UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2017

OR

☐ **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	**55-0856151**
(State or other jurisdiction of incorporation or organization)	**(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)

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 ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuance 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 and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☒
Emerging growth company	☐		

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. ☐

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

Shares outstanding of the Registrant's common stock:

Class	Outstanding as of November 9, 2017
Common Stock, $0.0001 par value per share	43,033,650

AMYRIS, INC.
TABLE OF CONTENTS

PART I

ITEM 1. FINANCIAL STATEMENTS

AMYRIS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except shares and par value)
(Unaudited)

	September 30, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 15,865	$ 27,150
Restricted cash	4,078	4,326
Short-term investments	1,743	1,374
Accounts receivable, net of allowance of $642 and $501, respectively	24,922	13,977
Inventories	6,410	6,213
Prepaid expenses and other current assets	9,244	6,083
Total current assets	62,262	59,123
Property, plant and equipment, net	50,130	53,735
Restricted cash, non-current	958	957
Recoverable taxes from Brazilian government entities	17,561	13,723
Other assets	7,670	2,335
Total assets	$ 138,581	$ 129,873
Liabilities, Mezzanine Equity and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 20,396	$ 15,315
Deferred revenue	7,027	5,288
Accrued and other current liabilities	28,883	30,110
Debt, current portion	6,070	25,853
Related party debt, current portion	5,634	33,302
Total current liabilities	68,010	109,868
Long-term debt, net of current portion	109,205	128,744
Related party debt, net of current portion	43,736	39,144
Derivative liabilities	89,770	6,894
Other liabilities	18,271	23,731
Total liabilities	328,992	308,381
Commitments and contingencies (Note 8)		
Mezzanine equity:		
Contingently redeemable common stock (Note 6)	5,000	5,000
Stockholders' deficit:		
Preferred stock - $0.0001 par value, 5,000,000 and 5,000,000 shares authorized as of September 30, 2017 and December 31, 2016, respectively, and 56,390 and 0 shares issued and outstanding as of September 30, 2017 and December 31, 2016, respectively	—	—
Common stock - $0.0001 par value, 250,000,000 and 500,000,000 shares authorized as of September 30, 2017 and December 31, 2016, respectively; 38,762,112 and 18,273,921 shares issued and outstanding as of September 30, 2017 and December 31, 2016, respectively	4	2
Additional paid-in capital - common stock and other	1,049,299	990,895
Accumulated other comprehensive loss	(40,601)	(40,904)
Accumulated deficit	(1,205,050)	(1,134,438)
Total Amyris, Inc. stockholders' deficit	(196,348)	(184,445)
Noncontrolling interest	937	937
Total stockholders' deficit	(195,411)	(183,508)
Total liabilities, mezzanine equity and stockholders' deficit	$ 138,581	$ 129,873

See the accompanying notes to the unaudited condensed consolidated financial statements.

AMYRIS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except shares and per share amounts)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenue				
Renewable products	$ 11,315	$ 6,820	$ 32,336	$ 14,883
Grants and collaborations	12,882	19,724	30,521	30,071
Total revenue	24,197	26,544	62,857	44,954
Cost and operating expenses				
Cost of products sold	17,637	14,876	47,684	33,945
Research and development	15,185	12,315	44,141	37,397
Sales, general and administrative	15,454	11,381	44,253	35,055
Total cost and operating expenses	48,276	38,572	136,078	106,397
Loss from operations	(24,079)	(12,028)	(73,221)	(61,443)
Other income (expense)				
Interest expense	(7,733)	(7,927)	(29,219)	(25,989)
Gain (loss) from change in fair value of derivative instruments	(2,692)	(786)	35,422	41,826
Gain (loss) upon extinguishment of debt	461	(217)	(3,067)	(866)
Other (expense) income, net	(136)	1,402	(576)	(1,705)
Total other income (expense)	(10,100)	(7,528)	2,560	13,266
Loss before income taxes	(34,179)	(19,556)	(70,661)	(48,177)
Benefit from (provision for) income taxes	318	(148)	49	(402)
Net loss attributable to Amyris, Inc.	(33,861)	(19,704)	(70,612)	(48,579)
Less deemed dividend on capital distribution to related parties	—	—	(8,648)	—
Less deemed dividend related to beneficial conversion feature on Series A preferred stock	—	—	(562)	—
Less deemed dividend related to beneficial conversion feature on Series B preferred stock	(634)	—	(634)	—
Less deemed dividend related to beneficial conversion feature on Series D preferred stock	(5,757)	—	(5,757)	—
Less cumulative dividends on Series A and Series B preferred stock	(2,567)	—	(4,242)	—
Net loss attributable to Amyris, Inc. common stockholders	$ (42,819)	$ (19,704)	$ (90,455)	$ (48,579)
Net loss per share attributable to common stockholders:				
Basic	$ (1.14)	$ (1.19)	$ (3.32)	$ (3.21)
Diluted	$ (1.14)	$ (1.19)	$ (4.61)	$ (4.24)
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock:				
Basic	37,529,694	16,612,690	27,280,894	15,118,144
Diluted	37,529,694	16,612,690	27,280,894	17,891,675

See the accompanying notes to the unaudited condensed consolidated financial statements.

AMYRIS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Comprehensive loss:				
Net loss attributable to Amyris, Inc. common stockholders	$ (42,819)	$ (19,704)	(90,455)	$ (48,579)
Foreign currency translation adjustment, net of tax	1,402	(1,884)	303	7,397
Comprehensive loss attributable to Amyris, Inc. common stockholders	$ (41,417)	$ (21,588)	(90,152)	$ (41,182)

See the accompanying notes to the unaudited condensed consolidated financial statements.

AMYRIS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT AND MEZZANINE EQUITY
(In thousands, except shares)
(Unaudited)

	Preferred Stock		Common Stock								
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Noncontrolling Interest	Total Deficit	Mezzanine Equity - Common Stock	Mezzanine Equity - Preferred Stock
December 31, 2015	—	$ —	13,742,019	$ 2	$ 926,235	$ (47,198)	$ (1,037,104)	$ (391)	$(158,456)	$ —	$ —
Issuance of common stock upon conversion of debt	—	—	695,388	—	9,472	—	—	—	9,472	—	—
Issuance of common stock for settlement of debt principal payments	—	—	2,062,357	—	13,509	—	—	—	13,509	—	—
Issuance of contingently redeemable common stock	—	—	292,398	—	—	—	—	—	—	5,000	—
Issuance of warrants with debt private placement and collaboration agreements	—	—	—	—	4,387	—	—	—	4,387	—	—
Contribution upon restructuring of Fuels JV	—	—	—	—	4,252	—	—	—	4,252	—	—
Acquisition of noncontrolling interest	—	—	—	—	(323)	—	—	277	(46)	—	—
Shares issued from restricted stock settlement	—	—	83,672	—	(202)	—	—	—	(202)	—	—
Shares issued upon ESPP purchase	—	—	15,122	—	123	—	—	—	123	—	—
Issuance of common stock upon exercise of stock options, net of restricted stock	—	—	9	—	—	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	5,645	—	—	—	5,645	—	—
Foreign currency translation adjustment	—	—	—	—	—	7,397	—	—	7,397	—	—
Net loss	—	—	—		—	—	(48,579)	—	(48,579)	—	—
September 30, 2016	—	$ —	16,890,965	$ 2	$ 963,098	$ (39,801)	$ (1,085,683)	$ (114)	$(162,498)	$ 5,000	$ —
December 31, 2016	—	$ —	18,273,921	$ 2	$ 990,895	$ (40,904)	$ (1,134,438)	$ 937	$(183,508)	$ 5,000	$ —
Issuance of Series A preferred stock for cash, net of issuance costs of $562	22,140	—	—	—	—	—	—	—	—	—	—
Issuance of Series B preferred stock upon conversion of debt, net of issuance costs of $0	40,204	—	—	—	—	—	—	—	—	—	11,530
Issuance of Series B preferred stock for cash, net of issuance costs of $860	55,700	—	—	—	5,476	—	—	—	5,476	—	1,300
Issuance of Series D preferred stock for cash, net of issuance costs of $176	12,958	—	—	—	6,197	—	—	—	6,197	—	—
Issuance of shares due to rounding from reverse stock split	—	—	6,473	—	—	—	—	—	—	—	—
Issuance of common stock for cash	—	—	2,826,711	—	5,527	—	—	—	5,527	—	—
Issuance of common stock upon conversion of preferred stock	(74,612)	—	11,842,669	2	—	—	—	—	2	—	—
Issuance of common stock upon conversion of debt	—	—	2,257,786	—	14,153	—	—	—	14,153	—	—
Issuance of common stock for settlement of debt principal payments	—	—	1,246,165	—	10,708	—	—	—	10,708	—	—
Issuance of common stock for settlement of debt interest payments	—	—	400,967	—	3,436	—	—	—	3,436	—	—
Beneficial conversion feature of Series A preferred stock	—	—	—	—	562	—	—	—	562	—	—
Deemed dividend on beneficial conversion feature of Series A preferred stock	—	—	—	—	(562)	—	—	—	(562)	—	—
Beneficial conversion feature to related party of Series B preferred stock	—	—	—	—	634	—	—	—	634	—	—
Deemed dividend to related party on beneficial conversion feature of Series B preferred stock	—	—	—	—	(634)	—	—	—	(634)	—	—
Beneficial conversion feature of Series D preferred stock	—	—	—	—	5,757	—	—	—	5,757	—	—
Deemed dividend on beneficial conversion feature of Series D preferred stock	—	—	—	—	(5,757)	—	—	—	(5,757)	—	—
Reclassification from mezzanine equity to permanent equity	—	—	—	—	12,830	—	—	—	12,830	—	(12,830)

Deemed dividend on capital distribution to related parties	—	—	—	—	(8,648)	—	—	—	(8,648)	—	—
Issuance of common stock upon exercise of stock options, net of restricted stock	—	—	134	—	—	—	—	—	—	—	—
Shares issued from restricted stock settlement	—	—	134,479	—	(391)	—	—	—	(391)	—	—
Shares issued upon ESPP purchase	—	—	16,759	—	69	—	—	—	69	—	—
Shares issued upon exercise of warrants	—	—	1,756,048	—	5,105	—	—	—	5,105	—	—
Stock-based compensation	—	—	—	—	3,942	—	—	—	3,942	—	—
Foreign currency translation adjustment	—	—	—	—	—	303	—	—	303	—	—
Net loss	—	—	—	—	—	—	(70,612)	—	(70,612)	—	—
September 30, 2017	56,390	$ —	38,762,112	$ 4	$1,049,299	$ (40,601)	$ (1,205,050)	$ 937	$(195,411)	$ 5,000	$ —

See the accompanying notes to the unaudited condensed consolidated financial statements.

AMYRIS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2017	**2016**
Operating activities		
Net loss	$ (70,612)	$ (48,579)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	8,124	8,561
Loss (gain) on disposal of property, plant and equipment	37	(136)
Stock-based compensation	3,942	5,645
Accretion of debt discount and issuance costs	10,108	9,190
Loss upon extinguishment of debt	3,067	866
Receipt of equity in connection with collaboration arrangements revenue	(2,660)	—
Provision for doubtful accounts	141	—
Gain from change in fair value of derivative instruments	(35,054)	(41,826)
Loss on foreign currency exchange rates	(205)	1,662
Changes in assets and liabilities:		
Accounts receivable	(11,088)	(1,357)
Inventories	(126)	3,868
Recoverable taxes from Brazilian government entities	(3,838)	(3,069)
Prepaid expenses and other assets	(9,124)	1,735
Accounts payable	3,119	4,306
Accrued and other liabilities	404	13,408
Deferred revenue	1,113	343
Net cash used in operating activities	(102,652)	(45,383)
Investing activities		
Purchase of short-term investments	(3,618)	(3,073)
Maturities of short-term investments	5,799	3,296
Sale of short-term investments	43	—
Purchases of property, plant and equipment	(487)	(719)
Net cash provided by (used in) investing activities	1,737	(496)
Financing activities		
Proceeds from sale of convertible preferred stock in May 2017 Offerings, net of issuance costs	50,661	—
Proceeds from sale of convertible preferred stock in August 2017 Vivo Offering, net of issuance costs	24,824	—
Proceeds from sale of convertible preferred stock in August 2017 DSM Offering, net of issuance costs	25,942	—
Proceeds from debt issued, net of discounts and issuance costs	13,965	13,275
Proceeds from debt issued to related parties	—	25,000
Proceeds from issuance of contingently redeemable common stock	—	5,000
Proceeds from exercises of common stock options, net of repurchase	147	123
Principal payments on debt	(26,708)	(7,442)
Principal payments on capital leases	—	(977)
Change in restricted cash related to contingently redeemable common stock	1,022	—
Employees' taxes paid upon vesting of restricted stock units	(87)	(202)
Net cash provided by financing activities	89,766	34,777
Effect of exchange rate changes on cash and cash equivalents	(136)	(308)
Net decrease in cash and cash equivalents	(11,285)	(11,410)
Cash and cash equivalents at beginning of period	27,150	11,992
Cash and cash equivalents at end of period	$ 15,865	$ 582

See the accompanying notes to the unaudited condensed consolidated financial statements.

AMYRIS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2017	**2016**
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 6,805	$ 4,679
Supplemental disclosures of non-cash investing and financing activities:		
Acquisition of property, plant and equipment under accounts payable, accrued liabilities and notes payable	$ (1,045)	$ (1,485)
Financing of equipment	$ 953	$ 1,276
Financing of insurance premium under notes payable	$ (191)	$ (315)
Issuance of common stock for settlement of debt principal and interest payments	$ 14,144	$ 13,506
Issuance of convertible preferred stock upon conversion of debt	$ 40,204	$ —
Issuance of common stock upon conversion of debt	$ 28,702	$ 9,471
Accrued interest added to debt principal	$ 1,745	$ 2,052
Non-cash investment in joint venture	$ —	$ 600
Cancellation of debt and accrued interest on disposal of interest in affiliate	$ —	$ 4,252

See the accompanying notes to the unaudited condensed consolidated financial statements.

1. The Company

Amyris, Inc. (the Company or Amyris) is a leading industrial biotechnology company that is applying its technology platform to engineer, manufacture and sell high performance products into the Health and Nutrition, Personal Care and Performance Materials 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 chemical manufacturing processes. The Company has successfully used its technology to develop and produce at commercial volumes five distinct molecules.

The Company believes 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, animal- or plant-derived ingredients. The Company continues to build demand for its current portfolio of products through a sales network comprised of direct sales and distributors, and is engaged in collaborations across each of its three market focus areas to drive additional product sales and partnership opportunities. Via its partnership model, the Company's partners invest in the development of each molecule to bring it from the lab to commercial scale. The Company then captures long-term revenue both through the production and sale of the molecule to its partners and through value sharing of the partners' product sales.

Liquidity

The Company has incurred significant operating losses since its inception and expects to continue to incur losses and negative cash flows from operations through at least the first half of 2018. As of September 30, 2017, the Company had negative working capital of $5.7 million, (compared to negative working capital of $50.7 million as of December 31, 2016), an accumulated deficit of $1.2 billion, and cash, cash equivalents and short-term investments of $17.6 million (compared to $28.5 million as of December 31, 2016).

As of September 30, 2017, the Company's debt (including related party debt), net of deferred discount and issuance costs of $23.7 million, totaled $164.6 million, of which $11.7 million is classified as current. The Company's debt service obligations through December 31, 2018 are $74.5 million, including $20.4 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, material adverse effect and cross default clauses. A failure to comply with the covenants 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 also constitute an event of default under the Company's other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness.

These factors raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that these financial statements are issued. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our ability to continue as a going concern will depend, in large part, on our ability to achieve positive cash flows from operations during the next 12 months and extend existing debt maturities, which is uncertain. Our operating plan for the remainder of 2017 and 2018 contemplates a significant reduction in our net cash outflows, resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) reduced production costs as a result of manufacturing and technical developments, and (iii) cash inflows from collaborations and grants. If the Company is unable to continue as a going concern, it may be unable to meet its obligations under its existing debt facilities, which could result in an acceleration of its obligation to repay all amounts outstanding under those facilities, and it may be forced to liquidate its assets.

During the nine months ended September 30, 2017, the Company improved its liquidity as follows:

- In January, February and May 2017, debt obligations totaling $21.0 million were extended to dates from November 2017 to April 2019;
- In May 2017, the Company sold shares of its Series A 17.38% Convertible Preferred Stock, par value $0.0001 per share (the Series A Preferred Stock), shares of its Series B 17.38% Convertible Preferred Stock, par value $0.0001 per share (the Series B Preferred Stock), and warrants to purchase common stock for net proceeds of $50.7 million;
- In April and May 2017, convertible debt obligations totaling $35.8 million were converted into shares of common stock pursuant to their terms or exchanged for shares of Series B Preferred Stock and warrants to purchase common stock;

- In May 2017, additional debt obligations totaling $29.0 million were exchanged for shares of Series B Preferred Stock and warrants to purchase common stock;
- In May 2017, the Company made debt principal payments of $21.8 million, which in combination with the debt conversions and exchanges described above, reduced debt obligations by a total of $86.6 million;
- In August 2017, the Company sold shares of common stock, shares of its Series D Convertible Preferred Stock, par value $0.0001 per share (the Series D Preferred Stock), and warrants to purchase common stock for net proceeds of $24.8 million; and
- In August 2017, the Company sold shares of Series B Preferred Stock, warrants to purchase common stock, dilution warrants and a make-whole provision for net proceeds of $25.9 million.

See Note 5, "Long-term Debt" and Note 7, "Stockholders' Deficit" for more information regarding these transactions.

The Company expects to fund operations for the foreseeable future with cash and investments currently on hand, cash inflows from collaborations, grants, product sales and equity and debt financings, to the extent necessary. Some of our research and development collaborations are subject to risk 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 2017 and 2018 are dependent on significant inflows of cash from renewable product sales and existing collaboration partners, as well as additional funding from new collaborations.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (GAAP) and applicable rules and regulations of the Securities and Exchange Commission regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. As such, the information included in this quarterly report on Form 10-Q should be read in conjunction with the consolidated financial statements and accompanying notes included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

The condensed consolidated balance sheet as of December 31, 2016 included herein was derived from the audited financial statements as of that date, but does not include all disclosures including notes required by GAAP. The condensed consolidated financial statements include the accounts of the Company, its wholly-owned subsidiaries and its partially-owned subsidiaries in which the Company has a controlling interest. All intercompany balances and transactions have been eliminated. The accompanying condensed consolidated financial statements reflect all normal recurring adjustments necessary to present fairly the financial position, results of operations, and cash flows for the interim periods, but are not necessarily indicative of the results of operations to be anticipated for the full year ending December 31, 2017.

There have been no changes to our significant accounting policies described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 that have had a material impact on our condensed consolidated financial statements and related notes.

The accompanying interim condensed consolidated financial statements and related disclosures are unaudited, have been prepared on the same basis as the annual consolidated financial statements, and in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for a fair statement of the results of operations for the periods presented. In the nine months ended September 30, 2017 the Company adopted these Accounting Standards Updates (ASUs):

- ASU 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*
- ASU 2016-06, *Derivatives and Hedging (Topic 815): Contingent Put and Call Options in Debt Instruments*
- ASU 2016-09, *Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*

None of the ASUs adopted had a material impact on the Company's condensed consolidated financial statements.

Use of Estimates

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

Reverse Stock Split

On June 5, 2017, the Company effected a 1 for 15 reverse stock split of the Company's common stock, par value $0.0001 per share, as well as a reduction in the total number of authorized shares of common stock from 500,000,000 to 250,000,000. Unless otherwise noted, all common stock share quantities and per-share amounts for all periods presented in the financial statements and notes thereto have been retroactively adjusted for the stock split as if such stock split had occurred on the first day of the first period presented. Certain amounts in the notes to the financial statements may be slightly different from previously reported due to rounding of fractional shares as a result of the reverse stock split.

The par value, number of shares outstanding and number of authorized shares of preferred stock were not adjusted as a result of the reverse stock split.

3. Fair Value Measurement

For information about our fair value policies, and methods and assumptions used in estimating the fair value of our financial assets and liabilities, see Note 2, "Summary of Significant Accounting Policies", and Note 3, "Fair Value of Financial Instruments" in Part II, Item 8 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis

The following tables summarize, for assets or liabilities measured at fair value, the respective fair value and the classification by level of input within the fair value hierarchy (in thousands):

	September 30, 2017				December 31, 2016			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets								
Money market funds	$ 12,000	$ —	$ —	$ 12,000	$ 1,549	$ —	$ —	$ 1,549
Certificates of deposit	1,943	—	—	1,943	1,373	—	—	1,373
Total assets measured and recorded at fair value	$ 13,943	$ —	$ —	$ 13,943	$ 2,922	$ —	$ —	$ 2,922
Liabilities								
Embedded derivatives in connection with the issuance of debt and equity instruments	$ —	$ —	$ 21,069	$ 21,069	$ —	$ —	$ 4,135	$ 4,135
Freestanding derivative instruments in connection with the issuance of equity instruments	—	—	66,673	66,673	—	—	—	—
Currency interest rate swap derivative liability	—	2,552	—	2,552	—	3,343	—	3,343
Total liabilities measured and recorded at fair value	$ —	$ 2,552	$ 87,742	$ 90,294	$ —	$ 3,343	$ 4,135	$ 7,478

There were no transfers between levels during the periods presented.

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, measured at fair value using significant unobservable inputs (Level 3) (in thousands):

	2017	2016
Balance at January 1	$ 4,136	$ 46,430
Gain from change in fair value of derivative liabilities	(14,190)	—
Additions	129,492	(2,734)
Derecognition upon conversion or extinguishment	(31,696)	(39,869)
Balance at September 30	$ 87,742	$ 3,827

The derivative liabilities recognized in connection with the issuance of debt and equity instruments represent the fair value of the make-whole provisions of the Series A and B Preferred Stock as well as the cash and anti-dilution warrants issued concurrently with the Series A, B and D Preferred Stock (see Note 7, "Stockholders' Deficit"), and conversion options, conversion price adjustment features and down round provisions associated with the the R&D Note, Temasek Funding Warrant, Tranche Notes, 2014 144A Notes and 2015 144A Notes (each as defined below) (see Note 5, "Long-term Debt"). As of September 30, 2017 and December 31, 2016, included in "Derivative Liabilities" on the condensed consolidated balance sheets are compound embedded derivative liabilities and freestanding financial instruments accounted for as derivative liabilities of $87.7 million and $4.1 million, respectively.

The market-based assumptions and estimates used in applying a Monte Carlo simulation approach and Black-Scholes-Merton option value approach for valuing the derivative liabilities in connection with debt and equity instruments include amounts in the following ranges and amounts:

	September 30, 2017	December 31, 2016
Risk-free interest rate	1.32% - 2.33%	0.55% - 1.31%
Risk-adjusted yields	19.40% - 29.53%	12.80% - 22.93%
Stock price volatility	45% - 80%	45%
Probability of change in control	5%	5%
Stock price	$3.20 - $3.93	$10.95
Credit spread	18.04% - 28.13%	11.59% - 21.64%
Estimated conversion dates	2017 - 2022	2017 - 2019

The valuation of the embedded derivatives in connection with the issuance of debt and equity instruments and freestanding derivative instruments in connection with the issuance of equity instruments can be significantly affected by changes in valuation assumptions. For example, all other things being equal, a decrease/increase in the Company's stock price, probability of change of control, credit spread, term to maturity/conversion or stock price volatility decreases/increases the valuation of the liabilities, whereas a decrease/increase in risk adjusted yields or risk-free interest rates increases/decreases the valuation of the liabilities. Certain of the Company's debt instruments outstanding in the form of convertible notes also include conversion price adjustment features whereby, for example, issuances of equity or equity-linked securities by the Company at prices lower than the conversion price then in effect for such notes result in a reset or adjustment of the conversion price of such notes, which increases the value of the embedded derivative liabilities. A third-party valuation specialist assisted in determining estimates of fair value. See Note 5, "Long-term Debt" for additional information regarding the conversion price adjustment features.

Currency Interest Rate Swap Derivative Liability

In June 2012, the Company entered into a loan agreement with Banco Pine S.A. (Banco Pine) under which Banco Pine provided the Company with a loan (the Banco Pine Bridge Loan) (see Note 5, "Long-term Debt"). At the time of the Banco Pine Bridge Loan, the Company also entered into a currency interest rate swap arrangement with Banco Pine with respect to the repayment of R$22.0 million (US$6.9 million based on the exchange rate as of September 30, 2017) of the Banco Pine Bridge Loan. The swap arrangement exchanges the principal and interest payments under the Banco Pine Bridge Loan for alternative principal and interest payments that are subject to adjustment based on fluctuations in the foreign exchange rate between the U.S. dollar and Brazilian real. The swap has a fixed interest rate of 3.94%. This arrangement hedges fluctuations in the foreign exchange rate between the U.S. dollar and Brazilian real.

Changes in Fair Value

Changes in the fair value of assets or liabilities measured at fair value on a recurring basis are recognized in "Gain (loss) from change in fair value of derivative instruments" in the condensed consolidated statements of operations as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
Type of derivative contract	**2017**	**2016**	**2017**	**2016**
Embedded derivatives and freestanding financial instruments in connection with the issuance of debt and equity	$ (3,107)	$ (624)	$ 34,911	$ 39,869
Currency interest rate swaps	415	(162)	511	1,957
Total gain (loss) from change in fair value of derivative instruments	$ (2,692)	$ (786)	$ 35,422	$ 41,826

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, which is representative of fair value at the date of acquisition. The Company estimates the fair value of loans payable and credit facilities using observable market-based inputs (Level 2) and estimates the fair value of convertible notes based on rates currently offered for instruments with similar maturities and terms (Level 3). The carrying amounts of loans payable, credit facilities and convertible notes at September 30, 2017 were $17.2 million, $49.4 million and $98.1 million, respectively. The fair values of loans payable, credit facilities and convertible notes at September 30, 2017 were $12.2 million, $25.2 million and $108.0 million, respectively. The carrying amount of the DSM Credit Letter is based on estimated payments and interest rates offered to the Company for debt on similar terms and maturities. The fair value of the DSM Credit Letter was $7.1 million as of September 30, 2017.

Cost-method Investment

In April 2017, the Company received 850,115 unregistered shares of SweeGen common stock in satisfaction of the payment obligation of Phyto Tech Corp. (d/b/a Blue California) under the Intellectual Property License and Strain Access Agreement entered into between Blue California and the Company in December 2016. The Company obtained an independent valuation of the shares that established acquisition-date fair value of $3.2 million using an income approach under which cash flows were discounted to present value at 40%.

4. Balance Sheet Components

Accounts Receivable, Net

Accounts receivable, net is comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Accounts receivable	$ 15,462	$ 13,583
Related party accounts receivable	10,102	895
	25,564	14,478
Less: allowance for doubtful accounts	(642)	(501)
Accounts receivable, net	$ 24,922	$ 13,977

Inventories

Inventories are stated at the lower of cost or net realizable value and are comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Raw materials	$ 3,236	$ 3,159
Work-in-process	885	1,848
Finished goods	2,289	1,206
Inventories	$ 6,410	$ 6,213

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets is comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Prepayments, advances and deposits	$ 7,149	$ 3,727
Prepaid insurance	970	645
Other	1,125	1,711
Prepaid expenses and other current assets	$ 9,244	$ 6,083

Property, Plant and Equipment, net

Property, plant and equipment, net is comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Machinery and equipment	$ 88,532	$ 82,688
Leasehold improvements	39,150	38,785
Computers and software	9,898	9,585
Buildings	4,834	4,699
Construction in progress	259	2,216
Furniture and office equipment, vehicles and land	2,985	2,957
	145,658	140,930
Less: accumulated depreciation and amortization	(95,528)	(87,195)
Property, plant and equipment, net	$ 50,130	$ 53,735

Property, plant and equipment, net includes $3.9 million and $3.1 million of machinery and equipment under capital leases as of September 30, 2017 and December 31, 2016, respectively. Accumulated amortization of assets under capital leases totaled $1.4 million and $1.0 million as of September 30, 2017 and December 31, 2016, respectively.

Depreciation and amortization expense, including amortization of assets under capital leases was $2.7 million and $2.9 million for the three months ended September 30, 2017 and 2016, respectively, and $8.1 million and $8.6 million for the nine months ended September 30, 2017 and 2016, respectively.

