than five (5) days’ prior written notice in the manner provided in Section 4(b) hereof, at the election of the Company, at a redemption price of 100% of the amount hereof, together with accrued and unpaid interest to, but excluding, the redemption date.

2. Certain Covenants. Until the Obligations hereunder are paid or otherwise satisfied in full:

(a) The Company will maintain or cause to be maintained its corporate or other organizational existence and good standing in its jurisdiction of incorporation and maintain its qualification in each jurisdiction where the failure to so qualify would reasonably be expected to have a Material Adverse Effect.

(b) The Company will comply with all applicable statutes, regulation and orders of, and all applicable restrictions imposed by, all governmental bodies, domestic or foreign, in respect of the conduct of its business and the ownership of its property, other than those the noncompliance with which would not have, and which would not reasonably be expected to have, a Material Adverse Effect.

(c) The Company will cause the proceeds of the loans evidenced under this Note to be used solely (a) as working capital and (b) to fund the Company’s general business requirements, and not for personal, family or household purposes.

(d) The Company will execute any further instruments and take any further action as the Holder reasonably requests to effect the purposes of this Note or the Agreement.

3. Events of Default.

(a) “Event of Default”, wherever used herein, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(i) default in the payment of any amount upon this Note when it becomes due and payable;

(ii) default in the performance, or breach, of any covenant of the Company herein (other than a default in the performance or breach of which is specifically dealt with elsewhere in this Section 3(a)) and continuance of such default or breach for a period of 10 days;

(iii) the commencement against the Company of an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated bankrupt or insolvent and such case or proceeding is not dismissed or stayed within 45 days;

(iv) the commencement by the Company of a voluntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by the Company to the entry of a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against either the Company, or the filing by either the Company of a petition or answer or consent seeking reorganization or similar relief under any applicable Federal or state law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or the making by either the Company of an assignment for the benefit of creditors, or the admission by either the Company in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company in furtherance of any such action;

(v) The Company or any Person acting for the Company makes any representation, warranty, or other statement now or later in this Note or the Agreement or in any writing delivered to the Holder or to induce the Holder in connection with this Note, the Agreement or any other document entered into in connection with this Note or the Agreement or to enter this Note, the Agreement or any other document entered into in connection with this Note or the Agreement, and such representation, warranty, or other statement is incorrect in any material respect when made; or
(vi) at any time, any “person” or “group” (as such terms are used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934 (the “Exchange Act”)), shall become, or obtain rights (whether by means of warrants, options or otherwise) to become, the “beneficial owner” (as defined in Rules 13(d)-3 and 13(d)-5 under the Exchange Act), directly or indirectly, of fifty percent (50.0%) or more of the ordinary voting power for the election of directors of the Company (determined on a fully diluted basis).

(b) Upon the occurrence and during the continuance of an Event of Default, the Holder may (a) declare all Obligations hereunder immediately due and payable (but if an Event of Default described in Section 3(a)(iii) or 3(a)(iv) occurs all Obligations hereunder are immediately due and payable without any action by the Holder) and (b) exercise all rights and remedies available to the Holder under this Note, the Agreement or at law or equity. The Company will give the Holder notice, within five (5) business days of the occurrence thereof, of any Event of Default of which it is or becomes aware. Such notice shall be given in the manner provided in Section 4(b).

4. Other.

(a) No provision of this Note shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and interest on this Note at the times and places herein prescribed or to repay or otherwise satisfy this Note as herein provided.

(b) The Company will give prompt written notice to the Holder of any change in the location of the Designated Office. Any notice to the Company or to the Holder shall be given in the manner set forth in the Agreement.

(c) The transfer of this Note is registrable on the register maintained by the Company upon surrender of this Note for registration of transfer at the Designated Office, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company duly executed by, the holder hereof or such holder’s attorney duly authorized in writing, and thereupon one or more new notes, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees. Such securities are issuable only in registered form without coupons in denominations of $1,000 and any integral multiple thereof. No service charge shall be made for any such registration of transfer, but the Company may require payment of a sum sufficient to recover any tax or other governmental charge payable in connection therewith. Prior to due presentation of this Note for registration of transfer, the Company and any agent of the Company may treat the Person in whose name this Note is registered as the owner thereof for all purposes, whether or not this Note be overdue, and neither the Company nor any such agent shall be affected by notice to the contrary.

(d) This Note shall be governed by and construed in accordance with the internal laws of the State of California, without regard to the conflicts of law provisions of the State of California.

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed.

Dated: August 28, 2019

AMYRIS, INC.

By: /s/ Kathleen Valiasek
Name: Kathleen Valiasek
Title: Chief Business Officer
NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAS BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE Pledged IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN “ACCReditED INVESToR” AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

COMMON STOCK PURCHASE WARRANT

AMYRIS, INC.

Warrant Shares: 4,871,795  Issue Date: August 28, 2019

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, FORIS VENTURES, LLC or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to the close of business on the two (2) year anniversary of the Initial Exercise Date (the “Termination Date”) but not thereafter, to subscribe for and purchase from Amyris, Inc., a Delaware corporation (the “Company”), up to FOUR MILLION EIGHT HUNDRED SEVENTY ONE THOUSAND SEVEN HUNDRED NINETY FIVE (4,871,795) shares (as subject to adjustment hereunder, the “Warrant Shares”) of the Company’s common stock, par value $0.0001 per share (the “Common Stock”). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Credit Agreement (the “Credit Agreement”), dated August 28, 2019, by and between the Company and the Holder.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by electronic (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (“Notice of Exercise”). Within two (2) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be $3.90, subject to adjustment hereunder (the “Exercise Price”).

c) Cashless Exercise. Notwithstanding anything contained herein to the contrary, if a registration statement covering the resale of the Warrant Shares subject to the applicable Notice of Exercise is not available for the resale of such Warrant Shares, at any time after the six month anniversary of the Initial Exercise Date, this Warrant may be exercised, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date at the election of the Holder (in such Holder’s sole discretion) by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing ((A-B) * (X)) by (A), where:

\[
(A) = \text{as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;}
\]
(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Trading Day” means, applicable, (x) with respect to all price or trading volume determinations relating to the Common Stock, any day on which the Common Stock is traded on the Nasdaq Global Select Market, or, if the Nasdaq Global Select Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded, provided that “Trading Day” shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York time) unless such day is otherwise designated as a Trading Day in writing by the Holder or (y) with respect to all determinations other than price determinations relating to the Common Stock, any day on which The New York Stock Exchange (or any successor thereto) is open for trading of securities.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Notwithstanding anything herein to the contrary, on the Termination Date, if a registration statement covering the resale of the Warrant Shares is not available for the resale of the Warrant Shares, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise

i. Delivery of Warrant Shares Upon Exercise. Warrant Shares purchased hereunder shall be transmitted by the Company’s stock transfer agent (the “Transfer Agent”) to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 under the Securities Act (“Rule 144”), and otherwise by physical delivery of a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise and (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within two (2) Trading Days following delivery of the Notice of Exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of the Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.
iv. **Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise.** In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder’s brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “Buy-In”), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit the Holder’s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. **No Fractional Shares or Scrip.** No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. **Charges, Taxes and Expenses.** Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. **Closing of Books.** The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) **Holder’s Exercise Limitations.** Notwithstanding anything to the contrary contained herein, the Company shall not effect any exercise of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder’s Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder’s Affiliates (such Persons, “Attribution Parties”)), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below); provided, that the Beneficial Ownership Limitation shall not apply in the event that the Company obtains stockholder approval for issuances of shares of Common Stock in excess of the Beneficial Ownership Limitation and otherwise satisfies the requirements of Nasdaq Stock Market Rule 5635. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934 (the “Exchange Act”) and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder’s determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company’s most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or
Section 3. Certain Adjustments.

a) **Stock Dividends and Splits.** If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) **Subsequent Rights Offerings.** In addition to any adjustments pursuant to Section 3(a) above, if at any time after the Original Issue Date the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the “Purchase Rights”), then each Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights.

c) **Pro Rata Distributions.** During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin-off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction, but excluding any dividend that results in adjustment to the Conversion Price pursuant to Section 3(a) above) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof) immediately before the date on which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution.

d) **Fundamental Transaction.** If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, recapitalization or reorganization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction (as if the exercise of the Warrant occurred immediately prior to the occurrence of such Fundamental Transaction), at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of common stock of the successor or acquiring corporation or shares of Common Stock of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction.
Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall within two (2) Trading Days deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distribution, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assigns, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date the Holder delivers an assignment form to the Company assigning this Warrant full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the original issue date and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this
Transfer Restrictions

During the period the Warrant is outstanding from and after the Initial Exercise Date, the Company covenants that

Representation by the Holder

Authorized Shares

Loss, Theft, Destruction or Mutilation of Warrant

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including,

Saturdays, Sundays, Holidays, etc.

Nonwaiver and Expenses

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this

Restrictions

operate as a waiver of such right or otherwise prejudice the Holder’s rights, powers or remedies, notwithstanding the fact that all rights hereunder

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

1. During the period the Warrant is outstanding from and after the Initial Exercise Date, the Company covenants that it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

2. Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

3. Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Credit Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder’s rights, powers or remedies, notwithstanding the fact that all rights hereunder
terminate on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys’ fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) **Notices.** Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Credit Agreement.

i) **Limitation of Liability.** No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) **Remedies.** The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) **Successors and Assigns.** Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) **Amendment.** This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) **Severability.** Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) **Headings.** The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

***************
(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

AMYRIS, INC.

By: /s/ Kathleen Valiasek
Name: Kathleen Valiasek
Title: Chief Business Officer

NOTICE OF EXERCISE

TO: AMYRIS, INC.

(1) The undersigned hereby elects to purchase ________ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Applicable Exercise Price: $____

(3) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).
Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

________________________________________

The Warrant Shares shall be delivered to the following DWAC Account Number:

________________________________________
________________________________________
________________________________________

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity: ______________________________________________________________
Signature of Authorized Signatory of Investing Entity: ____________________________________
Name of Authorized Signatory: _________________________________________________________
Title of Authorized Signatory: _________________________________________________________
Date: ____________________________________________________________________________

ASSIGNMENT FORM
(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:__________________________
(Please Print)
Address: _______________________
(Please Print)
Phone Number: ___________________
Email Address: ___________________
Dated: _______________ __, ______

Holder’s Signature:__________________________
Holder’s Address:__________________________
WARRANT AMENDMENT AGREEMENT

This Warrant Amendment Agreement (this “Amendment”) is made as of August 28, 2019 by and between Amyris, Inc., a Delaware corporation (the “Company”), and Foris Ventures, LLC (the “Holder”).

RECITALS

WHEREAS, on April 26, 2019, the Company issued and sold a common stock purchase warrant (the “Warrant”) to the Holder, pursuant to the terms of that certain Security Purchase Agreement, dated as of April 24, 2019, between the Company and the Holder.

WHEREAS, the Company and the Holder now desire to amend certain provisions of the Warrant as set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, the parties hereto agree as follows:

1. **Warrant Amendment.** Section 2(b) of the Warrant shall be amended and restated to read in its entirety as follows:

   “b) **Exercise Price.** The exercise price per share of the Common Stock under this Warrant shall be $3.90, subject to adjustment hereunder (the “Exercise Price”).”

2. **Effectiveness of Amendment.** This Amendment shall be effective as of the date that the stockholders of the Company have approved this Amendment in accordance with the applicable rules and regulations of the Nasdaq Stock Market (or any successor entity).

3. **No Other Amendments.** Except as expressly set forth above, all of the terms and conditions of the Warrant shall remain in full force and effect.

4. **Miscellaneous.**

   (a) **Governing Law.** This Amendment and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

   (b) **Counterparts.** This Amendment may be executed in two counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

[SIGNATURE PAGES FOLLOW]

The undersigned has executed this Warrant Amendment Agreement as of the date first set forth above.

THE COMPANY:

AMYRIS, INC.

By: /s/ Kathleen Valiasek
    (Signature)

Name: Kathleen Valiasek
Title: Chief Business Officer

The undersigned has executed this Warrant Amendment Agreement as of the date first set forth above.

HOLDER:

FORIS VENTURES, LLC

/s/ Barbara Hager
    (Signature)

Name: Barbara Hager
Title: __
WARRANT AMENDMENT AGREEMENT

This Warrant Amendment Agreement (this “Amendment”) is made as of August 28, 2019 by and between Amyris, Inc., a Delaware corporation (the “Company”), and Foris Ventures, LLC (the “Holder”).

RECITALS

WHEREAS, on May 14, 2019, the Company issued and sold a warrant to purchase common stock (the “Warrant”; capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Warrant) to the Holder, pursuant to the terms of that certain Exchange Agreement, dated as of May 10, 2019, between the Company and the Holder.

WHEREAS, the Company and the Holder now desire to amend certain provisions of the Warrant as set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, the parties hereto agree as follows:

1. Warrant Amendment. The Warrant Price is hereby amended to $3.90 per share (subject to adjustment as set forth in the Warrant).

2. No Other Amendments. Except as expressly set forth above, all of the terms and conditions of the Warrant shall remain in full force and effect.

