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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

OR

[ ] **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: 000-24249

Interpace Biosciences, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**22-2919486**
(State or other jurisdiction of Incorporation or organization)	(I.R.S. Employer Identification No.)

Morris Corporate Center 1, Building C
300 Interpace Parkway, Parsippany, NJ 07054

(Address of principal executive offices and zip code)

(855) 776-6419

(Registrant's telephone number, including area code)

Interpace Diagnostics Group, Inc.

(Registrant's former name)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	IDXG	The Nasdaq Stock Market LLC

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

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

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

Large accelerated filer [ ]	Accelerated filer [ ]
Non-accelerated filer [X]	Smaller reporting company [X]
	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 [X]

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

Class	**Shares Outstanding November 8, 2019**
Common Stock, par value $0.01 per share	38,196,038

INTERPACE BIOSICENCES, INC. (formerly known as INTERPACE DIAGNOSTICS GROUP, INC.)
FORM 10-Q FOR PERIOD ENDED SEPTEMBER 30, 2019
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INTERPACE BIOSCIENCES, INC. (formerly known as INTERPACE DIAGNOSTICS GROUP, INC.)
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	September 30, 2019 (unaudited)	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 2,358	$ 6,068
Accounts receivable, net	14,701	9,483
Other current assets	3,522	2,170
Total current assets	20,581	17,721
Property and equipment, net	7,033	837
Other intangible assets, net	34,532	29,853
Goodwill	8,273	-
Operating lease assets	4,212	-
Other long-term assets	42	31
Total assets	$ 74,673	$ 48,442
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 5,020	$ 1,059
Accrued salary and bonus	2,087	1,424
Other accrued expenses	9,423	5,091
Current liabilities from discontinued operations	766	918
Total current liabilities	17,296	8,492
Contingent consideration	2,465	2,693
Operating lease liabilities	2,791	-
Line of credit	3,750	-
Excess consideration note	6,822	-
Other long-term liabilities	4,791	4,319
Total liabilities	37,915	15,504
Commitments and contingencies (Note 8)		
Preferred stock, $.01 par value; 5,000,000 shares authorized, Series A Preferred Stock 60 shares issued and outstanding; Series A-1 Preferred Stock 80 shares issued and outstanding	13,161	-
Stockholders' equity:		
Common stock, $.01 par value; 100,000,000 shares authorized; 38,295,006 and 28,767,344 shares issued, respectively;38,196,038 and 28,694,275 shares outstanding, respectively	383	287
Additional paid-in capital	182,361	175,820
Accumulated deficit	(157,435)	(141,489)
Treasury stock, at cost (98,968 and 73,069 shares, respectively)	(1,712)	(1,680)
Total stockholders' equity	23,597	32,938
Total liabilities and stockholders' equity	$ 61,512	$ 48,442
Total liabilities, preferred stock and stockholders equity	$ 74,673	$ 48,442

The accompanying notes are an integral part of these condensed consolidated financial statements.

INTERPACE BIOSCIENCES, INC. (formerly known as INTERPACE DIAGNOSTICS GROUP, INC.)
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited, in thousands, except for per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	**2018**	**2019**	**2018**
Revenue, net	$ 7,725	$ 5,753	$ 20,005	$ 16,062
Cost of revenue (excluding amortization of $995 and $813 for the three months and $2,621 and $2,439 for the nine months, respectively)	4,835	2,763	10,489	7,590
Gross profit	2,890	2,990	9,516	8,472
Operating expenses:				
Sales and marketing	2,757	2,048	8,127	6,135
Research and development	857	510	2,032	1,528
General and administrative	4,492	2,084	9,790	5,981
Acquisition related expense	838	-	2,534	-
Acquisition related amortization expense	995	813	2,621	2,439
Total operating expenses	9,939	5,455	25,104	16,083
Operating loss	(7,049)	(2,465)	(15,588)	(7,611)
Accretion expense	(111)	(248)	(331)	(248)
Other (expense) income, net	(135)	(288)	(12)	(143)
Loss from continuing operations before tax	(7,295)	(3,001)	(15,931)	(8,002)
Provision for income taxes	9	7	19	21
Loss from continuing operations	(7,304)	(3,008)	(15,950)	(8,023)
Loss from discontinued operations, net of tax	(58)	(34)	(51)	(129)
Net loss	$ (7,362)	$ (3,042)	$ (16,001)	$ (8,152)
Net loss attributable to preferred shareholders	$ (7,362)	$ -	$ (16,001)	$ -
Less dividends on preferred stock	$ (75)	$ -	$ (75)	$ -
Net loss attributable to common shareholders	$ (7,437)	$ -	$ (16,076)	$ -
Basic and diluted (loss) income per share of common stock:				
From continuing operations	$ (0.19)	$ (0.11)	$ (0.43)	$ (0.29)
From discontinued operations	(0.00)	(0.00)	(0.00)	(0.00)
Net loss per basic and diluted share of common stock	$ (0.19)	$ (0.11)	$ (0.43)	$ (0.29)
Weighted average number of common shares and common share equivalents outstanding:				
Basic	38,196	28,215	37,169	28,002
Diluted	38,196	28,215	37,169	28,002

The accompanying notes are an integral part of these condensed consolidated financial statements.

INTERPACE BIOSCIENCES, INC. (formerly known as INTERPACE DIAGNOSTICS GROUP, INC.)
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(unaudited, in thousands)

	For The Nine Months Ended September 30, 2019		For The Nine Months Ended September 30, 2018	
	Shares	**Amount**	**Shares**	**Amount**
Common stock:				
Balance at January 1	28,767	$ 287	27,901	$ 278
Common stock issued	95	1	41	1
Common stock issued through offerings	9,333	94	-	-
Balance at March 31	38,195	382	27,942	279
Common stock issued	100	1	325	3
Balance at June 30	38,295	383	28,267	282
Common stock issued	-	-	100	1
Balance at September 30	38,295	383	28,367	283
Treasury stock:				
Balance at January 1	73	(1,680)	64	(1,671)
Treasury stock purchased	26	(32)	9	(9)
Balance at March 31	99	(1,712)	73	(1,680)
Treasury stock purchased	-	-	-	-
Balance at June 30	99	(1,712)	73	(1,680)
Treasury stock purchased	-	-	-	-
Balance at September 30	99	(1,712)	73	(1,680)
Additional paid-in capital:				
Balance at January 1		175,820		173,062
Common stock issued through offerings, net of expenses		5,868		-
Stock-based compensation expense		266		597
Balance at March 31		181,954		173,659
Common Stock issued		72		282
Stock-based compensation expense		205		419
Balance at June 30		182,231		174,360
Common stock issued through offerings, net of expenses		-		144
Dividends accrued		(75)		-
Stock-based compensation expense		205		374
Balance at September 30		182,361		174,878
Accumulated deficit:				
Balance at January 1		(141,489)		(131,800)
Net loss		(3,419)		(3,193)
Adoption of ASC 606		-		2,500
Adoption of ASC 842		55		-
Balance at March 31		(144,853)		(132,493)
Net loss		(5,220)		(1,917)
Balance at June 30		(150,073)		(134,410)
Net loss		(7,362)		(3,042)
Balance at September 30		(157,435)		(137,452)
Total stockholders' equity		$ 23,597		$ 36,029

The accompanying notes are an integral part of these condensed consolidated financial statements.

INTERPACE BIOSCIENCES, INC. (formerly known as INTERPACE DIAGNOSTICS GROUP, INC.)
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	For The Nine Months Ended September 30,	
	2019	**2018**
Cash Flows From Operating Activities		
Net loss	$ (16,001)	$ (8,152)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,911	2,580
Interest accretion	331	248
Reversal of DOJ accrual	-	(350)
Bad debt expense	499	-
Mark to market on warrants	(35)	259
Stock-based compensation	1,246	1,564
Other gains and expenses, net	18	-
Other changes in operating assets and liabilities:		
Increase in accounts receivable	(1,986)	(2,703)
Increase in other current assets	(417)	(174)
Increase in long-term assets	(11)	-
(Decrease) increase in accounts payable	(766)	674
Increase (decrease) in accrued salaries and bonus	228	(248)
Increase (decrease) in accrued liabilities	981	(680)
Increase in long-term liabilities	446	182
Net cash used in operating activities	(12,556)	(6,800)
Cash Flows From Investing Activity		
Acquisition of Biopharma, net of expenses	(13,829)	-
Purchase of property and equipment	(105)	(388)
Sale of property and equipment	13	-
Net cash used in investing activity	(13,921)	(388)
Cash Flows From Financing Activities		
Issuance of common stock, net of expenses	5,962	-
Issuance of preferred shares, net of expenses	13,087	-
Cash paid for repurchase of restricted shares	(32)	(9)
Borrowings on Line of Credit	3,750	-
Net cash provided by (used in) financing activities	22,767	(9)
Net decrease in cash and cash equivalents	(3,710)	(7,197)
Cash and cash equivalents – beginning	6,068	15,199
Cash and cash equivalents – ending	$ 2,358	$ 8,002

The accompanying notes are an integral part of these condensed consolidated financial statements.

1. BASIS OF PRESENTATION

The accompanying unaudited interim condensed consolidated financial statements and related notes (the "Interim Financial Statements") should be read in conjunction with the consolidated financial statements of Interpace Biosciences, Inc. (formerly known as Interpace Diagnostics Group, Inc.) (the "Company" or "Interpace"), and its wholly-owned subsidiaries, Interpace Diagnostics Lab Inc., Interpace Diagnostics Corporation, Interpace Pharma Solutions, Inc. (formerly known as Interpace BioPharma, Inc.) and Interpace Diagnostics, LLC, and related notes as included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the U.S. Securities and Exchange Commission ("SEC") on March 21, 2019 (the "Form 10-K") and the special purpose statements and Pro Forma financial information in Form 8-K/A filed on September 20, 2019.