Other Assets

Other assets is comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Cost-method investment in SweeGen	$ 3,233	$ —
Deposits	2,516	409
Goodwill	560	560
Other	1,361	1,366
Other assets	$ 7,670	$ 2,335

Accrued and Other Current Liabilities

Accrued and other current liabilities are comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Payroll and related expenses	$ 6,549	$ 6,344
Accrued interest	5,586	4,847
SMA relocation accrual	4,554	3,641
Tax-related liabilities	3,575	2,610
Professional services	3,491	6,876
Other	5,128	5,792
Total accrued and other current liabilities	$ 28,883	$ 30,110

Other Liabilities

Other non-current liabilities are comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Deferred rent, net of current portion	$ 8,139	$ 8,906
Deferred revenue, net of current portion	3,744	6,650
Accrued interest, net of current portion	3,642	5,542
Capital lease obligation, net of current portion	111	334
Other liabilities	2,635	2,299
Total other liabilities	$ 18,271	$ 23,731

5. Long-term Debt

Net carrying amounts of debt are as follows (in thousands):

	September 30, 2017	December 31, 2016
Convertible notes		
2015 Rule 144A convertible notes	$ 31,108	$ 22,766
2014 Rule 144A convertible notes	18,544	22,010
August 2013 financing convertible notes	1,042	9,247
Fidelity notes	—	14,983
December 2016 and June 2017 amended notes	—	9,975
	50,694	78,981
Related party convertible notes		
August 2013 financing convertible notes	22,290	21,814
2014 Rule 144A convertible notes	21,417	17,320
R&D note	3,663	3,620
	47,370	42,754
Loans payable		
Senior secured loan facility	28,156	27,658
Guanfu credit facility	20,446	19,564
Nossa Caixa and Banco Pine notes	9,917	11,136
Other loans payable	5,283	15,391
Other credit facilities	779	1,868
	64,581	75,617
Related party loans payable		
February 2016 related party private placement	2,000	18,691
Other related party loans payable	—	11,000
	2,000	29,691
Total debt	164,645	227,043
Less: current portion	(11,704)	(59,155)
Long-term debt, net of current portion	$ 152,941	$ 167,888

Convertible Notes

2015 Rule 144A Convertible Notes

In October 2015, the Company sold $57.6 million aggregate principal amount of 9.50% convertible senior notes due 2019 (the 2015 144A Notes) to certain qualified institutional buyers in a private placement. Net proceeds from the offering were $54.4 million after payment of offering expenses and placement agent fees. The 2015 144A Notes bear interest at a rate of 9.50% per year, payable semiannually in arrears on April 15 and October 15 of each year. Interest on the 2015 144A Notes is payable, at the Company's option, entirely in cash or entirely in common stock valued at 92.5% of a market-based price. The Company elected to make the April 15, 2016 and 2017 interest payments in shares of common stock and the October 15, 2016 and October 15, 2017 interest payments in cash. The 2015 144A Notes will mature on April 15, 2019 unless earlier converted or repurchased.

The 2015 144A Notes are convertible into shares of the Company's common stock at a conversion rate of 58.2076 shares per $1,000 principal amount of 2015 144A Notes as of September 30, 2017 (which conversion rate is subject to adjustment in certain circumstances), representing an effective conversion price of approximately $17.18 per share. Upon conversion, noteholders are entitled to receive a payment (the Early Conversion Payment) equal to the present value of the remaining scheduled payments of interest on the 2015 144A Notes being converted through April 15, 2019, computed using a discount rate of 0.75%. The Company may make the Early Conversion Payment, at its election, either in cash or, subject to certain conditions, in common stock valued at 92.5% of a market-based price. Through September 30, 2017, the Company has elected to make each Early Conversion Payment in shares of common stock.

In January 2017, the Company issued an additional $19.1 million in aggregate principal amount of 2015 144A Notes (the Additional 2015 144A Notes) in exchange for the cancellation of $15.3 million in aggregate principal amount of outstanding Fidelity Notes (as defined below), as further described below under “Fidelity Notes” with the same terms as the 2015 144A Notes; provided, that the aggregate number of shares issued with respect to the Additional 2015 144A Notes (and any other transaction aggregated for such purpose) cannot exceed 3,652,935 shares of common stock (the Additional 2015 144A Notes Exchange Cap) without prior stockholder approval.

2014 Rule 144A Convertible Notes

In May 2014, the Company sold $75.0 million in aggregate principal amount of 6.50% Convertible Senior Notes due 2019 (the 2014 144A Notes) to qualified institutional buyers in a private placement. The net proceeds from the offering of the 2014 144A Notes were $72.0 million after payment of initial purchaser discounts and offering expenses. The Company used $9.7 million of the net proceeds to repay convertible notes previously issued to an affiliate of Total S.A. (together with its affiliates, Total), representing the amount of 2014 144A Notes purchased by Total. Certain of the Company's affiliated entities (including Total) purchased $24.7 million in aggregate principal amount of 2014 144A Notes (described further below under "Related Party Convertible Notes"). In October 2015, as discussed above, the Company issued $57.6 million of 2015 144A Notes and used $18.3 million of the net proceeds therefrom to repurchase $22.9 million aggregate principal amount of outstanding 2014 144A Notes. The 2014 144A Notes bear interest at an annual rate of 6.5%, payable semiannually in arrears on May 15 and November 15 of each year in cash. The 2014 144A Notes mature on May 15, 2019, unless earlier converted or repurchased.

The 2014 144A Notes are convertible into shares of the Company's common stock at a conversion rate of 17.8073 shares per $1,000 principal amount of 2014 144A Notes as of September 30, 2017 (which conversion rate is subject to adjustment in certain circumstances), representing an effective conversion price of approximately $56.16 per share. Refer to the "Maturity Treatment Agreement" section of this Note 5, "Long-term Debt" for details of the impact of the Maturity Treatment Agreement on the 2014 144A Notes.

August 2013 Financing Convertible Notes

In August 2013, the Company entered into a Securities Purchase Agreement (the August 2013 SPA) with Total and Maxwell (Mauritius) Pte Ltd (Temasek) to sell up to $73.0 million in convertible notes in private placements (the August 2013 Financing). The August 2013 SPA provided for the August 2013 Financing to be divided into two tranches, each with differing closing conditions. In October 2013, the Company amended the August 2013 SPA to include the investment by certain entities affiliated with FMR LLC (Fidelity) in the first tranche of the August 2013 Financing of $7.6 million, and to proportionally increase the amount of first tranche notes to be acquired by Total. Also in October 2013, the Company completed the closing of the first tranche of convertible notes provided for in the August 2013 Financing (the Tranche I Notes), issuing a total of $51.8 million in Tranche I Notes for cash proceeds of $7.6 million and exchange and cancellation of outstanding convertible notes of $44.2 million, of which $35.0 million resulted from the exchange and cancellation of a note held by Temasek and the remaining $9.2 million from the exchange and cancellation of convertible notes held by Total. As a result of the exchange and cancellation of the $35.0 million note held by Temasek and the $9.2 million of convertible notes held by Total for Tranche I Notes, the Company recorded a loss from extinguishment of debt of $19.9 million. The Tranche I Notes are due sixty months from the date of issuance (October 16, 2018). Interest accrues on the Tranche I Notes at a rate of 5% per six months, compounded semiannually, and is payable in kind by adding to the principal or in cash. Through September 30, 2017, the Company has elected to pay interest on the Tranche I Notes in kind. The Tranche I Notes may be prepaid in full or in part without penalty or premium every six months at the date of payment of the semiannual coupon.

In December 2013, the Company further amended the August 2013 SPA to provide for the sale of $3.0 million of convertible notes under the second tranche of the August 2013 Financing (the Tranche II Notes and together with the Tranche I Notes, the Tranche Notes) to funds affiliated with Wolverine Asset Management, LLC (Wolverine). In January 2014, the Company sold and issued $34.0 million of Tranche II Notes in the second tranche of the August 2013 Financing, with Temasek purchasing $25.0 million of the Tranche II Notes and funds affiliated with Wolverine purchasing $3.0 million of the Tranche II Notes, each for cash, and Total purchasing $6.0 million of the Tranche II Notes through exchange and cancellation of the same amount of convertible notes held by Total. As a result of the exchange and cancellation of the $6.0 million of convertible notes held by Total for the Tranche II Notes, the Company recorded a loss from extinguishment of debt of $9.4 million. The Tranche II Notes are due sixty months from the date of issuance (January 15, 2019). Interest accrues on the Tranche II Notes at a rate of 10% per annum, compounded annually, and is payable in kind by adding to the principal or in cash. Through September 30, 2017, the Company has elected to pay interest on the Tranche II Notes in kind.

The conversion price of the Tranche Notes is $5.2977 per share as of September 30, 2017 (which conversion price is subject to adjustment in certain circumstances).

Fidelity Notes

In 2012, the Company sold $25.0 million in aggregate principal amount of convertible promissory notes to entities affiliated with Fidelity (the Fidelity Notes) in a private placement. The Fidelity Notes had a March 1, 2017 maturity date, bore interest at a rate of 3.0% per annum and had an initial conversion price equal to $106.02 per share of the Company's common stock. In October 2015, as discussed above, the Company issued $57.6 million of convertible senior notes and used approximately $8.8 million of the proceeds therefrom to repurchase $9.7 million aggregate principal amount of outstanding Fidelity Notes. In January 2017, the Company issued $19.1 million in aggregate principal amount of its 2015 144A Notes to the holders of the Fidelity Notes in exchange for the cancellation of the $15.3 million of outstanding Fidelity Notes in a private exchange (the Fidelity Exchange), representing an exchange ratio of approximately 1:1.25 (i.e., each $1.00 of Fidelity Notes was exchanged for approximately $1.25 of additional 2015 144A Notes). The Company did not receive any cash proceeds from the Fidelity Exchange. The Fidelity Exchange was accounted for as an extinguishment of debt, and a gain of $0.1 million was recognized for the nine months ended September 30, 2017.

December 2016 and June 2017 Amended Notes

In December 2016, the Company entered into a securities purchase agreement (the December 2016 Purchase Agreement) with a private investor (the Purchaser) and issued and sold a convertible note in principal amount $10.0 million (the December 2016 Convertible Note) to the Purchaser, resulting in net proceeds to the Company of $9.9 million. The December 2016 Convertible Note was fully repaid in May 2017.

In April 2017, the Company entered into a securities purchase agreement (the April 2017 Purchase Agreement) with the Purchaser relating to the sale of up to an additional $15.0 million aggregate principal amount of convertible notes (the April 2017 Convertible Notes). In April 2017, the Company issued and sold an April 2017 Convertible Note in the principal amount of $7.0 million to the Purchaser, for proceeds to the Company of $6.9 million. This note was fully repaid in May 2017.

In May 2017, in connection with the Purchaser agreeing to extend the time period for certain obligations of the Company under the April 2017 Purchase Agreement, the Company and the Purchaser entered into an Amendment Agreement (the Amendment Agreement) with respect to the December 2016 Purchase Agreement, the April 2017 Purchase Agreement, the December 2016 Convertible Note and the April 2017 Convertible Notes (the Amended Notes). Pursuant to the Amendment Agreement, the Company and the Purchaser agreed, among other things, to (i) reduce the price at which the Company may pay monthly installments under the Amended Notes in common stock to a 20% discount to a market-based price and (ii) reduce the price floor related to any such payment to 70% of a market-based price.

On June 30, 2017, the Company issued and sold an Amended Note under the April 2017 Purchase Agreement in the principal amount of $3.0 million to the Purchaser, for proceeds to the Company of $3.0 million. This note was fully repaid in August 2017.

Unless earlier converted or redeemed, the Amended Notes will mature on or about the 18-month anniversary of their respective issuance. The Amended Notes are payable in monthly installments, in either cash at 118% of such installment amount or, at the Company's option, subject to the satisfaction of certain equity conditions, shares of common stock at a discount to the then-current market price, subject to a price floor, as described above. In addition, in the event that the Company elects to pay all or any portion of a monthly installment in common stock, the holders of the Amended Notes have the right to require that the Company repay in common stock an additional amount of the Amended Notes not to exceed 50% of the aggregate amount by which the dollar-weighted trading volume of the common stock for all trading days during the applicable installment period exceeds $200,000. The Company has the right to redeem the Amended Notes for cash in full or in part at any time at a price equal to 118% of the principal amount being redeemed. The Amended Notes are convertible at the election of the holders into common stock at a conversion price of $28.50 per share as of September 30, 2017 (which conversion price is subject to adjustment in certain circumstances). The conversion of the Amended Notes and the repayment of the Amended Notes in common stock is subject to a beneficial ownership limitation of 4.99% (or such other percentage not to exceed 9.99%, provided that any increase will not be effective until 61 days after notice thereof from the holder), and the aggregate number of shares issued with respect to the Amended Notes (and any other transaction aggregated for such purpose) cannot exceed 3,645,118 shares of common stock without prior stockholder approval. For as long as they hold Amended Notes or shares of common stock issued under the Amended Notes, the holders may not sell any shares of common stock at a price less than the price floor applicable to the installment period with respect to which such shares were issued.

As of September 30, 2017, there were no Amended Notes outstanding and $5.0 million of Amended Notes available for issuance under the April 2017 Purchase Agreement at the option of the Purchaser.

Related Party Convertible Notes

August 2013 Financing Convertible Notes

As of September 30, 2017 and December 31, 2016, there was $21.2 million and $19.8 million, respectively, in principal amount of related party Tranche Notes outstanding, plus debt premium of $1.1 million and $2.0 million, respectively.

2014 Rule 144A Convertible Notes

As of September 30, 2017 and December 31, 2016, there was $24.7 million and $24.7 million, respectively, in principal amount of related party 2014 144A Notes outstanding, less debt discount of $3.3 million and $7.4 million, respectively.

R&D Note

In March 2016, as a result of the restructuring of the Company's fuels joint venture with Total, Total Amyris BioSolutions B.V., the Company issued to Total an unsecured convertible note (the R&D Note) in the principal amount of $3.7 million, representing the remaining portion of the $105.0 million convertible note facility between the Company and Total initially established in 2012. In February 2017, the Company and Total agreed to extend the maturity of the R&D Note from March 1, 2017 to May 15, 2017. In May 2017, the Company and Total further amended the R&D Note to (i) extend the maturity from May 15, 2017 to March 31, 2018, (ii) increase the interest rate from 1.5% to 12.0%, beginning May 16, 2017, and (iii) provide that accrued and unpaid interest will be payable on December 31, 2017 and the maturity date. The R&D Note is convertible into the Company's common stock, at a conversion price of $46.20 per share as of September 30, 2017 (which conversion price is subject to adjustment in certain circumstances), (i) within 10 trading days prior to maturity, (ii) on a change of control of the Company, and (iii) on a default by the Company.

Loans Payable

Senior Secured Loan Facility

In March 2014, the Company entered into a Loan and Security Agreement (the LSA) with Hercules Technology Growth Capital, Inc. (Hercules) to make available to the Company a secured loan facility (the Senior Secured Loan Facility) in an initial aggregate principal amount of up to $25.0 million. The LSA was subsequently amended in June 2014, March 2015 and November 2015 to (i) extend additional credit facilities to the Company in an aggregate amount of up to $31.0 million, of which $16.0 million was drawn by the Company, (ii) extend the maturity date of the loans, and (iii) remove, add and/or modify certain covenants and agreements under the LSA. In connection with such amendments, the Company paid aggregate fees of $1.5 million to Hercules.

In June 2016, Hercules transferred and assigned its rights and obligations under the Senior Secured Loan Facility to Stegodon Corporation (Stegodon), an affiliate of Ginkgo Bioworks, Inc. (Ginkgo), and in connection with the execution by the Company and Ginkgo of an initial strategic partnership agreement, the Company received a deferment from Stegodon of all scheduled principal repayments under the Senior Secured Loan Facility, as well as a waiver of a covenant in the LSA requiring the Company to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount of the loans then outstanding under the Senior Secured Loan Facility (the Minimum Cash Covenant). In October 2016, in connection with the execution by the Company and Ginkgo of a definitive collaboration agreement (the Ginkgo Collaboration Agreement), the Company and Stegodon entered into a fourth amendment of the LSA, pursuant to which the parties agreed to (i) extend the maturity date of the Senior Secured Loan Facility, subject to the Company extending the maturity of certain of its other outstanding indebtedness (the Extension Condition), (ii) make the Senior Secured Loan Facility interest-only until maturity, subject to the requirement that the Company apply certain monies received by it under the Ginkgo Collaboration Agreement to repay the amounts outstanding under the Senior Secured Loan Facility, up to a maximum amount of $1 million per month and (iii) waive the Minimum Cash Covenant until the maturity date of the Senior Secured Loan Facility.

On January 11, 2017, the maturity date of the Senior Secured Loan Facility was extended to October 15, 2018 due to the Extension Condition being met as a result of the Fidelity Exchange (see above under "Fidelity Notes" for additional details). This modification of the Senior Secured Loan Facility was accounted for as a troubled debt restructuring with the future undiscounted cash flows being greater than the carrying value of the debt prior to extension. No gain was recorded and a new effective interest rate was established based on the carrying value of the debt and the revised cash flows. In addition, in January 2017, in connection with Stegodon granting certain waivers of the debt and transfer covenants under the LSA, the Company and Stegodon entered into a fifth amendment of the LSA, pursuant to which the Company agreed to apply additional monies received by it under the Ginkgo Collaboration Agreement towards repayment of the outstanding loans under the Senior Secured Loan Facility, up to a maximum amount of $3 million. See Note 15, “Subsequent Events” for further details regarding the Ginkgo Collaboration Agreement. The Senior Secured Loan Facility has a subjective acceleration clause related to material adverse changes that could result in the debt being classified as current. The current loan holder has not asserted any acceleration claim since the loan was assigned to the current note holder in June 2016, and the Company estimates that the probability of Stegodon asserting a subjective acceleration claim is remote. Thus, the debt outstanding under the Senior Secured Loan Facility as of September 30, 2017 is classified as a long-term liability.

Certain of the loans under the Senior Secured Loan Facility bear interest at a rate per annum equal to the greater of (i) the prime rate reported in the Wall Street Journal plus 6.25% and (ii) 9.50%, and certain of the loans under the Senior Secured Loan Facility accrued interest at a rate per annum equal to the greater of (i) the prime rate reported in the Wall Street Journal plus 5.25% and (ii) 8.5%, in each case payable monthly. The Company may prepay the loans under the Senior Secured Loan Facility at a price equal to 101% of the principal amount plus an end of term charge equal to $3.3 million. In addition, the Company has agreed to pay (i) a fee of $425,000 to Stegodon on or prior to December 31, 2017 and (ii) a fee of $450,000 to Stegodon on or prior to the maturity date of the Senior Secured Loan Facility, in connection with certain waivers and releases under the LSA granted in connection with the formation of the Aprinnova JV (as defined below) in December 2016. The Senior Secured Loan Facility is secured by liens on the Company's assets, including on certain Company intellectual property.

Guanfu Credit Facility

In October 2016, the Company and Guanfu Holding Co., Ltd. (Guanfu), an existing commercial partner of the Company, entered into a credit agreement to make available to the Company an unsecured credit facility (the Guanfu Credit Facility) in an aggregate principal amount of up to $25.0 million; in connection therewith, the Company granted to Guanfu the global exclusive purchase right with respect to certain Company products. On December 31, 2016, the Company borrowed the full amount under the Guanfu Credit Facility and issued to Guanfu a note in the principal amount of $25.0 million (the Guanfu Note). The Guanfu Note has a term of five years and accrues interest at a rate of 10% per annum, payable quarterly beginning March 31, 2017. The Company may prepay the Guanfu Note in full or in part at any time without penalty or premium.

Upon the occurrence of certain specified events of default under the Guanfu Credit Facility, the Company will grant to Guanfu an exclusive, royalty-free, global license to certain intellectual property useful in connection with Guanfu’s existing commercial relationship with the Company. In addition, in the event the Company fails to pay interest or principal under the Guanfu Note within ten days of when due, the Company will also be required, subject to applicable laws and regulations, to repay the outstanding amounts under the Guanfu Note in common stock valued at 90% of a market-based price.

Nossa Caixa and Banco Pine Notes: In July 2012, Amyris Brasil Ltda. (formerly Amyris Brasil S.A.) (Amyris Brasil) entered into a Note of Bank Credit and a Fiduciary Conveyance of Movable Goods Agreement (or, together, the July 2012 Bank Agreements) with each of Nossa Caixa Desenvolvimento (Nossa Caixa) and Banco Pine S.A. (Banco Pine). Under the July 2012 Bank Agreements, the Company pledged certain farnesene production assets as collateral for the loans of R$52.0 million (US$16.4 million based on the exchange rate as of September 30, 2017). The Company's total acquisition cost for such pledged assets was R$68.0 million (US$21.5 million based on the exchange rate as of September 30, 2017). The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements. Under the July 2012 Bank Agreements, the Company could borrow an aggregate of R$52.0 million (US$16.4 million based on the exchange rate as of September 30, 2017) as financing for capital expenditures relating to the Company's manufacturing facility located in Brotas, Brazil. The funds for the loans are provided by the Brazilian Development Bank (BNDES), but are guaranteed by the lenders. The loans have a final maturity date of July 15, 2022 and bear a fixed interest rate of 5.5% per year. The loans are also subject to early maturity and delinquency charges upon occurrence of certain events including interruption of manufacturing activities at the Company's manufacturing facility in Brotas, Brazil for more than 30 days, except during the sugarcane off-season. Since August 15, 2014, the Company has been required to pay equal monthly installments of both principal and interest for the remainder of the term of the loans. See Note 15, “Subsequent Events” for further information regarding these loans.

Other Loans Payable

Salisbury Note: In December 2016, in connection with the Company's purchase of a manufacturing facility in Leland, North Carolina and related assets (the Glycotech Assets), the Company issued a purchase money promissory note in the principal amount of $3.5 million (the Salisbury Note) in favor of Salisbury Partners, LLC. The Salisbury Note (i) bore interest at a rate of 5% per year, (ii) had a term of 13 years, (iii) was payable in equal monthly installments of principal and interest beginning on January 1, 2017 and (iv) was secured by a purchase money lien on the Glycotech Assets. In January 2017, the Salisbury Note was repaid with proceeds from the Nikko Note (as defined below) and the security interest relating thereto was terminated.

Nikko Note: In December 2016, in connection with the Company's formation of its cosmetics joint venture (the Aprinnova JV) with Nikko Chemicals Co., Ltd. (Nikko), as discussed in Note 9, "Noncontrolling Interests," Nikko made a loan to the Company in the principal amount of $3.9 million and the Company issued a promissory note (the Nikko Note) to Nikko in an equal principal amount. The proceeds of the Nikko Note were used to satisfy the Company's remaining liabilities relating to the Company's purchase of the Glycotech Assets, including liabilities under the Salisbury Note. The Nikko Note (i) bears interest at a rate of 5% per year, (ii) has a term of 13 years, (iii) is payable in equal monthly installments of principal and interest beginning on January 1, 2017 (which payments are subject to a penalty of 5% if delinquent more than 5 days) and (iv) is secured by a first-priority lien on 10% of the Aprinnova JV interests owned by the Company. In addition, the Company is required to (i) repay $400,000 of the Nikko Note in equal monthly installments of $100,000 on January 1, 2017, February 1, 2017, March 1, 2017 and April 1, 2017 and (ii) the Company is required to repay the Nikko Note with any profits distributed to the Company by the Aprinnova JV, beginning with the distributions for the fourth fiscal year of the Aprinnova JV, until the Nikko Note is fully repaid. The Nikko Note may be prepaid in full or in part at any time without penalty or premium.

Aprinnova Working Capital Loans: In February 2017, in connection with the formation of the Aprinnova JV, Nikko made a working capital loan to the Aprinnova JV in the principal amount of $1.5 million (the First Aprinnova Note). The First Aprinnova Note is repayable in $375,000 installments plus accrued interest on May 1, 2017, August 1, 2017, November 1, 2017 and February 1, 2018. In August 2017, Nikko made a second working capital loan to the Aprinnova JV in the principal amount of $1.5 million (the Second Aprinnova Note). The Second Aprinnova Note is payable in full on July 31, 2018, with interest payable quarterly. Both notes bear interest at a rate of 2.75% per annum.

Ginkgo Notes: In October 2016, the Company issued and sold a secured promissory note in the aggregate principal amount of $8.5 million to Ginkgo in a private placement. In April 2017, the Company issued a further secured promissory note to Ginkgo, in the principal amount of $3.0 million, in satisfaction of certain payments owed by the Company under the Ginkgo Collaboration Agreement. Each of the notes bore interest at a rate of 13.50% per annum, payable at maturity, and had a maturity date of May 15, 2017. The notes were repaid in full at maturity and the security interests relating thereto were terminated.

Related Party Loans Payable

February 2016 Related Party Private Placement

In February 2016, the Company issued and sold $20.0 million in aggregate principal amount of promissory notes (the February 2016 Notes), as well as warrants to purchase an aggregate of 190,477 shares of the Company's common stock, exercisable at a price of $0.15 per share as of September 30, 2017 (the February 2016 Warrants), resulting in aggregate proceeds to the Company of $20.0 million, in a private placement to certain existing stockholders of the Company that are affiliated with members of the Company's Board of Directors (the Board): Foris Ventures, LLC (Foris, an entity affiliated with director John Doerr of Kleiner Perkins Caufield & Byers, a current stockholder), which purchased $16.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 152,381 shares of the Company's common stock; Naxyris S.A. (Naxyris, an investment vehicle owned by Naxos Capital Partners SCA Sicar; director Carole Piwnica is Director of NAXOS UK, which is affiliated with Naxos Capital Partners SCA Sicar, and was designated as a director of the Company by Naxyris), which purchased $2.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 19,048 shares of the Company's common stock; and Biolding Investment SA (Biolding, a fund affiliated with director HH Sheikh Abdullah bin Khalifa Al Thani, who was designated as a director of the Company by Biolding), which purchased $2.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 19,048 shares of the Company's common stock.

The February 2016 Notes bear interest at a rate of 13.50% per annum and had an initial maturity date of May 15, 2017. In May 2017, the February 2016 Notes purchased by Foris and Naxyris were exchanged for shares of Series B Preferred Stock and warrants to purchase common stock (see Note 7, "Stockholders' Deficit"). In addition, in May 2017, the Company and Biolding amended the February 2016 Note issued to Biolding (the Biolding Note) to extend the maturity of the Biolding Note to November 15, 2017. See Note 15, "Subsequent Events" for further information regarding the Biolding Note.

The February 2016 Warrants each have five-year terms. As of September 30, 2017, the February 2016 Warrants purchased by Naxyris had been fully exercised, while none of the February 2016 Warrants purchased by Foris or Biolding had been exercised.

Other Related Party Loans Payable

In June and October 2016, the Company issued and sold secured promissory notes to Foris in an aggregate principal amount of $11.0 million (the Foris Notes) in private placements. The Foris Notes bore interest at a rate of 13.50% per annum and had a maturity date of May 15, 2017. In May 2017, the Foris Notes were exchanged for shares of Series B Preferred Stock and warrants to purchase common stock (see Note 7, "Stockholders' Deficit"), and the security interests relating thereto were terminated.

Maturity Treatment Agreement

In July 2015, the Company entered into an Exchange Agreement (the 2015 Exchange Agreement) with Total and Temasek pursuant to which Temasek exchanged $71.0 million in principal amount of outstanding Tranche Notes and Total exchanged $70.0 million in principal amount of outstanding convertible notes for shares of our common stock at a price of $34.50 per share (the 2015 Exchange). At the closing of the 2015 Exchange, the Company, Total and Temasek also entered into a Maturity Treatment Agreement, dated as of July 29, 2015, pursuant to which Total and Temasek agreed to convert any Tranche Notes or 2014 144A Notes held by them that were not canceled in the 2015 Exchange (the Remaining Notes) into shares of the Company's common stock in accordance with the terms of such Remaining Notes at or prior to maturity, provided that certain events of default had not occurred with respect to the applicable Remaining Notes. In May 2017, the Company entered into separate letter agreements with each of Total and Temasek, pursuant to which the Company agreed that the Remaining Notes consisting of 2014 144A Notes held by Total ($9.7 million in principal amount) and Temasek ($10.0 million in principal amount) would no longer be subject to mandatory conversion at or prior to the maturity of such Remaining Notes. Accordingly, the Company will be required to pay any portion of such Remaining Notes that remain outstanding at maturity in cash in accordance with the terms of such Remaining Notes. As of September 30, 2017, after giving effect to such letter agreements, Temasek did not hold any Remaining Notes and Total held $21.2 million in principal amount of Remaining Notes (consisting of $21.2 million of Tranche Notes).

See Note 15, "Subsequent Events" for details regarding indebtedness incurred or amended subsequent to September 30, 2017.

Future Minimum Payments

Future minimum payments under the Company's debt agreements as of September 30, 2017 are as follows (in thousands):

Years ending December 31:	Convertible Notes	Related Party Convertible Notes	Loans Payable	Related Party Loans Payable	Credit Facilities	Total
2017 (remaining three months)	$ 2,690	$ 803	$ 1,096	$ 2,487	$ 1,772	$ 8,848
2018	5,160	20,938	5,787	—	33,771	65,656
2019	69,339	35,298	2,766	—	2,580	109,983
2020	—	—	2,656	—	2,500	5,156
2021	—	—	2,544	—	27,396	29,940
Thereafter	—	—	4,115	—	—	4,115
Total future minimum payments	77,189	57,039	18,964	2,487	68,019	223,698
Less: amount representing interest (1)	(26,495)	(9,669)	(3,764)	(487)	(18,638)	(59,053)
Present value of minimum debt payments	50,694	47,370	15,200	2,000	49,381	164,645
Less: current portion	—	(3,700)	(5,492)	(2,000)	(512)	(11,704)
Noncurrent portion of debt	$ 50,694	$ 43,670	$ 9,708	$ —	$ 48,869	$ 152,941

(1) Amounts representing interest include debt discount and issuance costs that will accrete to interest expense under the effective interest method over the term of each debt arrangement.

6. Mezzanine Equity

Mezzanine equity is comprised of the following (in thousands):

	September 30, 2017	December 31, 2016
Contingently redeemable common stock	$ 5,000	$ 5,000

Common Stock

In May 2016, the Company issued and sold 292,398 shares of common stock at a price of approximately $17.10 per share to the Bill & Melinda Gates Foundation (the Gates Foundation) in a private placement, resulting in proceeds to the Company of $5.0 million. In connection with such sale, the Company and the Gates Foundation entered into a Charitable Purposes Letter Agreement, pursuant to which the Company agreed to expend an aggregate amount not less than $5.0 million 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 commencing in 2017. If the Company defaults in its obligation to use the $5.0 million proceeds as set forth above or defaults under certain other commitments in the Charitable Purposes Letter Agreement, the Gates Foundation will have the right to request that the Company redeem, or facilitate the purchase by a third party of, the shares then held by the Gates Foundation at a price per share equal to the greater of (i) the closing price of the common stock on the trading day prior to the redemption or purchase, as applicable, and (ii) the per share price paid by the Gates Foundation plus a compounded annual return of 10%. As of September 30, 2017, the $5.0 million funding received was classified as mezzanine equity. The Company continues to meet its obligation to use the proceeds as set forth above and believes it will continue to do so. The probability of default is low resulting in the equity instrument not being remeasured to its redemption amount.