3. Miscellaneous.
   (a) Governing Law. This Amendment and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.
   (b) Counterparts. This Amendment may be executed in two counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

The undersigned has executed this Warrant Amendment Agreement as of the date first set forth above.

THE COMPANY:

AMYRIS, INC.

By:/s/ Kathleen Valiaszek
   (Signature)

Name: Kathleen Valiaszek
Title: Chief Business Officer

The undersigned has executed this Warrant Amendment Agreement as of the date first set forth above.

HOLDER:

FORIS VENTURES, LLC

/s/ Barbara Hager
   (Signature)

Name: Barbara Hager
Title: ___
Senior Convertible Note Maturity Extension

September 4, 2019

Amyris, Inc.
5885 Hollis Street, Suite 100
Emeryville, California 94608

Attention: Kathleen Valiashek

Re: Extension of Senior Convertible Note due August 28, 2019

Ladies and Gentlemen:

WHEREAS, Total Raffinage Chimie S.A. (the “Investor”) is the holder of that certain Senior Convertible Note due initially June 14, 2019, which has been extended to mature on July 18, 2019, and then further extended to mature on August 28, 2019, issued by Amyris, Inc. (the “Company”) in the principal amount of $9,705,000, (the “Note”; capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Note), which Note is convertible into shares (the “Conversion Shares”, and, together with the Note, the “Securities”) of the Company’s common stock, par value $0.0001 per share (the “Common Stock”), in accordance with the terms of the Note, pursuant and subject to the terms and conditions set forth in that certain Exchange Agreement, dated May 15, 2019, between the Company and the Investor, the Senior Convertible Note Maturity Extension, dated June 20, 2019, between the Company and the Investor, the Senior Convertible Note Maturity Extension, dated July 24, 2019 between the Company and the Investor and this agreement (this “Agreement”); and

WHEREAS, the Company and the Investor desire to again extend the maturity date of the Note and to make certain other changes to the Note as set forth herein.

NOW, THEREFORE, in consideration of the promises, undertakings and obligations set forth herein, the sufficiency of which consideration is hereby acknowledged, each of the undersigned parties agree with each other as follows:

1. Extension of Maturity Date. Subject to the terms and conditions of this Agreement, effective August 28, 2019, (i) the maturity date of the Note shall be extended to October 28, 2019, (ii) the Note shall bear interest at a rate of 12.00% per year, commencing August 28, 2019 and (iii) the Note shall continue to provide that the Company shall not effect any conversion thereof, and Investor shall not have the right to convert any portion thereof, to the extent that such Investor (together with such Investor’s Affiliates, and any Persons acting as a group together with such Investor or any of such Investor’s Affiliates) would beneficially own in excess of 9.9% of the Company’s issued and outstanding shares of Common Stock after giving effect to such conversion, unless 61 days’ prior notice to waive such provision is given in writing by the Investor. In connection therewith, the Company shall re-issue the Note in the form set forth in Exhibit A attached hereto, and the Investor shall return the existing Note, each in accordance with the provisions of Section 2 below. For the avoidance of doubt, the Investor waives any failure by the Company to pay the principal of, and accrued and unpaid interest on, the Note on or prior to August 28, 2019.

2. Mechanics of Note Issuance and Cancellation. Within three (3) business days from the date hereof, (i) the Company shall re-issue the Note, in the form set forth in Exhibit A attached hereto, by delivering an originally executed re-issued Note to Investor’s counsel at the offices of Dentons US LLP at 1221 Avenue of the Americas, New York, NY 10020, Attn: Brian Lee, and (ii) the Investor shall return the originally executed existing Note to the Company at its headquarters, for cancellation, it being acknowledged by the Company that the existing Note shall not be cancelled until and unless an attorney at Dentons US LLP acknowledges receipt of the re-issued Note on behalf of Investor. For the avoidance of doubt, the parties agree that the re-issuance of the Note reflecting the terms of this Agreement is solely for the convenience of Investor and shall not be deemed the issuance of a new security distinct from the Note.

3. Representations and Warranties of the Company. The Company represents and warrants to the Investor that, as of the date hereof:

(a) Organization and Standing. The Company and each of its Significant Subsidiaries (as defined in Regulation S-X of the Securities Act) is duly incorporated, validly existing, and in good standing under the laws of the jurisdiction of its incorporation or organization. The Company and each of its Significant Subsidiaries has all requisite power and authority to own and operate its properties and assets and to carry on its business as presently conducted and as proposed to be conducted. The Company and each of its Significant Subsidiaries is qualified to do business as a foreign entity in every jurisdiction in which the failure to be so qualified would have, or would reasonably be expected to have, a material adverse effect, individually or in the aggregate, upon the business, properties, tangible and intangible assets, liabilities, operations, prospects, financial condition or results of operation of the Company or the ability of the Company to perform its obligations under this Agreement or the Note.

(b) Power. The Company has all requisite power to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement.

(c) Authorization. The execution, delivery, and performance of this Agreement by the Company has been duly authorized by all requisite action on the part of the Company and its officers, directors and stockholders, and this Agreement constitutes the legal, valid, and binding obligation of the Company enforceable in accordance with its terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors’ rights generally, and (b) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

(d) Capitalization. The capitalization of the Company, on a fully diluted basis, is as set forth herein as Schedule 4(d), which information is true, complete and accurate.

(e) Validity of Note and Waiver of Defenses. The Company acknowledges the validity, priority and enforceability of the Note as a debt instrument and any of the obligations thereunder and waives (on behalf of itself, and any other person, entity or other party in interest that may claim by, through, or on the Company’s behalf) any right, claim, or defense to the Note or any of the obligations thereunder on the grounds that they should be recharacterized as or subordinated to the level of equity.

(f) No Events of Default. After giving effect to this Agreement, there has not been any, and there is not any continuing, Event of Default that has not otherwise been cured or waived.

4. Representations and Warranties of the Investor. The Investor hereby represents and warrants to and covenants with the Company that, as of the date hereof:

(a) Organization and Good Standing. The Investor is a corporation, limited partnership, limited liability company or other entity, as the case may be, duly formed, validly existing and in good standing under the laws of the jurisdiction of its formation.

(b) Due Authorization. The Investor has the requisite power and authority to enter into and perform its obligations under this Agreement.

5. Covenants and Negative Covenants of the Company.

(a) Indebtedness. Until such time as the Note is paid in full or converted into Conversion Shares, the Company shall not, without the prior written consent of the Investor, make any cash payment on or with respect to the principal amount of, or purchase, redeem, defease or otherwise settle in whole or in part any Indebtedness of the Company, except that the Company may (i) make regularly scheduled interest payments on Indebtedness of the Company outstanding as of the
(b) **Removal of Restrictive Legend(s).** At such time as the Investor shall be eligible to sell securities of the Company that Investor holds pursuant to Rule 144(b) promulgated under the Securities Act ("Rule 144(b)"), the Company shall use its best efforts to cause the Company’s stock transfer agent to promptly remove any restrictive legend relating to the Securities Act on Investor’s restricted securities that are eligible to be sold under Rule 144(b) upon such request by the Investor. Such best efforts shall include, but are not limited to, Company’s diligent efforts following the date hereof and prior to Investor becoming Rule 144(b) eligible, to work with its outside counsel and stock transfer agent to prepare forms of documentation relating to removal of the aforementioned restrictive legend(s). The Company agrees that securities of the Company that Investor acquired from the Company (or from an Affiliate of the Company) more than one year prior to the relevant date of determination are eligible for resale under Rule 144(b) beginning on September 18, 2019 (assuming that Investor does not become an “affiliate” of the Company, as that term is defined in Rule 144(a)(1) promulgated under the Securities Act, after the date hereof and on or prior to September 18, 2019) and that the Company will, on or prior to September 18, 2019, assuming that Investor provides the Company with customary representations relating to such legend removal, deliver to its stock transfer agent the documents required on the part of the Company for the Company’s stock transfer agent to effect the removal of the restrictive legend(s) on Investor’s shares of Common Stock.

6. **Disclosure.** At or prior to 9:00 a.m., New York City time, on the second business day after the date hereof, the Company shall file a press release or Current Report on Form 8-K announcing the execution of this Agreement, which press release or Current Report on Form 8-K the Company acknowledges and agrees will disclose all material non-public information, if any, with respect to the terms of this Agreement.

7. **Waiver and Amendment.** Neither this Agreement, the Note nor any provisions hereof or thereof shall be modified, changed, discharged, waived or terminated except by an instrument in writing signed by the Company and the Investor.

8. **Waiver of Jury Trial.** EACH OF THE COMPANY AND THE INVESTOR IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY LEGAL PROCEEDING ARISING OUT OF THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT.

9. **Governing Law/Venue.** THIS AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAW PRINCIPLES THAT WOULD RESULT IN THE APPLICATION OF ANY LAW OTHER THAN THE LAW OF THE STATE OF NEW YORK. Each of the Company and the Investor (a) agrees that any legal suit, action or proceeding arising out of or relating to this agreement or the transactions contemplated hereby shall be instituted exclusively in the courts of the State of New York located in the City and County of New York or in the United States District Court for the Southern District of New York; (b) waives any objection that it may now or hereafter have to the venue of any such suit, action or proceeding; and (c) irrevocably consents to the jurisdiction of the aforesaid courts in any such suit, action or proceeding.

10. **Section and Other Headings.** The section and other headings contained in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

11. **Counterparts.** This Agreement may be executed by one or more of the parties hereto in any number of separate counterparts (including by facsimile or other electronic means, including telecopy, email or otherwise), and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed signature page of this Agreement by facsimile or other transmission (e.g., “pdf” or “tif” format) shall be effective as delivery of a manually executed counterpart hereof.

12. **Notices.** All notices and other communications provided for herein shall be in writing and shall be deemed to have been duly given if delivered personally or sent by prepaid overnight courier or registered or certified mail, return receipt requested, postage prepaid to, in the case of the Company, the following address and, in the case of the Investor, the address provided on the signature page of the Investor hereof (or such other address as any party shall have specified by notice in writing to the other):

If to the Company: Amynris, Inc.
5885 Hollis Street, Suite 100
Emeryville, California 94608
Fax:
Attention: General Counsel

13. **Binding Effect.** The provisions of this Agreement shall be binding upon and accrue to the benefit of the parties hereto and their respective heirs, legal representatives, successors and permitted assigns.

14. **Severability.** If any term or provision (in whole or in part) of this Agreement is determined to be invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

15. **Release.** In consideration of the agreements of the Investor set forth in this Agreement, the Company, its affiliates and subsidiaries, and all of their respective directors, officers, agents, heirs, personal representatives, predecessors, successors and assigns (individually and collectively, the “Releasors”), hereby fully, finally, and forever release and discharge the Investor, its affiliates and subsidiaries, and its any of their successors, assigns, directors, officers, employees, agents, and representatives (including those on the board of Company or any of its subsidiaries or affiliates) from any and all actions, causes of action, claims, debts, demands, liabilities, obligations, and suits of whatever kind or nature, in law or equity, the Releasors or any of them have, whether known or unknown, in respect of, relating to, concerning this Agreement, the Securities, or any other potential agreement or transaction relating to the Securities arising from events occurring prior to the date hereof.

[**SIGNATURE PAGES FOLLOW**]

**IN WITNESS WHEREOF,** the undersigned has executed this Agreement as of the date first written above.

**AMYRIS, INC.**

By: /s/ Kathleen Vallasek
Name: Kathleen Vallasek
Title: Chief Business Officer
IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date first written above.

INVESTOR:

TOTAL RAFFINAGE CHIMIE S.A.

By: /s/ Frederic Gimenez
Name: Frederic Gimenez
Title: Senior VP Corporate Affairs

Address for Notices:

TOTAL RAFFINAGE CHIMIE
2 place Jean Miller
92400 Courbevoie, FRANCE
Attention:
EXECUTION VERSION

AMYRIS, INC. PROMISSORY NOTE

$[________]                                 Issuance date: September [___], 2019

AMYRIS, INC., a Delaware corporation (the “Company”), for value received, hereby promises to pay to DSM FINANCE B.V., or its registered assigns (collectively, the “Holder”), the principal sum of Three Million Dollars ($3,000,000.00), or such lesser amount as shall then equal the outstanding principal amount hereunder, no later than August 7, 2022 (the “Maturity Date”) and to pay interest thereon, from the date of this Note, or from the most recent date through which interest has been paid on this Note, at the rate of twelve and one-half percent (12.5%) per annum (calculated on a simple interest basis), payable in cash in United States dollars on January 1, April 1, July 1 and October 1 of each calendar year, beginning January 1, 2020, until the Maturity Date or the earlier repayment of this Note in full in cash.

Payment of the principal of this Note shall be made upon the surrender of this Note to the Company at its chief executive office (or such other office within the United States as shall be designated by the Company to the Holder) (the “Designated Office”) on the Maturity Date or such earlier date in accordance with the terms of this Note. All amounts payable in cash with respect to this Note shall be made by wire transfer to the Holder, provided that, if the Holder shall not have furnished wire instructions in writing to the Company no later than the Business Day immediately prior to the date on which the Company makes such payment, such payment may be made by U.S. dollar check mailed to the address of the Holder as such address shall appear in the Company register.