The condensed Interim Financial Statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States ("GAAP") for interim financial reporting and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. The condensed Interim Financial Statements include all normal recurring adjustments that, in the judgment of management, are necessary for a fair presentation of such interim financial statements. Discontinued operations include the Company's wholly owned subsidiaries: Group DCA, LLC, or Group DCA; InServe Support Solutions; and TVG, Inc. and its Commercial Services ("CSO") business unit which was sold on December 22, 2015. All significant intercompany balances and transactions have been eliminated in consolidation. Operating results for the nine-month period ended September 30, 2019 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2019.

2. ACQUISITION

On July 15, 2019, the Company entered into an Asset Purchase Agreement ("APA") to acquire certain assets and assumed certain liabilities relating to Cancer Genetics, Inc.'s ("CGI") BioPharma services business ("BioPharma") for $23.5 million less certain closing adjustments of $1.98 million (the "Base Purchase Price"). At the closing the Company used the proceeds from an initial tranche of preferred stock financing and paid $13.8 million. Additionally, the Company issued a subordinated seller note to CGI in the amount of $7,692,300.

The BioPharma business (presently known as Interpace Pharma Solutions, Inc. or "Pharma Solutions") provides pharmaceutical and biotech companies and non-profit entities performing clinical trials with lab testing services for patient stratification and treatment selection through an extensive suite of molecular and biomarker-based testing services, DNA- and RNA- extraction and customized assay development and trial design consultation.

The Base Purchase Price is subject to two additional adjustments following the closing: for the finalized net worth (assets less liabilities) of BioPharma as of June 30, 2019 (the "NWA"), subject to a cap of $775,000, and for certain older accounts receivable, in the aggregate amount of approximately $830,000, still uncollected as of December 31, 2019 (the "ARA"). Any amounts due to the Company under the NWA were to be set off against the Excess Consideration Note (see *Note 19, Subsequent Events,* for description), and any amounts due to the Company under the ARA were to be either set off against the Excess Consideration Note or, if it is no longer outstanding, satisfied through an AR Holdback (as defined in the Asset Purchase Agreement) mechanism, in each case as further set forth in the Asset Purchase Agreement.

The transaction is being accounted for using the acquisition method of accounting for business combinations in accordance with GAAP. Under this method, the total consideration transferred to consummate the acquisition is being allocated to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values as of the closing date of the acquisition. The acquisition method of accounting requires extensive use of estimates and judgments to allocate the consideration transferred to the identifiable tangible and intangible assets acquired and liabilities assumed.

(Tabular information in thousands, except per share amounts)

In connection with the transaction, the Company has preliminarily recorded $8.3 million of goodwill and $7.3 million of finite lived intangible assets. Finite lived intangible assets have a combined weighted-average amortization period of 8.4 years, which consists of ten years for tradenames and eight years for customer relationships. Goodwill results largely from a trained workforce in place and expected synergies from new lines of business. Goodwill recorded in conjunction with the acquisition is deductible for income tax purposes. See *Note 5, Goodwill and Other Intangible Assets*, for more information. Business transaction expenses of approximately $2.5 million incurred in connection with the acquisition was expensed as incurred.

The reconciliation of consideration given for BioPharma to the preliminary allocation of the purchase price of assets and liabilities acquired based on their relative fair values is as follows:

Cash		$ 13,829
Subordinated note payable		6,822
Total consideration		$ 20,651
Assets acquired		
Accounts receivable		$ 3,731
Accrued revenue		289
Lab supplies		877
Prepaid expenses		266
Property and equipment		6,412
Operating lease assets		2,187
Acquired identifiable intangible assets:		
Trademarks and trade name	1,600	
Customer relationships	5,700	
Total acquired identifiable intangible assets		7,300
Goodwill		8,273
Total assets acquired		29,335
Liabilities assumed		
Accounts payable		(4,535)
Accrued liabilities		(435)
Deferred revenue		(1,076)
Operating lease liabilities		(2,187)
Finance lease liabilities		(451)
Total liabilities assumed		(8,684)
Net assets acquired		$ 20,651

The estimated fair values of assets acquired and liabilities assumed are considered preliminary and are based on the most recent information available. The provisional measurements of fair value set forth above are subject to change. We expect to finalize the valuation as soon as practicable, but no later than one-year from the acquisition date.

(Tabular information in thousands, except per share amounts)

The following unaudited pro forma consolidated revenues for the three and nine months ended September 30, 2019 and 2018 assume that the Company had acquired the BioPharma business as of January 1, 2018. The pro forma revenues include estimates and assumptions which management believes are reasonable. However, pro forma revenues are not necessarily indicative of the revenues that would have occurred if the acquisition had been consummated as of the date indicated, nor are they necessarily indicative of future revenues.

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
Revenue	$ 8,010	$ 27,648	$ 9,741	$ 27,551

The BioPharma business had not historically been accounted for as a separate entity, subsidiary or division of CGI. In addition, stand-alone financial statements related to BioPharma have not been prepared previously as CGI's financial system was not designed to provide complete financial information of BioPharma. Therefore, the Company was not able to estimate the pro forma impact to net loss or the net loss per share of BioPharma (presently called Interpace Pharma Solutions) for the three and nine months ended September 30, 2019 and 2018.

3. LIQUIDITY

As of September 30, 2019, the Company had cash and cash equivalents of $2.4 million, net accounts receivable of $14.7 million, total current assets of $20.6 million and total current liabilities of $17.3 million. For the nine months ended September 30, 2019, the Company had a net loss of $16.0 million and cash used in operating activities was $12.6 million.

On July 15, 2019 the Company entered into a Securities Purchase Agreement for $27 million in Preferred Stock closing in two tranches on July 15, 2019 for $14 million and on October 16, 2019 for $13 million. After the purchase price of $23.5 million less certain closing adjustments of $1.98 million was paid to Cancer Genetics, Inc. the balance of the proceeds were used to pay down a $3.75 million balance in the revolving line of credit and for general corporate purposes, including the integration of the BioPharma business.

On September 20, 2019, the Company entered into an Equity Distribution Agreement (the "Agreement") with Oppenheimer & Co. Inc., as sales agent (the "Agent"), pursuant to which the Company may, from time to time, issue and sell shares of its common stock, par value $0.01 per share, in an aggregate offering price of up to $4.8 million (the "Shares") through the Agent. To date, no shares have been sold under the Agreement.

The Company does not expect to generate positive cash flows from operations for the year ending December 31, 2019. The Company intends to meet ongoing capital needs by using proceeds under the Securities Purchase Agreement, additional borrowings under the line of credit resulting from the additional accounts receivable acquired in the BioPharma acquisition, selling shares under the Agreement, revenue growth and margin improvement, collecting accounts receivable, containing costs as well as exploring other financing options. Management believes that the Company has sufficient cash on hand and available to sustain operations through at least November 30, 2020. However, there is no guarantee that additional capital can be raised to fund our future operations.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Accounting Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts of assets and liabilities reported and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Management's estimates are based on historical experience, facts and circumstances available at the time, and various other assumptions that are believed to be reasonable under the circumstances. Significant estimates include accounting for valuation allowances related to deferred income taxes, contingent consideration, allowances for doubtful accounts, revenue recognition, unrecognized tax benefits, and asset impairments involving other intangible assets. The Company periodically reviews these matters and reflects changes in estimates in earnings as appropriate. Actual results could materially differ from those estimates.

Revenue Recognition

Our Services

The Company is a leader in enabling personalized medicine, offering specialized services along the therapeutic value chain from early diagnosis and prognostic planning to targeted therapeutic applications. The Company's primary source of revenue is generated from the performance of its proprietary molecular diagnostic tests for its clinical customers (Interpace Diagnostics) and its DNA-based pharma testing services in support of clinical trials for its biopharma customers (Interpace Pharma Solutions).

Our Diagnostics business is a fully integrated commercial and bioinformatics business unit that provides clinically useful molecular diagnostic tests, bioinformatics and pathology services for evaluating risk of cancer by leveraging the latest technology in personalized medicine for improved patient diagnosis and management. The genomic tests that we develop and commercialize as well as related first line assays are principally focused on early detection of patients with indeterminate biopsies and at high risk of cancer. Our tests and services provide mutational analysis of genomic material contained in these "suspicious" cysts, nodules and lesions with the goal of better informing treatment decisions in patients at risk of thyroid, pancreatic, and other cancers and in many cases avoiding unnecessary surgical treatment in patients at low risk.

We currently have four commercialized molecular diagnostic tests in the marketplace for which we are receiving reimbursement: PancraGEN®, which is a pancreatic cyst and pancreaticobiliary solid lesion genomic test that helps physicians better assess risk of pancreaticobiliary cancers using our proprietary PathFinderTG® platform; ThyGeNEXT®, which is an expanded oncogenic mutation panel that helps identify potentially malignant thyroid nodules, ThyraMIR®, which assesses thyroid nodules for risk of malignancy utilizing a proprietary microRNA gene expression assay. THyGeNEXT® and ThyraMIR® are typically used in conjunction; and RespriDx®, which is a genomic test that helps physicians differentiate metastatic or recurrent lung cancer from the presence of newly formed primary lung cancer and which also utilizes our PathFinderTG® platform to compare the genomic fingerprint of two or more sites of lung cancer.