7. Stockholders' Deficit

August 2017 DSM Offering

On August 7, 2017, the Company issued and sold the following securities to DSM International B.V., a subsidiary of Koninklijke DSM N.V. (together with its affiliates, DSM) in a private placement (the August 2017 DSM Offering):

- 25,000 shares of Series B Preferred Stock (the August 2017 DSM Series B Preferred Stock) at a price of $1,000 per share;
- a warrant to purchase 3,968,116 shares of common stock at an exercise price of $6.30 per share expiring in five years (August 2017 DSM Cash Warrant); and
- the August 2017 DSM Dilution Warrant (as described below).

Net proceeds to the Company were $25.9 million after payment of offering expenses and the allocation of total fair value received to the elements in the arrangement.

The exercise price of the August 2017 DSM Cash Warrant is subject to standard adjustments as well as full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the three-year period following August 7, 2017 (the DSM Dilution Period) at a per share price less than the then-current exercise price of the August 2017 DSM Cash Warrant, subject to certain exceptions.

The August 2017 DSM Dilution Warrant allows DSM to purchase a number of shares of common stock sufficient to provide DSM with full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the DSM Dilution Period at a per share price less than $6.30, the effective per share price paid by DSM for the shares of common stock issuable upon conversion of its Series B Preferred Stock (including shares of common stock issuable as payment of dividends or the Make-Whole Payment (as defined below), assuming that all such dividends and the Make-Whole Payment are made in common stock), subject to certain exceptions and subject to a price floor of $0.10 per share (the Dilution Floor). The August 2017 DSM Dilution Warrant expires five years from the date it is initially exercisable.

The effectiveness of the anti-dilution adjustment provision of the August 2017 DSM Cash Warrant and the exercise of the August 2017 DSM Dilution Warrant are subject to the August 2017 Stockholder Approval (as defined below). As of September 30, 2017, the August 2017 DSM Cash Warrant had not been exercised for any shares and the August 2017 DSM Dilution Warrant was not exercisable for any shares.

In connection with the August 2017 DSM Offering, the Company also agreed that, subject to certain exceptions, it would not (i) issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock prior to October 31, 2017, (ii) effect any issuance of securities involving a variable rate transaction until May 11, 2018 or (iii) issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock at a price below the Dilution Floor without DSM's consent.

In connection with the August 2017 DSM Offering, the Company and DSM also entered into an amendment to the stockholder agreement dated May 11, 2017 (the DSM Stockholder Agreement) between the Company and DSM (the Amended and Restated DSM Stockholder Agreement). Under the DSM Stockholder Agreement, DSM was granted the right to designate one director selected by DSM, subject to certain restrictions and a minimum beneficial ownership level of 4.5%, to the Board. Furthermore, DSM has the right to purchase additional shares of capital stock of the Company in connection with a sale of equity or equity-linked securities by the Company in a capital raising transaction for cash, subject to certain exceptions, to maintain its proportionate ownership percentage in the Company. Pursuant to the DSM Stockholder Agreement, DSM agreed not to sell or transfer any of the Series B Preferred Stock or warrants purchased by DSM in the May 2017 Offerings (as defined below), or any shares of common stock issuable upon conversion or exercise thereof, other than to its affiliates, without the consent of the Company through May 2018 and to any competitor of the Company thereafter. DSM also agreed that, subject to certain exceptions, until three months after there is no DSM director on the Board, DSM will not, without the prior consent of the Board, acquire common stock or rights to acquire common stock that would result in DSM beneficially owning more than 33% of the Company's outstanding voting securities at the time of acquisition. Under the DSM Stockholder Agreement, the Company agreed to use its commercially reasonable efforts to register, via one or more registration statements filed with the Securities and Exchange Commission (the SEC) under the Securities Act of 1933, as amended (the Securities Act), the shares of common stock issuable upon conversion or exercise of the securities purchased by DSM in the May 2017 Offerings. The Amended and Restated DSM Stockholder Agreement provides that (i) DSM has the right to designate a second director to the Board, subject to certain restrictions and a minimum beneficial ownership level of 10%, and (ii) the shares of common stock issuable upon conversion or exercise of the securities purchased by DSM in the August 2017 DSM Offering are (a) entitled to the registration rights provided for in the DSM Stockholder Agreement and (b) subject to the transfer restrictions set forth in the DSM Stockholder Agreement.

In addition, pursuant to the Amended and Restated DSM Stockholder Agreement, the Company and DSM agreed to negotiate in good faith regarding an agreement concerning the development of certain products in the Health and Nutrition field and, in the event that the parties did not reach such agreement prior to 90 days after the closing of the August 2017 DSM Offering (the August 2017 DSM Closing), (a) certain exclusive negotiating rights granted to DSM in connection with the entry into the DSM Stockholder Agreement would expire and (b) on the first anniversary of the August 2017 DSM Closing and each subsequent anniversary thereof, the Company would make a $5 million cash payment to DSM, provided that the aggregate amount of such payments would not exceed $25 million. In September 2017, the Company and DSM entered into such agreement, and in connection therewith an intellectual property escrow agreement relating to certain intellectual property licenses granted by the Company to DSM upon the August 2017 DSM Closing became effective.

In connection with the August 2017 DSM Offering and its $25.9 million in net proceeds, the Company also entered into a separate intellectual property license with DSM for consideration of $9.0 million in cash, which DSM remitted to the Company on October 28, 2017, and a credit letter (the DSM Credit Letter) to be applied against future collaboration and value share payments owed by DSM to the Company beginning in 2018. The DSM Credit Letter had a fair value of $7.1 million. The DSM Credit Letter has been accounted for as consideration to a customer under ASC 605-50, "Customer Payments and Incentives". The total fixed consideration of $34.0 million was allocated to each of the August 2017 DSM Series B Preferred Stock, Make Whole Payment, August 2017 DSM Cash Warrant, August 2017 DSM Dilution Warrant and DSM Credit Letter at fair value based on level 3 inputs. The August 2017 DSM Series B Preferred Stock was recognized at its fair value on the date of issuance of $5.5 million, net of issuance costs of $0.2 million. The Make-Whole Payment is a compound embedded derivative and was initially recognized at its fair value of $9.9 million. The August 2017 DSM Cash Warrant and August 2017 DSM Dilution Warrant are freestanding financial instruments and have been recognized at their fair value of $10.6 million. The Make Whole Payment, August 2017 DSM Cash Warrant and August 2017 DSM Dilution Warrant have been reported together as derivative liabilities. Changes in the fair value of these derivatives from the date of issuance through September 30, 2017 have been recorded in earnings.

The DSM Credit Letter is reported as deferred revenue and its fair value has been determined based on the assumptions that DSM will realize its credit over the next 18 months to 4 years with a 50% to 90% likelihood the credit will be utilized, fully discounted at the Company's 8.6% average cost of debt. After allocating the $34.0 million in fixed consideration to the financial instruments noted above and the DSM Credit Letter, $0.7 million was available for recognition as revenue related to the intellectual property licenses delivered to DSM during the three and nine months ended September 30, 2017. See Note 10, "Significant Revenue Agreements" for further details.

August 2017 Vivo Offering

On August 3, 2017, the Company issued and sold the following securities to affiliates of Vivo Capital (collectively, Vivo) in a private placement (the August 2017 Vivo Offering):

- 2,826,711 shares of common stock at a price of $4.26 per share;
- 12,958 shares of Series D Preferred Stock at a price of $1,000 per share;
- warrants to purchase an aggregate of 5,575,118 shares of common stock at an exercise price of $6.39 per share, expiring in five years (the August 2017 Vivo Cash Warrants); and
- the August 2017 Vivo Dilution Warrants (as described below).

Net proceeds to the Company were $24.8 million after payment of offering expenses.

Each share of Series D Preferred Stock has a stated value of $1,000 and, subject to the August 2017 Vivo Offering Beneficial Ownership Limitation (as defined below), is convertible at any time, at the option of the holders, into common stock at a conversion price of $4.26 per share. The Series D Conversion Rate is subject to adjustment in the event of any dividends or distributions of the common stock, or any stock split, reverse stock split, recapitalization, reorganization or similar transaction.

The conversion of the Series D Preferred Stock is subject to a beneficial ownership limitation of 9.99% (the August 2017 Vivo Offering Beneficial Ownership Limitation), which limitation may be waived by the holders on 61 days' prior notice.

Prior to declaring any dividend or other distribution of its assets to holders of common stock, the Company shall first declare a dividend per share on the Series D Preferred Stock equal to $0.0001 per share. In addition, the Series D Preferred Stock will be entitled to participate with the common stock on an as-converted basis with respect to any dividends or other distributions to holders of common stock.

Unless and until converted into common stock in accordance with its terms, the Series D Preferred Stock has no voting rights, other than as required by law or with respect to matters specifically affecting the Series D Preferred Stock. The Series D Preferred Stock is classified as permanent equity, as the Company controls all actions or events required to settle the optional conversion feature in shares.

The August 2017 Vivo Cash Warrants and August 2017 Vivo Dilution Warrants are freestanding derivative instruments in connection with the issuance of equity instruments, which have been recorded as derivative liabilities. These warrants have been recognized at their fair value of $13.0 million as determined by management with the assistance of an independent third party appraisal based on level 3 inputs. Changes in the fair value of these derivative liabilities from the date of issuance through September 30, 2017 have been recorded in earnings. The remaining $12.0 million in proceeds received was allocated on a relative fair value basis, resulting in $5.5 million of proceeds being allocated to the common stock sold in the August 2017 Vivo Offering and $6.2 million allocated to the Series D Preferred Stock, net of $0.2 million in issuance costs. The Series D Preferred Stock includes a beneficial conversion feature of $5.8 million as the full fair value of the Series D Preferred Stock of $12.0 million was greater than the $6.2 million allocated to the Series D Preferred Stock.

In the event of a Fundamental Transaction, the holders of the Series D Preferred Stock will have the right to receive the consideration receivable as a result of such Fundamental Transaction by a holder of the number of shares of common stock for which the Series D Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to whether such Series D Preferred Stock is convertible at such time), which amount shall be paid pari passu with all holders of common stock. A Fundamental Transaction is defined in the Certificate of Designation of Preferences, Rights and Limitations relating to the Series D Preferred Stock as any of the following: (i) merger with or consolidation into another legal entity; (ii) sale, lease, license, assignment, transfer or other disposition of all or substantially all of the Company's assets in one or a series of related transactions; (iii) purchase offer, tender offer or exchange offer of the Company's common stock pursuant to which holders of the Company's 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) reclassification, reorganization or recapitalization of the Company's stock; or (v) stock or share purchase agreement that results in another party acquiring more than 50% of the Company's outstanding shares of common stock.

Upon any liquidation, dissolution or winding-up of the Company, the holders of the Series D Preferred Stock shall be entitled to receive out of the assets of the Company the same amount that a holder of common stock would receive if the Series D Preferred Stock were fully converted to common stock immediately prior to such liquidation, dissolution or winding-up (without regard to whether such Series D Preferred Stock is convertible at such time), which amount shall be paid pari passu with all holders of common stock.

The exercise price of the August 2017 Vivo Cash Warrants is subject to standard adjustments as well as full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the three-year period following August 3, 2017 (the Vivo Dilution Period) at a per share price less than the then-current exercise price of the August 2017 Vivo Cash Warrants, subject to certain exceptions.

The August 2017 Vivo Dilution Warrants allow Vivo to purchase a number of shares of common stock sufficient to provide Vivo with full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the Vivo Dilution Period at a per share price less than $4.26, the effective per share price paid by Vivo for the shares of common stock issuable upon conversion of the Series D Preferred Stock, subject to certain exceptions and subject to the Dilution Floor. The August 2017 Vivo Dilution Warrants expire five years from the date they are initially exercisable.

The effectiveness of the anti-dilution adjustment provision of the August 2017 Vivo Cash Warrants and the exercise of the August 2017 Vivo Dilution Warrants were subject to the August 2017 Stockholder Approval (as defined below). As of September 30, 2017, none of the August 2017 Vivo Cash Warrants had been exercised and the August 2017 Vivo Dilution Warrants were not exercisable for any shares.

In connection with the August 2017 Vivo Offering, the Company agreed that it would not issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock at a price below the Dilution Floor without Vivo's consent.

In connection with the August 2017 Vivo Offering, the Company and Vivo also entered into a Stockholder Agreement (the Vivo Stockholder Agreement) setting forth certain rights and obligations of Vivo and the Company. Pursuant to the Vivo Stockholder Agreement, Vivo will have the right, subject to certain restrictions and a minimum beneficial ownership level of 4.5%, to (i) designate one director selected by Vivo to the Board and (ii) appoint a representative to attend all Board meetings in a nonvoting observer capacity and to receive copies of all materials provided to directors, subject to certain exceptions. Furthermore, Vivo will have the right to purchase additional shares of capital stock of the Company in connection with a sale of equity or equity-linked securities by the Company in a capital raising transaction for cash, subject to certain exceptions, to maintain its proportionate ownership percentage in the Company. Vivo agreed not to sell or transfer any of the shares of common stock, Series D Preferred Stock or warrants purchased by Vivo in the August 2017 Vivo Offering, or any shares of common stock issuable upon conversion or exercise thereof, other than to its affiliates, without the consent of the Company through August 2018 and to any competitor of the Company thereafter. Vivo also agreed that, subject to certain exceptions, until the later of (i) three years from the closing of the August 2017 Vivo Offering and (ii) three months after there is no Vivo director on the Board, Vivo will not, without the prior consent of the Board, acquire common stock or rights to acquire common stock that would result in Vivo beneficially owning more than 33% of the Company's outstanding voting securities at the time of acquisition. Under the Vivo Stockholder Agreement, the Company has agreed to use its commercially reasonable efforts to register, via one or more registration statements filed with the SEC under the Securities Act, the shares of common stock purchased in the August 2017 Vivo Offering as well as the shares of common stock issuable upon conversion or exercise of the Series D Preferred Stock and warrants purchased by Vivo in the August 2017 Vivo Offering.

August 2017 Stockholder Approval

The Company has agreed to solicit from its stockholders such approval as may be required by the applicable rules and regulations of the NASDAQ Stock Market with respect to the anti-dilution provisions of the August 2017 DSM Cash Warrant and the August 2017 Vivo Cash Warrants and the exercise of the August 2017 DSM Dilution Warrant and the August 2017 Vivo Dilution Warrants (the August 2017 Stockholder Approval) at an annual or special meeting of stockholders to be held on or prior to the date of the Company's 2018 annual meeting of stockholders (the Stockholder Meeting), and to use commercially reasonable efforts to secure the August 2017 Stockholder Approval. DSM and Vivo may, at their option, upon at least 90 days' prior written notice, require the Company to hold the Stockholder Meeting prior to the Company's 2018 annual meeting of stockholders. If the Company does not obtain the August 2017 Stockholder Approval at the Stockholder Meeting, the Company will call a stockholder meeting every four months thereafter to seek the August 2017 Stockholder Approval until the earlier of the date the August 2017 Stockholder Approval is obtained or the August 2017 DSM Cash Warrant, the August 2017 Vivo Cash Warrants, the August 2017 Vivo Dilution Warrants and the August 2017 DSM Dilution Warrant are no longer outstanding. In addition, until the August 2017 Stockholder Approval has been obtained and deemed effective, the Company may not issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock if such issuance would have triggered the anti-dilution adjustment provisions in the August 2017 DSM Cash Warrant, the August 2017 DSM Dilution Warrant, the August 2017 Vivo Cash Warrants or the August 2017 Vivo Dilution Warrants (if the August 2017 Stockholder Approval had been obtained prior to such issuance) without the prior written consent of DSM and Vivo, respectively.

May 2017 Offerings

In May 2017, the Company issued and sold an aggregate of 22,140 shares of Series A Preferred Stock, 70,904 shares of Series B Preferred Stock, and warrants to purchase an aggregate of 7,384,190 shares of common stock at an exercise price of $7.80 per share, warrants to purchase an aggregate of 7,384,190 shares of common stock at an exercise price of $9.30 per share, and warrants to purchase a number of shares of common stock sufficient to provide full-ratchet anti-dilution protection with respect to the effective price paid for the common stock underlying the Series A Preferred Stock and Series B Preferred Stock (collectively, the May 2017 Warrants) in separate offerings, certain of which were registered under the Securities Act or others of which were private placements (collectively, the May 2017 Offerings).

The net proceeds to the Company from the May 2017 Offerings were $50.7 million after payment of offering expenses and placement agent fees. The Series A Preferred Stock and May 2017 Warrants relating thereto were sold to the purchasers thereof in exchange for aggregate cash consideration of $22.1 million, and the Series B Preferred Stock and May 2017 Warrants relating thereto were sold to the purchasers thereof in exchange for (i) aggregate cash consideration of $30.7 million and (ii) the cancellation of $40.2 million of outstanding indebtedness (including accrued interest thereon) owed by the Company to certain purchasers, of which $33.1 million was from related parties, as further described below.

Series A Preferred Stock

Each share of Series A Preferred Stock has a stated value of $1,000 and is convertible at any time, at the option of the holder, into common stock at a conversion price of $17.25 per share (the Preferred Stock Conversion Rate). The Preferred Stock Conversion Rate is subject to adjustment in the event of any dividends or distributions of common stock, or any stock split, reverse stock split, recapitalization, reorganization or similar transaction. If not previously converted at the option of the holder, each share of Series A Preferred Stock automatically converted on October 9, 2017, the 90th day following the date that the Company announced that Stockholder Approval was obtained and effected, subject to the May 2017 Offerings Beneficial Ownership Limitation (as defined below).

Dividends, at a rate per year equal to 17.38% of the stated value of the Series A Preferred Stock, will be payable semiannually from the issuance of the Series A Preferred Stock until the tenth anniversary of the date of issuance, on each October 15 and April 15, beginning October 15, 2017, on a cumulative basis, at the Company's option, in cash, out of any funds legally available for the payment of dividends, or, subject to the satisfaction of certain conditions, in Common Stock at the Preferred Stock Conversion Rate, or a combination thereof. In addition, upon the conversion of the Series A Preferred Stock prior to the tenth anniversary of the date of issuance, the holders of the Series Preferred A Stock shall be entitled to a payment equal to $1,738 per $1,000 of stated value of the Series A Preferred Stock, less the amount of all prior semiannual dividends paid on such converted Series A Preferred Stock prior to the relevant conversion date (the Make-Whole Payment), at the Company's option, in cash, out of any funds legally available for the payment of dividends, or, subject to the satisfaction of certain conditions, in common stock at the Preferred Stock Conversion Rate, or a combination thereof. If the Company elects to pay any dividend in the form of cash, it shall provide each holder with notice of such election not later than the first day of the month of prior to the applicable dividend payment date.

Unless and until converted into common stock in accordance with its terms, the Series A Preferred Stock has no voting rights, other than as required by law or with respect to matters specifically affecting the Series A Preferred Stock.

Upon any liquidation, dissolution or winding-up of the Company, the holders of the Series A Preferred Stock shall be entitled to receive out of the assets of the Company the same amount that a holder of Common Stock would receive if the Series A Preferred Stock were fully converted to common stock immediately prior to such liquidation, dissolution or winding-up (without regard to whether such Series A Preferred Stock is convertible at such time), which amount shall be paid pari passu with all holders of Common Stock.

The conversion of the Series A Preferred Stock is subject to a beneficial ownership limitation of 4.99% (or such other percentage not to exceed 9.99%, provided that any increase will not be effective until 61 days after notice thereof by the holder) of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon conversion of such Series A Preferred Stock (the May 2017 Offerings Beneficial Ownership Limitation). In addition, prior to obtaining the May 2017 Stockholder Approval (as defined below), the aggregate number of shares issued with respect to the Series A Preferred Stock (and any other transaction aggregated for such purpose) could not exceed 3,792,778 shares of common stock (the May 2017 Exchange Cap).

The Series A Preferred Stock is classified as permanent equity, as the Company controls all actions or events required to settle the optional and mandatory conversion feature in shares. The Make-Whole Payment was determined to be an embedded derivative requiring bifurcation and separate recognition as a derivative liability recognized at its fair value as of the issuance date with subsequent changes in fair value recorded in earnings until the Series A Preferred Stock is converted into common stock and the Make-Whole Payment is paid or until the Make-Whole Payment is paid through declared dividends or cash. A derivative liability was recognized at fair value on the date of issuance for the Make-Whole Payment in the amount of $11.0 million. The Series A Preferred Stock also contains a beneficial conversion feature which was recognized up to the amount of $0.6 million of proceeds allocated to the preferred stock. Net proceeds allocated to the Series A Preferred Stock were $0.

As of September 30, 2017, 20,670 shares of Series A Preferred Stock have been converted into common stock (with the Make-Whole Payment in each case being made in the form of common stock) and there were 1,470 shares of Series A Preferred Stock outstanding. For the nine months ended September 30, 2017, the Company recognized a gain of $10.0 million for the reduction in fair value of the derivative liabilities in connection with the 20,670 shares of Series A Preferred Stock converted into common stock.

Series B Preferred Stock

The Series B Preferred Stock has substantially identical terms to the Series A Preferred Stock, except that (i) the conversion of the Series B Preferred Stock was subject to the May 2017 Stockholder Approval and (ii) the May 2017 Offerings Beneficial Ownership Limitation does not apply to DSM. The Series B Preferred Stock is classified as permanent equity at September 30, 2017, which is a change from the mezzanine classification at June 30, 2017. As described in more detail below under "May 2017 Stockholder Approval," in July 2017 the Company's stockholders approved removing a restriction preventing the Series B Preferred Stock issued in the May 2017 Offerings from being convertible into common stock. As a result of the May 2017 Stockholder Approval, the Company now controls all actions or events required to settle an optional or mandatory conversion feature in shares and has reclassified $12.8 million from mezzanine to permanent equity.

The investors that purchased shares of the Series B Preferred Stock included related parties affiliated with members of the Board: Foris exchanged an aggregate principal amount of $27.0 million of indebtedness, plus accrued interest thereon, for 30,729 shares of Series B Preferred Stock and May 2017 Warrants to purchase 4,877,386 shares of Common Stock and Naxyris exchanged an aggregate principal amount of $2.0 million of indebtedness, plus accrued interest thereon, for 2,333 shares of Series B Preferred Stock and May 2017 Warrants to purchase 370,404 shares of common stock. The fair value of the Series B Preferred Stock, embedded make whole payment and related warrants exceeded the carrying value of the related party debt and accrued interest exchanged by $8.6 million which was recorded as a reduction to Additional Paid in Capital and considered a deemed dividend, increasing net loss attributable to Amyris, Inc. common stockholders.

The investors that purchased shares of the Series B Preferred Stock also included holders of certain of the Company's existing indebtedness, including the 2014 144A Notes and the 2015 144A Notes. These investors exchanged all or a portion of their holding of such indebtedness, including accrued interest thereon, representing an aggregate of $3.4 million of 2014 144A Notes and $3.7 million of 2015 144A Notes, for Series B Preferred Stock and May 2017 Warrants in the May 2017 Offerings. The fair value of the Series B Preferred Stock, embedded make whole payment and related warrants exceeded the carrying value of the debt and accrued interest exchanged by $1.9 million, which was recognized as a loss on extinguishment of debt in other income (expense).

Upon the closing of the May 2017 Offerings, all of such exchanged indebtedness was canceled and the agreements relating thereto, including any note purchase agreements or unsecured or secured promissory notes (including any security interest relating thereto), were terminated, except to the extent such investors or other investors retain a portion of such indebtedness.

The Series B Preferred Stock issued to DSM in the May 2017 Offerings contains a contingent beneficial conversion feature that was recognized in the three months ending September 30, 2017, as the May 2017 Stockholder Approval occurred and the contingency no longer exists. As a result, $0.6 million was recorded as a reduction to Additional Paid in Capital and was considered a deemed dividend, increasing net loss attributable to Amyris, Inc. common stockholders. The conversion feature (the right to negotiate the Second Tranche Funding Option) is not a separate unit of account requiring bifurcation.

As of September 30, 2017, 53,942 shares of Series B Preferred Stock (including the Series B Preferred Stock issued in the August 2017 DSM Offering) had been converted into common stock (with the Make-Whole Payment in each case being made in the form of common stock) and 41,962 shares of Series B Preferred Stock were outstanding. A derivative liability was recognized at fair value on the date of issuance for the make whole payment in the amount of $34.7 million. Changes in the fair value of this derivative from the date of issuance through September 30, 2017 have been recorded in earnings. Issuance costs of $1.2 million were netted against the proceeds. Additional issuance costs of $1.0 million were expensed as debt extinguishment costs for debt that was exchanged in the May 2017 Offerings. For the nine months ended September 30, 2017, the Company recognized a gain of $16.6 million for the reduction in fair value of the derivative liabilities in connection with the 53,942 shares of Series B Preferred Stock converted into common stock.

May 2017 Warrants

The Company issued to each investor in the May 2017 Offerings warrants to purchase a number of shares of common stock equal to 100% of the shares of common stock into which such investor's shares of Series A Preferred Stock or Series B Preferred Stock were initially convertible (including shares of common stock issuable as payment of dividends or the Make-Whole Payment, assuming that all such dividends and the Make-Whole Payment are made in common stock), representing warrants to purchase 14,768,380 shares of common stock in the aggregate for all investors (collectively, the May 2017 Cash Warrants). The exercise price of the May 2017 Cash Warrants is subject to standard adjustments as well as full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the three-year period following the issuance of such warrants (the May 2017 Dilution Period) at a per share price less than the then-current exercise price of the May 2017 Cash Warrants, subject to certain exceptions. As of September 30, 2017, the exercise price of the May 2017 Cash Warrants was $4.40 per share. As of September 30, 2017, no May 2017 Cash Warrants had been exercised.

In addition, the Company issued to each investor a warrant, with an exercise price of $0.0015 per share as of September 30, 2017 (collectively, the May 2017 Dilution Warrants), to purchase a number of shares of common stock sufficient to provide the investor with full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the May 2017 Dilution Period at a per share price less than $6.30, the effective per share price paid by the investors for the shares of common stock issuable upon conversion of their Series A Preferred Stock or Series B Preferred Stock (including shares of common stock issuable as payment of dividends or the Make-Whole Payment, assuming that all such dividends and the Make-Whole Payment are made in common stock) subject to certain exceptions. As of September 30, 2017, the May 2017 Dilution Warrants were exercisable for an aggregate of 6,377,466 shares, of which 1,722,042 were exercised as of September 30, 2017.

The exercise of the May 2017 Warrants was initially subject to, and the May 2017 Warrants became exercisable upon the Company obtaining, the May 2017 Stockholder Approval. The May 2017 Warrants each have a term of five years from the date such warrants initially became exercisable upon the receipt and effectiveness of the May 2017 Stockholder Approval. The exercise of the May 2017 Warrants (other than the May 2017 Warrants held by DSM) is subject to the May 2017 Offerings Beneficial Ownership Limitation. The May 2017 Cash Warrants are freestanding financial instruments that are accounted for as derivative liabilities and recognized at their fair value on the date of issuance of $39.5 million. As of September 30, 2017, the fair value of the May 2017 Cash Warrants was $27.0 million based on an independent third party appraisal using Monte Carlo simulation and Black-Scholes-Merton option value approaches. For the three and nine months ended September 30, 2017, the Company recorded losses of $6.1 million and $12.5 million, respectively, to reflect changes in fair value of the May 2017 Cash Warrants. Subsequent changes to the fair value of the May 2017 Cash Warrants will be continue to be recorded in earnings until the warrants are exercised or expire in July 2022.

The full-ratchet anti-dilution protection of the May 2017 Cash Warrants are also freestanding financial instruments that have been accounted for as derivative liabilities and recognized at their fair value on the date of issuance of $4.4 million. As of September 30, 2017, the fair value of the full-ratchet anti-dilution protection feature of the May 2017 Cash Warrants was $21.7 million. For the three and nine months ended September 30, 2017, the Company recorded losses of $19.0 million and $20.9 million to reflect change in fair value of the derivative liability. Future changes in fair value of the derivative liability will continue to be recorded in earnings until the warrants are exercised or expire in July 2022.

Warrant activity and balances in connection with the May and August 2017 Offerings are as follows:

	Issued	Exercised	Warrants Outstanding at 9/30/2017
May and August 2017 Cash Warrants			
May 2017	14,768,380	—	14,768,380
August 2017	9,543,234	—	9,543,234
	24,311,614	—	24,311,614
May and August 2017 Dilution Warrants			
May 2017	6,377,466	(1,722,042)	4,655,424
August 2017	—	—	—
	6,377,466	(1,722,042)	4,655,424
Grand total	30,689,080	(1,722,042)	28,967,038

May 2017 Stockholder Approval

In connection with the May 2017 Offerings, the Company agreed to solicit from its stockholders (i) any approval required by the rules and regulations of the NASDAQ Stock Market, including without limitation the issuance of common stock upon conversion of the Series A Preferred Stock in excess of the May 2017 Exchange Cap, upon conversion of the Series B Preferred Stock and upon exercise of the May 2017 Warrants (the NASDAQ Approval) and (ii) approval to effect the Reverse Stock Split (collectively, the May 2017 Stockholder Approval) at an annual or special meeting of stockholders to be held on or prior to July 10, 2017, and to use commercially reasonable efforts to secure the May 2017 Stockholder Approval. The Reverse Stock Split was approved by the Company's stockholders in May 2017 and the NASDAQ Approval was obtained on July 7, 2017.