This Note was issued pursuant to the Credit Agreement and is subject to provisions of the Credit Agreement. Capitalized terms used but not otherwise defined herein shall have the meaning given to such terms in the Credit Agreement.

1. Redemption; Prepayments.

   (a) This Note is subject to redemption, from time to time in whole or in part (in any amount that is an integral multiple of $1,000), upon not less than five (5) days’ prior written notice in the manner provided in Section 5(b) hereof, at the election of the Company, at a redemption price of 100% of the principal amount hereof, together with accrued and unpaid interest through, but excluding, the redemption date.

   (b) The Company shall prepay the principal amount outstanding under this Note in an amount equal to the gross cash proceeds received by the Company upon the exercise by the Holder or any of its Affiliates of any of their respective common stock purchase warrants issued by the Company to DSM International B.V., a Netherlands private company with limited liability, on May 11, 2017 and August 7, 2017 and that currently have an exercise price of $2.87 per share (the “DSM Warrants”) within one Business Day of receipt thereof.

   (c) The Company shall prepay the Obligations in full in cash upon the request of the Holder at any time following the receipt by the Company of at least $50,000,000 of gross cash proceeds from one or more sales of the Equity Securities of the Company on or prior to June 30, 2020, within one Business Day of receipt thereof.

   (d) In connection with any prepayment of principal outstanding under this Note, the Company shall pay all accrued and unpaid interest through, but excluding, the applicable prepayment date.

2. Certain Covenants. Until the Obligations are paid in full in cash:

   (a) The Company will, and will cause each of its Subsidiaries to, maintain its corporate or other organizational existence and good standing in its jurisdiction of incorporation and maintain its qualification in each jurisdiction where the failure to so qualify would reasonably be expected to have a Material Adverse Effect.

   (b) The Company will, and will cause each of its Subsidiaries to, comply with all applicable statutes, regulation and orders of, and all applicable restrictions imposed by, all governmental bodies, domestic or foreign, in respect of the conduct of its business and the ownership of its property, other than those the noncompliance with which would not have, and which would not reasonably be expected to have, a Material Adverse Effect.

   (c) The Company will cause the cash proceeds of the loans evidenced under this Note to be used (i) within one Business Day of receipt thereof, to repay certain obligations of the Company and its Affiliates owing to the Holder and its Affiliates and (ii) not for personal, family or household purposes.

   (d) The Company will pay and discharge, and will cause each of its Subsidiaries to pay and discharge, all taxes, assessments and governmental charges or levies imposed upon it or upon its income or profits, or upon any properties belonging to it and all lawful claims which, if unpaid, might become a Lien upon any properties of the Company or any of its Subsidiaries; provided that neither the Company nor any of its Subsidiaries shall be required to pay any such tax, assessment, charge, levy or claim which is being contested in good faith and by proper proceedings if it has maintained adequate reserves with respect thereto in accordance with GAAP.

   (e) The Company will, and will cause each of its Subsidiaries to, (i) maintain insurance coverage by such insurers and in such forms and amounts and against such risks as are customarily carried by persons conducting businesses similar to those of the Company and its Subsidiaries and (ii) promptly upon the Holder’s request, furnish to the Holder such information about such insurance as the Holder may from time to time reasonably request, which information shall be prepared in form and detail satisfactory to the Holder.

   (f) The Company shall notify the Holder promptly following the date on which an executive officer of the Company has concluded that an event has occurred that has caused or would reasonably be expected to cause a Material Adverse Effect.

   (g) The Company will, and will cause each of its Subsidiaries to, maintain their rights in all HMO Intellectual Property, and take all actions reasonably necessary or appropriate to prevent any lapse, abandonment, cancellation, dedication to the public, forfeiture, finding of unenforceability or any other impairment of the HMO Intellectual Property.
Neither the Company nor any of its Subsidiaries shall (i) pay any dividends or make any distributions on its Equity Securities other than dividends paid on the common stock of the Company paid solely in common stock of the Company; (ii) purchase, redeem, retire, defease or otherwise acquire for value any of its Equity Securities; (iii) return any capital to any holder of its Equity Securities; (iv) make any distribution of assets, Equity Securities, obligations or securities to any holder of its Equity Securities; or (v) set apart any sum for any such purpose; provided that any Subsidiary may pay cash dividends to the Company or any Subsidiary that is wholly-owned by the Company.

Neither the Company nor any of its Subsidiaries shall make any payment or distribution in cash to any stockholder or Affiliate of the Company other than payments or distributions made in the ordinary course of business.

Neither the Company nor any of its Subsidiaries shall voluntarily repay in cash (or voluntarily prepay in advance in cash) (which, for the avoidance of doubt, shall not include any repayments (as a result of an event of default, at maturity or otherwise) or prepayments required by the terms of the relevant indebtedness) any amounts outstanding under, or cancel, forgive, materially amend or otherwise materially modify the terms of, any debt securities or other evidence of indebtedness for borrowed money prior to the repayment in full of the Obligations, in each case without the prior written consent of the Holder; provided that the provisions set forth in this Section 2(j) shall not apply to (i) any voluntary repayment or prepayment in cash of any indebtedness with the cash proceeds of one or more exercises of common stock purchase warrants held by the holder of such indebtedness, (ii) any voluntary repayment or prepayment in cash of any indebtedness held by Foris Ventures, LLC ("Foris") or Naxyris S.A. ("Naxyris"), or any Affiliate thereof; provided that any such voluntary cash repayment or prepayment amount shall be paid to Foris (or such Affiliate), Naxyris (or such Affiliate) and the Holder pro rata based on the respective amounts of indebtedness of the Company held by such holders at the time of such voluntary repayment or prepayment (it being agreed that, as of the Closing Date, the respective amounts of indebtedness held by such holders are, with respect to Foris and its Affiliates, $90,041,000, with respect to Naxyris and its Affiliates, $10,435,000 and, with respect to the Holder and its Affiliates, $28,000,000) and (iii) any amendment or modification to the terms of any agreement or other document relating to any indebtedness held by Foris or Naxyris, or any Affiliate thereof; provided that any such amendment or modification shall (x) not reasonably be expected to be materially adverse to the Holder and (y) if adverse to the Company or any of its Subsidiaries (including, but not limited to, (A) changes to payment provisions to the extent the same would shorten, accelerate or advance the date of any payment (including any amortization or maturity dates) or increase the interest rate or rates per annum, other interest provisions or fees payable with respect to such indebtedness, (B) the imposition of any restrictions on the Company’s or any Subsidiary’s ability to make payments under the Loan Documents, (C) the addition of material rights in favor of Foris, Naxyris or any Affiliate thereof or (D) the making of more restrictive, or the addition of, any financial covenants, affirmative or negative covenants, representations or warranties, or defaults or events of default), not be effective until a corresponding amendment or modification is also made to the corresponding provisions of the Loan Documents. For the avoidance of doubt, the parties agree that the repayment of amounts due under the Senior Convertible Note issued by the Company to CVI Investments, Inc. on July 24, 2019 (the "Heights Note") on the date or dates required by the Heights Note shall not be deemed to be voluntary repayments or prepayments hereunder.

Except with the prior written consent of the Lender, neither the Company nor any of its Subsidiaries shall create, assume, incur or permit (or suffer) to exist or to be created, assumed or incurred, directly or indirectly, any Lien on any of its property or assets, now owned or hereafter acquired, constituting HMO Intellectual Property, in each case except for Liens securing the Obligations.

The Company will execute any further instruments and take any further action as the Holder reasonably requests to effect the purposes of the Loan Documents. The Company will take such actions and execute and deliver to the Lender such documents as the Lender shall reasonably request to confirm the validity, perfection and priority of the Liens created under the applicable Loan Documents.

3. Events of Default.

(a) “Event of Default”, wherever used herein, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(i) default in the payment of any amount upon this Note when it becomes due and payable;

(ii) default in the performance, or breach, of any covenant of the Company herein, in any Loan Document (other than a default in the performance or breach of which is specifically dealt with elsewhere in this Section 3(a)) and continuance of such default or breach for a period of 10 days;

(iii) the commencement against the Company or any Significant Subsidiary of an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated bankrupt or insolvent and such case or proceeding is not dismissed or stayed within 45 days;

(iv) the commencement by the Company or any Significant Subsidiary of a voluntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated bankrupt or insolvent, or the consent by the Company or any Significant Subsidiary to the entry of a decree or order for relief in respect of the Company or such Significant Subsidiary in an involuntary case or proceeding under any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against either the Company or any Significant Subsidiary, or the filing by either the Company or any Significant Subsidiary of a petition or answer or consent seeking reorganization or similar relief under any applicable Federal or state law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Significant Subsidiary or of any substantial part of its property, or the making by either the Company or any Significant Subsidiary of an assignment for the benefit of creditors, or the admission by either the Company or any Significant Subsidiary in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company or any Significant Subsidiary in furtherance of any such action;

(v) the Company or any Person acting for the Company makes any representation, warranty, or other statement now or later in any Loan Document or in any writing delivered to the Holder or to induce the Holder in connection with any Loan Document or to enter into any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made;
(vi) a Change of Control occurs;

(vii) the Company or any of its Subsidiaries (x) fails to make any payment in respect of any indebtedness (other than indebtedness owing to the Holder pursuant to the Loan Documents) having an aggregate principal amount of more than $10.0 million when due (whether by scheduled maturity, required prepayment, acceleration, demand, or otherwise) and such failure continues after the applicable grace or notice period, if any, specified in the document relating thereto on the date of such failure; or (y) fails to perform or observe any other condition or covenant, or any other event shall occur or condition exist, under any agreement or instrument relating to any such indebtedness , if the effect of such failure, event or condition is to cause such indebtedness to be declared to be due and payable (or otherwise required immediately to be prepaid, redeemed, purchased or defeased ) prior to its stated maturity (without regard to any subordination terms with respect thereto ) or cash collateral in respect thereof to be demanded;

(viii) one or more monetary or non-monetary judgments, orders or decrees shall be rendered against any one or more of the Company and its Subsidiaries which has, either individually or in the aggregate, a Material Adverse Effect, and there shall be any period of thirty (30) consecutive days during which a stay of enforcement of such judgment or order, by reason of a pending appeal or otherwise, shall not be in effect;

(ix) the Company has materially breached any provision of that certain Farnese License Agreement, dated as of November 14, 2017, by and between the Company and DSM Nutritional Products Ltd., and such breach has not been cured within sixty (60) days after such breach;

(x) any material provision of any Loan Document shall for any reason cease to be valid and binding on or enforceable against the Company or the Company shall so state in writing or bring an action to limit its obligations or liabilities under any Loan Document;

(xi) the failure by the Company to comply with Section 6 of the Credit Agreement in any respect;

(xii) any “Event of Default” (as defined in any other Note) shall have occurred and be continuing;

(xiii) any “Event of Default” (as defined in the Existing DSM Note) shall have occurred and be continuing; or

(xiv) the failure by one or more Subsidiaries of the Company (x) within three Business Days of receipt by the Company of the cash proceeds of the Closing Date Note, to repay to DSM Brazil the Other Obligations in the amount of $3,000,000, (y) within three Business Days of receipt by the Company of the cash proceeds of the Second Note (or such other time period as the Holder may agree in its sole discretion), to repay to DSM Brazil the Other Obligations in the amount of $3,000,000 (exclusive of clause (x)) or (z) within three Business Days of receipt by the Company of the cash proceeds of the Third Note, to repay to DSM Brazil the Other Obligations in the amount of $844,369.90 (exclusive of clauses (x) and (y)).

(b) The Company will give the Holder notice, within two Business Days of the occurrence thereof, of any Event of Default or any event that, with the giving of notice or passage of time or both, would become an Event of Default. Such notice shall be given in the manner provided in Section 5(b).

(c) During the continuance of an Event of Default, the Company shall provide the Holder within three Business Days such information as the Holder may reasonably request to establish any assertion by the Company under this Section 3.

(d) Upon the occurrence and during the continuance of any Event of Default (other than a Bankruptcy Event of Default), the Holder may (i) declare any or all Obligations immediately due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by the Company and (ii) exercise all other rights and remedies available to the Holder under the Loan Documents (including, without limitation, the Security Agreement) and applicable law and at equity.

(e) Upon the occurrence of a Bankruptcy Event of Default, all Obligations shall automatically become due and payable without further act of the Holder.

(f) The Holder is hereby authorized, at any time and from time to time during the continuance of any Event of Default and to the fullest extent permitted by applicable law, to set off and apply any and all indebtedness, claims or other obligations at any time owing by the Holder or any of its Affiliates to or for the credit or the account of the Company against any payment obligation of the Company (including, without limitation, payments of principal and interest) now or hereafter existing. Upon each exercise of the setoff right described in the preceding sentence, the Holder agrees promptly to notify the Company; provided, however, that the failure to give such notice shall not affect the validity of such setoff and application. The rights under this Section 3(f) are in addition to any other rights and remedies that the Holder may have.

4. Definitions. The following capitalized terms shall have the following respective meanings when used herein:

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control”, when used with respect to any specified Person, means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“Bankruptcy Event of Default” means an Event of Default specified in Section 3(a)(iii) or 3(a)(iv).

“Business Day” means any day other than Saturday or Sunday on which commercial banks are open for business in New York, New York.