BarreGEN®, is our esophageal cancer risk classifier for Barrett's Esophagus that also utilizes our PathFinder TG® platform and is currently in a Clinical Evaluation Program or ("CEP") whereby we gather information from physicians using BarreGEN® to assist us in positioning our product for full launch, partnering and potentially supporting improved reimbursement with payers.

Our recently acquired BioPharma or now called Pharma Solutions business provides pharmacogenomics testing, genotyping, biorepository and other customized services to the pharmaceutical and biotech industries and advances personalized medicine by partnering with pharmaceutical, academic, and technology leaders to effectively integrate pharmacogenomics into their drug development and clinical trial programs with the goals of delivering safer, more effective drugs to market more quickly, and improving patient care.

Therefore, the Company's primary source of revenue is generated from the performance of its proprietary molecular diagnostic tests for its clinical customers and its DNA-based pharma testing services in support of clinical trials for its BioPharma customers. The Company's performance obligation is fulfilled upon completion, review and release of test results and subsequent billing to the third-party payer, hospital or contracting customer.

Clinical Performance Obligations and Revenue Recognition

Under ASC 606, the Company recognizes revenue for billings less contractual allowances and estimated uncollectable amounts for all third party payer groups on the accrual basis based upon a thorough analysis of historical receipts. The net amount derived and used for revenue recognition is referred to as the Net Realizable Value (NRV) for the particular test and payer group from which reimbursement is received. This derived NRV is evaluated quarterly or as needed and then applied to future periods until recalculated.

BIoPharma Performance Obligations and Revenue Recognition

Performance obligations are satisfied at a point in time as the Company processes samples delivered by the customer. Project level activities, including study setup and project management, are satisfied over the life of the contract. Revenues are recognized at a point in time when the test results or other deliverables are reported to the customer. Project level fee revenue is recognized ratably over the life of the contract.

Deferred revenue from BioPharma Contracts is recorded at fair value and represents payments received in advance of services rendered.

Revenue from Contracts with Customers (ASC 606)

Our Diagnostics business derives its revenues from the performance of its proprietary assays or tests. The Company's performance obligation is fulfilled upon completion, review and release of test results to the customer. The Company subsequently bills third-party payers or direct-bill payers for the tests performed. Revenue is recognized based on the estimated transaction price or net realizable value ("NRV"), which is determined based on historical collection rates by each payer category for each proprietary test offered by the Company. To the extent the transaction price includes variable consideration, for all third party and direct-bill payers and proprietary tests, the Company estimates the amount of variable consideration that should be included in the transaction price using the expected value method based on historical experience.

For our Diagnostics business, we regularly review the ultimate amounts received from the third-party and direct-bill payers and related estimated reimbursement rates and adjust the NRV's and related contractual allowances accordingly. If actual collections and related NRV's vary significantly from our estimates, we will adjust the estimates of contractual allowances, which would affect net revenue in the period such variances become known.

Disaggregated Revenues

We operate in a single operating segment and, therefore, the results of our operations are reported on a consolidated basis for purposes of segment reporting, which is consistent with internal management reporting.

Deferred Revenue

Deferred revenue is recorded at fair value and represents payments received in advance of services rendered.

Financing and Payment

For non-Medicare claims, our payment terms vary by payer category. Payment terms for direct-payers in our clinical or diagnostics business are typically thirty days and in our BioPharma business, up to sixty days. Commercial third-party-payers are required to respond to a claim within a time period established by their respective state regulations, generally between thirty to sixty days. However, payment for commercial third-party claims may be subject to a denial and appeal process, which could take up to two years in some instances where multiple appeals are submitted. The Company generally appeals all denials from commercial third-party payers.

Costs to Obtain or Fulfill a Customer Contract

Sales commissions are expensed when incurred because the amortization period would have been one year or less. These costs are recorded in sales and marketing expense in the condensed consolidated statements of operations.

Accounts Receivable

The Company's accounts receivable represent unconditional rights to consideration and are generated using its clinical or diagnostics and BioPharma tests. The Company's services are fulfilled upon completion of the test, review and release of the test results. In conjunction with fulfilling these services, the Company bills the third-party payer or directly bills the hospital or contracting customer. Accounts receivable is recognized for all payer groups net of contractual adjustment and net of estimated uncollectable amounts. Contractual adjustments represent the difference between the list prices and the reimbursement rate set by third party payers, including Medicare, commercial payers, or amounts billed directly to hospitals and service providers. Specific accounts may be written off after several appeals, which in some cases may take longer than twelve months.

Leases

The Company determines if an arrangement contains a lease in whole or in part at the inception of the contract. Right-of-use ("ROU") assets represent the Company's right to use an underlying asset for the lease term while lease liabilities represent our obligation to make lease payments arising from the lease. All leases with terms greater than twelve months result in the recognition of a ROU asset and a liability at the lease commencement date based on the present value of the lease payments over the lease term. Unless a lease provides all of the information required to determine the implicit interest rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of the lease payments. We use the implicit interest rate in the lease when readily determinable.

Our lease terms include all non-cancelable periods and may include options to extend (or to not terminate) the lease when it is reasonably certain that we will exercise that option. Leases with terms of twelve months or less at the commencement date are expensed on a straight-line basis over the lease term and do not result in the recognition of an asset or liability. See Note 7, *Leases.*

(Tabular information in thousands, except per share amounts)

Other Current Assets

Other current assets consisted of the following as of September 30, 2019 and December 31, 2018:

	September 30, 2019	December 31, 2018
	(unaudited)	
Indemnification assets	$ 875	$ 875
Prepaid expenses	2,571	1,230
Other	76	65
Total other current assets	$ 3,522	$ 2,170

Long-Lived Assets, including Finite-Lived Intangible Assets

Finite-lived intangible assets are stated at cost less accumulated amortization. Amortization of finite-lived acquired intangible assets is recognized on a straight-line basis, using the estimated useful lives of the assets of approximately two years to ten years in acquisition related amortization expense in the condensed consolidated statements of operations.

The Company reviews the recoverability of long-lived assets and finite-lived intangible assets whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. If the sum of the expected future undiscounted cash flows is less than the carrying amount of the asset, an impairment loss is recognized by reducing the recorded value of the asset to its fair value measured by future discounted cash flows. This analysis requires estimates of the amount and timing of projected cash flows and, where applicable, judgments associated with, among other factors, the appropriate discount rate. Such estimates are critical in determining whether any impairment charge should be recorded and the amount of such charge if an impairment loss is deemed to be necessary.

Discontinued Operations

The Company accounts for business dispositions and its businesses held for sale in accordance with ASC 205-20,*Discontinued Operations ("ASC 205-20").* ASC 205-20 requires the results of operations of business dispositions to be segregated from continuing operations and reflected as discontinued operations in current and prior periods. See Note 13, *Discontinued Operations* for further information.

Basic and Diluted Net Loss per Share

A reconciliation of the number of shares of common stock, par value $0.01 per share (the "Common Stock") used in the calculation of basic and diluted loss per share for the three- and nine-month periods ended September 30, 2019 and 2018 is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(unaudited)			
Basic weighted average number of of common shares	38,196	28,215	37,169	28,002
Potential dilutive effect of stock-based awards	-	-	-	-
Diluted weighted average number of common shares	38,196	28,215	37,169	28,002

(Tabular information in thousands, except per share amounts)

The following outstanding stock-based awards were excluded from the computation of the effect of dilutive securities on loss per share for the following periods because they would have been anti-dilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(unaudited)			
Options	3,936	2,256	3,936	2,256
Stock-settled stock appreciation rights (SARs)	22	59	22	59
Restricted stock units (RSUs)	544	220	544	220
Warrants	14,196	13,542	14,196	13,542
	18,698	16,077	18,698	16,077

5. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill is attributable to the acquisition of the BioPharma business from CGI in July 2019. The carrying value of the intangible assets acquired was $15.6 million, with goodwill of approximately $8.3 million and identifiable intangible assets of approximately $7.3 million. The net carrying value of the identifiable intangible assets from all acquisitions as of September 30, 2019 and December 31, 2018 are as follows:

		As of September 30, 2019	As of December 31, 2018
		(unaudited)	
	Life (Years)	Carrying Amount	Carrying Amount
Asuragen acquisition:			
Thyroid	9	$ 8,519	$ 8,519
RedPath acquisition:			
Pancreas test	7	16,141	16,141
Barrett's test	9	18,351	18,351
BioPharma acquisition:			
Trademarks	10	1,600	-
Customer relationships	8	5,700	-
CLIA Lab	2.3	$ 609	$ 609
Total		$ 50,920	$ 43,620
Accumulated Amortization		$ (16,388)	$ (13,767)
Net Carrying Value		$ 34,532	$ 29,853

Amortization expense was approximately $1.0 million and $0.8 million for the three-month periods ended September 30, 2019 and 2018, respectively, and approximately $2.6 million and $2.4 million for the nine-month periods ended September 30, 2019 and 2018, respectively. Amortization of our diagnostic assets begins upon launch of the product. Estimated amortization expense for the next five years is as follows, based on current assumptions of future product launches:

2019 (remaining)	2020	2021	2022	2023	2024
$ 1,031	$ 5,145	$ 5,781	$ 3,859	$ 3,859	$ 3,149

(Tabular information in thousands, except per share amounts)

6. FAIR VALUE MEASUREMENTS

Cash and cash equivalents, accounts receivable, and accounts payable approximate fair value due to their relative short-term nature. The Company's financial liabilities reflected at fair value in the condensed consolidated financial statements include contingent consideration and warrant liability. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses various methods including market, income and cost approaches. Based on these approaches, the Company often utilizes certain assumptions that market participants would use in pricing the asset or liability, including assumptions about risk and/or the risks inherent in the inputs to the valuation technique. These inputs can be readily observable, market-corroborated, or generally unobservable inputs. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based upon observable inputs used in the valuation techniques, the Company is required to provide information according to the fair value hierarchy. The fair value hierarchy ranks the quality and reliability of the information used to determine fair values into three broad levels as follows:

Level 1: Valuations for assets and liabilities traded in active markets from readily available pricing sources for market transactions involving identical assets or liabilities.