May 2017 Exchange of Common Stock for Series C Convertible Preferred Stock

In May 2017, Foris and Naxyris agreed to exchange (the May 2017 Exchange) their outstanding shares of common stock, representing a total of 1,394,706 shares, for 20,921 shares of the Company's Series C Convertible Preferred Stock, par value $0.0001 per share (the Series C Preferred Stock) in a private exchange. In addition, Foris and Naxyris agreed not to convert any of their outstanding convertible promissory notes, warrants or any other equity-linked securities of the Company until the May 2017 Stockholder Approval had been obtained.

Each share of Series C Preferred Stock has a stated value of $1,000 and would automatically convert into common stock, at a conversion price of $15.00 per share (the Series C Conversion Rate), upon the approval by the Company's stockholders and implementation of a reverse stock split.

The Series C Preferred Stock is entitled to participate with the common stock on an as-converted basis with respect to any dividends or other distributions to holders of common stock.

The Series C Preferred Stock shall vote together as one class with the common stock on an as-converted basis, and shall also vote with respect to matters specifically affecting the Series C Preferred Stock.

Upon any liquidation, dissolution or winding-up of the Company, the holders of the Series C Preferred stock shall be entitled to receive out of the assets of the Company an amount equal to the greater of (i) the par value of each share of Series C Preferred Stock, plus any accrued and unpaid dividends or other amounts due on such Series C Preferred Stock, prior to any distribution or payment to the holders of common stock or (ii) the amount that a holder would receive if the Series C Preferred Stock were fully converted to common stock immediately prior to such liquidation, dissolution or winding-up (without regard to whether such Series C Preferred Stock is convertible at such time), which amount shall be paid pari passu with all holders of Common Stock.

The shares of Series C Preferred Stock automatically converted to common stock on June 6, 2017 in connection with the effectiveness of the Reverse Stock Split. The Company accounted for the Series C Preferred Stock and the May 2017 Exchange as a non-monetary transaction that had no impact on the interim financial statements.

Exchange Agreement Warrants

Under the 2015 Exchange Agreement, Total and Temasek received the following warrants at the closing of the 2015 Exchange:

- Total received a warrant to purchase 1,261,613 shares of common stock (the Total Funding Warrant), which warrant had been fully exercised as of September 30, 2017.
- Total received a warrant to purchase 133,334 shares of the Company's common stock that would only be exercisable if the Company failed, as of March 1, 2017, to achieve a target cost per liter to manufacture farnesene (the Total R&D Warrant). As of March 1, 2017, the Company had not achieved the target cost per liter to manufacture farnesene provided in the Total R&D Warrant, and as a result, on March 1, 2017 the Total R&D Warrant became exercisable in accordance with its terms. As of September 30, 2017, the Total R&D Warrant had not been exercised.
- Temasek received a warrant to purchase 978,525 shares of common stock, which warrant had been fully exercised as of September 30, 2017.
- Temasek received a warrant exercisable for that number of shares of common stock equal to 58,690 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 133,334 (the Temasek R&D Warrant). As of September 30, 2017, the Temasek R&D Warrant was not exercisable for any shares of common stock.
- Temasek received a warrant exercisable for that number of shares of common stock equal to (1) (A) the sum of (i) the number of shares for which Total exercises the Total Funding Warrant plus (ii) the number of any additional shares for which the outstanding Tranche Notes may become exercisable as a result of a reduction in their conversion price as a result of and/or subsequent to the 2015 Exchange plus (iii) the number of additional shares in excess of 133,334, if any, for which the Total R&D Warrant becomes exercisable, multiplied by (B) a fraction equal to 30.6% divided by 69.4% plus (2) (A) the number of any additional shares for which the outstanding 2014 144A Notes may become exercisable as a result of a reduction in their conversion price multiplied by (B) a fraction equal to 13.3% divided by 86.7% (the Temasek Funding Warrant). As of September 30, 2017, the Temasek Funding Warrant had been exercised with respect to 846,683 shares of common stock and was exercisable for 1,889,986 shares of common stock.

The warrants issued to Total in the 2015 Exchange each have five-year terms, and the warrants issued to Temasek in the 2015 Exchange each have ten-year terms. All of such warrants have an exercise price of $0.15 per share as of September 30, 2017.

In addition to the grant of the warrants in the 2015 Exchange, a warrant to purchase 66,667 shares of common stock issued by the Company to Temasek in October 2013 in conjunction with a prior convertible debt financing became exercisable in full upon the completion of the 2015 Exchange. As of September 30, 2017, such warrant had been fully exercised.

July 2015 PIPE Warrants

In July 2015, the Company entered into a securities purchase agreement with certain purchasers, including entities affiliated with members of the Board, under which the Company agreed to sell 1,068,379 shares of common stock at a price of $23.40 per share, for aggregate proceeds to the Company of $25.0 million. The sale of common stock was completed on July 29, 2015. In connection with such sale, the Company granted to each of the purchasers a warrant, exercisable at a price of $0.15 per share as of September 30, 2017, to purchase of a number of shares of common stock equal to 10% of the shares of common stock purchased by such investor. The exercisability of the warrants was subject to stockholder approval, which was obtained on September 17, 2015. As of September 30, 2017, such warrants had been exercised with respect to 25,643 shares of common stock and warrants with respect to 81,197 shares of common stock were outstanding.

At Market Issuance Sales Agreement

On March 8, 2016, the Company entered into an At Market Issuance Sales Agreement (the ATM Sales Agreement) with FBR Capital Markets & Co. and MLV & Co. LLC (the Agents) under which the Company may issue and sell shares of its common stock having an aggregate offering price of up to $50.0 million (the ATM Shares) from time to time through the Agents, acting as its sales agents, under the Company's Registration Statement on Form S-3 (File No. 333-203216), effective April 15, 2015. Sales of the ATM Shares through the Agents, if any, will be made by any method that is deemed an "at the market offering" as defined in Rule 415 under the Securities Act, including by means of ordinary brokers' transactions at market prices, in block transactions, or as otherwise agreed by the Company and the Agents. Each time that the Company wishes to issue and sell ATM Shares under the ATM Sales Agreement, the Company will notify one of the Agents of the number of ATM Shares to be issued, the dates on which such sales are anticipated to be made, any minimum price below which sales may not be made and other sales parameters as the Company deems appropriate. The Company will pay the designated Agent a commission rate of up to 3.0% of the gross proceeds from the sale of any ATM Shares sold through such Agent as agent under the ATM Sales Agreement. The ATM Sales Agreement contains customary terms, provisions, representations and warranties. The ATM Sales Agreement includes no commitment by other parties to purchase shares the Company offers for sale.

During the nine months ended September 30, 2017, the Company did not sell any shares of common stock under the ATM Sales Agreement. As of the date hereof, $50.0 million remained available for future sales under the ATM Sales Agreement.

8. Commitments and Contingencies

Commitments

Leases

The Company leases certain facilities and finances certain equipment under operating and capital leases, respectively. Operating leases include leased facilities, and capital leases include leased equipment (see Note 4, "Balance Sheet Components"). The Company recognizes rent expense on a straight-line basis over the noncancelable lease term and records the difference between rent payments and the recognition of rent expense as a deferred rent liability. Where leases contain escalation clauses, rent abatements or concessions, such as rent holidays and landlord or tenant incentives or allowances, the Company applies them as a straight-line rent expense over the lease term. The Company has noncancelable operating lease agreements for office, research and development, and manufacturing space, and equipment that expire at various dates, with the latest expiration in February 2031. Rent expense under operating leases was $1.4 million and $1.3 million for the three months ended September 30, 2017 and 2016, respectively, and $4.1 million and $4.0 million for the nine months ended September 30, 2017 and 2016, respectively.

Future minimum payments under the Company's lease obligations as of September 30, 2017 are as follows (in thousands):

Years ending December 31:	Capital Leases	Operating Leases	Total Lease Obligations
2017 (remaining three months)	$ 307	$ 2,278	$ 2,585
2018	645	9,163	9,808
2019	75	7,790	7,865
2020	—	7,012	7,012
2021	—	7,248	7,248
Thereafter	—	10,991	10,991
Total future minimum payments	$ 1,027	$ 44,482	$ 45,509
Less: amount representing interest	(37)		
Present value of minimum lease payments	990		
Less: current portion	(863)		
Long-term portion	$ 127		

Contingencies

The Company's management assesses contingent liabilities, and such assessment inherently involves an exercise of judgment. In assessing loss contingencies related to legal proceedings that are pending against 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 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 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.

The Company has levied indirect taxes on sugarcane-based biodiesel sales by Amyris Brasil 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 we levied.

In April 2017, a securities class action complaint was filed against the Company and its CEO, John G. Melo, and CFO, Kathleen Valiasek, in the U.S. District Court for the Northern District of California. The complaint sought unspecified damages on behalf of a purported class that would comprise all individuals who acquired the Company's common stock between March 2, 2017 and April 17, 2017. The complaint alleged securities law violations based on statements made by the Company in its earnings press release issued on March 2, 2017 and Form 12b-25 filed with the SEC on April 3, 2017. On September 21, 2017, an Order of Dismissal was entered on the plaintiff's notice of voluntary dismissal without prejudice.

Subsequent to the filing of the securities class action complaint described above, four separate purported shareholder derivative complaints were filed based on substantially the same facts as the securities class action complaint described above (the Derivative Complaints). The Derivative Complaints name Amyris, Inc. as a nominal defendant and name a number of the Company's current officers and directors as additional defendants. The lawsuits seek to recover, on the Company's behalf, unspecified damages purportedly sustained by the Company in connection with allegedly misleading statements and/or omissions made in connection with the Company's securities filings. The Derivative Complaints also seek 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. Two of the Derivative Complaints were filed in the U.S. District Court for the Northern District of California (together, the Federal Derivative Cases): Bonner v. John Melo, et al., Case No. 4:17-cv-04719, filed August 15, 2017, and Goldstein v. John Melo, et al., Case No. 3:17-cv-04927, filed on August 24, 2017. On September 19, 2017, an order was entered consolidating the Federal Derivative Cases into a single consolidated action, captioned: In re Amyris, Inc., Shareholder Derivative Litigation, Lead Case No. 2:15-cv-04719, and ordering plaintiffs to file a consolidated complaint or designate an operative complaint by November 3, 2017. On November 3, 2017, the plaintiffs in the Federal Derivative Cases filed a Notice of Designation of Operative Complaint designating the complaint filed in the Bonner case as the operative complaint. The remaining two Derivative Complaints were filed in the Superior Court for the State of California (the State Derivative Cases): Gutierrez v. John G. Melo, et al., Case. No. BC 665782, filed on June 20, 2017, in the Superior Court for the County of Los Angeles, and Soleimani v. John G. Melo, et al., Case No. RG 17865966, filed on June 29, 2017, in the Superior Court for the County of Alameda. On August 31, 2017, the Gutierrez case was transferred to the Superior Court for the State of California, County of Alameda and assigned case number RG17876383. These state cases are in the initial pleadings stage. We believe the Derivative Complaints lack 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 this matter.

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 that 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 condensed consolidated financial statements for the relevant reporting period could be materially adversely affected.

9. Noncontrolling Interests

Aprinnova JV

The Company is a 50% owner of a joint venture, Aprinnova, LLC (the Aprinnova JV), which the Company has determined is a variable-interest entity (VIE) under ASC 810, "Consolidation", and that the Company is the VIE's primary beneficiary because of the Company's significant ongoing involvement in the Aprinnova JV's operational decision making and the Company's guarantee of production costs for squalane/hemisqualane. Accordingly, the Company accounts for the Aprinnova JV under the consolidation method of accounting.

The table below reflects the carrying amount of the Aprinnova JV's assets and liabilities, for which the Company is the primary beneficiary at September 30, 2017 (in thousands):

	September 30, 2017	December 31, 2016
Assets	33,385	30,778
Liabilities	3,192	333

Aprinnova JV's creditors have recourse only to the assets of Aprinnova JV.

The change in the Company's noncontrolling interest in Aprinnova JV for the nine months ended September 30, 2017 and 2016, is summarized below (in thousands):

	2017	2016
Balance at January 1	$ 937	$ —
Acquisition of noncontrolling interest	—	114
Net loss attributable to noncontrolling interest	—	—
Balance at September 30	$ 937	$ 114

10. Significant Revenue Agreements

Product Sales

Nenter Agreements

In 2016, the Company entered into a Renewable Farnesene Supply Agreement (as amended, the Nenter Supply Agreement) with Nenter & Co., Inc. (Nenter) to establish the terms of a supply and value-share arrangement between the Company and Nenter related to farnesene. The Company agreed to supply Nenter with farnesene at prices and on delivery terms set forth in the Nenter Supply Agreement and to provide Nenter with certain exclusive purchase rights, and Nenter agreed to annual minimum purchase volume requirements and to provide the Company with quarterly value-share payments representing a portion of Nenter's profit on the sale of products produced using farnesene purchased under the Nenter Supply Agreement. The Nenter Supply Agreement expires December 31, 2020 and will automatically renew at the end of such initial term for an additional 5-year term unless otherwise terminated.

Under this agreement, the Company recognized product revenues of $1.7 million and $2.8 million for the three months ended September 30, 2017 and 2016, respectively, and $10.6 million and $2.8 million for the nine months ended September 30, 2017 and 2016, respectively.

In October 2016, the Company entered into a Cooperation Agreement with Nenter, which was terminated in May 2017. In connection with the termination of the Cooperation Agreement, the Company paid Nenter a fee of $2.5 million in August 2017, which is included in Sales, General and Administrative expense for the nine months ended September 30, 2017.

Grants and Collaborations

DSM Collaboration and Licensing Agreements

In July and September 2017, the Company entered into three separate collaboration agreements with DSM (the DSM Collaboration Agreements) to jointly develop three new molecules in the Health and Nutrition field (the DSM Ingredients) using the Company's technology, which the Company would produce and DSM would commercialize. Pursuant to the DSM Collaboration Agreements, DSM will, subject to certain conditions, provide funding for the development of the DSM Ingredients and, upon commercialization, the parties would enter into supply agreements whereby DSM would purchase the applicable DSM Ingredients from the Company at prices agreed by the parties. The development services will be directed by a joint steering committee with equal representation by DSM and the Company. In addition, the parties will share product margin from DSM's sales of products that incorporate the DSM Ingredients subject to the DSM Collaboration Agreements.

In connection with the entry into the DSM Collaboration Agreements, the Company and DSM also entered into certain license arrangements (the DSM License Agreements) providing DSM with certain rights to use the technology underlying the development of the DSM Ingredients to produce and sell products incorporating the DSM Ingredients. Under the DSM License Agreements, DSM agreed to pay the Company $9.0 million for a worldwide, exclusive, perpetual, royalty-free license to produce and sell products incorporating one of the DSM Ingredients in the Health and Nutrition field. DSM remitted the $9.0 million license fee to the Company in October 2017.

In addition, in connection with the entry into the DSM Collaboration Agreements, the Company and DSM entered into the DSM Credit Letter, pursuant to which the Company granted a credit to DSM in an aggregate amount of $12.0 million to be offset against future collaboration payments (in an amount not to exceed $6.0 million) and value share payments owed by DSM to the Company beginning in 2018. The DSM Credit Letter had a fair value of $7.1 million. The DSM Credit Letter, along with the August 2017 DSM Series B Preferred Stock, August 2017 DSM Cash Warrant, August 2017 DSM Dilution Warrant and Make-Whole Payment (see Note 7, "Stockholders' Deficit") are consideration to a customer under ASC 605-50, "Customer Payments and Incentives."

As a result, the total fair value of $33.3 million related to the August 2017 DSM Cash Warrants, August 2017 DSM Dilution Warrants, the Make-Whole Payment, the August 2017 DSM Series B Preferred Stock and the DSM Credit Agreement reduced the $34.0 million in fixed consideration resulting from the August 2017 DSM Offering and the DSM License Agreements. The remaining $0.7 million was recognized as revenue generated from the delivery of the intellectual property licenses to DSM. At September 30, 2017, there was $7.1 million of deferred revenue in connection with the DSM License and Collaboration Agreements, which will be recognized in future periods as collaboration services are provided. The fixed and determinable consideration related to the DSM Collaboration Agreements and DSM License Agreements will be allocated to the identified deliverables which have been determined to have stand-alone value using the relative selling price method. The consideration allocated to the licenses will be recognized as the licenses are delivered and the consideration allocated to the collaboration deliverables will be recognized on a proportional performance basis as services are provided.

See Note 15, "Subsequent Events" for information regarding agreements with DSM subsequent to September 30, 2017.

Givaudan Agreements

In 2016, the Company entered into a Collaboration Agreement with Givaudan to establish a collaboration for the development and commercialization of certain renewable compounds for use in the fields of active cosmetics and flavors (the Givaudan Collaboration Agreement). Previously, in 2015, the Company entered into a farnesene supply agreement with Givaudan (the Givaudan Supply Agreement) for use in the production of a separate ingredient. Under the Givaudan Collaboration Agreement, Givaudan agreed to pay to the Company $12.0 million in semiannual installments of $3.0 million each, beginning on June 30, 2016; through September 30, 2017, the Company has received $9.0 million, in accordance with the arrangement. The Company recognized (i) collaboration revenues under the Givaudan Collaboration Agreement of $1.5 million and $1.6 million for the three months ended September 30, 2017 and 2016, respectively, and $4.5 million and $1.6 million for the nine months ended September 30, 2017 and 2016, respectively, and (ii) product revenues under the Givaudan Supply Agreement of $1.3 million and $0 for the three months ended September 30, 2017 and 2016, respectively, and $2.0 million and $0 for the nine months ended September 30, 2017 and 2016, respectively.

DARPA Technology Investment Agreement

In 2015, the Company entered into a Technology Investment Agreement with The Defense Advanced Research Projects Agency (DARPA), under which the Company, with the assistance of five specialized subcontractors, is working to create new research and development tools and technologies for strain engineering and scale-up activities and is being funded by DARPA on a milestone basis. The Company recognized collaboration revenues of $1.3 million and $1.3 million under this agreement for the three months ended September 30, 2017 and 2016, respectively, and $6.9 million and $4.8 million for the nine months ended September 30, 2017 and 2016, respectively.

Firmenich Agreements

In 2013, the Company entered into a collaboration agreement with Firmenich SA (Firmenich) (as amended, the Firmenich Collaboration Agreement), for the development and commercialization of multiple renewable flavors and fragrances compounds. In 2014, the Company entered into a supply agreement with Firmenich (the Firmenich Supply Agreement) for compounds developed under the Firmenich Collaboration Agreement. The Firmenich Collaboration Agreement and Firmenich Supply Agreement (the Firmenich Agreements) are considered for revenue recognition purposes to comprise a single multiple-element arrangement.

In July 2017, the Company and Firmenich entered into an amendment of the Firmenich Collaboration Agreement, pursuant to which the parties agreed to exclude certain compounds from the scope of the agreement and to terms connected with the supply and use of such compounds when commercially produced. In addition, the parties agreed to (i) fix at a 70/30 basis (70% for Firmenich) the ratio at which the parties' will share product margins from sales of two compounds; (ii) set at a 70/30 basis (70% for Firmenich) the ratio at which the parties' will share product margins from sales of a distinct form of compound until Firmenich receives $15.0 million more than the Company in the aggregate from such sales, after which time the parties will share the product margins 50/50 and (iii) a maximum Company cost of a compound where a specified purchase volume is satisfied, and alternative production and margin share arrangements in the event such Company cost cap is not achieved.

The Company recognized (i) collaboration revenues of $1.4 million and $1.3 million for the three months ended September 30, 2017 and 2016, respectively, and $4.6 million and $5.5 million for the nine months ended September 30, 2017 and 2016, respectively, and (ii) product revenues of $4.8 million and $0.3 million for the three months ended September 30, 2017 and 2016, respectively, and $6.9 million and $5.2 million for the nine months ended September 30, 2017 and 2016, respectively, under the Firmenich Agreements. Pursuant to the Firmenich Collaboration Agreement, the Company agreed to pay a one-time success bonus to Firmenich of up to $2.5 million if certain commercialization targets are met. Such targets have not yet been met as of September 30, 2017. The one-time success bonus will expire upon termination of the Firmenich Collaboration Agreement.

Michelin and Braskem Collaboration Agreements

In 2011, the Company entered into a collaboration agreement with Manufacture Francaise de Pnematiques Michelin (Michelin). Under the terms of the 2011 collaboration agreement, the Company and Michelin agreed to collaborate on the development, production and worldwide commercialization of isoprene or isoprenol, generally for tire applications, using the Company's technology. Under the agreement, Michelin made an upfront payment to the Company of $5.0 million.

In June 2014, the Company entered into a collaboration agreement with Braskem S.A. (Braskem) and Michelin (the June 2014 Collaboration Agreement) to collaborate to develop the technology to produce and possibly commercialize renewable isoprene. The June 2014 Collaboration Agreement terminated and superseded the 2011 collaboration agreement with Michelin, and, as a result of the signing of the June 2014 Collaboration Agreement, the upfront payment by Michelin of $5.0 million was rolled into the new collaboration agreement between Michelin, Braskem and the Company as Michelin's collaboration funding towards the research and development activities to be performed. In addition, the Company received a total of $4.5 million of funding from Braskem under the June 2014 Collaboration Agreement, of which $2.0 million was received in 2014 and $2.5 million was received in 2015.

In accordance with a September 2015 amendment, the June 2014 Collaboration Agreement contractually terminated.

The Company recognized collaboration revenues of $6.3 million and $0 for the three months ended September 30, 2017 and 2016, respectively, and $6.3 million and $0.1 million for the nine months ended September 30, 2017 and 2016, respectively, under the June 2014 Collaboration Agreement.

11. Stock-based Compensation

The Company's stock option activity and related information for the nine months ended September 30, 2017 was as follows:

	Quantity of Stock Options	Weighted-average Exercise Price	Weighted-average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding - December 31, 2016	875,021	$ 55.20		
Options granted	211,433	$ 6.64		
Options exercised	(133)	$ 4.20		
Options forfeited	(137,298)	$ 28.90		
Outstanding - September 30, 2017	949,023	$ 48.19	6.7	$ 3,140
Vested and expected to vest after September 30, 2017	867,218	$ 51.73	6.5	$ 2,222
Exercisable at September 30, 2017	558,589	$ 72.64	5.2	$ —

The Company's restricted stock units (or "RSUs") and restricted stock activity and related information for the nine months ended September 30, 2017 are as follows:

	Quantity of Restricted Stock Units	Weighted-average Grant-date Fair Value	Weighted Average Remaining Contractual Life (in years)
Outstanding - December 31, 2016	454,923	$ 17.48	
Awarded	381,204	$ 6.46	
Vested	(155,849)	$ 19.54	
Forfeited	(80,853)	$ 13.85	
Outstanding - September 30, 2017	599,425	$ 10.43	1.5
Expected to vest after September 30, 2017	460,278	$ 10.74	1.4

Stock-based Compensation Expense

Stock-based compensation expense related to options and restricted stock units granted to employees and non-employees was allocated to research and development expense and sales, general and administrative expense as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Research and development	$ 395	$ 481	$ 1,320	$ 1,457
Sales, general and administrative	863	1,327	2,622	4,188
Total stock-based compensation expense	$ 1,258	$ 1,808	$ 3,942	$ 5,645

As of September 30, 2017, there was unrecognized compensation expense of $6.9 million related to stock options and restricted stock units. The Company expects to recognize this expense over a weighted-average period of 2.7 years.

Stock-based compensation expense for RSUs is measured based on the closing fair market value of the Company's common stock on the date of grant. Stock-based compensation expense for stock options and employee stock purchase plan rights is estimated at the grant date and offering date, respectively, based on their fair-value using the Black-Scholes option pricing model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards. The fair value of employee stock options was estimated using the following weighted-average assumptions:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Expected dividend yield	—%	—%	—%	—%
Risk-free interest rate	2.0%	1.2%	2.0%	1.3%
Expected term (in years)	6.2	6.2	6.1	6.2
Expected volatility	92.2%	76.7%	81.6%	73.0%

12. Related Party Transactions

Related Party Financings and Debt

See Note 5, “Long-term Debt” for a description of related party debt and related transactions during the three and nine months ended September 30, 2017.

Related Party Revenues

For the three and nine months ended September 30, 2017 and 2016, related party revenues were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
DSM	$ 1,337	$ —	$ 1,486	$ —
Novvi	—	1,390	—	1,390
TOTAL	77	—	77	—
	$ 1,414	$ 1,390	$ 1,563	$ 1,390

Related party accounts receivable balances as of September 30, 2017 and December 31, 2016, were $10.1 million and $0.9 million, respectively.

Novvi Joint Venture

In June 2017, the Company made a $60,000 equity contribution to Novvi LLC, its joint venture with Cosan US, Inc., American Refining Group, Inc., Chevron U.S.A. Inc. and H&R Group US, Inc. focusing on base oils, additives and lubricants.

Pilot Plant Agreements with Total

The Company and Total are parties to two five-year agreements, each dated April 4, 2014 and subsequently amended, under which the Company leases space in its pilot plants to Total and provides Total with fermentation and downstream separation scale-up services and training to Total employees, and utilizes Total employees to perform certain research and development services for the Company. In February 2017, the Company and Total amended these agreement to provide that the Company would not be charged for the cost of Total’s employees on or after May 1, 2016, other than overhead charges. At September 30, 2017 and December 31, 2016, the net amounts on our condensed consolidated balance sheets in connection with these agreements were payables to Total of $1.6 million and $1.8 million, respectively.

13. Income Taxes

The Company recorded income tax provisions as follows (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Benefit from (provision for) income taxes	$ 0.3	$ (0.1)	$ —	$ (0.4)

The amounts for all periods presented are comprised of accrued Brazilian withholding tax on interest on intercompany loans. Other than those amounts, no additional provisions for income tax have been recorded, net of valuation allowance, due to cumulative losses since commencement of the Company's operations. Due to decreases in the Company's intercompany loan balances, provisions for income taxes decreased for the three and nine months ended September 30, 2017 as compared to the prior year periods.

14. Net Loss per Share Attributable to Common Stockholders

Basic net loss per share attributable to common stockholders is computed by dividing the Company's net loss attributable to Amyris, Inc. common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share attributable to common stockholders is computed by giving effect to all potentially dilutive securities, including stock options, restricted stock units, common stock warrants and convertible promissory notes using the treasury stock method or the as-converted method, as applicable. For the three months ended September 30, 2017 and September 30, 2016, basic net loss per share attributable to common stockholders was the same as diluted net loss per share attributable to common stockholders because the inclusion of all potentially dilutive securities outstanding was antidilutive. For nine months ended September 2017, the $35.4 million gain attributable to derivative liabilities was removed from the calculation for diluted net loss attributable to common stockholders, as its inclusion would be anti-dilutive.

The following table presents the calculation of basic and diluted net loss per share attributable to common stockholders (in thousands, except share and per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Numerator:				
Net income (loss) attributable to Amyris, Inc.	$ (33,861)	$ (19,704)	$ (70,612)	$ (48,579)
Less deemed dividend on capital distribution to related parties	—	—	(8,648)	—
Less deemed dividend related to beneficial conversion feature on Series A preferred stock	—	—	(562)	—
Less deemed dividend related to beneficial conversion feature on Series B preferred stock	(634)	—	(634)	—
Less deemed dividend related to beneficial conversion feature on Series D preferred stock	(5,757)	—	(5,757)	—
Less cumulative dividends on Series A and Series B preferred stock	(2,567)	—	(4,242)	—
Net loss attributable to Amyris, Inc. common stockholders, basic	(42,819)	(19,704)	(90,455)	(48,579)
Interest on convertible debt	—	—	—	5,093
Accretion of debt discount	—	—	—	5,304
Gain from change in fair value of derivative instruments	—	—	(35,443)	(37,593)
Net loss attributable to Amyris, Inc. common stockholders, diluted	$ (42,819)	$ (19,704)	$ (125,898)	$ (75,775)
Denominator:				
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic	37,529,694	16,612,690	27,280,894	15,118,144
Basic loss per share	$ (1.14)	$ (1.19)	$ (3.32)	$ (3.21)
Weighted-average shares of common stock outstanding	37,529,694	16,612,690	27,280,894	15,118,144
Effective of dilutive convertible promissory notes	—	—	—	2,773,531
Weighted-average common stock equivalents used in computing net loss per share of common stock, diluted	37,529,694	16,612,690	27,280,894	17,891,675
Diluted loss per share	$ (1.14)	$ (1.19)	$ (4.61)	$ (4.24)

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Period-end stock options to purchase common stock	949,023	924,062	949,023	924,062
Convertible promissory notes (1)	8,133,594	4,431,610	8,133,594	1,584,026
Period-end common stock warrants	31,303,080	977,561	31,303,080	977,561
Period-end restricted stock units	599,425	498,304	599,425	498,304
Total potentially dilutive securities excluded from computation of diluted net loss per share	40,985,122	6,831,537	40,985,122	3,983,953

(1) 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.