“Change of Control” means (a) any reorganization, recapitalization, consolidation or merger (or similar transaction or series of related transactions) of the Company, sale or exchange of outstanding shares (or similar transaction or series of related transactions) of the Company in which all holders of Company’s outstanding shares immediately before consummation of such transaction or series of related transactions do not, immediately after consummation of such transaction or series of related transactions, retain shares representing more than fifty percent of the voting power of the surviving entity of such transaction or series of related transactions (or the parent of such surviving entity if such surviving entity is wholly owned by such parent),
in each case without regard to whether the Company is the surviving entity or (b) sixty days after the date on which DSM International B.V. (or any Affiliate thereof) ceases to have the right to nominate at least two directors to the Company’s Board of Directors.

“Credit Agreement” means the Credit Agreement, dated as of September 17, 2019, entered into by and between the Company and the Lender.

“Equity Securities” of any Person means (a) all common stock, preferred stock, participations, shares, partnership interests or other equity interests in and of such Person (regardless of how designated and whether or not voting or non-voting) and (b) all warrants, options and other rights to acquire any of the foregoing.

“GAAP” means generally accepted accounting principles as in effect in the United States of America from time to time.

“Significant Subsidiary” means, with respect to any Person, a Subsidiary of such Person that would constitute a significant subsidiary as such term is defined under Rule 1-02 of Regulation S-X of the Commission.

“Subsidiary” shall mean (a) any corporation of which more than fifty percent (50%) of the issued and outstanding Equity Securities having ordinary voting power to elect a majority of the board of directors of such corporation is at the time directly or indirectly owned or controlled by the Company, (b) any partnership, joint venture, limited liability company or other association of which more than fifty percent (50%) of the Equity Securities having the power to vote, direct or control the management of such partnership, joint venture, limited liability company or other association is at the time directly or indirectly owned and controlled by the Company, and (c) any other entity included in the financial statements of the Company on a consolidated basis.

5. Other.

(a) No provision of this Note shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of, interest on and other amounts owing under this Note at the times and places herein prescribed or to repay this Note as herein provided.

(b) The Company will give prompt written notice to the Holder of any change in the location of the Designated Office. Any notice to the Company or to the Holder shall be given in the manner set forth in the Credit Agreement.

(c) The transfer of this Note is registrable on the register maintained by the Company upon surrender of this Note for registration of transfer at the Designated Office, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company duly executed by, the Holder or its attorney duly authorized in writing, and thereupon one or more new securities, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees. Such securities are issuable only in registered form without coupons in denominations of $1,000 and any integral multiple thereof. No service charge shall be made for any such registration of transfer, but the Company may require payment of a sum sufficient to recover any tax or other governmental charge payable in connection therewith. Prior to due presentation of this Note for registration of transfer, the Company and any agent of the Company may treat the Person in whose name this Note is registered as the owner thereof for all purposes, whether or not this Note be overdue, and neither the Company nor any such agent shall be affected by notice to the contrary.

(d) This Note shall be governed by and construed in accordance with the internal laws of the State of New York, without regard to the conflicts of law provisions of the State of New York.

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed.

Dated: September [___], 2019

AMYRIS, INC.

By: ______________
Name:
Title:
CREDIT AGREEMENT

This CREDIT AGREEMENT, dated as of July 10, 2019 (as amended, modified or supplemented from time to time, this “Agreement”), is entered into by and between AMYRIS, INC., a Delaware corporation (the “Company”), and FORIS VENTURES, LLC, a Delaware limited liability company (the “Lender”).

RECATALS

A. Subject to the terms and conditions hereof, the Lender has agreed to purchase from the Company, and the Company has agreed to sell to the Lender, two unsecured promissory notes (each, a “Note” and collectively, the “Notes”) in the form attached hereto as Exhibit A having an aggregate principal amount of Sixteen Million Dollars ($16,000,000).

AGREEMENT

NOW THEREFORE, in consideration of the representations, warranties, and conditions set forth below, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Purchase and Sale of the Notes. The sale and purchase of the Notes (each, a “Closing”) shall take place at such places and times as the Company and the Lender may determine, with the first Closing to occur within one day of the date of this Agreement, or at such other time and place as the Company and the Lender shall mutually agree upon, and the subsequent Closing to occur at such other time and place as the Company and the Lender shall mutually agree upon, but in no event later than July 29, 2019. At each Closing, the Company will deliver to the Lender a Note in the principal amount of Eight Million Dollars ($8,000,000), against receipt by the Company of an equal amount in immediately available funds. Each Note will be registered in the Lender’s name in the Company’s records.

2. Representations and Warranties of the Company. The Company represents and warrants to the Lender as of the date hereof and as of each Closing that:

(a) Due Incorporation, Qualification, etc. The Company (i) is a corporation duly organized, validly existing and in good standing under the laws of Delaware; (ii) has the power and authority to own, lease and operate its properties and carry on its business as now conducted; and (iii) is duly qualified, licensed to do business and in good standing as a foreign corporation in each jurisdiction where the failure to be so qualified or licensed could reasonably be expected to have a Material Adverse Effect.

(b) Authority. The execution, delivery and performance by the Company of this Agreement and each Note and the consummation by the Company of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate actions on the part of the Company.

(c) Enforceability. This Agreement and each Note have been, or will have been as of the applicable Closing, duly executed and delivered by the Company and constitute a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its respective terms, except in each case as may be limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors’ rights generally and general principles of equity.

(d) Non-Contravention. The execution and delivery by the Company of this Agreement and each Note and the performance and consummation by the Company of the transactions contemplated hereby and thereby do not and will not (i) violate the certificate of incorporation or bylaws of the Company or any judgment, order, writ, decree, statute, rule or regulation applicable to the Company; (ii) violate any provision of, or result in the breach or the acceleration of, or entitle any other Person to accelerate (whether after the giving of notice or lapse of time or both), any mortgage, indenture, agreement, instrument or contract to which the Company is a party or by which it is bound except to the extent such violation, breach or acceleration could not reasonably be expected to result in a Material Adverse Effect; or (iii) result in the creation or imposition of any lien upon any property, asset or revenue of the Company or the suspension, revocation, impairment, forfeiture, or nonrenewal of any permit, license, authorization or approval applicable to the Company, its business or operations, or any of its assets or properties except to the extent such suspension, revocation, impairment, forfeiture or nonrenewal could not reasonably be expected to have a Material Adverse Effect. Except as set forth on Schedule 2(d), the Company is not in breach of any mortgage, indenture, agreement, instrument or contract to which the Company is a party or by which it is bound except to the extent such breach could not reasonably be expected to result in a Material Adverse Effect.

(e) Approvals. No consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Company of this Agreement and each Note and the performance and consummation by the Company of the transactions contemplated hereby and thereby, except for those already obtained or those that will be obtained prior to the applicable Closing.

(f) Tax Returns and Payments. The Company has timely filed all required tax returns and reports, and the Company has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by the Company except to the extent such taxes are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted, so long as such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made therefor.

(g) Litigation. There are no actions or proceedings pending or threatened in writing by or against the Company except for such actions or proceedings that, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect.

(h) Full Disclosure. No written representation, warranty or other statement of the Company in any certificate or written statement given to Lender by the Company in connection with this Agreement or the Notes, as of the date such representation, warranty, or other statement was made, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or written statements not misleading in light of the circumstances under which they were made.

3. Representations and Warranties of the Lender. The Lender represents and warrants to the Company as of the date hereof and as of each Closing that:

(a) Due Incorporation, Qualification, etc. The Lender (i) is a limited liability company duly organized, validly existing and in good standing under the laws of Delaware; and (ii) has all requisite power to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement.

(b) Authority. The execution, delivery and performance by the Lender of this Agreement and the consummation by the Company of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate actions on the part of the Lender.

(c) Enforceability. The Lender has full legal capacity, power and authority to execute and deliver this Agreement and to perform its obligations hereunder. This Agreement is valid and binding obligation of the Lender, enforceable in accordance with its terms, except as limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors’ rights generally and general principles of equity.

(d) Securities Law Compliance. The Lender is purchasing the Notes for its own account for investment, not as a nominee or agent, and not with a view to, or for resale in connection with, the distribution thereof. Lender has received or has had full access to all of the information necessary and appropriate to
make an informed investment decision. The Lender is an accredited investor as such term is defined in Rule 501 of Regulation D under the Securities Act. The Lender acknowledges that it can bear the economic risk of the investment the Notes.

(e) Approvals. No consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Lender of this Agreement and the performance and consummation by the Lender of the transactions contemplated hereby, except for those already obtained.

(f) Non-Contravention. The execution and delivery by the Lender of this Agreement and the performance and consummation by the Lender of the transactions contemplated hereby do not and will not (i) violate the organizational documents of the Lender or any judgment, order, writ, decree, statute, rule or regulation applicable to the Lender; or (ii) violate any agreement to which the Lender is a party or by which it is bound.

4. Conditions to Obligations of the Lender. The Lender’s obligations hereunder are subject to the fulfillment, on or prior to the applicable Closing, of all of the following conditions, any of which may be waived in whole or in part by the Lender:

(a) Representations and Warranties. The representations and warranties made by the Lender in Section 3 hereof shall be true and correct when made, and shall be true and correct as of the applicable Closing.

(b) Governmental Approvals and Filings. The Company shall have obtained all governmental approvals required in connection with the sale and issuance of the applicable Note.

(c) Legal Requirements. At the applicable Closing, the sale and issuance by the Company, and the purchase by the Lender, of the applicable Note shall be legally permitted by all laws and regulations to which the Lender or the Company is subject.

(d) Transaction Documents. The Company shall have duly executed and delivered to the Lender this Agreement and the applicable Note.

(e) Material Adverse Effect. No event shall have occurred that could reasonably be expected to result in a Material Adverse Effect.

5. Conditions to Obligations of the Company. The Company’s obligations hereunder are subject to the fulfillment, on or prior to the applicable Closing, of all of the following conditions, any of which may be waived in whole or in part by the Company:

(a) Representations and Warranties. The representations and warranties made by the Company in Section 2 hereof shall have been true and correct when made, and shall be true and correct as of the applicable Closing.

(b) Governmental Approvals and Filings. The Company shall have obtained all governmental approvals required in connection with the sale and issuance of the applicable Note.

(c) Legal Requirements. At the applicable Closing, the sale and issuance by the Company, and the purchase by the Lender, of the applicable Note shall be legally permitted by all laws and regulations to which the Lender or the Company are subject.

(d) Purchase Price. The Lender shall have delivered to the Company Eight Million Dollars ($8,000,000) in immediately available funds.

6. Definitions. As used in this Agreement, the following capitalized terms have the following meanings:

“Material Adverse Effect” means a material adverse effect, individually or in the aggregate, upon the business, properties, tangible and intangible assets, liabilities, operations, prospects, financial condition or results of operation of the Company or the ability of the Company to perform its obligations under this Agreement.

“Obligations” means all loans, advances, debts, liabilities and obligations, howsoever arising, owed by the Company to the Lender under the Notes of every kind and description (whether or not evidenced by any note or instrument and whether or not for the payment of money), now existing or hereafter arising under or pursuant to the terms of the Notes, including all principal, interest, fees, charges, expenses, attorneys’ fees and costs and accountants’ fees and costs chargeable to and payable by the Company thereunder, in each case, whether direct or indirect, absolute or contingent, due or to become due, and whether or not arising after the commencement of a proceeding under Title 11 of the United States Code (11 U.S.C. Section 101 et seq.), as amended from time to time (including post-petition interest) and whether or not allowed or allowable as a claim in any such proceeding.

“Person” shall mean and include an individual, a partnership, a corporation (including a business trust), a joint stock company, a limited liability company, an unincorporated association, a joint venture or other entity or a governmental authority.

7. Miscellaneous.

(a) Funding Commitment. The Company covenants and agrees to use its reasonable best efforts to obtain cash financing from existing commercial partners of the Company reasonably acceptable to the Lender in an amount equal to no less than Sixteen Million Dollars ($16,000,000) on or prior to August 16, 2019.

(b) Waivers and Amendments. Any provision of this Agreement may be amended, waived or modified only upon the written consent of the Company and the Lender.

(c) Governing Law. This Agreement and all actions arising out of or in connection with this Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to the conflicts of law provisions of the State of California.

(d) Survival. The representations, warranties, covenants and agreements made herein shall survive the execution and delivery of this Agreement.

(e) Successors and Assigns. Subject to the restrictions on transfer described in Section 7(f) below, the rights and obligations of the Company and the Lender hereunder and under the Notes shall be binding upon and inure to the benefit of the successors, assigns, heirs, administrators and transferees of the parties.

(f) Assignment by the Company; Assignment by the Lender. Neither this Agreement nor any Note nor any of the rights, interests or obligations hereunder or hereof may be assigned, by operation of law or otherwise, in whole or in part, by the Company without the prior written consent of the Lender. The Lender will not assign, by operation of law or otherwise, this Agreement or any Note or any of its rights, interests or obligations hereunder or thereunder without the prior written consent of the Company.

(g) Entire Agreement. This Agreement and the Notes constitute the full and entire understanding and agreement between the parties relating to the subject matter hereof and thereof and supersede any previous written or verbal agreements between the parties with regard to the subject matter hereof and thereof.