Level 2: Valuations for assets and liabilities traded in less active dealer or broker markets. Valuations are obtained from third-party pricing services for identical or similar assets or liabilities.

Level 3: Valuations incorporate certain assumptions and projections in determining the fair value assigned to such assets or liabilities.

In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy within which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment, and considers factors specific to the asset or liability. The valuation methodologies used for the Company's financial instruments measured on a recurring basis at fair value, including the general classification of such instruments pursuant to the valuation hierarchy, is set forth in the tables below:

	As of September 30, 2019		Fair Value Measurements As of September 30, 2019		
	Carrying Amount	Fair Value	Level 1 (unaudited)	Level 2	Level 3
Liabilities:					
Contingent consideration:					
Asuragen [1]	$ 3,024	$ 3,024	$ -	$ -	$ 3,024
Other long-term liabilities:					
Warrant liability [2]	326	326	-	-	326
	$ 3,350	$ 3,350	$ -	$ -	$ 3,350

(Tabular information in thousands, except per share amounts)

	As of December 31, 2018		Fair Value Measurements As of December 31, 2018		
	Carrying Amount	Fair Value	Level 1	Level 2	Level 3
Liabilities:					
Contingent consideration:					
Asuragen [1]	$ 3,127	$ 3,127	$ -	$ -	$ 3,127
Other long-term liabilities:					
Warrant liability [2]	361	361	-	-	361
	$ 3,488	$ 3,488	$ -	$ -	$ 3,488

[1][2] See Note 9, *Accrued Expenses and Long-Term Liabilities*

In connection with the acquisition of certain assets from Asuragen, the Company recorded contingent consideration related to contingent payments and other revenue-based payments. The Company determined the fair value of the contingent consideration based on a probability-weighted income approach derived from revenue estimates. The fair value measurement is based on significant inputs not observable in the market and thus represents a Level 3 measurement.

On June 21, 2017, the Company issued 575,000 Underwriters Warrants, related to a public offering on the same date that included a cash settlement feature in the event of certain circumstances. Accordingly, the Underwriters Warrants are classified as liabilities and were fair valued using the Black Scholes Option-Pricing Model, the inputs for which include exercise price of the respective warrants, market price of the underlying common shares, expected term, volatility based on the Company's historical market price, and the risk-free rate corresponding to the expected term of the underlying exchange agreement. Changes to the fair value of the warrant liabilities were recorded in Other income (expense), net.

A roll forward of the carrying value of the Contingent Consideration Liability and the Underwriters' Warrants to September 30, 2019 is as follows:

	December 31, 2018	Payments	Accretion	Cancellation of Obligation/ Conversions Exercises	Adjustment to Fair Value/ Mark to Market	September 30, 2019
			(unaudited)			
Asuragen	$ 3,127	$ (434)	$ 331	$ -	$ -	$ 3,024
Underwriters Warrants	361	-	-	-	(35)	326
	$ 3,488	$ (434)	$ 331	$ -	$ (35)	$ 3,350

Certain of the Company's non-financial assets, such as other intangible assets and goodwill, are measured at fair value on a nonrecurring basis when there is an indicator of impairment and recorded at fair value only when an impairment charge is recognized.

(Tabular information in thousands, except per share amounts)

7. LEASES

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which establishes a ROU model that requires a lessee to record a ROU asset and a lease liability, measured on a discounted basis, on the balance sheet for all leases with terms longer than 12 months. Effective January 1, 2019, the Company adopted the provisions of Topic 842 using the alternative modified transition method, with a cumulative effect adjustment to the opening balance of retained earnings on the date of adoption, and prior periods not restated, as allowed under the provisions of Topic 842. The Company also elected to use the practical expedients permitted under the transition guidance of Topic 842, which provides for the following: the carryforward of the Company's historical lease classification, no requirement for reassessment of whether an expired or existing contract contains an embedded lease, no reassessment of initial direct costs for any leases that exist prior to the adoption of the new standard, and the election to consolidate lease and non-lease components. The Company also elected to keep all leases with an initial term of 12 months or less off the balance sheet.

The Company recorded $2.4 million of right-of-use lease assets and $2.5 million of lease liabilities upon adoption, primarily relating to rentals of space for our corporate headquarters and laboratories, as well as equipment leases, all under operating leases. In addition, the Company recorded a cumulative adjustment to opening accumulated deficit of $0.1 million. With the acquisition of the BioPharma business of CGI in 2019, the Company added $2.2 million of operating lease assets and liabilities and $0.5 million of finance lease assets and liabilities to its balance sheet. Finance lease assets are included in fixed assets, net of accumulated depreciation.

The table below presents the lease-related assets and liabilities recorded in the Condensed Consolidated Balance Sheet:

	Classification on the Balance Sheet	September 30, 2019 (unaudited)
Assets		
Financing lease assets	Property and equipment, net	$ 998
Operating lease assets	Operating lease assets	4,212
Total lease assets		$ 5,210
Liabilities		
Current		
Financing lease liabilities	Other accrued expenses	$ 247
Operating lease liabilities	Other accrued expenses	1,367
Total current lease liabilities		$ 1,614
Noncurrent		
Financing lease liabilities	Other long-term liabilities	173
Operating lease liabilities	Operating lease liabilities	2,791
Total long-term lease liabilities		2,964
Total lease liabilities		$ 4,578

The weighted average remaining lease term for the Company's operating leases was 2.8 years as of September 30, 2019 and the weighted average discount rate for those leases was 6.0%. The Company's operating lease expenses are recorded within cost of revenue and general and administrative expenses.

(Tabular information in thousands, except per share amounts)

The table below reconciles the undiscounted cash flows to the lease liabilities recorded on the Company's Condensed Consolidated Balance Sheet as of September 30, 2019:

	Operating Leases	Financing Leases
2019 (remaining)	$ 412	$ 90
2020	1,431	226
2021	1,258	120
2022	1,192	13
2023	344	-
Total minimum lease payments	4,637	449
Less: amount of lease payments representing effects of discounting	479	29
Present value of future minimum lease payments	4,158	420
Less: current obligations under leases	1,367	247
Long-term lease obligations	$ 2,791	$ 173

As of December 31, 2018, contractual obligations with terms exceeding one year and estimated minimum future rental payments required by non-cancelable operating leases with initial or remaining lease terms exceeding one year were as follows:

	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	After 5 Years
Operating lease obligations	$ 2,814	$ 613	$ 1,322	$ 879	$ -

8. COMMITMENTS AND CONTINGENCIES

Litigation

Due to the nature of the businesses in which the Company is engaged it is subject to certain risks. Such risks include, among others, risk of liability for personal injury or death to persons using products or services the Company promotes or commercializes. There can be no assurance that substantial claims or liabilities will not arise in the future due to the nature of the Company's business activities and recent increases in litigation related to healthcare products and related intellectual property.

The Company could also be held liable for errors and omissions of its employees in connection with the services it performs that are outside the scope of any indemnity or insurance policy. The Company could be materially adversely affected if it were required to pay damages or incur defense costs in connection with a claim that is outside the scope of an indemnification agreement; if the indemnity, although applicable, is not performed in accordance with its terms; or if the Company's liability exceeds the amount of applicable insurance or indemnity.

As of September 30, 2019, the Company's accrual for litigation and threatened litigation was not material to the condensed consolidated financial statements.

(Tabular information in thousands, except per share amounts)

9. ACCRUED EXPENSES AND LONG-TERM LIABILITIES

Other accrued expenses consisted of the following as of September 30, 2019 and December 31, 2018:

	September 30, 2019 (unaudited)	December 31, 2018
Accrued royalties	$ 2,000	$ 1,399
Indemnification liability	875	875
Contingent consideration	559	434
Accrued professional fees	1,318	701
Operating lease liability	1,367	-
Deferred revenue	480	-
Taxes payable	287	285
Unclaimed property	565	565
All others	1,972	832
Total other accrued expenses	$ 9,423	$ 5,091

Long-term liabilities consisted of the following as of September 30, 2019 and December 31, 2018:

	September 30, 2019 (unaudited)	December 31, 2018
Warrant liability	$ 326	$ 361
Uncertain tax positions	4,011	3,838
Deferred revenue	294	-
Other	160	120
Total other long-term liabilities	$ 4,791	$ 4,319

10. STOCK-BASED COMPENSATION

Stock Incentive Plan

The Company's stock-incentive program is a long-term retention program that is intended to attract, retain and provide incentives for talented employees, officers and directors, and to align stockholder and employee interests. Currently, the Company is able to grant options, stock appreciation rights ("SARs") and restricted shares from the Interpace Biosciences, Inc. 2019 Equity Incentive Plan, (the "Stock Incentive Plan"). No new grants may be made under the Company's prior stock incentive plan, the Interpace Diagnostics Group, Inc. Amended and Restated 2004 Stock Award and Incentive Plan (the "2004 Plan"). Unless earlier terminated by action of the Company's board of directors, the 2004 Plan will remain in effect until such time as no stock remains available for delivery and the Company has no further rights or obligations under the 2004 Plan with respect to outstanding awards thereunder.