15. Subsequent Events

Additional Agreements with DSM

On November 17, 2017, the Company entered into additional agreements with DSM as follows:

- DSM agreed to purchase 100% of the equity ownership in Amyris Brasil (excluding certain assets) from the Company for a purchase price of $30.7 million, subject to certain adjustments. The Company will have a right of first refusal to purchase the manufacturing facility owned by Amyris Brasil located in Brotas, Brazil (the Brotas 1 Facility) if DSM determines to close or significantly reduce production at the Brotas 1 Facility;
- The Company will borrow $25.0 million from DSM and will then repay:
  - amounts outstanding under the Guanfu Note, and
  - certain other outstanding indebtedness of Amyris Brasil, which amount will be deducted from the purchase price;
- DSM will pay the Company an upfront license fee of $27.5 million in connection with a license agreement executed in November 2017; and
- The Company and DSM will enter into other commercial agreements.

The closing of the transactions described above is subject to several conditions, including the execution, delivery and assignment of certain agreements and contracts, obtaining certain third party and governmental approvals, and making certain regulatory filings and registrations. The parties may terminate the transactions in the event the closing has not occurred by March 31, 2018.

Additional Agreements with Ginkgo

On November 13, 2017, the Company and Ginkgo entered into additional agreements as follows:

- The Ginkgo Partnership Agreement (which supersedes the Ginkgo Collaboration Agreement), whereby the Company and Ginkgo agreed to:
  - continue to collaborate on limited research and development;
  - provide each other licenses (with royalties) to specified intellectual property for limited purposes;
  - share in the net profits from sales of a certain product to be developed under the Ginkgo Partnership Agreement on a 50/50 basis, subject to certain conditions; payments will begin on December 31, 2018 and end on September 30, 2022, provided that net profits will be payable to Ginkgo only to the extent they exceed principal and interest payments under the November 2017 Ginkgo Note (as defined below);
  - the Company will pay Ginkgo $500,000 in connection with certain fees previously owed to Ginkgo.

  The Ginkgo Partnership Agreement provides for an initial term of two years, unless earlier terminated in accordance with its terms, and automatically renews for successive one year terms thereafter, subject to voluntary termination by either party; and

- The Company issued to Ginkgo an unsecured promissory note (Ginkgo Note) for $12.0 million, with interest at 10.5% per year, maturing on October 19, 2022.

Biolding Note Amendment

On November 13, 2017, the Company and Biolding further amended the Biolding Note to extend the maturity date from November 15, 2017 to December 31, 2017.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with our condensed consolidated financial statements and the related notes that appear elsewhere in this Quarterly Report on Form 10-Q. These discussions contain forward-looking statements reflecting our current expectations that involve risks and uncertainties which are subject to safe harbors under the Securities Act of 1933, as amended (the Securities Act), and the Securities Exchange Act of 1934 (the Exchange Act). These forward-looking statements include, but are not limited to, statements concerning our strategy of achieving a significant reduction in net cash outflows in 2017 and 2018, aspects of our future operations, including the ability to improve our production efficiencies, our future financial position, revenues and projected costs, expectations regarding demand and acceptance for our technologies, growth opportunities and trends in the market in which we operate, prospects and plans and objectives of management. The words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward looking statements. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks set forth in Part II, Item 1A, "Risk Factors," in this Quarterly Report on Form 10-Q and in our other filings with the Securities and Exchange Commission. We do not assume any obligation to update any forward-looking statements.

Overview

Amyris, Inc. ("Amyris," "we," "us," or "our") is a leading industrial biotechnology company that is applying its technology platform to engineer, manufacture and sell high performance products into the Health and Nutrition, Personal Care and Performance Materials markets. Our proven technology platform allows 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 chemical manufacturing processes. We have successfully used our technology to develop and produce at commercial volumes five distinct molecules.

We believe 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, and animal- or plant-derived ingredients. We continue to build demand for our current portfolio of products through a sales network comprised of direct sales and distributors, and are engaged in collaborations across each of our three market focus areas to drive additional product sales and partnership opportunities. Via our partnership model, our partners invest in the development of each molecule to bring it from the lab to commercial scale. We then capture long-term revenue both through the production and sale of the molecule to our partners and through value sharing of our partners' product sales.

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 - 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 hundreds of products as nutraceuticals, skin care 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 costs down at our Brotas, Brazil production facility. 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 flavors and fragrance (F&F) 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 Project Agency (DARPA), and in 2016 we expanded into proteins.

We have invested over $500 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 five distinct molecules, leading to more than 15 commercial ingredients used in over 500 consumer products. 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 2008, and has been integrated with our commercial production since 2011, creating a seamless 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. 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 Brotas, Brazil.

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.

Our mission is to apply innovative science to deliver sustainable solutions for a growing world. We seek to become the world's leading provider of renewable, high-performance alternatives to non-renewable and scarce products. In the past, choosing a renewable product often required producers to compromise on performance or price. With our technology, leading consumer brands can develop products made from renewable sources that offer equivalent or better performance and stable supply with competitive pricing. We call this our No Compromise® value proposition. We aim to improve the world one molecule at a time by providing the best alternatives to the products the world relies on every day.

Sales and Revenues

Our revenues are comprised of grant and collaboration revenues, including license fees, that fund our R&D activities and revenues from product sales and value share arrangements that provide a long-term revenue stream for Amyris.

We have entered into research and development collaboration arrangements pursuant to which we receive payments from our collaborators, which include DSM Nutritional Products Ltd, DARPA, Firmenich SA (Firmenich), PureCircle Ltd. and Givaudan International SA (Givaudan) and others. Some of our collaboration arrangements provide for advance payments in consideration for grants of exclusivity or research efforts to be performed by us. Once a collaboration agreement has been signed, receipt of payments may depend on our achievement of milestones. See Note 10, “Significant Revenue Agreements” to our unaudited condensed consolidated financial statements included in this report for more details regarding these agreements and arrangements.

Our Biofene derived product sales consist of direct-to-consumer sales of our Biossance product line sold in the cosmetics sector, and from business-to-business product sales to customers sold directly through Amyris and also via distributors. Our direct-to-consumer sales of our Biossance product line are continuing to grow through our Sephora sales channel as well as our online sales from our website Biossance.com. Biossance was initially launched with Sephora on their online store where it was the most successful brand launch for Sephora.com. Our Biossance products are now sold in 359 Sephora stores. Also, Sephora Canada has committed to carrying the Biossance brand in all of their stores starting in the first half of 2018. The line consists of six products that utilize squalane in their formulation with a pipeline of additional products to further grow and underpin the DNA of the brand. To commercialize, market and distribute our initial Biofene-derived product, squalane, in the cosmetics sector for use as an emollient, we have established a joint venture with Nikko Chemicals Co., Ltd. and Nippon Surfactant Industries Co., Ltd, called Aprinnova LLC. The production facility in Leland, North Carolina that we acquired in December 2016, performs chemical conversion and production of our end products and was transferred to the joint venture. See Note 9, "Noncontrolling Interests", to our unaudited condensed consolidated financial statements included in this report for more details regarding our joint ventures. We have also entered into certain supply agreements with customers in the Health and Nutrition, Personal Care and Performance Materials markets, including Nenter & Co., and Kuraray Co. Ltd., to commercialize products derived from Biofene.

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

Results of Operations

Revenue

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017	2016	Change	% Change	2017	2016	Change	% Change
Revenue								
Renewable products	$ 11,315	$ 6,820	$ 4,495	66%	$ 32,336	$ 14,883	$ 17,453	117%
Grants and collaborations	12,882	19,724	(6,842)	(35)%	30,521	30,071	450	1%
Total revenue	$ 24,197	$ 26,544	$ (2,347)	(9)%	$ 62,857	$ 44,954	$ 17,903	40%

Three months ended September 30, 2017

For the three months ended September 30, 2017, total revenue was $24.2 million, compared to $26.5 million for the same period in 2016. The decrease was driven primarily by significantly lower collaboration revenue, mostly offset by higher renewable products revenue in our health and nutrition business. Grants and collaboration revenue was $12.9 million, down from $19.7 million for the same period in 2016. Renewable products revenue was $11.3 million, up from $6.8 million for the same period in 2016. For the three months ended September 30, 2017, we recognized $6.3 million of collaboration revenue from Braskem and Michelin. See Note 10, "Significant Revenue Agreements" to our unaudited condensed consolidated financial statements included in this report for more details regarding our agreements with Braskem and Michelin.

Nine months ended September 30, 2017

For the nine months ended September 30, 2017, total revenue was $62.9 million, compared to $45.0 million for the same period in 2016. The increase was driven by a $17.5 million increase in renewable products revenue, led by the health and nutrition and personal care businesses, illustrating the benefits of leveraging our partner-driven sales channel model. Grants and collaborations revenue was $30.5 million, up 1% from $30.1 million for the same period for 2016.

Cost of Products Sold

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017	2016	Change	% Change	2017	2016	Change	% Change
Cost of products sold	$ 17,637	$ 14,876	$ 2,761	19%	$ 47,684	$ 33,945	$ 13,739	40%

Cost of products sold includes costs of raw materials, labor and overhead, amounts paid to contract manufacturers, and period expenses related to inventory write-downs resulting from lower of cost or net realizable value inventory adjustments. For the three months ended September 30, 2017, cost of products sold was $17.6 million, compared to $14.9 million during the same period in 2016. For the nine months ended September 30, 2017, cost of products sold was $47.7 million, compared to $33.9 million during the same period in 2016. The increases for both periods were primarily due to higher volumes of products sold, foreign currency exchange fluctuation and product mix.

Research and Development Expenses

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017	2016	Change	% Change	2017	2016	Change	% Change
Research and development	$ 15,185	$ 12,315	$ 2,870	23%	$ 44,141	$ 37,397	$ 6,744	18%

For the three months ended September 30, 2017, research and development expenses were $15.2 million, compared to $12.3 million for the same period in 2016. For the nine months ended September 30, 2017, research and development expenses were $44.1 million, compared to $37.4 million for the same period in 2016. The increases for both periods reflect costs associated with higher collaboration activity.

Sales, General and Administrative Expenses

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017	2016	Change	% Change	2017	2016	Change	% Change
Sales, general and administrative	$ 15,454	$ 11,381	$ 4,073	36%	$ 44,253	$ 35,055	$ 9,198	26%

For the three months ended September 30, 2017, sales, general and administrative expenses were $15.5 million, compared to $11.4 million for the same period in 2016. For the nine months ended September 30, 2017, sales, general and administrative expenses were $44.3 million, compared to $35.1 million for the same period in 2016. Primary drivers for the increases in both periods were costs related to Biossance sales channel expansion, additional personnel costs in sales and marketing, legal and accounting costs associated with collaboration transactions, and accounting costs associated with the adoption of new accounting standards.

Other Income (Expense)

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017	2016	Change	% Change	2017	2016	Change	% Change
Interest expense	$ (7,733)	$ (7,927)	$ 194	(2)%	$(29,219)	$(25,989)	$ (3,230)	12%
Gain (loss) from change in fair value of derivative instruments	(2,692)	(786)	(1,906)	242%	35,422	41,826	(6,404)	(15)%
Gain (loss) upon extinguishment of debt	461	(217)	678	(312)%	(3,067)	(866)	(2,201)	254%
Other (expense) income, net	(136)	1,402	(1,538)	(110)%	(576)	(1,705)	1,129	(66)%
Total other income (expense)	$(10,100)	$ (7,528)	$ (2,572)	34%	$ 2,560	$ 13,266	$(10,706)	(81)%

For the three months ended September 30, 2017, total other expense was $10.1 million, compared to total other expense of $7.5 million for the same period in the prior year. The $2.6 million expense increase was primarily due to a $1.9 million increase in loss from change in fair value of derivative instruments and a $1.5 million unfavorable change in other (expense) income, net, partially offset by a $0.7 million favorable change in gain (loss) upon extinguishment of debt. The derivative instruments are in connection with change in control protection and price-based anti-dilution adjustment provisions in our outstanding convertible notes, as well as certain features in our convertible preferred stock issued in May and August 2017. The change in other (expense) income, net was primarily due to unfavorable foreign currency exchange fluctuation.

For the nine months ended September 30, 2017, total other income was $2.6 million, compared to total other income of $13.3 million for the same period in the prior year. The $10.7 million decrease was primarily due to a $6.4 million decline in gain from change in fair value of derivative instruments, a $3.2 million increase in interest expense, and a $2.2 million increase in loss upon extinguishment of debt, partially offset by a $1.1 million decrease in other expense, net. The increase in interest expense was the result of a higher debt balance at the beginning of 2017, prior to debt conversions that have occurred through September 30, 2017.

Provision for Income Taxes

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2017	2016	Change	% Change	2017	2016	Change	% Change
Benefit from (provision for) income taxes	$ 318	$ (148)	$ 466	(315)%	$ 49	$ (402)	$ 451	(112)%

Benefits from (provisions for) income taxes for all periods presented are comprised of accrued Brazilian withholding tax on interest on intercompany loans. Other than those amounts, no additional provisions for income tax have been recorded, net of valuation allowance, due to cumulative losses since commencement of our operations. Due to decreases in our intercompany loan balances, provisions for income taxes decreased for the three and nine months ended September 30, 2017 as compared to the prior year periods.

Liquidity and Capital Resources

	September 30, 2017	December 31, 2016
	(In thousands)	
Working capital deficit	$ (5,748)	$ (50,745)
Cash and cash equivalents and short-term investments	$ 17,608	$ 28,524
Debt and capital lease obligations	$ 165,619	$ 228,299
Accumulated deficit	$ (1,205,050)	$ (1,134,438)

	Nine Months Ended September 30,	
	2017	2016
Net cash (used in) provided by:	(In thousands)	
Operating activities	$ (102,652)	$ (45,383)
Investing activities	$ 1,737	$ (496)
Financing activities	$ 89,766	$ 34,777

Liquidity. We have incurred significant operating losses since its inception and expects to continue to incur losses and negative cash flows from operations through at least the first half of 2018. As of September 30, 2017, we had negative working capital of $5.7 million, (compared to negative working capital of $50.7 million as of December 31, 2016), an accumulated deficit of $1.2 billion, and cash, cash equivalents and short-term investments of $17.6 million (compared to $28.5 million as of December 31, 2016).

As of September 30, 2017, our debt (including related party debt), net of deferred discount and issuance costs of $23.7 million, totaled $164.6 million, of which $11.7 million is classified as current. Our debt service obligations through December 31, 2018 are $74.5 million, including $20.4 million of anticipated cash interest payments. 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, material adverse effect and cross default clauses. A failure to comply with the covenants 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, resulting in acceleration of such other outstanding indebtedness.

During the nine months ended September 30, 2017, we improved our liquidity as follows:

- In January, February and May 2017, debt obligations totaling $21.0 million were extended to dates from November 2017 to April 2019;
- In May 2017, we sold shares of its Series A 17.38% Convertible Preferred Stock, par value $0.0001 per share (the Series A Preferred Stock), shares of its Series B 17.38% Convertible Preferred Stock, par value $0.0001 per share (the Series B Preferred Stock), and warrants to purchase common stock for net proceeds of $50.7 million;
- In April and May 2017, convertible debt obligations totaling $35.8 million were converted into shares of common stock pursuant to their terms or exchanged for shares of Series B Preferred Stock and warrants to purchase common stock;
- In May 2017, additional debt obligations totaling $29.0 million were exchanged for shares of Series B Preferred Stock and warrants to purchase common stock;
- In May 2017, we made debt principal payments of $21.8 million, which in combination with the debt conversions and exchanges described above, reduced debt obligations by a total of $86.6 million;
- In August 2017, we sold shares of common stock, shares of its Series D Convertible Preferred Stock, par value $0.0001 per share (the Series D Preferred Stock), and warrants to purchase common stock for net proceeds of $24.8 million; and
- In August 2017, we sold shares of Series B Preferred Stock, warrants to purchase common stock, dilution warrants and a make-whole provision for net proceeds of $25.9 million.

See Note 5, “Long-term Debt” and Note 7, “Stockholders’ Deficit” to our unaudited condensed consolidated financial statements included in this report for more information regarding these transactions.

Our condensed consolidated financial statements as of and for the three months ended September 30, 2017 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 financial statements are issued. Our ability to continue as a going concern will depend, in large part, on our ability to achieve positive cash flows from operations during the next 12 months and extend existing debt maturities, which is uncertain. The 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 remainder of 2017 and 2018 contemplates a significant reduction in our net cash outflows, resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) reduced production costs as a result of manufacturing and technical developments, and (iii) cash inflows from collaborations.

If we are unable to generate sufficient cash contributions from product sales, payments from existing and new collaboration partners, and draw sufficient funds from certain financing commitments due to contractual restrictions and covenants, we may need to obtain additional funding from equity or debt financings, 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 in 2018:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all our functions, including employees involved in general and administrative, research and development, and production activities.
- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.
- Reduce production activity at our Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.
- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.
- Reduce or delay uncommitted capital expenditures, including non-essential facility and lab equipment, and information technology projects.
- 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.

Furthermore, any inability to scale-back operations as necessary, and any unexpected liquidity needs, could create pressure to implement more severe measures. Such measures could have an adverse effect on our ability to meet contractual requirements, including obligations to maintain manufacturing operations, and increase the severity of the consequences described above.

Cash Flows during the Nine Months Ended September 30, 2017 and 2016

Cash Flows from Operating Activities

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

For the nine months ended September 30, 2017, net cash used in operating activities was $102.7 million, consisting primarily of our net loss of $70.6 million, a gain from the change in fair value of derivative instruments of $35.1 million and a net increase in operating assets of $19.5 million, partially offset by net favorable non-cash adjustments of $22.6 million. The $22.6 million of net unfavorable non-cash adjustments to net loss was primarily comprised of $10.1 million of amortization of debt discount and issuance costs, $8.1 million of depreciation and amortization, $3.9 million of stock-based compensation and $3.1 million of loss upon extinguishment of debt, partially offset by the receipt of $2.7 million of equity in another company in connection with a collaboration arrangement. The $19.5 million increase in net operating assets was primarily comprised of an $11.1 million increase in accounts receivable, a $9.1 million increase in prepaid expenses and a $3.8 million increase in recoverable taxes from Brazilian government entities.

For the nine months ended September 30, 2016, net cash used in operating activities was $45.4 million, primarily resulting from our net loss of $48.6 million, a gain from the change in fair value of derivative instruments of $41.8 million, net favorable non-cash adjustments of $25.8 million and a net decrease in operating assets of $19.2 million. The $25.8 million of net favorable non-cash adjustments to net loss was primarily comprised of $9.2 million of amortization of debt discount and issuance costs, $8.6 million of depreciation and amortization and $5.6 million of stock-based compensation. The $19.2 million decrease in net operating assets was primarily comprised of a $13.4 million increase in accrued and other liabilities, a $4.3 million increase in accounts payable and a $3.9 million decrease in inventories.

Cash Flows from Investing Activities

Our investing activities consist primarily of capital expenditures and changes in our restricted cash balances.

For the nine months ended September 30, 2017, net cash provided by investing activities was $1.7 million, resulting from $0.5 million of purchases of property, plant and equipment, partially offset by a $2.2 million net decrease in short-term investments.

For the nine months ended September 30, 2016, net cash used in investing activities was $0.5 million, primarily resulting from $0.7 million of purchases of property, plant and equipment, partly offset by a $0.2 million net decrease in short-term investments.

Cash Flows from Financing Activities

For the nine months ended September 30, 2017, net cash provided by financing activities was $89.8 million, primarily due to the receipt of $101.6 million of proceeds from the sales of common and preferred stock and warrants and $14.0 million of proceeds from debt issued, partly offset by $26.7 million of principal payments on debt.

For the nine months ended September 30, 2016, net cash provided by financing activities was $34.8 million, primarily due to the receipt of $38.8 million of proceeds from debt issued and $5.0 million of proceeds from the sale of contingently redeemable equity, partly offset by $7.4 million of principal payments on debt.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any material off-balance sheet arrangements, as defined under SEC rules, such as relationships with unconsolidated entities or financial partnerships, which are often referred to as structured finance or special purpose entities, established for the purpose of facilitating financing transactions that are not required to be reflected on our condensed consolidated financial statements.

Contractual Obligations

The following is a summary of our contractual obligations as of September 30, 2017 (in thousands):

	Total	2017	2018	2019	2020	2021	Thereafter
Principal payments on debt (1)	$ 188,305	$ 3,303	$ 50,801	$ 101,031	$ 2,283	$ 27,294	$ 3,593
Interest payments on debt, fixed rate (2)	35,393	5,545	14,855	8,952	2,873	2,646	522
Operating leases	44,482	2,278	9,163	7,790	7,012	7,248	10,991
Principal payments on capital leases	990	294	623	73	—	—	—
Interest payments on capital leases	37	13	22	2	—	—	—
Terminal storage costs	59	20	39	—	—	—	—
Purchase obligations (3)	1,242	181	1,061	—	—	—	—
Total	$ 270,508	$ 11,634	$ 76,564	$ 117,848	$ 12,168	$ 37,188	$ 15,106

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(1) The forecast payments assume that we receive no proceeds under the Ginkgo Collaboration Agreement, which, if received, we would need to apply to repayment of the debt due to Stegodon, as described above and in Note 5, "Long-term Debt" to our unaudited condensed consolidated financial statements included in this report.

(2) Does not include any obligations related to make-whole interest or downround provisions. The fixed interest rates are more fully described in Note 5, "Long-term Debt" to our unaudited condensed consolidated financial statements included in this report.

(3) Purchase obligations include noncancelable contractual obligations.

Accounting Pronouncements Not Yet Adopted

Revenue Recognition In May 2014, the Financial Accounting Standards Board (FASB) issued ASU 2014-09, which creates ASC Topic 606 , *Revenue from Contracts with Customers* and supersedes ASC Topic 605, *Revenue Recognition*. The new standard, which along with amendments issued in 2015 and 2016, will supersede nearly all current GAAP guidance on this topic and will eliminate industry-specific guidance. The underlying principle is to recognize revenue when promised goods or services are transferred to customers, in an amount that reflects the consideration that is expected to be received for those goods or services. This accounting standard update, as amended, will be effective for us beginning in the first quarter of fiscal 2018. The new revenue standard may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized in retained earnings as of the date of adoption (modified retrospective approach). We plan to adopt the new standard using the modified retrospective approach. We are in the process of reviewing its revenue arrangements and the anticipated effect the new standard will have on the consolidated financial statements, accounting policies, processes and system requirements. The timing of revenue recognition may change in amounts that have not yet been determined. In addition, we expect additional revenue-related disclosures.

Financial Instruments In January 2016, the FASB issued ASU 2016-01, *Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*, which changes the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. ASU 2016-01 will change the accounting for our cost-method investment in SweeGen, Inc. (SweeGen), for which carrying value was $3.2 million as of September 30, 2017, as compared to fair value of $2.3 million based on SweeGen's stock price as of that date. The accounting standard update will be effective for us beginning in the first quarter of fiscal 2018; however, if we had adopted ASU 2016-01 effective September 30, 2017, we would have recorded a $0.9 million write-down to its investment in SweeGen. We also expect ASU 2016-01 to impact the extent of its disclosures of financial instruments, particularly in relation to fair value disclosures.

Leases In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842),* with fundamental changes as to how entities account for leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. Additional disclosures for leases will also be required. The accounting standard update will be effective for us beginning in the first quarter of fiscal 2019 using a modified retrospective approach, which requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented. We are in the initial stages of evaluating the impact of the new standard on its consolidated financial statements.

Classification of Cash Flow Elements In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments,* which affects the classification of certain cash receipts and cash payments on the statement of cash flows. ASU 2016-15 will result in a change in cash flow classification of debt prepayment or extinguishment costs. In statements of cash flows, we currently classify gains or losses upon extinguishment of debt as an operating activity. Upon our adoption of ASU 2016-15, such gains or losses will be classified in statements of cash flows as a financing activity. ASU 2016-15 will be effective for us beginning in the first quarter of fiscal 2018 on a retrospective basis. However, if we had adopted ASU 2016-15 effective September 30, 2017, the impact in the Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2017 would be reflected as an unfavorable $3.1 million change to net cash used in operating activities, with an offsetting favorable change to net cash provided by financing activities.

Restricted Cash in Statement of Cash Flows In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash,* which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The accounting standard update will be effective for us beginning in the first quarter of fiscal 2018 using a retrospective transition method for each period presented. Upon adoption, ASU 2016-18 will result in a change in the presentation of restricted cash in the statement of cash flows.

Derecognition of Nonfinancial Assets In February 2017, the FASB issued ASU 2017-05, *Other Income—Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets,* which requires entities to apply certain recognition and measurement principles in ASC 606 when they derecognize nonfinancial assets and in substance nonfinancial assets, and the counterparty is not a customer. The guidance applies to: (1) contracts to transfer to a noncustomer a nonfinancial asset or group of nonfinancial assets, or an ownership interest in a consolidated subsidiary that does not meet the definition of a business and is not a not-for-profit activity; and (2) contributions of nonfinancial assets that are not a business to a joint venture or other noncontrolled investee. The accounting standard update will be effective for us beginning in the first quarter of fiscal 2018 on a modified retrospective basis. We are assessing the impact to its accounting practices and financial reporting procedures as a result of the issuance of this standard.

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 will be effective for us beginning in the first quarter of fiscal 2019 using a modified retrospective approach. We are in the initial stages of evaluating the impact of the new standard on its consolidated financial statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The market risk inherent in our market risk sensitive instruments and positions is the potential loss arising from adverse changes in: commodity market prices, foreign currency exchange rates, and interest rates as described below.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our outstanding debt obligations (including embedded derivatives therein). We generally invest our cash in investments with short maturities or with frequent interest reset terms. Accordingly, our interest income fluctuates with short-term market conditions. As of September 30, 2017, our investment portfolio consisted primarily of money market funds and certificates of deposit, all of which are highly liquid investments. Due to the short-term nature of our investment portfolio, we do not believe that an immediate 10% increase in interest rates would have a material effect on the fair value of our portfolio. Since we believe we have the ability to liquidate this portfolio, we do not expect our operating results or cash flows to be materially affected to any significant degree by a sudden change in market interest rates on our investment portfolio. Additionally, as of September 30, 2017, 100% of our outstanding debt is in fixed rate instruments or instruments which have capped rates. Therefore, our exposure to the impact of variable interest rates is limited. Changes in interest rates may significantly change the fair value of our embedded derivative liabilities.

Foreign Currency Risk

Most of our sales contracts are principally denominated in U.S. dollars and, therefore, our revenues are currently not subject to significant foreign currency risk. The functional currency of our wholly-owned consolidated subsidiary in Brazil is the local currency (Brazilian real) in which recurring business transactions occur. We do not use currency exchange contracts as hedges against amounts permanently invested in our foreign subsidiary. The amount we consider permanently invested in our foreign subsidiary and translated into U.S. dollars using the September 30, 2017 exchange rate is $122.8 million as of September 30, 2017 and $119.4 million at December 31, 2016. The increase in the permanent investments in our foreign subsidiary between December 31, 2016 and September 30, 2017 is due to depreciation of the U.S. dollar versus the Brazilian real. The potential loss in value, which would be principally recognized in Other Comprehensive Loss, resulting from a hypothetical 10% adverse change in quoted Brazilian real exchange rates, is $12.3 million and $11.9 million as of September 30, 2017 and December 31, 2016, respectively. Actual results may differ.

We make limited use of derivative instruments, which include currency interest rate swap agreements, to manage the Company's exposure to foreign currency exchange rate and interest rate related to the Company's Banco Pine loan. See Note 3, "Fair Value Measurement", *Currency Interest Rate Swap Derivative Liability,* for more information.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Our internal control system is designed to provide reasonable assurance to the Company’s management and Board of Directors regarding the preparation and fair presentation of published financial statements. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Our management has assessed the effectiveness of our internal control over financial reporting as of September 30, 2017. In making its assessment of internal control over financial reporting, management used the criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in Internal Control — Integrated Framework (2013). Based on this assessment, our CEO and CFO concluded that our internal control over financial reporting was not effective as of September 30, 2017 as a result of the material weakness in our internal control over financial reporting further described below.

A material weakness is a deficiency, or a 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 financial statements will not be prevented or detected on a timely basis. The material weakness we identified relates to an insufficient complement of resources within our finance and accounting function to ensure the proper application of U.S. GAAP with respect to our non-routine transactions. Specifically, we have determined that our controls were not designed to ensure that non-routine transactions are adequately and timely identified, recorded and disclosed in accordance with U.S. GAAP. While the material weakness resulted in review adjustments for the three months ended September 30, 2017, it did not result in any material misstatements of our condensed consolidated financial statements or disclosures for the three and nine months ended September 30, 2017 and 2016. However, if not remediated, the material weakness 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.

Remedial Actions

We plan to address the identified material weakness by taking the following actions:

- Augmenting our accounting staff with additional personnel, as well as evaluating our personnel in key accounting positions; and
- Documenting and augmenting key policies and internal control procedures to strengthen our identification of, and accounting for, complex non-routine transactions.

Management believes the foregoing efforts will effectively remediate the material weakness. As we continue to evaluate and work to improve our internal control over financial reporting, management may determine to take additional measures to address control deficiencies or determine to modify the remediation plan described above. We cannot assure you, however, that we will effectively remediate such material weakness or when we will do so, nor can we be certain of whether additional actions will be required or the costs of any such actions.

Changes in Internal Control

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the period covered by this Quarterly Report on Form 10-Q that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating disclosure controls and procedures and internal control over financial reporting, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures and internal control over financial reporting must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

PART II

ITEM 1. LEGAL PROCEEDINGS

In April 2017, a securities class action complaint was filed against the Company and its CEO, John G. Melo, and CFO, Kathleen Valiasek, in the U.S. District Court for the Northern District of California. The complaint sought unspecified damages on behalf of a purported class that would comprise all individuals who acquired our common stock between March 2, 2017 and April 17, 2017. The complaint alleged securities law violations based on statements made by the Company in its earnings press release issued on March 2, 2017 and Form 12b-25 filed with the SEC on April 3, 2017. On September 21, 2017, an Order of Dismissal was entered on the plaintiff's notice of voluntary dismissal without prejudice.