(h) Notices. Any notice, request or other communication required or permitted hereunder shall be in writing and shall be deemed to have been duly given if delivered personally or by commercial delivery service, or sent via telecopy (receipt confirmed) to the parties at the following addresses or telecopy numbers (or at such other address or telecopy numbers for a party as shall be specified by like notice):

If to the Company, to:
Amyris, Inc.
5885 Hollis St., Ste. 100
(i) **Severability of this Agreement.** If any provision of this Agreement shall be judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

(j) **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall be deemed to constitute one instrument.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

**IN WITNESS WHEREOF,** the parties have caused this Agreement to be duly executed and delivered by their proper and duly authorized officers as of the date and year first written above.

**COMPANY:**

**AMYRIS, INC.**

By: /s/ Kathleen Valiasek  
Name: Kathleen Valiasek  
Title: Chief Business Officer

**LENDER:**

**FORIS VENTURES, LLC**

By: /s/ Barbara Hager  
Name: Barbara Hager  
Title: _____________________
EXHIBIT 10.04

LOAN AGREEMENT

THIS LOAN AGREEMENT, is made and entered into, as of July 29, 2019 by and between Nikko Chemicals Co., Ltd., a Japanese corporation (“Lender”), and Amyris, Inc., a Delaware corporation (“Borrower”).

WITNESSETH:

WHEREAS, Borrower, Lender and Lender’s affiliate are the parties to a Joint Venture Agreement dated December 12, 2016 (the “JV Agreement”) with respect to Aprinnova, LLC (formerly, Neossance, LLC);

WHEREAS, Borrower previously borrowed US$3,900,000.00 and provided a purchase money promissory note to Lender, and Borrower granted to Lender a first-priority security interest as to 10.0% of Aprinnova, LLC’s shares;

WHEREAS, Borrower additionally requested that Lender extend to Borrower loan(s) in an aggregate principal amount of US$5,000,000.00 and agreed to grant to Lender a first-priority security interest as to an additional 12.8% of Aprinnova, LLC’s shares; and

WHEREAS, Lender is willing to make the loan described herein to Borrower on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties hereby agree as follows:

SECTION I. LOAN

(1) Subject to the terms and conditions of this Agreement, Lender shall make loan(s) to Borrower in the total principal amount of Five Million United States Dollars (the “Loan”) in two installments:

(a) Loan A: A loan of $3,000,000.00 will be made to Borrower by Lender upon satisfaction of all of the following:

(i) Borrower and CEO of Aprinnova execute a supply agreement described in Section 5.1 of the JV Agreement ("Supply Agreement") which Mr. Shizuo Ukaji as a representative of Aprinnova, LLC previously executed;

(ii) Borrower grants to Lender a first-priority security interest as to 12.8% of Aprinnova, LLC’s shares, and Lender completes the UCC financial statement covering such security interest;

(iii) Borrower commits: (X) to transfer Leland employees to Aprinnova, LLC, (Y) to provide, to Borrower and/or its designee, all benefit and other information necessary for Leland employees to join a third-party administrator, and (Z) to commence the preparation of such procedures immediately after the execution of this Agreement; and

(iv) Borrower shall discuss with Lender and shall do its best to find a solution to keep Aprinnova LLC’s accounts to be consolidated with Borrower’s accounts even after the transfer of Leland employees to Aprinnova, LLC.

For clarification, in order for the Loan A to be made, Borrower shall make its strenuous and best efforts to find the solution described in item (a) (iv) above but shall not be required to transfer Leland employees to Aprinnova, LLC if it is not possible to find such solution.

(b) Loan B: A loan of $2,000,000.00 will be made to Borrower by Lender upon satisfaction of all of the following:

(i) Borrower provides, to Borrower and/or its designee, all benefit and other information necessary for Leland employees to join a third-party administrator; and

(ii) Borrower executes an Escrow Agreement described in Section 1.5 of the JV Agreement.

(2) Each Loan described above shall be made to the following bank account:

Bank: Branch: Address: Account Number: Account Name: Swift Code:

(3) Notwithstanding anything to the contrary in this Agreement, this Agreement shall become null and void in its entirety and any obligations on the part of Lender under this Agreement shall cease to exist if there exists any security interest as to Aprinnova, LLC’s shares.

SECTION 2. INTEREST

(1) Borrower shall pay to Lender interest(s) on the principal amount of each of the Loans (the “Principal”) at the rate of 5 percent per annum from and including the applicable date of Loan to and including December 18, 2020 (the “Interest”).

(2) Any outstanding principal of, or accrued interest on, the Loan that is not paid when due shall bear interest from and including such due date to and excluding the date of payment (both before and after judgement) in full thereof, at the additional rate of 5 per cent per annum (“Default Interest”). Interest (including Default Interest) shall be calculated for the actual number of days elapsed on the basis of a 360 day year.

SECTION 3. PAYMENT

(1) Borrower shall repay the Principal in full on December 18, 2020 and shall pay all of the Interest on the date of Loan. Lender may at any time apply any sum payable from Lender to Borrower (including without limitation the Principal) in or towards satisfaction of any sum then payable from Borrower to Lender (including without limitation the Interest).

SECTION 4. SECURITY INTEREST

To secure prompt payment in full when due (whether at stated maturity, by acceleration or otherwise) and performance of Borrower’s obligation hereunder, Borrower hereby pledges and grants to Lender a first-priority security interest in and to all of Borrower’s right, title and interest in, to and under twelve point eight
If borrower fails to pay the principle of an interest on the Loan when due; if any representation, warranty or covenant made by Borrower under this Agreement, or any other agreement(s) made with Lender, shall prove to have been untrue or misleading in any material respect when made; or

If Borrower files a petition in bankruptcy or for liquidation or reorganization or for the appointment of an examiner or receiver to Borrower or any of its assets, or other similar petition, makes an assignment for the benefit of creditors, consents to the appointment of a receiver, trustee or other custodian for all or a substantial part of its property, is adjudicated at bankrupt, or fails to cause to be vacated, set aside or stayed within 60 days of any court order appointing a receiver, trustee or other custodian for all or a substantial part of its property or ordering relief against it in any involuntary case of bankruptcy.

SECTION 5. COVENANTS
(1) Borrower hereby covenants that so long as any indebtedness of Borrower under this Agreement remains outstanding an unpaid, Borrower shall promptly give notice in writing to Lender of (a) the occurrence of any Event of Default under this Agreement or any other material agreement of Borrower and (b) any litigation, preceding, investigation or dispute which may exist at any time between Borrower and any third party which might substantially interfere with the normal business activity of Borrower or the performance of any obligation under this Agreement.

(2) Borrower hereby covenants that so long as any indebtedness of Borrower under this Agreement remains outstanding an unpaid, Borrower shall not, unless otherwise consented to in writing by Lender, enter into any transaction or merger or consolidation or amalgamation, or liquidate, wind up or dissolve itself (or initiate any liquidation or dissolution), or take any action, legal proceeding or step in relation to the appointment of an examiner or receiver to Borrower or any of its assets, or convey, sell, lease, transfer, mortgage, pledge, lien or otherwise dispose of, in one transaction or a series of transactions, all or substantially all of its business, property or assets.

(3) Borrower hereby covenants that so long as any indebtedness of Borrower under this Agreement remains outstanding an unpaid, Borrower shall permit Lender (a) to inspect any of the properties, corporate books and financial records of Borrower, (b) to examine and make copies of the books of accounts and other financial records of Borrower, and (c) to discuss the affairs, financings and accounts of Borrower with, and to be advised as to the same by, its officers at such reasonable times and intervals as Lender may designate.

SECTION 6. EVENTS OF DEFAULT
If any of the Event of Default (as hereinafter defined) occurs, then the principle amount of the Loan (as well as any interest accrued thereon) shall be immediately due and payable without presentment, demand, protest or other notice of any kind, all of which are expressly waived, anything contained herein to the contrary notwithstanding. For the purpose of this Agreement, the Event of Defaults shall be deemed to have occurred:

(a) If borrower fails to pay the principle of an interest on the Loan when due;

(b) if any representation, warranty or covenant made by Borrower under this Agreement, or any other agreement(s) made with Lender, shall prove to have been untrue or misleading in any material respect when made; or

(c) if Borrower files a petition in bankruptcy or for liquidation or reorganization or for the appointment of an examiner or receiver to Borrower or any of its assets or other similar petition, makes an assignment for the benefit of creditors, consents to the appointment of a receiver, trustee or other custodian for all or a substantial part of its property, is adjudicated at bankrupt, or fails to cause to be vacated, set aside or stayed within 60 days of any court order appointing a receiver, trustee or other custodian for all or a substantial part of its property or ordering relief against it in any involuntary case of bankruptcy.

SECTION 7. INDEMNIFICATION
Borrower agrees to indemnify lender from and against any and all claims, losses and liabilities arising out of or resulting from the occurrence of any event or default (including, but not limited to, the costs for the enforcement hereof). Borrower further agrees to pay all reasonable expenses of Lender, including, without limitation, the fees and expenses of its counsel, incurred in connection with (a) the enforcement of any part of this Agreement, and any waiver or amendment of any provision hereof (b) the administration of this Agreement after the occurrence of any Event of Default or (c) the failure by Borrower to perform or observe any of the provisions of this Agreement.

SECTION 8. WAIVERS
No single or partial waiver by Lender of any Event of Default, right or remedy which it may have shall operate as a waiver of any other Event of Default, right or remedy or of the same Event of Default, right or remedy on a future occasion. Borrower hereby waives presentment, notice of dishonor and protest and all other notices and demands whatsoever, except as a specifically provided in this Agreement.

SECTION 9. AMENDMENT
No amendment, modification or waiver of any provision of this Agreement, nor consent to any departure by borrower herefrom, shall in any event be effective unless the same shall be in writing and signed by Lender and shall otherwise be made in accordance with the provisions hereof, and then such amendment, waiver or consent shall be effective only in the specific instance and the specific purpose for which given.

SECTION 10. SURVIVAL
All agreements, representations in warranties made herein an in any certificates delivered pursuant hereto shall survive the execution and delivery of this Agreement and shall continue in full force and effect until the indebtedness of Borrower under this Agreement has been paid in full.

SECTION 11. ASSIGNMENT
This Agreement shall be binding upon and inure to the benefit of Borrower and Lender and their respective permitted successors and assigns; provided, however, that Borrower may not transfer or assign any of its rights or obligations hereunder without the prior written consent of Lender.

SECTION 12. NOTICE
All notices under this Agreement shall be sent by registered mail or nationally recognized overnight courier, in each case, with confirmation of receipt, and shall be deemed to have been sent on the date of receipt or on the date of mailing if preceded by transmission of the text of such notice by facsimile (with confirmation of transmission) to the number or by e-mail to the e-mail address given by each Party in writing.

SECTION 13. GOVERNING LAW AND JURISDICTION
This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware.

[signature page follows]

In witness whereof, the parties hereto have executed and delivered this Agreement as of the date first above written.
NIKKO CHEMICALS CO., LTD.
By: /s/ Shizuo Ukaji
Name: Shizuo Ukaji
Title: President & Chief Executive Officer

AMYRIS, INC.
By: /s/ John Melo
Name: John Melo
Title: President & Chief Executive Officer
CREDIT AGREEMENT

This CREDIT AGREEMENT, dated as of August 28, 2019 (as amended, modified or supplemented from time to time, this “Agreement”), is entered into by and between AMYRIS, INC., a Delaware corporation (the “Company”), and FORIS VENTURES, LLC, a Delaware limited liability company (the “Lender”).

RECATALS

A. Subject to the terms and conditions hereof, the Lender has agreed to purchase from the Company, and the Company has agreed to sell to the Lender, an unsecured promissory note (the “Note”) in the form attached hereto as Exhibit A having an aggregate principal amount of Nineteen Million Dollars ($19,000,000).

AGREEMENT

NOW THEREFORE, in consideration of the representations, warranties, and conditions set forth below, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Purchase and Sale of the Note. The sale and purchase of the Note (the “Closing”) shall take place at such place and time as the Company and the Lender may determine, but in no event later than August 30, 2019. At the Closing, the Company will deliver to the Lender the Note, against receipt by the Company of Nineteen Million Dollars ($19,000,000) in immediately available funds. The Note will be registered in the Lender’s name in the Company’s records.

2. Representations and Warranties of the Company. The Company represents and warrants to the Lender as of the date hereof and as of the Closing that:

(a) Due Incorporation, Qualification, etc. The Company (i) is a corporation duly organized, validly existing and in good standing under the laws of Delaware; (ii) has the power and authority to own, lease and operate its properties and carry on its business as now conducted; and (iii) is duly qualified, licensed to do business and in good standing as a foreign corporation in each jurisdiction where the failure to be so qualified or licensed could reasonably be expected to have a Material Adverse Effect.

(b) Authority. The execution, delivery and performance by the Company of this Agreement and the Note and the consummation by the Company of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate actions on the part of the Company.

(c) Enforceability. This Agreement and the Note have been duly executed and delivered by the Company and constitute a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its respective terms, except in each case as may be limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors’ rights generally and general principles of equity.