Historically, stock options have been granted with an exercise price equal to the market value of the Common Stock on the date of grant, expire 10 years from the date they are granted, and generally vested over a one to three-year period for employees and members of the Board. Upon exercise, new shares will be issued by the Company. The Company granted stock options in 2017 which vest monthly over a one-year period. SARs are generally granted with a grant price equal to the market value of the Common Stock on the date of grant, vest one-third each year on the anniversary of the date of grant and expire five years from the date of grant. The restricted shares and restricted stock units ("RSUs") granted to employees generally have a three-year graded vesting period and are subject to accelerated vesting and forfeiture under certain circumstances. Restricted shares and RSUs granted to Board members generally have a three-year graded vesting period and are subject to accelerated vesting and forfeiture under certain circumstances.

During the first quarter of 2019, members of the Company's management team were granted stock options to purchase an aggregate of 1,105,440 shares of Common Stock with an exercise price of $0.98 per share and 276,360 RSUs, subject generally to such member's continued service with the Company, which vest one-third each year over a period of three years.

(Tabular information in thousands, except per share amounts)

The following table provides the weighted average assumptions used in determining the fair value of the stock option awards granted during the nine month periods ended September 30, 2019 and 2018.

	Nine Months Ended	
	September 30, 2019	September 30, 2018
	(unaudited)	
Risk-free interest rate	2.51%	2.65%
Expected life	6.0 years	6.0 years
Expected volatility	127.81%	126.93%
Dividend yield	-	-

The Company recognized approximately $0.3 million and $0.4 million of stock-based compensation expense during the three-month periods ended September 30, 2019 and 2018, respectively, and approximately $1.2 million and $1.6 million for the nine-month periods ended September 30, 2019 and 2018, respectively.

11. INCOME TAXES

Generally, accounting standards require companies to provide for income taxes each quarter based on their estimate of the effective tax rate for the full year. The authoritative guidance for accounting for income taxes allows use of the discrete method when it provides a better estimate of income tax expense. Due to the Company's valuation allowance position, it is the Company's position that the discrete method provides a more accurate estimate of income tax expense and therefore income tax expense for the current quarter has been presented using the discrete method. As the year progresses, the Company refines its estimate based on the facts and circumstances by each tax jurisdiction. The following table summarizes income tax expense on (loss) income from continuing operations and the effective tax rate for the three- and nine-month periods ended September 30, 2019 and 2018:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Provision for income tax	$ 9	$ 7	$ 19	$ 21
Effective income tax rate	0.1%	0.2%	0.1%	0.3%

Income tax expense for the three- and nine-month periods ended September 30, 2019 and 2018 was primarily due to minimum state and local taxes.

12. SEGMENT INFORMATION

We view our operations and manage our business in one operating segment, which is the business of developing and selling diagnostic tests and biopharma services. The Company's reporting segment structure is currently reflective of the way both the Company's management and chief operating decision maker view the business, make operating decisions and assess performance. This structure allows investors to better understand Company performance, better assess prospects for future cash flows, and make more informed decisions about the Company.

(Tabular information in thousands, except per share amounts)

13. DISCONTINUED OPERATIONS

The components of liabilities classified as discontinued operations relate to Commercial Services and consist of the following as of September 30, 2019 and December 31, 2018:

	September 30, 2019	December 31, 2018
	(unaudited)	
Accounts payable	$ 69	$ 192
Other	697	726
Current liabilities from discontinued operations	766	918
Total liabilities	$ 766	$ 918

14. LINE OF CREDIT

On November 13, 2018 the Company, Interpace Diagnostics Corporation, and Interpace Diagnostics, LLC entered into a Loan and Security Agreement (the "SVB Loan Agreement") with Silicon Valley Bank ("SVB"), which provides for up to $4.0 million of debt financing consisting of a term loan of up to $850,000 and a revolving line of credit based on its outstanding accounts receivable (the "Revolving Line") of up to $4.0 million.

The amount that may be borrowed under the Revolving Line is the lower of (i) $4.0 million or (ii) 80% of the Company's eligible accounts receivable (as adjusted by SVB). Revolving Line outstanding amounts incur interest at a rate per annum equal to the Wall Street Journal Prime Rate plus 0.5%. The Company is also required to pay an unused Revolving Line facility fee monthly in arrears in an amount equal to 0.35% per annum of the average unused but available portion of the Revolving Line. The term loan portion of the SVB Loan Agreement has a maturity date of May 2, 2022, and the Revolving Line has a maturity date three years from the effective date, or November 13, 2021.

As of September 30, 2019, the Company has drawn $3.75 million of the available funds with the Revolving Line which is the maximum allowed and has no remaining availability as $250,000 of the Line of Credit is used to secure the issuance of a standby letter of credit by SVB. See also Note 19, Subsequent Events – Revolving line of credit.

15. SUPPLEMENTAL CASH FLOW INFORMATION

The following table represents cash flows used in the Company's discontinued operations for the nine months ended September 30, 2019 and 2018:

	Nine Months Ended September 30,	
	2019	**2018**
	(unaudited)	
Net cash used in operating activities of discontinued operations	$ (30)	$ (376)

Supplemental Disclosures of Non Cash Activities
(in thousands)

	Nine Months Ended September 30,	
	2019	2018
	(unaudited)	
Operating		
Adoption of ASC 606	$ -	$ 2,500
Prepaid stock grants issued to vendors	$ 72	$ 257
Adoption of ASC 842 - right of use asset	$ 2,449	$ -
Adoption of ASC 842 - operating lease liability	$ 2,536	$ -
Investing		
Acquisition of property and equipment	$ -	$ 12
Excess consideration note	$ 6,822	$ -

16. EQUITY

Public Offering

On January 25, 2019, the Company entered into an underwriting agreement (the "Underwriting Agreement") with H.C. Wainwright & Co., LLC ("Wainwright") with respect to the issuance and sale of an aggregate of 9,333,334 shares (the "Firm Shares") of the Company's Common Stock in an underwritten public offering. Pursuant to the Underwriting Agreement, the Company also granted Wainwright an option, exercisable for 30 days, to purchase an additional 1,400,000 shares of Common Stock. The option expired unexercised. The Firm Shares were offered to the public at a price of $0.75 per Share. Wainwright purchased the Firm Shares from the Company pursuant to the Underwriting Agreement at an effective price of $0.6975 per share.

The Company received net proceeds, after deducting underwriter discounts and commissions and other expenses related to the offering, in the amount of approximately $6.0 million. The Company used the net proceeds from the offering for working capital, capital expenditures, business development and research and development expenditures, and the acquisition (in part) of the BioPharma business.

Preferred Stock Issuance

The Company entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") on July 15, 2019 with Ampersand 2018 Limited Partnership (the "Investor"), a fund managed by Ampersand Capital Partners, providing for the issuance and sale to the Investor of up to an aggregate of $27,000,000 in convertible preferred stock, par value $0.01 per share, of the Company consisting of two series, Series A ("Series A") and Series A-1 ("Series A-1" and together with the Series A, the "Preferred Stock"), both at an issuance price per share of $100,000 (the "Stated Value"), to be funded at up to two different closings (the "Investment").

The initial closing, which was consummated promptly after the execution of the Securities Purchase Agreement, involved the issuance of 60 newly created shares of Series A at an aggregate purchase price of $6,000,000, and 80 newly created shares of Series A-1 at an aggregate purchase price of $8,000,000, for net proceeds of approximately $13.1 million.

The Securities Purchase Agreement contemplated a second closing (the "Second Closing"), which would only be effected following the fulfillment to the Investor's satisfaction of customary conditions, including, among others, the approval by the stockholders of the Company, as required under the rules of the Nasdaq Stock Market LLC (the "Nasdaq Listing Rules"), of the issuance of shares of Common Stock upon conversion of the Preferred Stock (the "Conversion Issuances") in excess of the aggregate number of shares of Common Stock that the Company may issue upon conversion of the Preferred Stock without breaching its obligations under the Nasdaq Listing Rules (the "Stockholder Approval"). The terms of the Series A-1 provided that each share of Series A-1 would automatically convert into one share of Series A upon the Company obtaining the Stockholder Approval. See *Note 19, Subsequent Events*, for additional information.

ATM program

On September 20, 2019, the Company entered into an Equity Distribution Agreement (the "Agreement") with Oppenheimer & Co. Inc., as sales agent (the "Agent"), pursuant to which the Company may, from time to time, issue and sell shares of its Common Stock, at an aggregate offering price of up to $4.8 million (the "Shares") through the Agent. Under the terms of the Agreement, the Agent may sell the Shares at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act, as amended.

Subject to the terms and conditions of the Agreement, the Agent will use its commercially reasonable efforts to sell the Shares from time to time, based upon the Company's instructions. The Company has no obligation to sell any of the Shares, and may at any time suspend sales under the Agreement or terminate the Agreement in accordance with its terms. The Company has provided the Agent with customary indemnification rights, and the Agent will be entitled to a fixed commission of 3.0% of the aggregate gross proceeds from the Shares sold. The Agreement contains customary representations and warranties, and the Company is required to deliver customary closing documents and certificates in connection with sales of the Shares. To date, no shares have been sold under this agreement.

(Tabular information in thousands, except per share amounts)

17. WARRANTS

In connection with the Wainwright underwritten public offering, the Company issued to Wainwright's designees warrants (the "Underwriter Warrants") to purchase up to 654,334 shares of Common Stock (representing 7% of the aggregate number of Firm Shares), at an exercise price of $0.9375 per share (representing 125% of the public offering price). The Underwriter Warrants are exercisable immediately and expire three years from the date of issuance.