Subsequent to the filing of the securities class action complaint described above, four separate purported shareholder derivative complaints were filed based on substantially the same facts as the securities class action complaint described above (the Derivative Complaints). The Derivative Complaints name Amyris, Inc. as a nominal defendant and name a number of the Company's current officers and directors as additional defendants. The lawsuits seek to recover, on the Company's behalf, unspecified damages purportedly sustained by the Company in connection with allegedly misleading statements and/or omissions made in connection with the Company's securities filings. The Derivative Complaints also seek 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. Two of the Derivative Complaints were filed in the U.S. District Court for the Northern District of California (together, the Federal Derivative Cases): Bonner v. John Melo, et al., Case No. 4:17-cv-04719, filed August 15, 2017, and Goldstein v. John Melo, et al., Case No. 3:17-cv-04927, filed on August 24, 2017. On September 19, 2017, an order was entered consolidating the Federal Derivative Cases into a single consolidated action, captioned: In re Amyris, Inc., Shareholder Derivative Litigation, Lead Case No. 2:15-cv-04719, and ordering plaintiffs to file a consolidated complaint or designate an operative complaint by November 3, 2017. On November 3, 2017, the plaintiffs in the Federal Derivative Cases filed a Notice of Designation of Operative Complaint designating the complaint filed in the Bonner case as the operative complaint. The remaining two Derivative Complaints were filed in the Superior Court for the State of California (the State Derivative Cases): Gutierrez v. John G. Melo, et al., Case. No. BC 665782, filed on June 20, 2017, in the Superior Court for the County of Los Angeles, and Soleimani v. John G. Melo, et al., Case No. RG 17865966, filed on June 29, 2017, in the Superior Court for the County of Alameda. On August 31, 2017, the Gutierrez case was transferred to the Superior Court for the State of California, County of Alameda and assigned case number RG17876383. These state cases are in the initial pleadings stage. We believe the Derivative Complaints lack 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 this matter.

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

In addition to the other information set forth in this report, you should consider the risks described in Part I, Item 1A, "Risk Factors," in our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2017. There have been no material changes in our risk factors as described in such document except for the following:

Our manufacturing operations require sugar feedstock, energy and steam, and the inability to obtain such feedstock, energy and steam in sufficient quantities or in a timely manner, or at reasonable prices, may limit our ability to produce our products profitably, or at all.

Under an agreement with Tonon Bioenergia S.A. (Tonon), the owner of the sugar and ethanol mill adjacent to our production plant in Brotas, Brazil, we agreed to purchase from Tonon specified amounts of sugarcane juice and syrup in connection with the operation of our facility. In December 2015, Tonon filed for bankruptcy protection in Brazil, and in June 2017, the mill adjacent to our production plant was purchased by Raízen SA (Raízen), a joint venture between Cosan SA Indústria e Comércio and Royal Dutch Shell Plc, which assumed the obligations of Tonon under our agreement. We are currently in negotiations with Raizen regarding the operation of the mill adjacent to our production facility and the terms of our contract with them. Raízen has informed us that it does not intend to operate the mill adjacent to our production facility in 2017, but that it will supply sugarcane juice and syrup to us for such period from another sugar mill owned by Raízen. If Raízen is unable to supply us with sugarcane juice or syrup in accordance with our agreement, or elects not to operate the mill adjacent to our production plant and is otherwise unable to supply us with sugarcane juice and syrup in accordance with our agreement, we may not be able to obtain substitute supplies from third parties in necessary quantities or at favorable prices, or at all. In such event, our ability to manufacture our products in a timely or cost-effective manner, or at all, would be negatively affected, which would have a material adverse effect on our business.

Additionally, our facility in Brotas, Brazil depends on large quantities of energy and steam to operate. We are party to a supply agreement with Cogeração de Energia Elétrica Rhodia Brotas S.A. (Rhodia), pursuant to which Rhodia has agreed to provide us with energy and steam in sufficient amounts to meet our current needs. In connection with the decision of Raízen to not operate the mill adjacent to our production facility in 2017, Rhodia has informed us that it will not be able to supply energy and steam under our agreement for such period, since the energy and steam produced by Rhodia is derived from biomass produced by the mill. If Rhodia is unable to supply us with energy and steam in accordance with our agreement, for whatever reason, and we are forced to purchase energy and steam from a different supplier, the cost of such energy and steam may be higher than we expect, increasing our production costs. If our supply and access to energy or steam is adversely affected, our production will be impacted, and our business will be adversely affected.

The concentration of our capital stock ownership with insiders will limit the ability of other stockholders to influence corporate matters and presents risks related to the operations of our significant stockholders.

As of September 30, 2017:

- DSM (which has two designees on our board of directors) held approximately 23% of our outstanding common stock;
- Total (which has a designee on our board of directors) held approximately 11% of our outstanding common stock;
- Vivo (which has a designee on our board of directors) held approximately 10% of our outstanding common stock; and
- Temasek (which has a designee on our board of directors) held approximately 9% of our outstanding common stock.

Furthermore, DSM, Total, Vivo and Temasek each hold convertible preferred stock, convertible promissory notes or warrants, pursuant to which they may acquire additional shares of our common stock and thereby increase their ownership interest in our company. This significant concentration of share ownership may adversely affect the trading price of our common stock because investors often perceive disadvantages in owning stock in companies with stockholders with significant interests. Also, these stockholders, acting together, may be able to control or significantly influence our management and affairs and matters requiring stockholder approval, including the election of directors and the approval of significant corporate transactions, such as mergers, consolidations or the sale of all or substantially all of our assets, and may not act in the best interests of our other stockholders. Consequently, this concentration of ownership may have the effect of delaying or preventing a change of control, including a merger, consolidation or other business combination involving us, or a change in our management or board of directors, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of our company, even if such actions would benefit our other stockholders.

In addition, certain of our commercial partners, including DSM and Total, hold a significant portion of our capital stock and have various rights in connection with their security ownership in us. These stockholders may have interests that are different from those of our other stockholders, including with respect to commercial transactions between our company and such commercial partners or their affiliates. While we have a related-party transactions policy that requires certain approvals of any transaction between our company and a significant stockholder or its affiliates, there can be no assurance that our significant stockholders will act in the best interests of our other stockholders, which could harm our results of operations and cause our stock price to decline.

We have identified a material weakness in our disclosure controls and procedures which, if not corrected, could affect the reliability of our consolidated financial statements and have other adverse consequences.

Our management identified a material weakness in our internal control over financial reporting related to identifying and accounting for non-routine transactions in its evaluation of our disclosure controls and procedures as of September 30, 2017. A material weakness is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness we identified relates to an insufficient complement of resources within our finance and accounting function to ensure the proper application of U.S. GAAP with respect to our non-routine transactions. Specifically, we determined that our controls were not designed to ensure that non-routine transactions are adequately and timely identified, recorded and disclosed in accordance with U.S. GAAP. While the material weakness resulted in review adjustments for the three months ended September 30, 2017, it did not result in any material misstatements of our condensed consolidated financial statements or disclosures for the three and nine months ended September 30, 2017 and 2016. However, if not remediated, the material weakness could result in a material misstatement to our annual or interim consolidated financial statements that would not be prevented or detected on a timely basis. We are actively engaged in developing a remediation plan designed to address this material weakness. We cannot, however, be certain that any measures we undertake will successfully remediate the material weakness or that other material weaknesses and control deficiencies will not be discovered in the future. If our remedial measures are insufficient to address the material weakness, or if additional material weaknesses or significant deficiencies in our internal controls are discovered or occur in the future, we may be unable to report our financial results accurately or on a timely basis, which could cause our reported financial results to be materially misstated and result in the loss of investor confidence and adversely affect the market price of our common stock.

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

On August 3, 2017, we sold and issued an aggregate of 2,826,711 shares of common stock, 12,958.21196 shares of our Series D Convertible Preferred Stock, par value $0.0001 per share (the Series D Preferred Stock), warrants to purchase an aggregate of 5,575,118 shares of common stock, and warrants to purchase a number of shares of common stock sufficient to provide full-ratchet anti-dilution protection with respect to the effective price paid for the common stock underlying the Series D Preferred Stock, to affiliates of Vivo Capital LLC in exchange for aggregate cash consideration of $25.0 million, as described in more detail in Note 7, "Stockholders' Deficit" to our unaudited condensed consolidated financial statements included in this report.

On August 7, 2017, we sold and issued 25,000 shares of our Series B 17.38% Convertible Preferred Stock, par value $0.0001 per share (the Series B Preferred Stock), warrants to purchase 3,968,116 shares of common stock, and warrants to purchase a number of shares of common stock sufficient to provide full-ratchet anti-dilution protection with respect to the effective price paid for the common stock underlying the Series B Preferred Stock, to DSM International B.V. in exchange for aggregate cash consideration of $25.0 million, as described in more detail in Note 7, "Stockholders' Deficit" to our unaudited condensed consolidated financial statements included in this report.

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 of 1933, as amended (the Securities Act) and Regulation D promulgated under the Securities Act. The investors participating in the offerings 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 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

Exhibit No.	Description
3.01	Restated Certificate of Incorporation
3.02	Certificate of Amendment, dated May 9, 2013, to Restated Certificate of Incorporation
3.03	Certificate of Amendment, dated May 12, 2014, to Restated Certificate of Incorporation
3.04	Certificate of Amendment, dated September 18, 2015, to Restated Certificate of Incorporation
3.05	Certificate of Amendment, dated May 18, 2016, to Restated Certificate of Incorporation
3.06	Certificate of Amendment, dated June 5, 2017, to Restated Certificate of Incorporation
3.07	Form of Certificate of Designation of Preferences, Rights and Limitations of Series A 17.38% Convertible Preferred Stock
3.08	Form of Certificate of Designation of Preferences, Rights and Limitations of Series B 17.38% Convertible Preferred Stock
3.09	Form of Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock
3.10	Form of Certificate of Designation of Preferences, Rights and Limitations of Series D Convertible Preferred Stock
3.11	Restated Bylaws
4.01	Specimen of Common Stock Certificate
4.02	Form of certificate representing the Series B Preferred Stock
4.03	Form of certificate representing the Series D Preferred Stock
4.04 [a]	Amended and Restated Stockholder Agreement, dated August 7, 2017, between registrant and DSM International B.V.
4.05	Form of August 2017 DSM Cash Warrant (included in Exhibit 10.01)
4.06	Form of August 2017 DSM Dilution Warrant (included in Exhibit 10.01)
4.07	Form of August 2017 Vivo Cash Warrant (included in Exhibit 10.02)
4.08	Form of August 2017 Vivo Dilution Warrant (included in Exhibit 10.02)
4.09	Form of August 2017 Vivo Stockholder Agreement (included in Exhibit 10.02)
10.01	Securities Purchase Agreement, dated August 2, 2017, between the Company and DSM International B.V.
10.02	Securities Purchase Agreement, dated August 2, 2017, among the Company, Vivo Capital Fund VIII, L.P. and Vivo Surplus Funds VIII, L.P.
10.03 [b]	Seventh Amendment, dated September 25, 2017, to the Private Instrument of Non-Residential Real Estate Lease Agreement, by and among Amyris Brasil Ltda., Lucius Tomasiello and Mauricio Tomasiello
31.01	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
31.02	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
32.01 [c]	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
32.02 [c]	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
101 [d]	The following materials from registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Operations; (ii) the Consolidated Balance Sheets; (iii) the Consolidated Statements of Comprehensive Income; (iv) the Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity (Deficit); (v) the Consolidated Statements of Cash Flows; and (vi) Notes to Consolidated Financial Statements

a Portions of this exhibit have been omitted pending a determination by the Securities and Exchange Commission as to whether these portions should be granted confidential treatment.

b Translation to English from Portuguese in accordance with Rule 12b-12(d) of the regulations promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended (or the Exchange Act).

c This certification shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that Section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

d Pursuant to applicable securities laws and regulations, registrant is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions of the federal securities laws as long as registrant has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fails to comply with the submission requirements. These interactive data files are not deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act, are not deemed not filed for purposes of section 18 of the Exchange Act and otherwise are not otherwise subject to liability under these sections.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

AMYRIS, INC.

Date: November 20, 2017

/s/ JOHN G. MELO
John G. Melo
Director, President and Chief Executive Officer
(Principal Executive Officer)

Date: November 20, 2017

/s/ KATHLEEN VALIASEK
Kathleen Valiasek
Chief Financial Officer
(Principal Financial Officer)

Exhibit 4.04

CONFIDENTIAL TREATMENT REQUESTED. CERTAIN PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT AND, WHERE APPLICABLE, HAVE BEEN MARKED WITH AN ASTERISK TO DENOTE WHERE OMISSIONS HAVE BEEN MADE. THE CONFIDENTIAL MATERIAL HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

AMENDED AND RESTATED

STOCKHOLDER AGREEMENT

Dated as of August 7, 2017

TABLE OF CONTENTS

ARTICLE VI

ADDITIONAL AGREEMENTS OF THE PARTIES

ARTICLE VII

TERMINATION

ARTICLE VIII

MISCELLANEOUS

AMENDED AND RESTATED

STOCKHOLDER AGREEMENT

This AMENDED AND RESTATED STOCKHOLDER AGREEMENT is made as of August 7, 2017, by and between Amyris, Inc., a Delaware corporation ("Amyris" or the "Company"), and DSM International B.V., a Dutch limited liability company (hereinafter referred to as "DSM").

WHEREAS, the Company and DSM previously entered into that certain Stockholder Agreement dated as of May 11, 2017 (the "Prior Agreement").

WHEREAS, DSM and Company and certain other investors previously entered into that certain Securities Purchase Agreement, dated as of May 8, 2017 (as may be amended from time to time, the "Prior Securities Purchase Agreement"), pursuant to which, upon the terms and subject to the conditions set forth therein, DSM purchased (i) 25,000 shares (the "Tranche I Shares") of the 17.38% Series B Convertible Preferred Stock, par value $0.0001 per share, of the Company (the "Preferred Stock"), (ii) warrants (the "Tranche I Cash Warrants") to acquire up to 3,968,116 shares of the common stock, $0.0001 per share (the "Common Stock"), of the Company (such shares, the "Tranche I Cash Warrant Shares"), and (iii) additional warrants to purchase shares of Common Stock as a result of certain dilutive issuances by the Company (the "Tranche I Anti-Dilution Warrants" and, together with the Tranche I Cash Warrants, the "Tranche I Warrants," and the shares of Common Stock issuable upon exercise of the Tranche I Anti-Dilution Warrants, the "Tranche I Anti-Dilution Warrant Shares" and, together with the Tranche I Cash Warrant Shares, the "Tranche I Warrant Shares");

WHEREAS, DSM and Company have entered into the Securities Purchase Agreement, dated as of August 2, 2017 (as may be amended from time to time, the "Securities Purchase Agreement"), pursuant to which, upon the terms and subject to the conditions set forth therein, DSM agreed to purchase (i) 25,000 shares (the "Tranche II Shares" and together with the Tranche I Shares, the "Shares") of the Preferred Stock, (ii) warrants (the "Tranche II Cash Warrants" and, together with the Tranche I Cash Warrants, the "Cash Warrants") to acquire up to 3,968,116 shares of Common Stock (such shares, the "Tranche II Cash Warrant Shares" and, together with the Tranche I Cash Warrant Shares, the "Cash Warrant Shares"), and (iii) additional warrants to purchase shares of Common Stock as a result of certain dilutive issuances by the Company (the "Tranche II Anti-Dilution Warrants" and, together with the Tranche I Anti-Dilution Warrants and the Cash Warrants, the "Warrants," and the shares of Common Stock issuable upon exercise of the Tranche II Anti-Dilution Warrants, the "Tranche II Anti-Dilution Warrant Shares" and, together with the Tranche I Anti-Dilution Warrant Shares and the Cash Warrant Shares, the "Warrant Shares"); and

WHEREAS, as a condition to consummating the transactions contemplated by the Securities Purchase Agreement, DSM and the Company are required to amend and restate the Prior Agreement pursuant to this Agreement.

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

ARTICLE I

DEFINITIONS

Section 1.1. Definitions. As used in this Agreement, the following terms shall have the meanings set forth below:

"Adverse Disclosure" means public disclosure of material non-public information which, in the judgment of the Non-DSM Directors: (i) would be required to be made in any report or registration statement filed with the SEC by the Company so that such report or registration statement would not be materially misleading; (ii) would not be required to be made at such time but for the filing, effectiveness or continued use of such report or registration statement; and (iii) the Company has a bona fide business purpose for not disclosing publicly.

"Affiliate" means, with respect to any Person, any other Person that controls, is controlled by, or is under common control with such Person. The term "control", as used with respect to any Person, means the power to direct or cause the direction of the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise. "Controlled" and "controlling" have meanings correlative to the foregoing.

"Agreement" means this Amended and Restated Stockholder Agreement, as the same may be amended, supplemented, restated or modified.

"Beneficial Ownership" and "Beneficially Own" and similar terms have the meaning set forth in Rule 13d-3 under the Exchange Act. For the avoidance of doubt, and except as otherwise provided herein, DSM will be deemed to Beneficially Own all of the Warrant Shares issuable upon exercise of the Warrants held by DSM Parent, its Subsidiaries and controlled Affiliates at the time of determination.

"Board" means the Board of Directors of the Company.

"Brotas 1" means the Company's first purpose-built, large-scale production facility located in Brotas, Brazil.

"Brotas 2" means the Company's planned second purpose-built, large scale production facility adjacent to Brotas 1, for which ground was broken in February 2017.

"Business Day" means any day, other than a Saturday, Sunday or one on which banks are authorized or required by law to be closed in San Francisco, California or Amsterdam, The Netherlands.

"Change of Control Transaction" has the meaning give to such term in the Company's Certificate of Designation of Preferences, Rights and Limitations of Series B 17.38% Convertible Preferred Stock.

"Closing" has the meaning set forth in the Securities Purchase Agreement.

"Competitor" means those Persons set forth on Exhibit A attached hereto and their respective Subsidiaries and controlled Affiliates; provided, however, that the Company may, based on the reasonable determination of the Board, update the Persons set forth on Exhibit A attached hereto not more than once in any consecutive 12-month period to include any other Persons that compete with any material portion of the Company's business as reasonably determined by the Board; provided, further, that (i) the total number of Persons set forth on Exhibit A shall not exceed seven (7) and (ii) neither DSM Parent nor any of its Subsidiaries or controlled Affiliates may be added to Exhibit A.

"Convertible Securities" means all outstanding securities exercisable or exchangeable for, or convertible into, Voting Securities, including the Warrants.

"DGCL" means the Delaware General Corporation Law.

"Disqualification Event" means the "bad actor" disqualifying events described in Rule 506(d)(1)(i)-(viii) promulgated under the Securities Act.

"Disqualified Designee" means any director designee to whom any Disqualification Event is applicable, except for a Disqualification Event as to which Rule 506(d)(2)(ii) or (iii) or (d)(3) is applicable.

"DSM Director" means any DSM Nominee who is elected or appointed to the Board.

"DSM Nominee" means an individual that DSM is entitled to nominate for election to the Board pursuant to Section 2.1(a).

"DSM Parent" means Koninklijke DSM N.V., a Dutch public limited company and the ultimate parent of DSM.

"Election Notice" shall have the meaning assigned to in Section 4.2(b).

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder, as the same may be amended from time to time.

"Fair Market Value" means (i) with respect to cash consideration, the total amount of such cash consideration in United States dollars, (ii) with respect to non-cash consideration consisting of publicly-traded securities, the average daily closing sales price of such securities for the ten (10) consecutive trading days ending on the trading day immediately preceding the date the Fair Market Value of such securities is required to be determined hereunder on the principal national securities exchange on which such securities are listed and admitted to trading, or, if not listed and admitted to trading on any such exchange, the average of the closing bid and asked prices in the over-the-counter market and (iii) with respect to non-cash consideration not consisting of publicly-traded securities, such amount as is determined to be the fair market value of the non-cash consideration as of such date in the good faith determination of the Non-DSM Directors.

"Group" shall have the meaning assigned to it in Section 13(d)(3) of the Exchange Act.

"Non-DSM Directors" means the members of the Board other than the DSM Directors.

"Ownership Amount" means, as of the date of the relevant Election Notice, the sum of (A) the number of Shares (on an as-if-converted-to-Common Stock basis, disregarding for such purpose any conversion limitations thereon) and shares of Common Stock then held by DSM Parent, its Subsidiaries and controlled Affiliates, plus (B) the number of Warrant Shares issuable if the Warrants then held by DSM Parent, its Subsidiaries and controlled Affiliates and that have an exercise price that is greater than the price per Participation Share to be issued in the applicable Post-Closing Issuance were fully exercised on such date.

"Ownership Percentage" means, as of the date of the relevant Election Notice, a fraction, the numerator of which is the Ownership Amount and the denominator of which is the total number of outstanding Share Equivalents as of the date of the relevant Election Notice.

"Participation Shares" means the number of Voting Securities or Convertible Securities or any other equity or equity-linked securities (including, for the avoidance of doubt, convertible debt) proposed to be sold by the Company or one of its Subsidiaries in a Post-Closing Issuance.

"Person" means an individual, partnership, corporation, business trust, joint stock company, trust, unincorporated association, joint venture, limited liability company or any other entity of whatever nature, and shall include any successor (by merger or otherwise) of such entity.

"Post-Closing Issuance" shall have the meaning assigned to it in Section 4.2(a).

"Restricted Shares" means the Shares, the Warrants and the Warrant Shares.

"Rule 144" means Rule 144 under the Securities Act.

"Rule 506(d) Related Party" shall mean with respect to any Person any other Person that is a beneficial owner of such first Person's securities for purposes of Rule 506(d) of the Securities Act.

"SEC" means the United States Securities and Exchange Commission.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder, as the same may be amended from time to time.

"Share Equivalents" means all outstanding shares of the Common Stock, together with all shares of Common Stock issuable upon exercise, conversion or exchange of all outstanding Convertible Securities (whether or not then exercisable, convertible or exchangeable), including the Warrant Shares, that have an exercise, conversion or exchange

price that is greater than the price per Participation Share to be issued in the applicable Post-Closing Issuance.

"Shares" shall have the meaning assigned to it in the preamble.

"Subsidiary" means, with respect to any party, any corporation, partnership, trust, limited liability company or other non-corporate business enterprise in which such party (or another Subsidiary of such party) holds stock or other ownership interests representing (A) more that 50% of the voting power of all outstanding stock or ownership interests of such entity, (B) the right to receive more than 50% of the net assets of such entity available for distribution to the holders of outstanding stock or ownership interests upon a liquidation or dissolution of such entity or (C) a general or managing partnership interest in such entity.

"Tranche I Anti-Dilution Warrants" shall have the meaning assigned to it in the preamble.

"Tranche I Anti-Dilution Warrant Shares" shall have the meaning assigned to it in the preamble.

"Tranche I Cash Warrants" shall have the meaning assigned to it in the preamble.

"Tranche I Cash Warrant Shares" shall have the meaning assigned to it in the preamble.

"Tranche I Shares" shall have the meaning assigned to it in the preamble.

"Tranche I Warrants" shall have the meaning assigned to it in the preamble.

"Tranche I Warrant Shares" shall have the meaning assigned to it in the preamble.

"Tranche II Anti-Dilution Warrants" shall have the meaning assigned to it in the preamble.

"Tranche II Anti-Dilution Warrant Shares" shall have the meaning assigned to it in the preamble.

"Tranche II Cash Warrants" shall have the meaning assigned to it in the preamble.

"Tranche II Cash Warrant Shares" shall have the meaning assigned to it in the preamble.

"Tranche II Funding Amount" means $25,000,000.

"Tranche II Securities" means the Tranche II Shares, shares of Common Stock issuable upon conversion thereof, the Tranche II Warrants and shares of Common Stock issuable upon exercise thereof.

"Tranche II Shares" shall have the meaning assigned to it in the preamble.

"Tranche II Warrants" means the Tranche II Cash Warrants and the Tranche II Anti-Dilution Warrants.

"Transfer" means, directly or indirectly, to sell, transfer, assign, pledge, encumber, hypothecate or similarly dispose of (by merger, testamentary disposition, operation of law or otherwise), either voluntarily or involuntarily, or to enter into any contract, option or other arrangement or understanding with respect to the sale, transfer, assignment, pledge, encumbrance, hypothecation or similar disposition of (by merger, testamentary disposition, operation of law or otherwise), any Transfer Restricted Shares.

"Transfer Restricted Shares" means any Shares, shares of Common Stock issued upon conversion of the Shares, Warrants or Warrant Shares.

"Voting Securities" means shares of Common Stock and any other securities of the Company that are permitted by their terms to vote generally in the election of directors. Except as otherwise provided herein, references to the number or percentage of Voting Securities outstanding or Beneficially Owned will be deemed to include any Warrant Shares issuable upon exercise of the Warrants at the time of determination.

"Warrants" shall have the meaning assigned to it in the preamble.

"Warrant Shares" shall have the meaning assigned to it in the preamble.

Section 1.2. General Interpretive Principles.

(a) The name assigned to this Agreement and the section captions used herein are for convenience of reference only and shall not be construed to affect the meaning, construction or effect hereof.

(b) Unless otherwise specified, the terms "hereof," "herein" and similar terms refer to this Agreement as a whole, and references herein to Articles or Sections refer to Articles or Sections of this Agreement.

(c) For purposes of this Agreement, the words, "include," "includes" and "including," when used herein, shall be deemed in each case to be followed by the words "without limitation."

(d) Any action that is required to be taken by the Non-DSM Directors or any consent that may be given by the Non-DSM Directors herein shall require the approval or consent of a majority of the Non-DSM Directors.

(e) The parties hereto have participated jointly in the negotiation and drafting of this Agreement. If an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by the parties and no presumption or burden of proof will arise favoring or disfavoring any party because of the authorship of any provision of this Agreement.

ARTICLE II

GOVERNANCE

Section 2.1. Board of Directors.

(a) Board Representation.

(i) DSM shall have the following rights in connection with the nomination of individuals for election to the Board:

(A) For so long as DSM Beneficially Owns at least 10% of the Company's outstanding Voting Securities, DSM shall have the right to nominate two individuals for election to the Board; provided, that one of such individual shall be a member of DSM Parent's Executive Committee and the other such individual shall be selected in DSM's discretion (each such individual, a "DSM Nominee" and collectively, the "DSM Nominees"); and

(B) For so long as DSM Beneficially Owns less than 10% of the Company's outstanding Voting Securities but greater than 4.5% of the Company's outstanding Voting Securities, DSM shall have the right to nominate one individual for election to the Board; provided, that such individuals shall be a member of DSM Parent's Executive Committee.

(ii) In the event that the number of directors that DSM is entitled to nominate to the Board is reduced pursuant to Section 2.1(a)(i)(B), DSM shall promptly cause one of the DSM Directors to immediately resign, such that the number of remaining DSM Directors serving on the Board shall equal the number of directors DSM is then entitled to nominate for election to the Board. In the event that DSM is no longer entitled to nominate a director to the Board pursuant to Section 2.1(a)(i) above, DSM shall promptly cause any then-serving DSM Directors to immediately resign. If any such director is unwilling to resign, DSM will take all such actions as are necessary to cause the removal of the director, including voting (or causing to be voted) all of the Voting Securities Beneficially Owned by it in favor of such removal.

(iii) For so long as DSM has the right to nominate a DSM Nominee for election pursuant to Section 2.1(a)(i), in connection with each election of directors, subject to Section 2.1(a)(v), the Company shall nominate such DSM Nominee for election as a director as part of the management slate that is included in the proxy statement of the Company relating to the election of directors.

(iv) In the event that any DSM Director shall cease to serve as a director for any reason (other than the resignation or removal of such director as a result of DSM not having the right to nominate a director pursuant to Section 2.1(a)(i)), subject

to Section 2.1(a)(v), DSM shall have the right to designate another DSM Nominee to fill the vacancy resulting therefrom. For the avoidance of doubt, it is understood that the failure of the stockholders of the Company to elect any DSM Nominee shall not affect the right of DSM to designate a DSM Nominee for election pursuant to Section 2.1(a)(i) in connection with any future election of directors of the Company.

(v) Notwithstanding the foregoing, as a condition to any DSM Nominee's appointment to the Board and nomination for election as a director of the Company at the Company's annual meetings of stockholders:

(A) DSM and such DSM Nominee must in all material respects provide to the Company (1) all information reasonably requested by the Company that is required to be or customarily disclosed for directors, candidates for directors, and their affiliates in a proxy statement or other filings under applicable law or regulation or stock exchange rules or listing standards, in each case, relating to their nomination or election as a director of the Company and (2) information reasonably requested by the Company in connection with assessing eligibility, independence and other criteria applicable to directors or satisfying compliance and legal or regulatory obligations, in each case, relating to their nomination or election as a director of the Company, with respect to DSM Parent, its Subsidiaries and controlled Affiliates and the applicable DSM Nominee, in each case, to the same extent as all other directors of the Company;

(B) such DSM Nominee must be qualified to serve as a director of the Company under the DGCL to the same extent as all other directors of the Company;

(C) no Disqualification Event shall be applicable to such DSM Nomine except, if applicable, for a Disqualification Event as to which Rule 506(d)(2)(ii) or (iii) or (d)(3) is applicable;

(D) such DSM Nominee shall be reasonably acceptable to the Nominating and Governance Committee of the Board; and

(E) such DSM Nominee must satisfy the requirements set forth in the Company's Corporate Governance Guidelines, code of conduct and securities trading policy, in each case as currently in effect with such changes thereto (or such successor policies) as are applicable to all other directors, as are adopted in good faith by the Board, and do not by their terms adversely impact any DSM Nominee relative to

all other directors (provided that, for the avoidance of doubt, no DSM Nominee shall be required to qualify as an independent director under applicable stock exchange rules or securities laws and regulations).