(d) Non-Contravention. The execution and delivery by the Company of this Agreement and the Note and the performance and consummation by the Company of the transactions contemplated hereby and thereby do not and will not (i) violate the certificate of incorporation or bylaws of the Company or any judgment, order, writ, decree, statute, rule or regulation applicable to the Company; (ii) violate any provision of, or result in the breach or the acceleration of, or entitle any other Person to accelerate (whether after the giving of notice or lapse of time or both), any mortgage, indenture, agreement, instrument or contract to which the Company is a party or by which it is bound except to the extent such violation, breach or acceleration could not reasonably be expected to result in a Material Adverse Effect; or (iii) result in the creation or imposition of any lien upon any property, asset or revenue of the Company or the suspension, revocation, impairment, forfeiture, or nonrenewal of any permit, license, authorization or approval applicable to the Company, its business or operations, or any of its assets or properties except to the extent such suspension, revocation, impairment, forfeiture or nonrenewal could not reasonably be expected to have a Material Adverse Effect. The Company is not in breach of any mortgage, indenture, agreement, instrument or contract to which the Company is a party or by which it is bound except to the extent such breach could not reasonably be expected to result in a Material Adverse Effect.

(e) Approvals. No consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Company of this Agreement and the Note and the performance and consummation by the Company of the transactions contemplated hereby and thereby, except for those already obtained or those that will be obtained prior to the Closing.

(f) Tax Returns and Payments. The Company has timely filed all required tax returns and reports, and the Company has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by the Company except to the extent such taxes are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted, so long as such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made therefor.

(g) Litigation. There are no actions or proceedings pending or threatened in writing by or against the Company except for such actions or proceedings that, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect.

(h) Full Disclosure. No written representation, warranty or other statement of the Company in any certificate or written statement given to Lender by the Company in connection with this Agreement or the Note, as of the date such representation, warranty, or other statement was made, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or written statements not misleading in light of the circumstances under which they were made.

3. Representations and Warranties of the Lender. The Lender represents and warrants to the Company as of the date hereof and as of the Closing that:

(a) Due Incorporation, Qualification, etc. The Lender (i) is a limited liability company duly organized, validly existing and in good standing under the laws of Delaware; and (ii) has all requisite power to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement.

(b) Authority. The execution, delivery and performance by the Lender of this Agreement and the consummation by the Company of the transactions contemplated hereby have been duly authorized by all necessary corporate actions on the part of the Lender.

(c) Enforceability. The Lender has full legal capacity, power and authority to execute and deliver this Agreement and to perform its obligations hereunder. This Agreement is a valid and binding obligation of the Lender, enforceable in accordance with its terms, except as limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors’ rights generally and general principles of equity.

(d) Securities Law Compliance. The Lender is purchasing the Note for its own account for investment, not as a nominee or agent, and not with a view to, or for resale in connection with, the distribution thereof. Lender has received or has had full access to all of the information necessary and appropriate to make an informed investment decision. The Lender is an accredited investor as such term is defined in Rule 501 of Regulation D under the Securities Act of 1933, as amended. The Lender acknowledges that it can bear the economic risk of the investment the Note.

(e) Approvals. No consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Lender of this Agreement and the performance and consummation by the Lender of the
transactions contemplated hereby, except for those already obtained.

(f) Non-Contravention. The execution and delivery by the Lender of this Agreement and the performance and consummation by the Lender of the transactions contemplated hereby do not and will not (i) violate the organizational documents of the Lender or any judgment, order, writ, decree, statute, rule or regulation applicable to the Lender; or (ii) violate any agreement to which the Lender is a party or by which it is bound.

4. Conditions to Obligations of the Lender. The Lender’s obligations hereunder are subject to the fulfillment, on or prior to the Closing, of all of the following conditions, any of which may be waived in whole or in part by the Lender:

(a) Representations and Warranties. The representations and warranties made by the Company in Section 2 hereof shall have been true and correct when made, and shall be true and correct as of the Closing.

(b) Governmental Approvals and Filings. The Company shall have obtained all governmental approvals required in connection with the sale and issuance of the Note.

(c) Legal Requirements. At the Closing, the sale and issuance by the Company, and the purchase by the Lender, of the Note shall be legally permitted by all laws and regulations to which the Lender or the Company is subject.

(d) Transaction Documents. The Company shall have duly executed and delivered to the Lender this Agreement, the Note and the Warrant.

(e) Material Adverse Effect. No event shall have occurred that could reasonably be expected to result in a Material Adverse Effect.

5. Conditions to Obligations of the Company. The Company’s obligations hereunder are subject to the fulfillment, on or prior to the Closing, of all of the following conditions, any of which may be waived in whole or in part by the Company:

(a) Representations and Warranties. The representations and warranties made by the Lender in Section 3 hereof shall be true and correct when made, and shall be true and correct as of the Closing.

(b) Governmental Approvals and Filings. The Lender shall have obtained all governmental approvals required in connection with the sale and issuance of the Note.

(c) Legal Requirements. At the Closing, the sale and issuance by the Company, and the purchase by the Lender, of the Note shall be legally permitted by all laws and regulations to which the Lender or the Company are subject.

(d) Purchase Price. The Lender shall have delivered to the Company Nineteen Million Dollars ($19,000,000) in immediately available funds.

6. Definitions. As used in this Agreement, the following capitalized terms have the following meanings:

“Material Adverse Effect” means a material adverse effect, individually or in the aggregate, upon the business, properties, tangible and intangible assets, liabilities, operations, prospects, financial condition or results of operation of the Company or the ability of the Company to perform its obligations under this Agreement.

“Obligations” means all loans, advances, debts, liabilities and obligations, howsoever arising, owed by the Company to the Lender under the Note of every kind and description (whether or not evidenced by any note or instrument and whether or not for the payment of money), now existing or hereafter arising under or pursuant to the terms of the Note, including all principal, interest, fees, charges, expenses, attorneys’ fees and costs and accountants’ fees and costs chargeable to and payable by the Company thereunder, in each case, whether direct or indirect, absolute or contingent, due or to become due, and whether or not arising after the commencement of a proceeding under Title 11 of the United States Code (11 U.S.C. Section 101 et seq.), as amended from time to time (including post-petition interest) and whether or not allowed or allowable as a claim in any such proceeding.

“Person” shall mean and include an individual, a partnership, a corporation (including a business trust), a joint stock company, a limited liability company, an unincorporated association, a joint venture or other entity or a governmental authority.

“Warrant” means a Common Stock Purchase Warrant for the purchase of up to 4,871,795 Warrant Shares (as such term is defined in the Warrant).

7. Miscellaneous.

(a) Waivers and Amendments. Any provision of this Agreement may be amended, waived or modified only upon the written consent of the Company and the Lender.

(b) Governing Law. This Agreement and all actions arising out of or in connection with this Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to the conflicts of law provisions of the State of California.

(c) Survival. The representations, warranties, covenants and agreements made herein shall survive the execution and delivery of this Agreement.

(d) Successors and Assigns. Subject to the restrictions on transfer described in Section 7(e) below, the rights and obligations of the Company and the Lender hereunder and under the Note shall be binding upon and inure to the benefit of the successors, assigns, heirs, administrators and transferees of the parties.

(e) Assignment by the Company; Assignment by the Lender. Neither this Agreement nor the Note nor any of the rights, interests or obligations hereunder or thereunder may be assigned, by operation of law or otherwise, in whole or in part, by the Company without the prior written consent of the Lender. The Lender will not assign, by operation of law or otherwise, this Agreement or the Note or any of its rights, interests or obligations hereunder or thereunder without the prior written consent of the Company.

(f) Entire Agreement. This Agreement and the Note constitute the full and entire understanding and agreement between the parties relating to the subject matter hereof and thereof and supersede any previous written or verbal agreements between the parties with regard to the subject matter hereof and thereof.

(g) Notices. Any notice, request or other communication required or permitted hereunder shall be in writing and shall be deemed to have been duly given if delivered personally or by commercial delivery service, or sent via telecopy (receipt confirmed) to the parties at the following addresses or telecopy numbers (or at such other address or telecopy numbers for a party as shall be specified by like notice):

If to the Company, to:
Amyris, Inc.
5885 Hollis St., Ste. 100
Emeryville, CA 94608
Attention: General Counsel

If to the Lender, to:
Foris Ventures, LLC
Attention:
(h) **Severability of this Agreement.** If any provision of this Agreement shall be judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

(i) **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall be deemed to constitute one instrument.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

**IN WITNESS WHEREOF,** the parties have caused this Agreement to be duly executed and delivered by their proper and duly authorized officers as of the date and year first written above.

**COMPANY:**

**AMYRIS, INC.**

By: /s/ Kathleen Valiasek  
Name: Kathleen Valiasek  
Title: Chief Business Officer

**LENDER:**

**FORIS VENTURES, LLC**

By: /s/ Barbara Hager  
Name: Barbara Hager  
Title: __________________________
CREDIT AGREEMENT

This CREDIT AGREEMENT (as amended, modified or supplemented from time to time, this “Agreement”), dated as of September 17, 2019 (the “Closing Date”), is entered into by and between AMYRIS, INC., a Delaware corporation (the “Company”), and DSM FINANCE B.V., a Netherlands private company with limited liability (the “Lender”).

RECITALS

A. Subject to the terms and conditions hereof, the Lender has agreed to purchase from the Company, and the Company has agreed to sell to the Lender, secured promissory notes in the form attached hereto as Exhibit A (each, a “Note” and together, the “Notes”) having, for all Notes, an aggregate principal amount of Eight Million Dollars ($8,000,000). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Notes.

AGREEMENT

NOW THEREFORE, in consideration of the representations, warranties, and conditions set forth below, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Purchase and Sale of the Notes.

   (a) The sale and purchase of the Note on the Closing Date (such Note, the “Closing Date Note”) shall take place at such place and time on the Closing Date as the Company and the Lender may determine. On the Closing Date, the Company will deliver to the Lender the Closing Date Note against receipt by the Company of an amount, in immediately available funds, equal to Three Million Dollars ($3,000,000.00). The Closing Date Note will be registered in the Lender’s name in the Company’s records. The cash proceeds of the Closing Date Note will be used by the Company as set forth in the Closing Date Note.

   (b) The sale and purchase of another Note (such Note, the “Second Note”) shall take place at such place and time as the Company and the Lender may determine, but in any event no later than September 24, 2019. On the date of sale and purchase of the Second Note (the “Second Note Purchase Date”), the Company will deliver to the Lender the Second Note against receipt by the Company of an amount, in immediately available funds, equal to Three Million Dollars ($3,000,000.00). The Second Note will be registered in the Lender’s name in the Company’s records. The cash proceeds from the Second Note will be used by the Company as set forth in the Second Note.

   (c) The sale and purchase of another Note (such Note, the “Third Note”) shall take place at such place and time as the Company and the Lender may determine, but in any event no later than September 24, 2019. On the date of sale and purchase of the Third Note (the “Third Note Purchase Date”), the Company will deliver to the Lender the Third Note against receipt by the Company of an amount (the “Third Note Cash Proceeds Amount”), in immediately available funds, equal to (i) Two Million Dollars ($2,000,000.00) less (ii) the Setoff Amount. The Third Note will be registered in the Lender’s name in the Company’s records. The cash proceeds of the Third Note will be used by the Company as set forth in the Third Note.
2. Representations and Warranties of the Company. The Company represents and warrants to the Lender as of each of the Closing Date, the Second Note Purchase Date and the Third Note Purchase Date that:

(a) Due Incorporation, Qualification, etc. Each of the Company and its Subsidiaries (i) is a corporation duly organized, validly existing and in good standing under the laws of its state of incorporation; (ii) has the power and authority to own, lease and operate its properties and carry on its business as now conducted; and (iii) is duly qualified, licensed to do business and in good standing as a foreign corporation in each jurisdiction where the failure to be so qualified or licensed could reasonably be expected to have a Material Adverse Effect.

(b) Authority. The execution, delivery and performance by the Company of the Loan Documents and the consummation by the Company of the transactions contemplated hereby and thereby (i) are within the power of the Company and (ii) have been duly authorized by all necessary corporate actions on the part of the Company.

(c) Enforceability. Each Loan Document has been duly executed and delivered by the Company and constitutes a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except in each case as may be limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors’ rights generally and general principles of equity.

(d) Non-Contravention. The execution and delivery by the Company of each Loan Document and the performance and consummation by the Company of the transactions contemplated hereby and thereby do not and will not (i) violate the certificate of incorporation or bylaws of the Company or any judgment, order, writ, decree, statute, rule or regulation applicable to the Company; (ii) violate any provision of, or result in the breach or the acceleration of, or entitle any other Person to accelerate (whether after the giving of notice or lapse of time or both), any mortgage, indenture, agreement, instrument or contract to which the Company is a party or by which it is bound except to the extent such violation, breach or acceleration could not reasonably be expected to result in a Material Adverse Effect; or (iii) other than Liens securing the Obligations, result in the creation or imposition of any Lien upon any property, asset or revenue of the Company or the suspension, revocation, impairment, forfeiture, or nonrenewal of any permit, license, authorization or approval applicable to the Company, its business or operations, or any of its assets or properties except to the extent such suspension, revocation, impairment, forfeiture or nonrenewal could not reasonably be expected to have a Material Adverse Effect.