There was no warrant exercise activity for the nine months ended September 30, 2019. Warrants outstanding for the period ended September 30, 2019 are as follows:

Description	Classification	Exercise Price	Expiration Date	Warrants Issued	Warrants Exercised	Warrants Cancelled/ Expired	Balance December 31, 2018	Balance September 30, 2019
Private Placement Warrants, issued January 25, 2017	Equity	$ 4.69	June 2022	855,000	-	-	855,000	855,000
RedPath Warrants,issued March 22, 2017	Equity	$ 4.69	September 2022	100,000	-	-	100,000	100,000
Underwriters Warrants,issued June 21, 2017	Liability	$ 1.32	December 2022	575,000	-	(40,000)	535,000	535,000
Base & Overallotment Warrants,issued June 21, 2017	Equity	$ 1.25	June 2022	14,375,000	(5,672,852)	-	8,702,148	8,702,148
Vendor Warrants,issued August 6, 2017	Equity	$ 1.25	August 2020	150,000	-	-	150,000	150,000
Warrants issued October 12, 2017	Equity	$ 1.80	April 2022	3,200,000	-	-	3,200,000	3,200,000
Underwriters Warrants,issued January 25, 2019	Equity	$ 0.9375	January 2022	654,334	-	-	-	654,334
				19,909,334	(5,672,852)	(40,000)	13,542,148	14,196,482

18. RECENT ACCOUNTING PRONOUNCEMENTS

Recently adopted standards

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which is effective for public companies for annual reporting periods beginning after December 15, 2018, including interim periods within those fiscal years. Topic 842 establishes a right-of-use model that requires a lessee to record a right-of-use asset and a lease liability, measured on a discounted basis, on the balance sheet for all leases with terms longer than 12 months. Leases are to be classified as either finance or operating leases, with such classification affecting the pattern or expense recognition in the statement of operations. We adopted this new standard as of January 1, 2019, by using the alternative modified transition method. See Note 3, *Significant Accounting Policies*, for more details.

Standards not yet effective

In January 2017, the FASB issued ASU 2017-04, Intangibles - Goodwill and Other (Topic 350): *Simplifying the Accounting for Goodwill Impairment*, which removes the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. Early adoption is permitted and applied prospectively. Management is evaluating ASU 2017-04 to determine the impact on the consolidated financial statements.

19. SUBSEQUENT EVENTS

Additional financing received

Stockholder Approval was obtained on October 10, 2019 for the Securities Purchase Agreement (discussed in *Note 16, Equity*) and each share of Series A-1 issued to the Investor at the initial closing automatically converted into one share of Series A on that day (the "Conversion").

On October 16, 2019, the Company and the Investor consummated the Second Closing. At the Second Closing, the Company issued to the Investor 130 newly created shares of Series A at an aggregate gross purchase price of $13,000,000. The Company used the proceeds from the Second Closing to make the maturity date payment, subject to certain holdbacks, with respect to the promissory note issued by a subsidiary of the Company to Cancer Genetics, Inc., and expects to use the remaining proceeds for general corporate purposes, including the integration of the Biopharma services business. The Company issued the aforementioned note in connection with the acquisition of its BioPharma services business.

The Series A was offered and sold pursuant to an exemption from registration under Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act") and Rule 506 of Regulation D promulgated thereunder. The shares to be issued upon conversion of the Series A have not been registered under the Securities Act and may not be offered or sold in the United States in the absence of an effective registration statement or exemption from the registration requirements.

Revolving line of credit

Using the proceeds received from the Second Closing described above, the Company paid off the line of credit balance of $3.75 million that was outstanding as of September 30, 2019 in October 2019.

Excess consideration note

As part of the purchase of the BioPharma business from CGI and the consideration given for the purchased assets, $7,692,300 was in the form of a subordinated seller note (the "**Excess Consideration Note**"), issued by a subsidiary of the Company to CGI. The payment of the note due in October 2019 was subject to certain adjustments to the purchase price as described in *Note 2, Acquisition*.

In October 2019, the excess consideration note balance was paid to CGI amounting to $6,024,489 million which included the following adjustments: an indemnification holdback of $735,000 (less paid indemnity claims) due to be released to CGI in January 2020, less the remaining accounts receivable holdback of $152,858 also due to be released by January 2020, less the final post-closing net-worth adjustment of $775,000, less repayment of certain advances made by the Company on behalf of the BioPharma business to CGI regarding certain pre-closing liabilities totaling $317,628, plus $289,000 of unbilled accounts receivable as of July 15, 2019 that were not included in the original financial schedules, plus unpaid and accrued interest under the excess consideration note of $23,674.

The indemnification and accounts receivable holdbacks were deposited into separate escrow accounts until released or settled which is due by December 31, 2019.

Nasdaq notification

On October 15, 2019, the Company received notice from Nasdaq indicating that, while the Company has not regained compliance with the minimum bid price requirement, the staff of Nasdaq (the "Staff") has determined that the Company is eligible for an additional 180-day period, or until April 13, 2020, to regain compliance. The Staff's determination was based on (i) the Company meeting the continued listing requirement for market value of its publicly held shares and all other applicable initial listing standards for the Nasdaq Capital Market, with the exception of the bid price requirement, and (ii) the Company providing written notice to Nasdaq of its intent to cure the deficiency during this second compliance period by effecting a reverse stock split, if necessary. If at any time during this second, 180-day period the closing bid price of the Company's Common Stock is at least $1.00 per share for at least a minimum of 10 consecutive business days, the Staff will provide written confirmation of compliance. If compliance cannot be demonstrated by April 13, 2020, Nasdaq will provide written notification to the Company that its Common Stock will be subject to delisting. At that time, the Company may appeal the delisting determination to a Nasdaq hearings panel. There can be no assurance that the Company will regain compliance with the Rule or maintain compliance with other Nasdaq continued listing requirements.

Reverse Stock Split

On November 14, 2019, the Company filed a definitive proxy statement on Schedule 14A for a special meeting of stockholders to be held on December 13, 2019 to approve an amendment to the Company's certificate of incorporation to effect a reverse stock split of common stock, at a ratio in the range from one-for-five to one-for-fifteen, with such specific ratio to be determined by the Company's board of directors following the special meeting. The Company is not obligated to effect the reverse stock split.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

FORWARD-LOOKING STATEMENTS

This quarterly report on Form 10-Q (Form 10-Q) contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Statements that are not historical facts, including statements about our plans, objectives, beliefs and expectations, are forward-looking statements. Forward-looking statements include statements preceded by, followed by or that include the words "believes," "expects," "anticipates," "plans," "estimates," "intends," "projects," "should," "could," "may," "will" or similar words and expressions. These forward-looking statements are contained throughout this Form 10-Q.

Forward-looking statements are only predictions and are not guarantees of future performance. These statements are based on current expectations and assumptions involving judgments about, among other things, future economic, competitive and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond our control. These predictions are also affected by known and unknown risks, uncertainties and other factors that may cause our actual results to be materially different from those expressed or implied by any forward-looking statement. Many of these factors are beyond our ability to control or predict. Our actual results could differ materially from the results contemplated by these forward-looking statements due to a number of factors. Such factors include, but are not limited to, the following:

- our stock price is volatile and could be further affected by events not within our control, and an investment in our common stock could suffer a decline in value;
- dilution as a result of future equity issuances;
- stockholders must rely on appreciation of the value of our common stock for any return on their investment because we do not intend to declare cash dividends on our shares of common stock in the foreseeable future;
- the limited revenue generated from our business thus far and our ability to commercially leverage our bioinformatics data and develop our pipeline products;
- whether we are able to successfully utilize our commercial and operating experience to sell our molecular diagnostic tests;
- our dependence on a concentrated selection of third-party payers including the lack of timeliness of their payments, payer volatility and subjective decision making as well as the impact of reporting subsequent accounts receivable adjustments related to our diagnostics business as a reduction in current periods revenues;
- our ability to obtain broad adoption of and ability to grow or continue to secure sufficient levels of reimbursement in a changing reimbursement environment, including obtaining clinical data to support sufficient levels of reimbursement;
- the demand for our molecular diagnostic tests from physicians and patients;
- our products continuing to perform as expected;
- our obligations to make royalty and milestone payments to our licensors;
- our inability to finance our business on acceptable terms in the future may limit our ability to develop and commercialize new molecular diagnostic solutions and technologies and grow our business;

- our ability to comply with financial covenants under our current line of credit facility and comply with our debt obligations;
- our limited operating history;
- our ability to attract and retain qualified commercial representatives and other key employees and management personnel;
- our relationships with leading thought leaders and biopharmaceutical companies;
- our ability to continue to meet the high compliance standards necessary to do business with biopharmaceutical companies
- our ability to expand our international footprint with consistency of service to be able to meet our biopharmaceutical customers' demands
- demonstration of clinical relevance and value in utility studies;
- our ability to continue to expand our sales and marketing forces;
- our reliance on our commercial sales forces for continued business expansion;
- fluctuating quarterly operating results;
- our dependence on third parties for the supply of some of the materials used in our tests;
- our ability to scale our operations, testing capacity and processing technology;
- our ability to support demand for our molecular diagnostic tests and any of our future tests or solutions;
- our ability to compete successfully with physicians and members of the medical community who use traditional methods to diagnose gastrointestinal and endocrine cancers, competitors offering broader product lines outside of the molecular diagnostic testing market and having greater brand recognition than we do, and companies with greater financial resources;
- our ability to obtain sufficient data and samples to cost effectively and timely perform sufficient clinical trials in order to support our current and future products;
- our ability to license rights to use technologies in order to commercialize new products;
- our involvement in current and future litigation against us or our ability to collect on judgements found in our favor;
- our ability to continuously develop our technology and to work to develop new solutions to keep pace with evolving standards of care;
- our ability to enter into additional clinical study collaborations with highly regarded institutions;