The Company will make all information requests pursuant to this Section 2.1(a)(v) in good faith in a timely manner that allows DSM and any DSM Nominee a reasonable amount of time to provide such information, and will cooperate in good faith with DSM and any DSM Nominee in connection with their efforts to provide the requested information.

(vi) DSM hereby covenants and agrees (A) not to designate or participate in the designation of any director designee who, to DSM's knowledge, is a Disqualified Designee, (B) that in the event DSM becomes aware that any individual previously designated by DSM is or has become a Disqualified Designee or that a Disqualification Event has become applicable to DSM or any of its Rule 506(d) Related Parties, except, if applicable, for a Disqualification Event as to which Rule 506(d)(2)(ii) or (iii) or (d)(3) is applicable, then DSM shall notify the Company promptly in writing and as promptly as practicable DSM shall take such actions as are necessary to remove any such Disqualified Designee from the Board and designate a replacement designee who is not a Disqualified Designee, and (C) for so long as there is a DSM Director, DSM will comply with the Company's insider trading policy as currently in effect with such changes thereto (or such successor policies) as are applicable to all other stockholders of the Company that have rights to designate or nominate members of the Board.

(b) Identity of the Nominee. The initial DSM Nominees shall be Philip Eykerman and Christoph Goppelsroeder. The Company confirms that each of Mr. Eykerman and Mr. Goppelsroeder is reasonably acceptable to the Nominating and Governance Committee of the Board. Mr. Eykerman has previously been appointed to the Board and the Company shall cause Mr. Goppelsroeder to be appointed to the Board on or prior to the date of the first regular or special meeting of the Board occurring after the Closing and in no event later than November 2, 2017.

(c) D&O Indemnification. Each DSM Director shall be eligible to enter into an indemnification agreement consistent with the form generally entered into with the Company's officers and directors.

(d) Committees. At least one DSM Director shall be entitled to serve on each standing committee of the Board other than (i) the Compensation Committee of the Board, (ii) the Audit Committee of the Board, (iii) the Nominating and Governance Committee of the Board and (iv) any other committee of the Board for which a DSM Director's membership would result in a conflict of interest (including, without limitation, any special committee formed for the purpose of evaluating any transaction between the Company and DSM Parent and/or its Subsidiaries or controlled Affiliates).

ARTICLE III

TRANSFER RESTRICTIONS

Section 3.1. General Transfer Restrictions. The right of DSM to Transfer any Transfer Restricted Shares Beneficially Owned by DSM is subject to the restrictions set forth in this Article III, and no Transfer by DSM of such Transfer Restricted Shares Beneficially Owned by DSM may be affected except in compliance with this Article III. Any attempted Transfer in violation of this Article III shall be of no effect and null and void, regardless of whether the purported transferee has any actual or constructive knowledge of the Transfer restrictions set forth in this Article III, and shall not be recorded on the stock transfer books of the Company.

Section 3.2. Specific Transfer Restrictions.

(a) Without the prior approval of the Non-DSM Directors, DSM shall not, and shall not permit DSM Parent or any of its other Subsidiaries or controlled Affiliates to:

(i) Except as permitted under Section 3.3, Transfer any Transfer Restricted Shares to any Person or Group that is or includes a Competitor; or

(ii) Except as permitted under Section 3.3, Transfer any Transfer Restricted Shares to any Person or Group prior to May 11, 2018.

(b) Other than with respect to any Transfer permitted by Section 3.3, prior to any Transfer of Transfer Restricted Shares to any Person or Group, DSM shall first provide the Company with ten (10) days prior written notice of its intent to Transfer any Transfer Restricted Shares. Thereafter, DSM agrees to negotiate in good faith with the Company with respect to the purchase by the Company or any other third parties introduced to DSM by the Company of such Transfer Restricted Shares subject to such proposed Transfer.

(c) DSM acknowledges that the Restricted Shares have not been registered under the Securities Act and may not be Transferred except pursuant to an effective registration statement under the Securities Act or pursuant to an exemption from registration under the Securities Act. DSM covenants that the Restricted Shares will only be disposed of pursuant to an effective registration statement under, and in compliance with the requirements of, the Securities Act or pursuant to an available exemption from the registration requirements of the Securities Act, and in compliance with any applicable state and foreign securities laws. In connection with any Transfer of Restricted Shares other than pursuant to an effective registration statement or to the Company, or pursuant to Rule 144, the Company may require DSM to provide to the Company an opinion of counsel selected by the DSM 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 under the Securities Act. Notwithstanding the foregoing, the Company hereby consents to and agrees to register on the books of the Company and with its transfer agent, without any legal opinion, except to the extent that

the transfer agent requests such legal opinion, any Transfer of Restricted Shares by DSM to DSM Parent or another Subsidiary or controlled Affiliate of DSM Parent, provided that the Transfer is effected in accordance with Section 3.3.

(d) DSM agrees to the imprinting, so long as is required by this Section 3.2, of a legend in substantially the following form on any certificate evidencing any of the Restricted Shares:

> NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS CONVERTIBLE OR EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL TO THE HOLDER (IF REQUESTED BY THE COMPANY), IN A FORM REASONABLY ACCEPTABLE TO THE COMPANY, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD OR ELIGIBLE TO BE SOLD PURSUANT TO RULE 144 UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES.

Certificates evidencing the Restricted Shares shall not be required to contain such legend or any other legend (i) following any sale of such Restricted Shares pursuant to an effective registration statement (including the Registration Statement) covering the resale of the Restricted Shares, (ii) following any sale of such Restricted Shares pursuant to Rule 144 if the holder provides the Company with a legal opinion reasonably acceptance to the Company to the effect that the Restricted Shares were sold under Rule 144 or (iii) if the holder provides the Company with a legal opinion reasonably acceptable to the Company to the effect that the legend is not required under applicable requirements of the Securities Act. Notwithstanding anything to the contrary in this Agreement, the Prior Securities Purchase Agreement or the Securities Purchase Agreement, in the event of any conflict or inconsistency between any provision of Section 3.2(c), Section 3.2(d) or Article V of this Agreement, on the one hand, and any provision of the Prior Securities Purchase Agreement or the Securities Purchase Agreement, on the other hand, whichever provision is more favorable to DSM under the circumstances (as determined by DSM in its sole discretion) will control as between the Company and DSM.

Section 3.3. Permitted Transfers.

(a) DSM may Transfer any or all of the Transfer Restricted Shares held by it (i) to DSM Parent or any of its other Subsidiaries or controlled Affiliates, provided that,

at or prior to the Transfer, such transferee shall have agreed with the Company in writing to be bound by all of the terms and condition of this Agreement applicable to DSM, or (ii) in connection with a Change of Control Transaction or Fundamental Transaction (as such term is defined in the Company's Certificate of Designation of Preferences, Rights and Limitations of Series B 17.38% Convertible Preferred Stock), at the consummation of (and pursuant to the terms of) such transaction.

(b) Notwithstanding anything herein to the contrary, no change in control or ownership of any shares in the capital stock of DSM Parent shall constitute a Transfer for purposes of this Agreement.

ARTICLE IV

SHARE OWNERSHIP

Section 4.1. Standstill.

(a) Except as provided in Section 4.1(b), from the Closing until three months after no DSM Nominee serves on the Board (the "Standstill Period"), DSM shall not, nor shall it permit DSM Parent or any of its other Subsidiaries or controlled Affiliates to, directly or indirectly, without the prior consent of the Company (acting through a resolution of the Company's Non-DSM Directors):

(i) acquire or agree to acquire, whether by purchase, tender or exchange offer, by forming, joining or otherwise participating in a partnership, syndicate or other Group, through the use of a derivative instrument or voting agreement, or otherwise, (A) Beneficial Ownership of additional Voting Securities or Convertible Securities after the Closing that would result in DSM Parent (together with its Subsidiaries or controlled Affiliates and any parties acting as members of a Group with DSM), having Beneficial Ownership of more than 33.0% in the aggregate of the shares of Voting Securities outstanding at such time (assuming (1) the exercise of all of then-outstanding Warrants for the maximum number of shares of Common Stock issuable thereunder, regardless of whether such Warrants are then exercisable, and (2) the conversion of the Shares for the maximum number of shares of Common Stock issuable thereunder, regardless of whether such Shares are then convertible, which number of shares shall be included in the numerator and denominator for purposes of determining the percentage of Voting Securities Beneficially Owned by DSM Parent (together with its Subsidiaries and controlled Affiliates and any parties acting as members of a Group with DSM) for purposes of this clause (A)), except pursuant to Section 4.2 of this Agreement, pursuant to the exercise of the Warrants, pursuant to the Prior Securities Purchase Agreement or the Securities Purchase Agreement or pursuant to the Company's Certificate of Designation of Preferences, Rights and Limitations of Series B 17.38% Convertible Preferred Stock, or (B) any direct or indirect ownership interest in any indebtedness or debt securities of the Company or any of its Subsidiaries, except pursuant to Section 4.2 of this Agreement;

(ii) (A) make, or in any way participate, directly or indirectly, in any "solicitation" of "proxies" (as such terms are used in the rules of the SEC) to vote Voting Securities, (B) seek to advise or knowingly influence any Person with respect to the voting of any Voting Securities or (C) deposit any Voting Securities in any voting trust or subject any Voting Securities to any arrangement or agreement with respect to the voting of any Voting Securities, except for this Agreement;

(iii) make any public announcement of a proposal or offer (with or without conditions) with respect to any extraordinary transaction involving DSM Parent or its Subsidiaries or controlled Affiliates and the Company including, without limitation, any tender offer, merger, consolidation or business combination;

(iv) effect or seek to effect any recapitalization, reclassification, liquidation or dissolution of the Company;

(v) publicly disclose any intention, plan or arrangement by DSM regarding the possibility of any of the events described in clauses (i) through (iv) above;

(vi) knowingly take any action that would require either the Company or DSM under applicable law or the rules of the principal exchange on which the Company's Common Stock is then listed or traded to make a public announcement regarding the possibility of any of the events described in clauses (i) through (iv) above; or

(vii) enter into any discussions, negotiations, agreements or understandings with any other third Person (excluding DSM's advisors) with respect to any of the foregoing.

(b) Notwithstanding the foregoing, the restrictions contained in Section 4.1(a) shall not (1) apply with respect to the designations of the DSM Nominees in accordance with this Agreement, (2) prevent a DSM Director from taking any action in his or her capacity as a director of the Company, (3) prohibit DSM Parent or any of its Subsidiaries or controlled Affiliates from voting its Voting Securities in its discretion, (4) apply to the acquisition of securities in or control of another Person (including by way of merger or consolidation) or (5) apply to any acquisitions or investments by any bona fide employee benefit plan of DSM Parent or its Subsidiaries or controlled Affiliates. In addition, the restrictions contained in Section 4.1(a) shall not prevent a private communication to the Board to the extent that such private communication would not reasonably be expected to require a public disclosure prior to any public announcement by the Company that it (or its Board) has approved or entered into an agreement with respect to a Change of Control Transaction or Fundamental Transaction.

Section 4.2. Preemptive Rights.

(a) Other than as set forth in Section 4.2(d) and (e), if the Company or any Subsidiary of the Company at any time shall propose to issue any Voting Securities or

Convertible Securities or any other equity or equity-linked securities (including, for the avoidance of doubt, convertible debt) following the Closing in a capital raising transaction for cash (other than pursuant to the Prior Securities Purchase Agreement or the Securities Purchase Agreement) (a "Post-Closing Issuance"), DSM shall have the right to purchase for cash directly from the Company or such Subsidiary up to its Ownership Percentage of such Participation Shares at the same purchase price as the price for the Participation Shares to be issued; provided, however, that the issuance of securities in connection with the July 2017 PIPE Transaction (as defined in the Securities Purchase Agreement) shall not be considered a Post-Closing Issuance hereunder.

(b) With respect to any Post-Closing Issuance, the Company, on behalf of itself or its applicable Subsidiary, will notify DSM in writing (the "Notice") stating (i) its bona fide intention to offer such Participation Securities, (ii) the number of such Participation Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such Participation Securities.

(c) Within thirty (30) business days after giving of the Notice, DSM may elect to purchase or obtain, at the price and on the terms specified in the Notice, up to its Ownership Percentage of such Participation Shares. DSM shall be entitled to allocate, as among DSM Parent and its Subsidiaries and controlled Affiliates (who agree or have agreed in writing to be bound by the terms of this Agreement), the number of Participation Shares entitled to be purchased by DSM Parent and its Subsidiaries and controlled Affiliates (collectively) pursuant to this Section 4.2. In the event that DSM elects to exercise its purchase rights pursuant to this Section 4.2, DSM shall provide to the Company written notice of such election (the "Election Notice") to purchase up to its Ownership Percentage of the Participation Shares hereunder, which notice shall (i) certify the Ownership Amount as of the date of the Election Notice, (ii) specify the number of Participation Shares to be purchased by DSM Parent and its Subsidiaries and controlled Affiliates (not to exceed DSM's Ownership Percentage of the Participation Shares, the "Specified Number"), and (iii) the allocation of such Participation Shares among DSM Parent and its Subsidiaries and controlled Affiliates. DSM shall, or shall cause DSM Parent and its other Subsidiaries and controlled Affiliates (as applicable) to, purchase, and the Company shall, or shall cause its applicable Subsidiary to, issue and sell to DSM Parent and its Subsidiaries and controlled Affiliates (as applicable), the Specified Number of the Participation Shares concurrently with the related Post-Closing Issuance by the Company or its applicable Subsidiary.

(d) In the event that the Post-Closing Issuance which gave rise to the exercise by DSM of its purchase rights pursuant to this Section 4.2 shall be terminated or abandoned by the Company without the issuance of any securities, then the purchase rights of DSM pursuant to this Section 4.2 shall also terminate as to such proposed Post-Closing Issuance (but not any subsequent or future issuance), and any funds in respect thereof paid to the Company by DSM shall be refunded in full.

(e) Notwithstanding the foregoing, the provisions of this Section 4.2 shall not apply to, and DSM shall not have any purchase rights with respect to, any of the following types of Post-Closing Issuances by the Company or any of its Subsidiaries:

(i) any Post-Closing Issuance of Voting Securities or Convertible Securities to officers, employees, directors or consultants of the Company in connection with such Person's employment or consulting arrangements with the Company or the service of such person as a director;

(ii) any Post-Closing Issuance of Voting Securities or Convertible Securities (i) in any business combination or acquisition transaction involving the Company or any of its Subsidiaries or (ii) in connection with the incurrence of indebtedness by the Company or any of its Subsidiaries (provided that such indebtedness does not constitute a Convertible Security);

(iii) any Post-Closing Issuance of Voting Securities or Convertible Securities in connection with any stock split, stock dividend or recapitalization approved by the Board (so long as all holders of the same class or series of Voting Securities is treated equally with all other holders of such class or series of Voting Securities); or

(iv) any Post-Closing Issuance of Voting Securities pursuant to a public offering registered under the Securities Act; or

(v) any Post-Closing Issuance of Voting Securities or Convertible Securities to any Person (or any Affiliate of a Person), which is an operating company or an owner of an asset in a business synergistic with the Company's business as determined in good faith by the Board, to induce such Person to enter into any joint venture or other strategic or commercial relationship with the Company or any of its Subsidiaries that provides to the Company additional benefits in addition to the investment of funds, as determined in good faith by the Non-DSM Directors, but shall not include a transaction in which the Company or any of its Subsidiaries is issuing securities primarily for the purpose of raising capital or to a Person whose primary business is investing in securities of other Persons.

(f) The Company may, during the seventy-five (75) day period following the expiration of the period provided in Section 4.2(c) hereof, offer the remaining unsubscribed portion of such Participation Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Notice. If the Company does not consummate the sale of such Participation Securities, or enter into a definitive agreement for the sale of such Participation Securities, within such period, or if the Company enters into such a definitive agreement and such agreement is not consummated within seventy-five (75) days of the execution thereof, the purchase right pursuant to this Section 4.2 shall be deemed to be revived and no such Participation Securities shall be offered unless first reoffered to DSM in accordance herewith.

ARTICLE V

REGISTRATION RIGHTS

The Company hereby grants to each of the Holders (as defined below) the registration rights set forth in this Article V, with respect to the Registrable Securities (as defined below) owned by such Holders.

Section 5.1. Certain Definitions. As used in this Article V:

(a) "Effective Date" means the date that the Initial Registration Statement has been declared effective by the SEC.

(b) "Effectiveness Deadline" means December 22, 2017.

(c) "Filing Deadline" means November 7, 2017.

(d) "Holder" (collectively, "Holders") means (i) DSM and (ii) any subsidiary or controlled Affiliate of DSM Parent that DSM designates in writing as a Holder, in each case to the extent holding Registrable Securities, securities exercisable or convertible into Registrable Securities or securities exercisable for securities convertible into Registrable Securities.

(e) "Prospectus" means the prospectus included in any Registration Statement, all amendments and supplements to such prospectus, including post-effective amendments, and all other material incorporated by reference in such prospectus.

(f) "register", "registered" and "registration" refer to a registration effected by filing with the SEC a Registration Statement in compliance with the Securities Act, and the declaration or ordering by the SEC of the effectiveness of such Registration Statement.

(g) "Registrable Securities" means (i) Underlying Shares held by, or issuable to, Holders and (ii) any shares of Voting Securities issued as (or issuable upon) a stock split, stock dividend or other distribution with respect to, or in exchange or in replacement of, such Registrable Securities set forth in clause (i), in each case, until the earliest to occur of (A) the date on which a Registration Statement covering such securities has been declared effective by the SEC and such security has been disposed of pursuant to such effective Registration Statement, (B) the date on which such security is sold pursuant to Rule 144, (C) the date on which such security ceases to be outstanding or (D) the date on which the Holder thereof, together with its Affiliates, is able to dispose of all of its Registrable Securities in any 90 day period pursuant to Rule 144 (or any similar or analogous rule promulgated under the Securities Act).

(h) "Registration Statement" means a registration statement or registration statements of the Company filed under the Securities Act covering the Registrable Securities.

(i) "Required Registration Amount" means the lesser of (i) 100% of the sum of the maximum number of Underlying Shares issued and issuable as of the Trading Day immediately preceding the applicable date of determination or (ii) such other amount as may be required by the staff of the SEC pursuant to Rule 415 with any cutback applied pro rata to all Holders.

(j) "Underlying Shares" means the Warrant Shares and the shares of Common Stock issuable upon conversion of the Shares.

Section 5.2. Registration

(a) (i) Initial Mandatory Registration. The Company shall use reasonable efforts to prepare, and, as soon as practicable, but in no event later than the Filing Deadline, file with the SEC a Registration Statement on Form S-3 covering the resale of all of the Registrable Securities (the "Initial Registration Statement"). The Initial Registration Statement prepared pursuant hereto shall register for resale at least the number of shares of Common Stock equal to the total number of then outstanding Registrable Securities determined as of the date the Initial Registration Statement is initially filed with the SEC. The Company shall use its reasonable best efforts to have the Initial Registration Statement declared effective by the SEC as soon as practicable, but in no event later than the Initial Effectiveness Deadline. The Company shall use its reasonable efforts to file with the SEC in accordance with Rule 424 under the Securities Act the final prospectus to be used in connection with sales pursuant to such Initial Registration Statement by 9:30 am on the Business Day following the Effective Date, but in any case no later than the deadline required by Rule 424.

(ii) Additional Registrations. Notwithstanding anything herein to the contrary, to the extent the staff of the SEC does not permit all of the Registrable Securities to be registered on the Initial Registration Statement, the Company shall file additional Registration Statements successively trying to register on each such Registration Statement the maximum number of remaining Registrable Securities until all of the Registrable Securities have been registered for resale. Each such additional Registration Statement prepared pursuant hereto shall register for resale at least that number of shares of Common Stock equal to the Additional Registrable Securities determined as of the date such Additional Registration Statement is initially filed with the SEC. The Company shall use its reasonable efforts to have each such additional Registration Statement declared effective by the SEC as soon as practicable. The Company shall file with the SEC in accordance with Rule 424 under the Securities Act the final prospectus to be used in connection with sales pursuant to such additional Registration Statement by 9:30 am on the Business Day following the effective date of such Registration Statement, but in any case no later than the deadline required by Rule 424.

(iii) Underwritten Registrations. With respect to any of the registrations contemplated by this Section 5.2(a), DSM may request that up to three such registrations provide for an underwritten offering of the Registrable Securities. In connection with any such underwritten offering, the right of any Holder to registration

pursuant to this Section 5.2(a)(iv) shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein in subject to the limitations expressed in this Section 5.2. All Holders proposing to distribute their Registrable Securities through such underwriting shall, together with any other parties distributing their securities through such underwriting, enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. Notwithstanding any other provision of this Section 5.2, if the underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the underwriter may limit the number of Registrable Securities to be included in the registration and underwriting.

(iv) Subject to the provisions of this Section 5.2 and further subject to the availability of a Registration Statement on Form S-3 (or any successor form thereto) to the Company pursuant to the Securities Act and the rules and interpretations of the SEC, the Company will use its reasonable efforts to keep the Initial Registration Statement (or any replacement Registration Statement) continuously effective until the earlier of: (A) the date on which all Registrable Securities covered by the Registration Statement have been sold thereunder in accordance with the plan and method of distribution disclosed in the prospectus included in the Registration Statement and (B) there otherwise cease to be any Registrable Securities.

(v) Allocation of Registrable Securities. The initial number of Registrable Securities included in any Registration Statement and any increase or decrease in the number of Registrable Securities included therein shall be allocated pro rata among the Holders based on the number of Registrable Securities held by each Holder at the time the Registration Statement covering such initial number of Registrable Securities or increase or decrease thereof is declared effective by the SEC. In the event that a Holder sells or otherwise transfers any of such Holder's Registrable Securities, each transferee that becomes a Holder shall be allocated a pro rata portion of the then remaining number of Registrable Securities included in such Registration Statement for such transferor. Any shares of Common Stock included in a Registration Statement and which remain allocated to any Person which ceases to hold any Registrable Securities covered by such Registration Statement shall be allocated to the remaining Holders, pro rata based on the number of Registrable Securities then held by such Holders which are covered by such Registration Statement.

(b) Suspension of Filing or Registration. If the Company shall furnish to the Holders a certificate signed by the Chief Executive Officer or Chief Financial Officer of the Company, stating that the filing, effectiveness or continued use of a Registration Statement would require the Company to make an Adverse Disclosure, then the Company shall have a period of not more than 75 days (or such longer period as DSM shall consent to in writing) within which to delay the filing or effectiveness of such Registration Statement or, in the case of a Registration Statement that has been declared effective, to suspend the use by Holders of such Registration Statement (in each case, a "Shelf Suspension"); provided, however, that, unless consented to in writing by the DSM, the Company shall not be permitted to exercise a Suspension more than twice during any 12-

month period for each Shelf Registration Statement. In the case of a Shelf Suspension that occurs after the effectiveness of a Registration Statement, the Holders agree to suspend use of the applicable Prospectus in connection with any sale or purchase of, or offer to sell or purchase, Registrable Securities, upon receipt of the notice referred to above. The Company shall immediately notify the Holders upon the termination of any Shelf Suspension, and (i) in the case of a Registration Statement that has not been declared effective, shall promptly thereafter file a Registration Statement and use its reasonable best efforts to have such Registration Statement declared effective under the Securities Act and (ii) in the case of an effective Registration Statement, shall amend or supplement the Prospectus, if necessary, so it does not contain any untrue statement or omission and furnish to the Holders such numbers of copies of the Prospectus as so amended or supplemented as the Holders may reasonably request. The Company agrees, if necessary, to supplement or make amendments to the applicable Registration Statement, if required by the registration form used by the Company for the shelf registration or by the instructions applicable to such registration form or by the Securities Act or the rules or regulations promulgated thereunder.

(c) The Company shall use its commercially reasonable efforts to take all actions reasonably necessary to ensure that the transactions contemplated herein are effected as so contemplated in Section 5.2(a) hereof, and to submit to the SEC, within five Business Days after the Company learns that no review of a Registration Statement will be made by the staff of the SEC or that the staff has no further comments on a Shelf Registration Statement, as the case may be, a request for acceleration of effectiveness (or post effective amendment, if applicable) of such Registration Statement to a time and date not later than 48 hours after the submission of such request.

(d) Any reference herein to a registration statement or prospectus as of any time shall be deemed to include any document incorporated, or deemed to be incorporated, therein by reference as of such time and any reference herein to any post-effective amendment to a registration statement as of any time shall be deemed to include any document incorporated, or deemed to be incorporated, therein by reference as of such time. Any reference to a prospectus as of any time shall include any supplement thereto, preliminary prospectus, or any free writing prospectus in respect thereof.

(e) In connection with the filing of a Registration Statement, the Company shall:

(i) prepare and file with the SEC within the time periods specified in Section 5.2(a), a Registration Statement on any form which may be utilized by the Company and which shall register all of the Registrable Securities for resale by the holders thereof in accordance with such method or methods of disposition (but which shall not include an underwritten offering as to which the Company needs to assist) as may be specified by DSM and use reasonable best efforts to cause such Registration Statement to become effective as soon as reasonably practicable but in any case within the time periods specified in Section 5.2(a);

(ii) as soon as reasonably practicable prepare and file with the SEC such amendments and supplements to such Registration Statement (including without limitation, any required post effective amendments) and the prospectus included therein as may be necessary to effect and maintain the effectiveness of such Registration Statement for the period specified in Section 5.2(a) hereof and as may be required by the applicable rules and regulations of the SEC and the instructions applicable to the form of such Registration Statement;

(iii) comply with the provisions of the Securities Act with respect to the disposition of all of the Registrable Securities covered by such Registration Statement in accordance with the intended methods of disposition by DSM provided for in such Registration Statement;

(iv) provide DSM and its legal counsel ("Legal Counsel") a reasonable opportunity to participate in the preparation of such Registration Statement, each prospectus included therein or filed with the SEC and each amendment or supplement thereto (but not including any documents incorporated by reference), in each case subject to customary confidentiality restrictions, and give reasonable consideration to any comments Legal Counsel provides with respect to any Shelf Registration Statement or amendment or supplement thereto. The Company shall furnish to Legal Counsel copies of any correspondence from the SEC or the staff of the SEC to the Company or its representatives relating to any Registration Statement;

(v) promptly notify DSM (A) when such Registration Statement or the Prospectus included therein or any prospectus amendment or supplement or post-effective amendment has been filed, and, with respect to such Registration Statement or any post-effective amendment, when the same has become effective, (B) of any comments by the SEC with respect thereto or any request by the SEC for amendments or supplements to such Registration Statement or prospectus or for additional information, (C) of the issuance by the SEC of any stop order suspending the effectiveness of such Registration Statement or the initiation or threatening of any proceedings for that purpose, (D) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Registrable Securities for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose, or (E) if at any time when a prospectus is required to be delivered under the Securities Act, that such Registration Statement, prospectus, prospectus amendment or supplement or post-effective amendment does not conform in all material respects to the applicable requirements of the Securities Act and the rules and regulations of the SEC thereunder or contains an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing; and

(vi) in the event that Form S-3 is not available for the registration of the resale of Registrable Securities hereunder, the Company shall (i) register the resale of the Registrable Securities on another appropriate form reasonably acceptable to DSM and (ii) undertake to register the Registrable Securities on Form S-3 as soon as such form is available, provided that the Company shall maintain the

effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the SEC.

(f) In connection with a shelf registration, the Company may require each Holder whose Registrable Securities are covered by the shelf registration, to furnish to the Company such information regarding the Holder, including, without limitation, its intended method of distribution of Registrable Securities as may be required in order to comply with the Securities Act. The Holder agrees to notify the Company as promptly as practicable of any inaccuracy or change in information previously furnished by the Holder to the Company or of the occurrence of any event in either case that could cause the prospectus to contain an untrue statement of a material fact regarding the Holder or its intended method of disposition of such Registrable Securities or omits to state any material fact regarding the Holder or its intended method of disposition of such Registrable Securities required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, and promptly to furnish to the Company any additional information required to correct and update any previously furnished information or required so that such prospectus shall not contain, with respect to the Holder or the disposition of such Registrable Securities, an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing. If the Holder fails to provide to the Company any information required to be provided pursuant to this Section 5.2 after the Holder became aware of the inaccuracy, omission or required change, the Company may suspend the use of the Registration Statement and the prospectus contained therein until such time as the Holder provides the required information to the Company.

Section 5.3. Piggyback Registration.

(a) Company Registration. If at any time or from time to time the Company shall determine to register any of its equity securities, either for its own account or for the account of security holders (other than (1) in a registration relating solely to employee benefit plans, (2) a registration on Form S-4 or S-8 (or such other similar successor forms then in effect under the Securities Act), (3) a primary registration of securities under Rule 415 of the Securities Act, (4) a registration pursuant to which the Company is offering to exchange its own securities, (5) a registration statement relating solely to dividend reinvestment or similar plans, (6) a resale shelf registration statement relating solely to debt securities of the Company that are convertible into Common Stock and the underlying shares of Common Stock or (7) a registration pursuant to Section 5.2), the Company will:

(i) promptly (but in no event less than 10 days before the effective date of the relevant Registration Statement) give to each Holder written notice thereof; and

(ii) include in such registration (and any related qualification under state securities laws or other compliance), and in any underwriting involved

therein, all the Registrable Securities specified in a written request or requests, made within 5 days after receipt of such written notice from the Company, by any Holder or Holders, subject, in each case, to the limitations expressed in Section 5.2 and except as set forth in Section 5.3(b) below.