(e) Approvals. No consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Company of any Loan Document and the performance and consummation by the Company of the transactions contemplated hereby and thereby, except for those already obtained.

(f) No Violation or Default. None of the Company or any of its Subsidiaries is in violation of or in default with respect to (i) its certificate of incorporation or bylaws or any judgment, order, writ, decree, statute, rule or regulation applicable to such Person; or (ii) any mortgage, indenture, agreement, instrument or contract to which such Person is a party or by which it is bound (nor is there any waiver in effect which, if not in effect, would result
in such a violation or default), where, in each case, such violation or default, individually, or together with all such violations or defaults, could reasonably be expected to have a Material Adverse Effect.

(g) **Tax Returns and Payments.** Each of the Company and its Subsidiaries has timely filed all required tax returns and reports, and each of the Company and its Subsidiaries has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by the Company and its Subsidiaries except to the extent such taxes are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted, so long as such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made therefor.

(h) **Litigation.** There are no actions, proceedings or investigations pending or threatened in writing by or against the Company or any of its Subsidiaries except for such actions, proceedings or investigations that (i) individually or in the aggregate could not reasonably be expected to result in a Material Adverse Effect and (ii) do not seek to enjoin, directly or indirectly, the execution, delivery or performance by the Company of any Loan Document or the transactions contemplated hereby and thereby.

(i) **Full Disclosure.** No written representation, warranty or other statement of the Company in any certificate or written statement given to Lender by the Company in connection with the Loan Documents, as of the date such representation, warranty, or other statement was made, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or written statements not misleading in light of the circumstances under which they were made.

(j) **Properties.** Each of the Company and its Subsidiaries owns or leases all such properties, including lands, buildings, machinery and production equipment, as are necessary to the conduct of its operations as presently conducted. Each of the Company and its Subsidiaries has good, marketable and legal title to, or a good, marketable and valid leasehold interest in, all of its material properties and assets, and all such properties are free of any Liens other than (i) as disclosed in the Company’s public filings and (ii) purchase money Liens in connection with leases of machinery or production equipment. Neither the Company nor any of its Subsidiaries has received any notice of proceedings relating to its properties which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect.

(k) **Labor.** No labor problem or dispute with the employees, including management, of the Company or any of its Subsidiaries exists or is threatened or imminent, except as would not have a Material Adverse Effect.

(l) **Commission Filings.** Except as set forth on Schedule 2(l), the Company has timely filed (subject to 12b-25 filings with respect to certain periodic filings) all reports, schedules, forms, statements and other documents required to be filed by it with the U.S. Securities and Exchange Commission (the “Commission”) pursuant to the reporting requirements of the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”) (all of the foregoing filed with the Commission prior to the date hereof and all financial statements and schedules thereto and documents incorporated by reference therein, being hereinafter referred to herein as the “SEC Documents”). As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Exchange Act.
and the rules and regulations of the Commission promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the
time they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact required to be stated
therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

(m) Other Regulations. None of the Company or its Subsidiaries is subject to regulation under the U.S. Investment Company Act of 1940 or to any federal
or state statute or regulation limiting its ability to incur indebtedness.

(n) No Note Registration. The Company is under no obligation to effect any registration of any Note under the U.S. Securities Act of 1933, as amended
(the “Securities Act”), or any state securities laws with respect to any Note or to file for or comply with any exemption from registration.

(o) Intellectual Property.

1. Schedule 2(o)(1) sets forth, as of the Closing Date, all HMO Intellectual Property that is owned by (or otherwise subject to the rights and
interests of) the Company and its Subsidiaries. The Company and its Subsidiaries wholly own all of the HMO Intellectual Property. The
Company and its Subsidiaries have good, marketable and legal title to all HMO Intellectual Property (including all properties and assets set
forth on Schedule 2(o)(1)), free and clear from all Liens (other than Liens securing the Obligations). No material claim has been asserted in
writing or is pending by any person challenging the use of any HMO Intellectual Property of the Company or any of its Subsidiaries or the
validity or effectiveness of any such HMO Intellectual Property. The use of the HMO Intellectual Property by the Company and its
Subsidiaries does not infringe upon, misappropriate or otherwise violate the rights of any other person.

2. In addition to the foregoing, (x) the Company and each of its Subsidiaries owns, or is licensed to use, all intellectual property necessary to
conduct its business as currently conducted except for such intellectual property the failure of which to own or license would not reasonably be
expected to have, either individually or in the aggregate, a Material Adverse Effect and (y) to the knowledge of the Company, (i) the conduct
and operations of the businesses of the Company and each of its Subsidiaries does not infringe, misappropriate, dilute or violate any
intellectual property owned by any other Person and (ii) no other Person has contested any right, title or interest of the Company or any of its
Subsidiaries in, or relating to, any intellectual property, other than, in each case, as would not, in the aggregate, reasonably be expected to have
a Material Adverse Effect.

(p) Solvency. On each of the Closing Date, the Second Note Purchase Date and the Third Note Purchase Date, both before and after giving effect to (a) the
sale and purchase of the applicable Note on such date, (b) the disbursement of the proceeds of such Note to or as directed by the Company, (c) solely
with respect to the Third Note Purchase Date, the consummation of the Setoff Transaction and (d) the payment and accrual of all transaction costs in
connection with the foregoing, the Company will not be Insolvent.
For the purposes of the above clause (p), “Insolvent” means, with respect to any Person as of any date of determination, that, as of such date, (i) the present fair saleable value of such Person’s assets is less than the amount required to pay such Person’s total indebtedness, (ii) such Person is unable to pay its debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured, (iii) such Person intends to incur or believes that it will incur debts that would be beyond its ability to pay as such debts mature or (iv) such Person has unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted and is currently proposed to be conducted.

(q) Material Adverse Effect. Since December 31, 2017, there has been no Material Adverse Effect or any event or circumstance which would reasonably be expected to result in a Material Adverse Effect.

3. Representations and Warranties of the Lender. The Lender represents and warrants to the Company as of each of the Closing Date, the Second Note Purchase Date and the Third Note Purchase Date that:

(a) Due Incorporation, Qualification, etc. The Lender (i) is a limited liability company duly organized, validly existing and in good standing under the laws of Delaware; and (ii) has all requisite power to execute and deliver the Loan Documents to which it is a party and to carry out and perform its obligations under the terms thereof.

(b) Authority. The execution, delivery and performance by the Lender of the Loan Documents to which it is a party and the consummation by the Company of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate actions on the part of the Lender.

(c) Enforceability. The Lender has full legal capacity, power and authority to execute and deliver the Loan Documents to which it is a party and to perform its obligations hereunder. Each Loan Document to which the Lender is a party is a valid and binding obligation of the Lender, enforceable in accordance with its terms, except as limited by bankruptcy, insolvency or other laws of general application relating to or affecting the enforcement of creditors’ rights generally and general principles of equity.

(d) Securities Law Compliance. The Lender is purchasing the applicable Note on such date for its own account for investment, not as a nominee or agent, and not with a view to, or for resale in connection with, the distribution thereof. Lender has received or has had full access to all of the information necessary and appropriate to make an informed investment decision. The Lender is an accredited investor as such term is defined in Rule 501 of Regulation D under the Securities Act. The Lender acknowledges that it can bear the economic risk of the investment in such Note.

(e) Approvals. No consent, approval, order or authorization of, or registration, declaration or filing with, any governmental authority or other Person is required in connection with the execution and delivery by the Lender of each Loan Document to which it is a party and the performance and consummation by the Lender of the transactions contemplated hereby and thereby, except for those already obtained.
(f) Non-Contravention. The execution and delivery by the Lender of each Loan Document to which it is a party and the performance and consummation by the Lender of the transactions contemplated hereby and thereby do not and will not (i) violate the organizational documents of the Lender or any judgment, order, writ, decree, statute, rule or regulation applicable to the Lender; or (ii) violate any agreement to which the Company is a party or by which it is bound.

4. Conditions to Obligations of the Lender.

(a) The Lender’s obligations to purchase the Closing Date Note on the Closing Date hereunder are subject to the fulfillment, on or prior to the Closing Date, of all of the following conditions, any of which may be waived in whole or in part by the Lender:

1. RebM Obligations. The Lender shall have received evidence satisfactory to the Lender in its sole discretion that one or more Subsidiaries of the Company has repaid in full, in immediately available funds and in order of invoice due date, the RebM Obligations.

2. Representations and Warranties. The representations and warranties made by the Company in Section 2 hereof shall have been true and correct when made, and shall be true and correct as of the Closing Date.

3. Governmental Approvals and Filings. The Company shall have obtained all governmental approvals required in connection with the sale and issuance of the Closing Date Note.

4. Legal Requirements. As of the Closing Date, the sale and issuance by the Company, and the purchase by the Lender, of the Closing Date Note shall be legally permitted by all laws and regulations to which the Lender or the Company is subject.

5. Transaction Documents; HMO Intellectual Property Releases.

a. The Company shall have duly executed and delivered to the Lender this Agreement, the Closing Date Note, the Security Agreement and the Patent Security Agreement (as defined in the Security Agreement) in respect of the HMO Patents (the “Closing Date Patent Security Agreement”). A UCC-1 financing statement in respect of the Company in favor of the Lender shall have been filed with the Secretary of State of the State of Delaware. The Closing Date Patent Security Agreement shall have been filed with the United States Patent and Trademark Office.

b. The Company shall have delivered to the Lender termination documents duly executed by all parties thereto that release and terminate all Liens on and security interests in the Collateral that are in existence immediately prior to the closing of the transactions contemplated hereunder on the Closing Date, in each case in form and substance satisfactory to the Lender.
6. **Lien Perfection.** The Lender shall have received evidence satisfactory to it that the Liens granted to the Lender pursuant to the Security Agreement will be first-priority perfected Liens on the Collateral on the Closing Date.

7. **No Event of Default.** After giving effect to the sale and issuance of the Closing Date Note, no Event of Default shall exist.

8. **Borrowing Notice.** The Company shall have delivered to the Lender a borrowing notice, dated as of the Closing Date, duly executed by a responsible officer of the Company (i) requesting the sale and purchase of the Closing Date Note, (ii) providing wire instructions and (iii) certifying as to the satisfaction, on or prior to the Closing Date, of each of the conditions in this Section 4(a).

9. **Legal Opinion.** Fenwick & West LLP, legal counsel to the Company, shall have delivered to the Lender a customary legal opinion in form and substance satisfactory to the Lender.

(b) The Lender’s obligations to purchase the Second Note on the Second Note Purchase Date are subject to the fulfillment, on or prior to the Second Note Purchase Date, of all of the following conditions, any of which may be waived in whole or in part by the Lender:

1. **Other Obligations.** The Lender shall have received evidence satisfactory to the Lender in its sole discretion that one or more Subsidiaries of the Company has repaid, in immediately available funds and in order of invoice due date, the Other Obligations in an amount equal to $3,000,000 within three Business Days of receipt by the Company of the cash proceeds of the Closing Date Note.

2. **Representations and Warranties.** The representations and warranties made by the Company in Section 2 hereof shall have been true and correct when made, and shall be true and correct as of the Second Note Purchase Date.

3. **Governmental Approvals and Filings.** The Company shall have obtained all governmental approvals required in connection with the sale and issuance of the Second Note.

4. **Legal Requirements.** As of the Second Note Purchase Date, the sale and issuance by the Company, and the purchase by the Lender, of the Second Note shall be legally permitted by all laws and regulations to which the Lender or the Company is subject.

5. **Transaction Documents.** The Company shall have duly executed and delivered to the Lender the Second Note.

6. **Lien Perfection.** The Lender shall have received evidence satisfactory to it that the Liens granted to the Lender pursuant to the Security Agreement will be first-priority perfected Liens on the Collateral on the Second Note Purchase Date.

7. **No Event of Default.** After giving effect to the sale and issuance of the Second Note, no Event of Default shall exist.
8. **Borrowing Notice.** The Company shall have delivered to the Lender a borrowing notice, dated as of the Second Note Purchase Date, duly executed by a responsible officer of the Company (i) requesting the sale and purchase of the Second Note, (ii) providing wire instructions and (iii) certifying as to the satisfaction, on or prior to the Second Note Purchase Date, of each of the conditions in this Section 4(b).

(c) The Lender’s obligations to purchase the Third Note on the Third Note Purchase Date are subject to the fulfillment, on or prior to the Third Note Purchase Date, of all of the following conditions, any of which may be waived in whole or in part by the Lender:

1. **Other Obligations.** The Lender shall have received evidence satisfactory to the Lender in its sole discretion that one or more Subsidiaries of the Company has repaid, in immediately available funds and in order of invoice due date, the Other Obligations in an amount equal to $6,000,000 (which, for the avoidance of doubt, is inclusive of $3,000,000 repaid pursuant to Section 4(b)(1)) within three Business Days of receipt by the Company of the cash proceeds of the Second Note (or such other time period as the Lender may agree in its sole discretion).

2. **Representations and Warranties.** The representations and warranties made by the Company in Section 2 hereof shall have been true and correct when made, and shall be true and correct as of the Third Note Purchase Date.