- the effect of seasonal results and adverse weather conditions, such as hurricanes and floods, on our business;
- our ability to increase or maintain sales of the tests and services in our Biopharma business or to successfully develop and commercialize other proprietary tests and services in our Biopharma business;
- whether pharmaceutical, biotech companies and clinical research organizations decide to use our Biopharma business tests and services;
- our ability to perform our Biopharma business services in accordance with contractual and regulatory requirements, and ethical considerations;
- the effect current and future laws, licensing requirements and regulation have on our business including the changing U.S. Food and Drug Administration environment as it relates to molecular diagnostics and biopharma services;
- our ability to obtain and maintain sufficient laboratory space to meet our processing needs as well as our ability to pass regulatory inspections and continue to be Clinical Laboratory Improvement Amendments ("**CLIA**") and the College of American Pathologists ("**CAP**") certified or accredited;
- legislative reform of the U.S. healthcare system, including the effect of pricing provisions of the Protecting Access to Medicare Act of 2014 on our Advanced Diagnostic Laboratory Tests, adjustments or reductions in reimbursement rates of our molecular diagnostic tests by the Centers for Medicare and Medicaid Services and changes or reductions in reimbursement rates or coverage of our tests by third party payers;
- compliance with numerous statutes and regulations pertaining to our business;
- the effect of The Eliminating Kickbacks in Recovery Act of 2018 as it potentially impacts our ability to incentivize our sales personnel appropriately;
- the effect of potential adverse findings resulting from regulatory audits of our billing and payment practices and the impact such results could have on our business;
- business, regulatory, political, operational, financial, and economic risks associated with doing business outside of the United States, including our ability to comply with international laws and regulations;
- compliance with the U.S. Foreign Corrupt Practices Act and anti-bribery laws;
- our ability to use our net operating loss carryforwards;
- tax reform legislation;
- changes in financial accounting standards or practices;
- our use of hazardous materials;
- the susceptibility of our information systems to security breaches, loss of data and other disruptions;
- product liability claims against us;
- our billing practices and our ability to collect on claims for the sale of our tests;
- our dependence on third-party medical billing providers to operate effectively without delays, data loss, or other disruptions;
- cost increases resulting from enacted healthcare reform legislation;
- changes in governmental regulations mandating price controls and limitations on patient access to our products;

- our ability to increase revenue and manage the size of our operations;
- our ability to successfully identify, complete and integrate recent and any future acquisitions of companies, assets and/or products that we believe meet our strategic goals and needs, and the effects of any such acquisitions on our revenues, profitability and ongoing business;
- the impact of contingent liabilities on our financial condition;
- our ability, and the ability of our third-party billing providers, to effectively maintain, upgrade and integrate the information systems on which we depend, including our partially customized Laboratory Information Management System;
- the results of any future impairment testing for intangible assets as required under U.S. generally accepted accounting principles ("**GAAP**");
- our compliance with our license agreements and our ability to protect and defend our intellectual property rights;
- changes in U.S. patent law;
- patent infringement claims against us;
- our ability to maintain our listing with Nasdaq;
- compliance with public company reporting requirements;
- our ability to maintain and implement effective internal controls over financial reporting;
- the impact of future issuances of debt, common and preferred shares on stockholders' interest and stock price;
- we have issued convertible preferred stock and may issue additional convertible preferred stock in the future, and the terms of our preferred stock may dilute our common stock;
- our ability to report financial results on a timely and accurate basis;
- the impact of anti-takeover defenses on an acquisition or stock price;
- fluctuations in our quarterly and annual revenues and earnings;
- securities class action litigation;
- cost of settlement or damage awards against our directors and officers;
- preferential rights of the holders of our Preferred Stock that may be adverse to holders of our common stock;
- our ability to successfully execute under the transition services agreement with Cancer Genetics, Inc. ("**CGI**");

- our ability to realize all of the anticipated benefits of the acquisition of the Biopharma business or those benefits taking longer to realize than expected;
- our ability to retain customers and critical vendors to our Biopharma business;
- our ability to integrate the Biopharma business acquired;
- our ability to integrate accounting systems and disclosure controls and procedures of the Biopharma business;
- our ability to expand and grow our newly acquired Biopharma business;
- our ability to effectively separate the Biopharma business from CGI's former clinical business;
- our ability to continue to engage necessary personnel to operate the Biopharma business;
- our ability to manage costs of our combined diagnostic business and the Biopharma business and provide sufficient capital to continue to grow and expand the base of business;
- the limited financial information on which to evaluate the financial prospects for the combined company; and
- our ability to expand our working capital borrowing base to provide sufficient working capital financing during growth periods.

Please see Part I – Item 1A – "Risk Factors" in our Form 10-K, as well as other documents we file with the SEC from time-to-time, including our Current Report on Form 8-K/A filed on September 20, 2019, for other important factors that could cause our actual results to differ materially from our current expectations as expressed in the forward-looking statements discussed in this Form 10-Q. Because of these and other risks, uncertainties and assumptions, you should not place undue reliance on these forward-looking statements. In addition, these statements speak only as of the date of the report in which they are set forth and, except as may be required by law, we undertake no obligation to revise or update publicly any forward-looking statements for any reason.

OVERVIEW

The Company is a leader in enabling personalized medicine, offering specialized services along the therapeutic value chain from early diagnosis and prognostic planning to targeted therapeutic applications. The Company's primary source of revenue is generated from the performance of its proprietary molecular diagnostic tests for its clinical customers (Interpace Diagnostics) and its DNA-based pharma testing services in support of clinical trials for its BioPharma customers (Interpace Pharma Solutions). We are leveraging our licensed and accredited laboratories in Pittsburgh, PA, Rutherford, NJ, Raleigh, North Carolina and New Haven, CT all CLIA and CAP Certified to develop and commercialize our assays and products. and lung cancers. Our customers consist primarily of physicians, hospitals, clinics, biotechnology and pharmaceutical companies as well as major Contract Research Organizations and specialty contractors.

Diagnostics (Interpace Diagnostics)

Our Diagnostics business is a fully integrated commercial and bioinformatics business unit that provides clinically useful molecular diagnostic tests, bioinformatics and pathology services for evaluating risk of cancer by leveraging the latest technology in personalized medicine for improved patient diagnosis and management. The genomic tests that we develop and commercialize as well as related first line assays are principally focused on early detection of patients with indeterminate biopsies and at high risk of cancer. Our tests and services provide mutational analysis of genomic material contained in these "suspicious" cysts, nodules and lesions with the goal of better informing treatment decisions in patients at risk of thyroid, pancreatic, and other cancers and in many cases avoiding unnecessary surgical treatment in patients at low risk.

We have four commercialized molecular diagnostic tests in the marketplace for which we are receiving reimbursement: PancraGEN®, which is a pancreatic cyst and pancreaticobiliary solid lesion genomic test that helps physicians better assess risk of pancreaticobiliary cancers using our proprietary PathFinderTG® platform; ThyGeNEXT®, which is an expanded oncogenic mutation panel that helps identify potentially malignant thyroid nodules, ThyraMIR®, which assesses thyroid nodules for risk of malignancy utilizing a proprietary microRNA gene expression assay. ThyGeNEXT® and ThyraMIR® are typically used in conjunction; and RespriDx®, which is a genomic test that helps physicians differentiate metastatic or recurrent lung cancer from the presence of newly formed primary lung cancer and which also utilizes our PathFinderTG® platform to compare the genomic fingerprint of two or more sites of lung cancer.

BarreGEN®, is our esophageal cancer risk classifier for Barrett's Esophagus that also utilizes our PathFinder TG® platform and is currently in a Clinical Evaluation Program or ("CEP") whereby we gather information from physicians using BarreGEN® to assist us in positioning our product for full launch, partnering and potentially supporting improved reimbursement with payers.

We currently process diagnostic samples in our laboratory facilities in Pittsburgh, Pennsylvania and New Haven, Connecticut. The New Haven facility is also a center for new product development. Our laboratories are licensed pursuant to federal law under CLIA and are accredited by CAP and New York State. In August 2018, we acquired a majority of the Philadelphia laboratory equipment of Rosetta Genomics Ltd., a molecular diagnostics company, in order to further support our CLIA and CAP certified lab expansion in our New Haven, Connecticut and Pittsburgh, Pennsylvania laboratories. Our customers consist primarily of physicians, hospitals, and clinics.

BioPharma (Interpace Pharma Solutions)

Our recently acquired BioPharma business (now called Interpace Pharma Solutions, Inc.) provides pharmacogenomics testing, genotyping, biorepository and other customized services to the pharmaceutical and biotechnology industries and advances personalized medicine by partnering with pharmaceutical, academic, and technology leaders to effectively integrate pharmacogenomics into their drug development and clinical trial programs with the goals of delivering safer, more effective drugs to market more quickly, and improving patient care. Our laboratories in Raleigh, NC and Rutherford, NJ are licensed pursuant to federal law under CLIA and are accredited by CAP. Our customers consist mostly of biotechnology and pharmaceutical companies as well as major Contract Research Organizations and specialty contractors.