(b) Underwriting. If the registration of which the Company gives notice is for a registered public offering involving an underwriting, the Company shall so advise the Holders as a part of the written notice given pursuant to Section 5.3(a)(i). In such event the right of any Holder to registration pursuant to this Section 5.3 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein in subject to the limitations expressed in Section 5.2. All Holders proposing to distribute their Registrable Securities through such underwriting shall, together with the Company and the other parties distributing their securities through such underwriting, enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. Notwithstanding any other provision of this Section 5.3, if the underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the underwriter may limit the number of Registrable Securities to be included in the registration and underwriting, subject to the terms of this Section 5.3. The Company shall so advise all holders of the Company's securities that would otherwise be registered and underwritten pursuant hereto, and the number of shares of such securities, including Registrable Securities, that may be included in the registration and underwriting shall be allocated first to the Company and second to the Holders and any other holders with registration rights on a pro rata basis based on the total number of Registrable Securities held by the Holders and such other holders. No such reduction shall (i) reduce the securities being offered by the Company for its own account to be included in the registration and underwriting, or (ii) subject to the limitations expressed in Section 5.2, reduce the amount of securities of the selling Holders included in the registration below twenty-five percent (25%) of the total amount of securities included in such registration by all selling stockholders. No securities excluded from the underwriting by reason of the underwriter's marketing limitation shall be included in such registration. For the avoidance of doubt, nothing in this Section 5.3(b) is intended to diminish the number of securities to be included by the Company in the underwriting.

(c) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 5.3 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration.

Section 5.4. Expenses of Registration. All expenses incurred in connection with all registrations effected pursuant to Sections 5.2 and 5.3, including all registration, filing and qualification fees (including state securities law fees and expenses), printing expenses, escrow fees, fees and disbursements of counsel for the Company; provided, however, that the Company shall not be required to pay the fees of Legal Counsel, stock transfer taxes or underwriters' discounts or selling commissions relating to Registrable Securities.

Section 5.5. Obligations of the Company. Whenever required under this Article V to effect the registration of any Registrable Securities, the Company shall (in addition to the requirements set forth in Section 5.2(e) with respect to a Registration Statement), as expeditiously as reasonably possible:

(a) prepare and file with the SEC such amendments and supplements to such Registration Statement and the prospectus used in connection with such Registration Statement as may be necessary to keep such Registration Statement effective and to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement in accordance with the intended methods of disposition by sellers thereof set forth in such registration statement;

(b) permit any Holder which Holder, in the reasonable judgment of the Company, if deemed to be a controlling person of the Company, to participate in good faith in the preparation of such Registration Statement and to cooperate in good faith to include therein material, furnished to the Company in writing, that in the reasonable judgment of the Company should be included;

(c) furnish to the Holders such numbers of copies of a prospectus, including all exhibits thereto and documents incorporated by reference therein and a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them;

(d) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter(s) of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement;

(e) notify each Holder of Registrable Securities covered by such Registration Statement as soon as reasonably practicable after notice thereof is received by the Company of any written comments by the SEC or any request by the SEC or any other federal or state governmental authority for amendments or supplements to such Registration Statement or such prospectus or for additional information;

(f) notify each Holder of Registrable Securities covered by such Registration Statement, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of the happening of any event as a result of which the prospectus included in such Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(g) notify each Holder of Registrable Securities covered by such Registration Statement as soon as reasonably practicable after notice thereof is received by the Company of the issuance by the SEC of any stop order suspending the effectiveness of such Registration Statement or any order by the SEC or any other regulatory authority

preventing or suspending the use of any preliminary or final prospectus or the initiation or threatening of any proceedings for such purposes, or any notification with respect to the suspension of the qualification of the Registrable Securities for offering or sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose;

(h) use its reasonable efforts to prevent the issuance of any stop order suspending the effectiveness of any Registration Statement or of any order preventing or suspending the use of any preliminary or final prospectus and, if any such order is issued, to obtain the withdrawal of any such order as soon as practicable;

(i) in the case of an underwritten offering, make available for inspection, at the Company's headquarters during normal business hours, by each Holder including Registrable Securities in such registration, any underwriter participating in any distribution pursuant to such registration, and any attorney, accountant or other agent retained by such Holder or underwriter, all financial and other records, pertinent corporate documents and properties of the Company, as such parties may reasonably request, and cause the Company's officers, directors and employees to supply all information reasonably requested by any such Holder, underwriter, attorney, accountant or agent in connection with such Registration Statement;

(j) use its reasonable efforts to register or qualify, and cooperate with the Holders of Registrable Securities covered by such Registration Statement, the underwriters, if any, and their respective counsel, in connection with the registration or qualification of such Registrable Securities for offer and sale under the securities or "blue sky" laws of each state and other jurisdiction of the United States as any such Holder or underwriters, if any, or their respective counsel reasonably request in writing, and do any and all other things reasonably necessary or advisable to keep such registration or qualification in effect for such period as required by Section 5.2(a), as applicable; provided that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified or take any action which would subject it to taxation or general service of process in any such jurisdiction where it is not then so subject;

(k) in the case of an underwritten offering, obtain for delivery to the underwriters, if any, an opinion or opinions from counsel for the Company, dated the effective date of the Registration Statement or, in the event of an underwritten offering, the date of the closing under the underwriting agreement, in customary form, scope and substance, which opinions shall be reasonably satisfactory to such underwriters and their respective counsel;

(l) in the case of an underwritten offering, obtain for delivery to the Company and the underwriters, a cold comfort letter from the Company's independent certified public accountants in customary form and covering such matters of the type customarily covered by cold comfort letters as managing underwriter or underwriters reasonably request, dated the date of execution of the underwriting agreement and brought down to the closing under the underwriting agreement;

(m) use its reasonable efforts to list the Registrable Securities covered by such Registration Statement with any securities exchange on which the Common Stock is then listed;

(n) provide and cause to be maintained a transfer agent and registrar for all Registrable Securities covered by the applicable Registration Statement from and after a date not later than the effective date of such Registration Statement;

(o) cooperate with Holders including Registrable Securities in such registration and the underwriters, if any, to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be sold, such certificates to be in such denominations and registered in such names as such Holders or the managing underwriters may request at least two Business Days prior to any sale of Registrable Securities; and

(p) use its reasonable efforts to comply with all applicable securities laws and make available to its Holders, as soon as reasonably practicable, an earnings statement satisfying the provisions of Section 11(a) of the Securities Act and the rules and regulations promulgated thereunder.

Section 5.6. Indemnification.

(a) The Company will, and does hereby undertake to, indemnify and hold harmless each Holder of Registrable Securities, each of such Holder's officers, directors, employees, partners and agents, and each Person controlling such Holder, with respect to any registration, qualification or compliance effected pursuant to this Article V, and each underwriter, if any, and each Person who controls any underwriter, of the Registrable Securities held by or issuable to such Holder, against all claims, losses, damages and liabilities (or actions in respect thereto) to which they may become subject under the Securities Act, the Exchange Act, or other federal or state law arising out of or based on (A) any untrue statement (or alleged untrue statement) of a material fact contained in any prospectus, offering circular or other similar document (including any related Registration Statement, notification, or the like) incident to any such registration, qualification or compliance, or based on any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances in which they were made, (B) any violation or alleged violation by the Company of any federal, state or common law rule or regulation applicable to the Company in connection with any such registration, qualification or compliance, or (C) any failure to register or qualify Registrable Securities in any state where the Company or its agents have affirmatively undertaken or agreed in writing that the Company (the undertaking of any underwriter chosen by the Company being attributed to the Company) will undertake such registration or qualification on behalf of the Holders of such Registrable Securities (provided that in such instance the Company shall not be so liable if it has undertaken its reasonable efforts to so register or qualify such Registrable Securities) and will reimburse, as incurred, each such Holder, each such underwriter and each such director, officer, partner, agent and controlling person, for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided that the Company will not be liable in any

such case to the extent that any such claim, loss, damage, liability or expense arises out of or is based on any untrue statement or omission made in reliance and in conformity with written information furnished to the Company by such Holder or underwriter expressly for use therein.

(b) Each Holder will, and if Registrable Securities held by or issuable to such Holder are included in such registration, qualification or compliance pursuant to this Article V, does hereby undertake to indemnify and hold harmless the Company, each of its directors, employees, agents and officers, and each Person controlling the Company, each underwriter, if any, and each Person who controls any underwriter, of the Company's securities covered by such a Registration Statement, and each other Holder, each of such other Holder's officers, partners, directors and agents and each Person controlling such other Holder, against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any such Registration Statement, prospectus, offering circular or other document, or any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances in which they were made, and will reimburse, as incurred, the Company, each such underwriter, each such other Holder, and each such director, officer, employee, agent, partner and controlling Person of the foregoing, for any legal or any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) was made in such Registration Statement, prospectus, offering circular or other document, in reliance upon and in conformity with written information furnished to the Company by such Holder expressly for use therein; provided, however, that the liability of each Holder hereunder shall be limited to the net proceeds received by such Holder from the sale of securities under such Registration Statement. It is understood and agreed that the indemnification obligations of each Holder pursuant to any underwriting agreement entered into in connection with any Registration Statement shall be limited to the obligations contained in this subsection 5.6(b).

(c) Each party entitled to indemnification under this Section 5.6 (the "Indemnified Party") shall give notice to the party required to provide such indemnification (the "Indemnifying Party") of any claim as to which indemnification may be sought promptly after such Indemnified Party has actual knowledge thereof, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom; provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be subject to approval by the Indemnified Party (whose approval shall not be unreasonably withheld) and the Indemnified Party may participate in such defense at the Indemnifying Party's expense if representation of such Indemnified Party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding; and provided further that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Article V, except to the extent that such failure to give notice shall materially adversely affect the Indemnifying

Party in the defense of any such claim or any such litigation. An Indemnifying Party, in the defense of any such claim or litigation, may, without the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement that includes as an unconditional term thereof the giving by the claimant or plaintiff therein, to such Indemnified Party, of a release from all liability with respect to such claim or litigation.

(d) In order to provide for just and equitable contribution in case indemnification is prohibited or limited by law, the Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such losses, claims, damages or liabilities in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions which resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of material fact or omission or alleged omission to state a material fact, has been made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and such party's relative intent, knowledge, access to information and opportunity to correct or prevent such actions; provided, however, that, in any case, (i) no Holder will be required to contribute any amount in excess of the public offering price of all securities offered by it pursuant to such Registration Statement less all underwriting fees and discounts and (ii) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation.

Section 5.7. Information by Holder. The Holder or Holders of Registrable Securities included in any registration shall furnish to the Company such information regarding such Holder or Holders and the distribution proposed by such Holder or Holders as the Company may reasonably request in writing and as shall be required in connection with any registration, qualification or compliance referred to in this Article V.

Section 5.8. Transfer of Registration Rights. The rights, contained in Sections 5.2 and 5.3 hereof, to cause the Company to register the Registrable Securities, may be assigned or otherwise conveyed by DSM pursuant to a transfer not prohibited by Section 3.2.

Section 5.9. Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Article V.

Section 5.10. Termination of Registration Rights. In addition to any termination of this Agreement in accordance with Section 7.1 hereof, the rights of DSM to cause the Company to register securities under Article V hereof shall terminate on the date when there no longer remaining any Registrable Securities.

ARTICLE VI

ADDITIONAL AGREEMENTS OF THE PARTIES

Section 6.1. Protective Provisions. For so long as DSM is entitled to designate a director of the Board pursuant to Section 2.1(a)(i) of this Agreement, without the affirmative vote of any then-serving DSM Director, the Company will not (and, where applicable, will not permit any of its Subsidiaries to) (a) [*] or (b) other than principal and interest payments required by the terms of such agreement (as currently in effect), use any proceeds from the transactions contemplated by the Prior Securities Purchase Agreement or the Securities Purchase Agreement to repay any amounts owed by the Company under that certain Loan and Security Agreement, dated as of March 29, 2014, as amended prior to the date hereof, between the Company and Stegodon Corporation (assignee of Hercules Technology Growth Capital, Inc.) prior to the Term Loan Maturity Date (as such term is currently defined in such agreement).

Section 6.2. Right of First Negotiation; Toll Manufacturing Option.

(a) The Company will not agree or commit to enter into any new agreements (or amend or otherwise modify any existing agreement to cover any new project) with respect to any project in the [*] (the "[*]"), including the projects set forth on Schedule 6.2(a) attached hereto, unless the Company has first engaged in good faith negotiations with DSM with respect to such projects for a period of at least sixty (60) days (the "Right of First Negotiation"); provided, however, that if DSM enters into a commercial relationship with the Company with respect to any such project that obligates the Company to exclusively develop such project with DSM, and following 24 months of the launch of such project the product development levels thereunder do not exceed volume thresholds to be mutually agreed to by DSM and the Company within 90 days of the launch of such project, then the Company will be released from its exclusivity obligations under such commercial relationship with DSM but the Company shall otherwise remain bound by its other obligations thereunder.

(b) DSM will also have an option (the "Toll Manufacturing Option") to use the Brotas 1 or Brotas 2 facility for toll manufacturing of DSM [*] and / or other DSM products by the Company; provided, however, that (i) such option shall be limited to [*] of the manufacturing capacity of each such facility, (ii) (a) with respect to Brotas 1, any such products manufactured for DSM must have a higher return to the Company relative to any alternative projects at Brotas 1 related to the manufacture, distribution, license, sale, transfer or assignment of [*] available to the Company, as determined in good faith by the Board, and (b) with respect to Brotas 2, any such products manufactured for DSM must have a higher return to the Company relative to any alternative projects at Brotas 2 available to the Company, as determined in good faith by the Board.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(c) Notwithstanding the foregoing, (i) the Toll Manufacturing Option set forth in Section 6.2(b) shall expire if the aggregate annual cash spend by DSM (calculated for each calendar year beginning on January 1, 2018) in favor of the Company in connection with all commercial activity with the Company, including payments for production of DSM products, license fees, exclusivity payments and/or collaboration payments for joint development programs, is less than [*], and (ii) the Toll Manufacturing Option set forth in Section 6.2(b) shall not be exercisable by DSM if there are no active projects with DSM at Brotas 1 or Brotas 2 following the date that is 36 months after the Closing.

Section 6.3. Further Assurances; Operational Cost Savings. From time to time, at the reasonable request of any other party hereto and without further consideration, each party hereto shall execute and deliver such additional documents and take all such further action as may be necessary or appropriate to consummate and make effective, in the most expeditious manner practicable, the transactions contemplated by this Agreement. The Company will use reasonable best efforts to implement operational cost/expense savings of at least [*] per annum beginning on January 1, 2018.

Section 6.4. Tranche II Funding. As of the Closing, the Company hereby acknowledges that the [*] License Agreement described in clause (i) of the definition of IP License set forth in the Prior Securities Purchase Agreement shall become effective. During the 90-day period following the Closing (the end of such period, the "Outside Date"), DSM and the Company will in good faith negotiate to mutually agree on the most critical (operational) parameters for the development of the molecule best suited to achieve the cost targets defined for [*], including the best molecular biotech intermediate taking into account an adequate subsequent chemical route for DSM, development costs (which shall be limited to direct costs only), production costs and corresponding value share between the Company and DSM; it being the intention and desire of the parties that (a) DSM will achieve a per unit cost that is at least [*], or as otherwise mutually agreed by the Company and DSM, and (b) from and after May 11, 2017, DSM will be charged only for the Company's direct costs for development work for the [*] collaboration, provided that the collaboration terms include a value sharing arrangement for the manufacturing of [*] by the Company for DSM. In the event that the parties do not reach agreement on such parameters prior to the Outside Date, (i) the Right of First Negotiation set forth in Section 6.2(a) shall terminate and expire with respect to [*] only, (ii) on the first anniversary of the Closing and each subsequent anniversary thereof, the Company will make a [*] cash payment to DSM by wire transfer of immediately available funds to a bank account designated by DSM in writing at least two (2) Business Days prior to each such payment date; provided that the aggregate amount of such payments shall not exceed the Tranche II Funding Amount and (iii) the Intellectual Property Escrow Agreement described in clause (ii) of the definition of IP License set forth in the Prior Securities Purchase Agreement shall become effective. Following the Closing, DSM and the Company will in good faith negotiate a development agreement regarding each of the products listed on Schedule 6.2(a) other than [*], it being the intention of the parties that (A) DSM will achieve a per unit cost for such product that is competitive, but at least [*] for such product, or as otherwise mutually agreed by the Company and DSM, and (B) DSM will be charged only for the

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Company's direct costs for development work for such product, provided that the collaboration terms include a value sharing arrangement for the manufacturing of any product under such collaboration by the Company for DSM. For the avoidance of doubt the prior sentence does not create an obligation to enter into a development agreement regarding the products listed on Schedule 6.2(a) other than [*], but rather creates an obligation to negotiate in good faith with respect to any such agreement.

ARTICLE VII

TERMINATION

Section 7.1. Termination. This Agreement shall terminate and be of no further force and effect upon and after the Company's consummation of a Change of Control; provided, however, that (i) such termination shall not waive or release any party from any liability for such party's willful breach of this Agreement occurring prior to such termination and (ii) Section 6.2 (and, with respect thereto, Articles I and VIII) shall survive such termination and remain in full force and effect following such termination.

ARTICLE VIII

MISCELLANEOUS

Section 8.1. Entire Agreement. This Agreement (together with the Prior Securities Purchase Agreement, the Securities Purchase Agreement, the Warrants, the IP License (as such term is defined in the Prior Securities Purchase Agreement) and the Company's Certificate of Designation of Preferences, Rights and Limitations of Series B 17.38% Convertible Preferred Stock) constitutes the entire understanding and agreement between the parties as to the matters covered herein and supersedes and replaces any prior understanding, agreement or statement of intent, in each case, written or oral, of any and every nature with respect thereto.

Section 8.2. Specific Performance. The parties hereto agree that the obligations imposed on them in this Agreement are special, unique and of an extraordinary character, and that, in the event of breach or threatened breach by any party, damages would not be an adequate remedy and each of the other parties shall be entitled to specific performance and injunctive and other equitable relief in addition to any other remedy to which it may be entitled, at law or in equity; and the parties hereto further agree to waive any requirement for the securing or posting of any bond in connection with the obtaining of any such injunctive or other equitable relief.

Section 8.3. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts entered into and performed entirely within such state, without regard to conflict of laws principles.

Section 8.4. Amendment and Waiver.

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(a) This Agreement may be amended or modified, and any provision hereof may be waived, in whole or in part, at any time pursuant to an agreement in writing executed by the Company and DSM.

(b) Any failure by any party at any time to enforce any of the provisions of this Agreement shall not be construed a waiver of such provision or any other provisions hereof.

Section 8.5. Binding Effect. Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the parties' successors and permitted assigns.

Section 8.6. Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address specified in this Section prior to 6:30 p.m. (Pacific Time) on a Business Day, (b) the next Business Day after the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address specified in this Section on a day that is not a Business Day or later than 6:30 p.m. (Pacific Time) on any Business Day, (c) the Business Day following the date of deposit with a nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The addresses, facsimile numbers and email addresses for such notices and communications are those set forth on the signature pages hereof, or such other address or facsimile number as may be designated in writing hereafter, in the same manner, by any such Person.

Section 8.7. Severability. If any portion of this Agreement shall be declared void or unenforceable by any court or administrative body of competent jurisdiction, such portion shall be deemed severable from the remainder of this Agreement, which shall continue in all respects valid and enforceable.

Section 8.8. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute a single instrument.

Section 8.9. Prior Agreement. Pursuant to Section 8.4(a) of the Prior Agreement, effective and contingent upon execution of this Agreement by the Company and DSM, the Prior Agreement is hereby amended and restated in its entirety to read as set forth in this Agreement, and the Company and DSM shall be bound by the provisions hereof.

[The remainder of this page intentionally left blank]

IN WITNESS WHEREOF, each of the undersigned has executed this Agreement or caused this Agreement to be executed on its behalf as of the date first written above.

AMYRIS, INC.

By: /s/ John Melo
Name John Melo
Title: President and CEO

Address for Notice:

5885 Hollis Street, Suite 100
Emeryville, CA 94608

Facsimile No.:

Email Address:

Attn: General Counsel

with a copy (which shall not constitute notice) to:

Fenwick & West LLP
801 California Street
Mountain View, CA 94110
Attention:
Email Address:

IN WITNESS WHEREOF, each of the undersigned has executed this Agreement or caused this Agreement to be executed on its behalf as of the date first written above.

DSM INTERNATIONAL B.V.

By: /s/ Hugh Welsh
Name Hugh Welsh
Title: President DSM NA

By: _____
Name
Title:

Address for Notice: 6411 TE Herleen,
the Netherlands

Attention: General Counsel

Facsimile No.: _____

Email Address:

with a copy (which shall not constitute notice) to:

Latham & Watkins LLP
330 North Wabash Ave, Suite 2800
Chicago, Illinois 60611
Attention:

Email Address:

Exhibit A

List of Competitors

[*]

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Schedule 6.2(a)

Subject to those pre-existing commercial arrangements described below, as in effect as of the date hereof, projects relating to [*].

Pre-existing commercial arrangements: The Company has pre-existing commercial arrangements with (i) [*] and (ii) [*].

[*] Certain portions denoted with an asterisk have been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.03

SEVENTH ADDENDUM TO THE PRIVATE LEASE CONTRACT INSTRUMENT FOR NONRESIDENTIAL PROPERTY

By and between:
I- **LUCIO TOMASIELLO,** Brazilian, single, adult, businessman, bearer of Personal Identity Number (RG) No. , duly recorded in the Individual Tax Register of the Ministry of Finance – CPF/MF as No. , resident and domiciled in the City of and
MAURICIO TOMASIELLO Brazilian, single, adult, businessman, bearer of Personal ID card No , issued by the SSP/SP duly recorded in the Individual Tax Register of the Ministry of Finance CPF/MF as No. , resident and domiciled in the City of , with both hereinafter to be referred to simply as " **LESSORS**"; and,

II – AMYRIS BRAZIL LTDA., Private Limited Company with headquarter in the City of Campinas, State of Sao Paulo, in (Street) Rua James Clerk Maxwell, No 315, Techno Park, CEP: 13069- 380, duly recorded in the National Company Tax Register as No 09.379.224./0001-20, herein appearing in the terms of its articles of incorporation, hereinafter to be referred to simply as "**LESSEE";** and,

LESSORS and **LESSEE** shall be jointly named "Parties" and, individually as "Party".

WHEREAS, the Parties entered into the Private Lease Contract Instrument for Nonresidential Property (the "Contract") March 31, 2008, referring to the location of the commercial warehouse that has a total built area of 1,368.09 m^2 (thirteen hundred sixty-eight square meters and 9 square centimeters), situated at Rua James Clerk Maxwell, No. 315, Postal Code: 13069-380, object of recorded entry 100068 filed in Notary Office No. 2, Property Records of Campinas, State of São Paulo and registered with the City of Campinas, State of São Paulo, under cartographic code No. 3162.44.26.0285.00000 (the "Property");

WHEREAS, the Parties entered into a Private Addendum Instrument to the Lease Contract for Nonresidential Property (the "First Addendum") that modified the conditions established in the Contract for the lease guarantee July 5, 2008;

WHEREAS, the Parties entered into the Second Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Second Addendum") October 30, 2008 that renewed and extended the lease period from 36 (thirty-six) months to 60 (sixty) months, that is, to May 31, 2013;

WHEREAS, the Parties entered into the Third Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Third Addendum") October 1, 2012 that renewed the lease period for another 36 (thirty-six) months, to October 1, 2015, and capped the monthly rent increase;

WHEREAS, the Parties entered into the Fourth Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Fourth Addendum") March 5, 2015 that renewed the lease period for an additional 43 (forty-three) months, to October 5, 2018, reset the monthly rent increase, and added clauses to the Contract;

WHEREAS, the Parties entered into the Fifth Addendum to the Private Lease Contract Instrument for Nonresidential Property ("Fifth Addendum") September 22, 2015 establishing that the monthly rent will not be readjusted or corrected annually by variation in the General Market Prices Index-IGPM, measured by the Getúlio Vargas Foundation-FGV and keeping the monthly rent duly paid by the **LESSEE** the same until October 1, 2016;

WHEREAS, the Parties entered into the Sixth Addendum to the Private Lease Contract Instrument for Nonresidential Property ("Sixth Addendum") October 17th 2016 , which laid down the increment of the monthly rent through readjusting and extending the lease until October 13th 2019;

WHEREAS, the parties have interests, both jointly and without defects, in maintaining the monthly rent currently adhered to by the **LESSEE** (i.e. R$ 38,171.45) until October 1st 2018;

The Parties therefore decide to sign the present Seventh Addendum to the Private Lease Contract Instrument for Nonresidential Property (the "Seventh Addendum") in mutual and complete agreement, in accordance with the clauses and conditions set out below.

FIRST CLAUSE

THE AMOUNT OF MONTHLY RENT

1.1 As the result of the full Contract between the Parties, and after negotiations of mutual consent, both expressly affirm that no nnual ajdustment to, or correction of the the monthly rent of any nature, shall be applied until October 1st 2018.

1.2 By these terms, the Parties furthermore agree, through mutual and express consent, that the **LESSEE** shall undertake to pay the **LESSORS,** as of October 1st 2017, the monthly rent of BRL 38,171.45 (thirty-eight thousand, one hundred and seventy- one reals and forty-five cents) until October 1st 2018.

1.2.1 Nothwithstanding, after October 1st 2018, the Parties may negotiate a re-adjustment or annual monetary correction of the monthly value of the rent, since this readjustment shall only take place by previous agreement between the Parties and approved by the **LESSEE**, with an initialled document of a new contractual amendment.

1.3 In view of the modifications agreed upon between the Parties to the present Seventh Amendment, and in strict observance of the provisions of clauses 1.1 and 1.2 above, the Parties shall agree that the Fifth clause, heading of the Contract shall enter into effect upoin the signature of the present instrument, with the following wording:

*5th) As of October 1st 2017, the **LESSEE** shall pay to the **LESSORS** a monthly rent of BRL 38,171.45 (thirty-eight thousand, one hundred and seventy-one reais and forty-five cents), expiring on day 5 (five) of every month, by means of a deposit into a bank account (, branch and current account No), with the deposit slip serving as receipt and quittance. Furthermore, the monthly rent shall be annually corrected in accordance with the variation in the National Consumer Price Index – IPCA, measured by the Getulio Vargas Foundation – FGV. Notwithstanding , the Parties agree that , by October 1st 2018 , the **LESSEE** shall pay the **LESSORS** the monthly sum provided for in this clause.*

1.4 The Parties declare, under the terms of this first clause, that the conditions of payment , unaltered by this Seventh Amendment shall be those set forth in the contract.

SECOND CLAUSE

GENERAL PROVISIONS

2.1 All the remaining clauses and conditions appearing in the Contract, in the First, Second, Third, Fourth, Fifth and Sixth Amendments, which were not expressly altered by this Seventh Amendment have been ratified in this document and in all its terms.

2.2 The Parties agree that the terms of this Seventh Amendment shall take precedence over the conditions provided for in any other agreement concluded between the Parties, between the date of signature of the Contract and the date of signature of this Seventh Amendment.

2.3 The Contract, as well as this Seventh Amendment, may only be altered in any of their provisions, by means of entering into in writing a supplementary contractual amendment.

In witness whereof, the Parties sign the present instrument in 03 (three) copies, each equal in form and content, for the same effects, in the presence of 02 (two) witnesses of legal capacity who shall also sign.

Campinas, September 25th 2017

/s/ Lucio Tomasiello /s/ Mauricio Tomasiello

LESSORS: LUCIO TOMASIELLO / MAURICIO TOMASIELLO

/s/ Erica Baumgarten /s/ Gianni Ming Valent

Erica Baumgarten
Financial Director
Amyris Brasil Ltda

LESSEE: AMYRIS BRASIL LTDA

Amyris Brasil Ltda
Gianni Ming Valent, PMP
Engineering Director

Witnesses:
Amyris LTDA
Robson Juliano Brito
Buyer
1. /s/ Robson Juliano Brito
Name: Robson Juliano Brito
RG:
CPF/MF

2. _____

Name:
RG:
CPF/MF

Exhibit 31.01

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.

Date: November 20, 2017

/s/ John G. Melo
John G. Melo
President and Chief Executive Officer

Exhibit 31.02

CERTIFICATION OF CHIEF FINANCIAL OFFICER

PURSUANT TO RULE 13a-14(c) and 15d-(14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Kathleen Valiasek, 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.

Date: November 20, 2017

/s/ Kathleen Valiasek
Kathleen Valiasek
Chief Financial Officer

Exhibit 32.01

Certification of CEO Furnished Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 of The Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of Amyris, Inc. (the "Company") on Form 10-Q for the quarterly period ended September 30, 2017, 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, 2017 (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 20, 2017

/s/ John G. Melo
John G. Melo
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.02

Certification of CFO Furnished Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 of The Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of Amyris, Inc. (the "Company") on Form 10-Q for the quarterly period ended September 30, 2017, as filed with the Securities and Exchange Commission on the date hereof, I, Kathleen Valiasek, 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, 2017 (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 20, 2017

/s/ Kathleen Valiasek
Kathleen Valiasek
Chief Financial Officer
(Principal Financial Officer)