3. **Governmental Approvals and Filings.** The Company shall have obtained all governmental approvals required in connection with the sale and issuance of the Third Note.

4. **Legal Requirements.** As of the Third Note Purchase Date, the sale and issuance by the Company, and the purchase by the Lender, of the Third Note shall be legally permitted by all laws and regulations to which the Lender or the Company is subject.

5. **Transaction Documents.** The Company shall have duly executed and delivered to the Lender the Third Note.

6. **Lien Perfection.** The Lender shall have received evidence satisfactory to it that the Liens granted to the Lender pursuant to the Security Agreement will be first-priority perfected Liens on the Collateral on the Third Note Purchase Date.

7. **No Event of Default.** After giving effect to the sale and issuance of the Third Note, no Event of Default shall exist.

8. **Setoff.** The Setoff Transaction shall have occurred or shall occur substantially concurrently with the issuance and sale of the Third Note.

9. **Borrowing Notice.** The Company shall have delivered to the Lender a borrowing notice, dated as of the Third Note Purchase Date, duly executed by a responsible officer of the Company (i) requesting the sale and purchase of the Third Note, (ii) providing wire instructions and (iii) certifying as to the satisfaction, on or prior to the Third Note Purchase Date, of each of the conditions in this Section 4(c).
10. **Legal Expenses.** The Company shall have paid in cash all costs and expenses incurred by, or for the benefit of, the Lender (including all reasonable fees and documented costs and expenses of Latham & Watkins LLP) and requested in writing on or prior to the Third Note Purchase Date in connection with (i) preparing, negotiating and documenting the Loan Documents and (ii) all transactions consummated in connection with the Loan Documents; provided that the amounts payable by the Company under this Section 4(c)(10) shall not exceed $130,000 in the aggregate (collectively, the “Legal Fees Obligation”).

5. **Conditions to Obligations of the Company.** The Company’s obligations to sell each Note hereunder are subject to the fulfillment, on or prior to the Closing Date, the Second Note Purchase Date and the Third Note Purchase Date, as applicable, of all of the following conditions, any of which may be waived in whole or in part by the Company:

(a) **Representations and Warranties.** The representations and warranties made by the Lender in Section 3 hereof shall be true and correct when made, and shall be true and correct as of the Closing Date, the Second Note Purchase Date or the Third Note Purchase Date, as applicable.

(b) **Governmental Approvals and Filings.** The Lender shall have obtained all governmental approvals required in connection with the sale and issuance of the applicable Note.

(c) **Legal Requirements.** On the Closing Date, the Second Note Purchase Date or the Third Note Purchase Date, as applicable, the sale and issuance by the Company, and the purchase by the Lender, of the applicable Note shall be legally permitted by all laws and regulations to which the Lender or the Company are subject.

(d) **Purchase Price.** The Lender shall have delivered to the Company, in immediately available funds, (i) with respect to the Closing Date Note and the Second Note, $3,000,000 and (ii) with respect to the Third Note, the Third Note Cash Proceeds Amount.

6. **Covenant.** On or prior to October 31, 2019, the Company shall file its Form 10-K for the fiscal year ended December 31, 2018 with the Commission.

7. **[Reserved.]**

8. **Definitions.** As used in this Agreement, the following capitalized terms have the following meanings:

- “**Collateral**” has the meaning assigned to such term in the Security Agreement.
- “**DSM Brazil**” means DSM Produtos Nutricionais Brasil S.A.
- “**Existing DSM Note**” means the Note, dated as of December 28, 2017, issued by the Company to the Lender.
- “**Farnesene Obligations**” means obligations owing by the Company and its Affiliates to DSM Nutritional Products AG in the aggregate amount of $400,630.10.
“Lien” means, with respect to any property, any security interest, mortgage, pledge, lien, claim, charge or other encumbrance in, of, or on such property or the income therefrom, including, without limitation, the interest of a vendor, licensor or lessor under a conditional sale agreement, license, capital lease or other title retention agreement, or any agreement to provide any of the foregoing, and the filing of any financing statement or similar instrument under the Uniform Commercial Code or comparable law of any jurisdiction.

“Loan Documents” means this Agreement, each Note, the Security Agreement, each borrowing notice delivered pursuant to Section 4, each Copyright Security Agreement, each Patent Security Agreement, each Trademark Security Agreement and all other documents, instruments, certificates, and agreements executed or delivered by the Company in connection with, pursuant to or otherwise contemplated by this Agreement or any other Loan Document, including, without limitation, any security agreements or guaranty agreements from any of the Company’s Subsidiaries to the Lender or any of them with respect to the Obligations.

“Material Adverse Effect” means a material adverse effect, individually or in the aggregate, upon the business, properties, tangible and intangible assets, liabilities, operations, prospects, financial condition or results of operation of the Company or the ability of the Company to perform its obligations under any Loan Document.

“Obligations” means all loans, advances, debts, liabilities and obligations, howsoever arising, owed by the Company to the Lender under this Agreement the Notes and each other Loan Document of every kind and description (whether or not evidenced by any note or instrument and whether or not for the payment of money), now existing or hereafter arising under or pursuant to the terms of this Agreement, the Notes and the other Loan Documents, including all principal, interest, fees, charges, expenses, attorneys’ fees and costs and accountants’ fees and costs chargeable to and payable by the Company thereunder, in each case, whether direct or indirect, absolute or contingent, due or to become due, and whether or not arising after the commencement of a proceeding under Title 11 of the United States Code (11 U.S.C. Section 101 et seq.), as amended from time to time (including post-petition interest) and whether or not allowed or allowable as a claim in any such proceeding.

“Other Obligations” means obligations owing by the Company and its Affiliates to DSM Brazil in respect of various products, including, but not limited to, RebM, Sclareol, Carboys and Bonsucro farnesene, in the aggregate amount of R$25,005,062.00.

“Person” means an individual, a partnership, a corporation (including a business trust), a joint stock company, a limited liability company, an unincorporated association, a joint venture or other entity or a governmental authority.

“RebM Obligations” means obligations owing by the Company and its Affiliates to DSM Brazil in respect of RebM in the aggregate amount of R$23,054,587.82.

“Security Agreement” means the Security Agreement, dated as of the Closing Date, between the Lender and the Company.

“Setoff Amount” means $1,155,630.10 in respect of (a) all amounts owing by the Company or any of its Affiliates in respect of the Farnesene Obligations on the Third Note Purchase Date, (b) any interest due and payable in respect of the Existing DSM Note as of the Third Note Purchase.
Date and (c) the Legal Fees Obligation, in each case before giving effect to the sale and purchase of the Third Note.

“Setoff Transaction” means the occurrence of the satisfaction in full of obligations owing by the Company and its Affiliates to the Lender and its Affiliates in an amount equal to the Setoff Amount.


(a) **Waivers and Amendments.** Any provision of the Loan Documents may be amended, waived or modified only upon the written consent of the Company and the Lender.

(b) **Governing Law.** This Agreement and the other Loan Documents and all actions arising out of or in connection with this Agreement or any other Loan Document shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflicts of law provisions of the State of New York.

(c) **Arbitration.** Any dispute, controversy or claim arising out of or relating to any Loan Document or the subject matter hereof or thereof, including, but not limited to, any contractual, pre-contractual or noncontractual rights, obligations or liabilities and any question or dispute regarding the existence, validity, formation, effect, interpretation, performance, breach, termination or invalidity hereof or thereof (a “Dispute”), shall be finally settled by arbitration. Any arbitration initiated in connection with this Section 9(c) shall be conducted by the New York office of the American Arbitration Association (“AAA”) in accordance with AAA Commercial Rules in effect at the time of applying for arbitration (“AAA Rules”), except as the AAA Rules conflict with the provisions of this Section 9(c), in which event the provisions of this Section 9(c) shall control. The arbitration tribunal shall consist of three (3) arbitrators, one (1) to be appointed by the claimant, one (1) to be appointed by the respondent and the two (2) arbitrators so appointed shall jointly appoint the third arbitrator. The tribunal shall decide any dispute submitted by the Parties strictly in accordance with the substantive law of the State of New York and shall not apply any other substantive law. Subject to the agreement of the tribunal, any Dispute(s) which arise subsequent to the commencement of arbitration of any existing Dispute(s) shall be resolved by the tribunal already appointed to hear the existing Dispute(s). The arbitration award shall be final, conclusive and binding on each party as from the date rendered. Judgment upon any arbitration award may be entered and enforced in any court having jurisdiction over a party or any of its assets.

(d) **Survival.** The representations, warranties, covenants and agreements made herein shall survive the execution and delivery of each Loan Document.

(e) **Successors and Assigns.** Subject to the restrictions on transfer described in Section 9(g) below, the rights and obligations of the Company and the Lender hereunder and under each Note shall be binding upon and inure to the benefit of the successors, assigns, heirs, administrators and transferees of the parties.

(f) **Registration, Transfer and Replacement of the Notes.** Each Note issuable under this Agreement shall be issued in registered form. The Company will keep, at its principal executive office, books for the registration and registration of transfer of each Note. Prior to presentation of a Note for registration of transfer, the Company shall treat the Person in
whose name such Note is registered as the owner and holder of such Note for all purposes whatsoever, whether or not such Note shall be overdue, and the Company shall not be affected by notice to the contrary. Subject to any restrictions on or conditions to transfer set forth in a Note, the holder of such Note, at its option, may in person or by duly authorized attorney surrender the same for exchange at the Company’s chief executive office, and promptly thereafter and at the Company’s expense, except as provided below, receive in exchange therefor one or more new Note(s), each in the principal requested by such holder, dated the date to which interest shall have been paid on such Note so surrendered or, if no interest shall have yet been so paid, dated the date of such Note so surrendered and registered in the name of such Person or Persons as shall have been designated in writing by such holder or its attorney for the same principal amount as the then unpaid principal amount of such Note so surrendered. Upon receipt by the Company of evidence reasonably satisfactory to it of the ownership of and the loss, theft, destruction or mutilation of any Note and (a) in the case of loss, theft or destruction, of indemnity reasonably satisfactory to it; or (b) in the case of mutilation, upon surrender thereof, the Company, at its expense, will execute and deliver in lieu thereof a new Note executed in the same manner as such Note being replaced, in the same principal amount as the unpaid principal amount of such Note and dated the date to which interest shall have been paid on such Note or, if no interest shall have yet been so paid, dated the date of such Note.

(g) Assignment by the Company; Assignment by the Lender. Neither any Loan Document nor any of the rights, interests or obligations hereunder or thereunder may be assigned, by operation of law or otherwise, in whole or in part, by the Company without the prior written consent of the Lender. The Lender will not assign, by operation of law or otherwise, any Loan Document or any of its rights, interests or obligations hereunder or thereunder without the prior written consent of the Company, except to an Affiliate of the Lender.

(h) Entire Agreement. The Loan Documents constitute the full and entire understanding and agreement between the parties relating to the subject matter hereof and thereof and supersede any previous written or verbal agreements between the parties with regard to the subject matter hereof and thereof.

(i) Notices. Any notice, request or other communication required or permitted hereunder shall be in writing and shall be deemed to have been duly given if delivered personally or by commercial delivery service, or sent via telecopy (receipt confirmed) or email to the parties at the following addresses, telecopy numbers or emails (or at such other address, telecopy number or email for a party as shall be specified by like notice):

If to the Company, to:

Amyris, Inc.
5885 Hollis St., Ste. 100
Emeryville, CA 94608
Telecopy No.:
Email:
Attention: General Counsel

If to the Lender, to:

DSM Finance B.V.
Severability of this Agreement. If any provision of this Agreement shall be judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall be deemed to constitute one instrument.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]
IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed and delivered by their proper and duly authorized officers as of the date and year first written above.

COMPANY:

AMYRIS, INC.

By: /s/ John Melo
Name: John Melo
Title: President and Chief Executive Officer

LENDER:

DSM FINANCE B.V.

By: /s/ Ger Hellenbrand
Name: Ger Hellenbrand
Title: Director

By: /s/ Brune Singh
Name: Brune Singh
Title: Director
CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(c) and 15d-(14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, John G. Melo, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Amyris, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.
CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(c) and 15d-15(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Jonathan Wolter, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Amyris, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.
In connection with the Quarterly Report of Amyris, Inc. (the “Company”) on Form 10-Q for the quarterly period ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof, I, John G. Melo, Chief Executive Officer of the Company, certify for the purposes of section 1350 of chapter 63 of title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Quarterly Report of the Company on Form 10-Q for the quarterly period ended September 30, 2019 (the “Report”), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 12, 2019

______________________________
/s/ John G. Melo

John G. Melo

President and Chief Executive Officer
(Principal Executive Officer)
In connection with the Quarterly Report of Amyris, Inc. (the “Company”) on Form 10-Q for the quarterly period ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof, I, Jonathan Wolter, Interim Chief Financial Officer of the Company, certify for the purposes of section 1350 of chapter 63 of title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Quarterly Report of the Company on Form 10-Q for the quarterly period ended September 30, 2019 (the “Report”), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 12, 2019

/s/ Jonathan Wolter
Jonathan Wolter
Interim Chief Financial Officer
(Principal Financial Officer)