Additional Reimbursement Coverage During 2019

Reimbursement progress is key for any molecular diagnostic company. We have been successful to date in expanding the reimbursement of our products in 2019. Specifically, the most significant progress we have made regarding payers to date in 2019 is as follows:

- In January 2019, we announced that we had entered into an Agreement with the University of Maryland Medical System ("UMMS") to provide physicians' access to ThyGeNEXT®, ThyraMIR®, and PancraGEN® across the UMMS network, which includes 4,000 affiliated physicians who provide primary and specialty care in more than 150 locations and at 14 hospitals.
- In April 2019, we announced that Medica, one of the largest health plans in the Midwest, extended coverage of both ThyGeNEXT® and ThyraMIR® to its 1.3 million covered lives. Physicians across Medica's entire network will now be able to utilize Interpace's thyroid products.
- In April 2019, we announced that we had received approval to launch ThyraMIR® diagnostic testing on formalin-fixed, paraffin-embedded ("FFPE") tissue samples from thyroid nodules from the State of New York.

- In June 2019, we announced that our ThyGeNEXT® and ThyraMIR® tests are now covered by Independence Blue Cross ("Independence"), providing plan benefits coverage for its members who meet established medical criteria for the tests. Independence covers nearly 2.5 million members in Philadelphia and Southeastern Pennsylvania.
- In July 2019, we announced that we reached an agreement with SelectHealth (a plan associated with Intermountain Healthcare) ("SelectHealth") to provide our proprietary thyroid cancer assays, ThyGeNEXT® and ThyraMIR®, to SelectHealth's more than 850,000 members in Utah and Idaho.
- In July 2019, we announced we had entered into a contract with Blue Shield of California, a not-for-profit independent member of the Blue Cross Blue Shield Association making ThyGeNEXT® and ThyraMIR® tests in-network services for their 4 million lives.
- In July 2019, we announced that we contracted with Blue Cross Blue Shield of Michigan, a not-for-profit independent member of the Blue Cross Blue Shield Association, for coverage of our thyroid tests. The contract makes the ThyGeNEXT® and ThyraMIR® tests both covered services as well as in-network services for their total of 6 million members.
- In September 2019, we announced that we contracted with 3 independent Blue Cross Blue Shield (BCBS) plans totaling nearly 5 million covered lives across Alabama, Arkansas, and Arizona. These members of the BCBS Association are the largest payers in their respective states and each affiliate's customers now have access to both the ThyGeNEXT® and ThyraMIR® tests for assessing indeterminate thyroid biopsies on an in-network basis.

DESCRIPTION OF REPORTING SEGMENTS

Since December 22, 2015, the Company has reported its operations as one segment, molecular diagnostics and bioinformatics. On July 15, 2019 the Company acquired the BioPharma business of Cancer Genetics, Inc. and still operates under one segment which is the business of developing and selling diagnostic tests and biopharma services. The Company's reporting segment structure is currently reflective of the way both the Company's management and chief operating decision maker view the business, make operating decisions and assess performance. Further, this structure allows investors to understand Company performance, assess prospects for the future, evaluate cash flows, and make informed decisions about the Company.

Revenue

The Company's primary source of revenue is generated from the performance of its proprietary molecular diagnostic tests for its clinical customers and its DNA-based testing services in support of clinical trials for its BioPharma customers. The Company's performance obligation is fulfilled upon completion, review and release of test results and subsequent billing to the third-party payer, hospital or contracting customer.

Clinical (Interpace Diagnostics) Performance Obligations and Revenue Recognition

Under ASC 606, the Company recognizes revenue for billings less contractual allowances and estimated uncollectable amounts for all third party payer groups on the accrual basis based upon a thorough analysis of historical receipts. The net amount derived and used for revenue recognition is referred to as the NRV for the particular test and payer group from which reimbursement is received. This derived NRV is evaluated quarterly or as needed and then applied to future periods until recalculated.

BioPharma (Interpace Pharma Solutions) Performance Obligations and Revenue Recognitions

With the acquisition of our BioPharma business, which consists of customized solutions for patient stratification and treatment selection through an extensive suite of DNA-based testing services. The services are billed to pharmaceutical and biotechnology companies.

Performance obligations are satisfied at a point in time as the Company processes samples delivered by the customer. Project level activities, including study setup and project management, are satisfied over the life of the contract. Revenues are recognized at a point in time when the test results or other deliverables are reported to the customer. Project level fee revenue is recognized ratably over the life of the contract.

Deferred revenue from BioPharma contracts is recorded at fair value and represents payments received in advance of services rendered.

Cost of Revenue

Cost of Revenue for services consists primarily of the costs associated with operating our laboratories and other costs directly related to our tests. Personnel costs, which constitute the largest portion of cost of services, include all labor related costs, such as salaries, bonuses, fringe benefits and payroll taxes for laboratory personnel. Other direct costs include, but are not limited to, laboratory supplies, certain consulting expenses, and facility expenses.

Other Matters

The acquisition of the net assets of the BioPharma business and the acquisition funding provided by Ampersand Capital Partners were important milestones for the Company during the quarter. Subsequent to September 30th, we closed on the $13 million second tranche acquisition financing, settled the Net Worth Adjustment obligations with Cancer Genetics, and provided additional working capital. Our primary diagnostic assays volume grew to 16% for the quarter and 22% year to date over the prior year. We did have an adjustment of approximately $1.8 million to reduce our estimate of amounts to be collected related principally to the transition to a new billing contractor and we have taken corrective action steps to resolve. It should be further noted that, in accordance with ASC 606 implemented in 2018 this adjustment did directly reduce revenues for the quarter and year to date.

CONDENSED CONSOLIDATED RESULTS OF OPERATIONS

The following table sets forth, for the periods indicated, certain statements of operations data. The trends illustrated in this table may not be indicative of future results.

Condensed Consolidated Results of Continuing Operations for the Quarter Ended September 30, 2019 Compared to the Quarter Ended September 30, 2018 (in thousands)

	Three Months Ended September 30,			
	2019	2019	2018	2018
Revenue, net	$ 7,725	100.0%	$ 5,753	100.0%
Cost of revenue	4,835	62.6%	2,763	48.0%
Gross profit	2,890	37.4%	2,990	52.0%
Operating expenses:				
Sales and marketing	2,757	35.7%	2,048	35.6%
Research and development	857	11.1%	510	8.9%
General and administrative	4,492	58.1%	2,084	36.2%
Acquisition related expense	838	10.8%	-	0.0%
Acquisition related amortization expense	995	12.9%	813	14.1%
Total operating expenses	9,939	128.7%	5,455	94.8%
Operating loss	(7,049)	-91.2%	(2,465)	-42.8%
Accretion expense	(111)	-1.4%	(248)	-4.3%
Other expense, net	(135)	-1.7%	(288)	-5.0%
Loss from continuing operations before tax	(7,295)	-94.4%	(3,001)	-52.2%
Provision for income taxes	9	0.1%	7	0.1%
Loss from continuing operations	(7,304)	-94.6%	(3,008)	-52.3%
Loss from discontinued operations, net of tax	(58)	-0.8%	(34)	-0.6%
Net loss	$ (7,362)	-95.3%	$ (3,042)	-52.9%

Revenue, net

Consolidated revenue, net for the three months ended September 30, 2019 increased by $2.0 million, or 34%, to $7.7 million, compared to $5.8 million for the three months ended September 30, 2018. This increase was principally attributable to our acquisition of the BioPharma business in the third quarter.

Cost of revenue

Consolidated cost of revenue for the three months ended September 30, 2019 was $4.8 million, as compared to $2.8 million for the three months ended September 30, 2018. As a percentage of revenue, cost of revenue increased to 63% for the three months ended September 30, 2019 as compared to 48% in the comparable same period in 2018. This increase as a percentage of revenue can be attributed to the lower margins associated with the BioPharma business.

Gross profit

Consolidated gross profit was approximately $2.9 million for the three months ended September 30, 2019 and $3.0 million for the three months ended September 30, 2018. The gross profit percentage decreased from 52% in the third quarter of 2018 to 37% for the third quarter of 2019. This decrease can be attributed to the lower margins associated with BioPharma business mentioned above and the reduction in the estimate of amounts to be collected resulting from our transition to a new billing and collections contractor.

Sales and marketing expense

Sales and marketing expense was $2.8 million for the three months ended September 30, 2019, or 36% as a percentage of net revenue. For the three months ended September 30, 2018, sales and marketing expense was $2.0 million, or 36% as a percentage of net revenue. The increase in sales and marketing expense primarily reflects an increase in employee and consulting costs of $0.3 million, as we have expanded the size of our salesforce and increased our contracting and marketing activities which are supporting our growth, and the addition of sales, and marketing costs associated with the BioPharma business.

Research and development

Research and development expense was $0.9 million for the three months ended September 30, 2019 and $0.5 million for the three months ended September 30, 2018. The increase was primarily attributable to costs associated with the acquired BioPharma business. As a percentage of revenue, research and development expense increased to 11%, up from 9% in the comparable prior year quarter.

General and administrative

General and administrative expense for the three months ended September 30, 2019 was $4.5 million as compared to $2.1 million for the three months ended September 30, 2018. The increase was primarily attributable to costs associated with the acquired BioPharma business.

Acquisition related expense

During the three months ended September 30, 2019 we incurred approximately $0.8 million in expenses related to our acquisition of the BioPharma Business on July 15, 2019.

Acquisition related amortization expense

During the three months ended September 30, 2019 and September 30, 2018, we recorded amortization expense of $1.0 million and $0.8 million, respectively in both periods which is related to intangible assets associated with prior acquisitions. The increase is related to our acquisition of the BioPharma Business mentioned above and the associated intangible assets.

Operating loss

Operating loss from continuing operations was $(7.0) million for the three months ended September 30, 2019 as compared to $(2.5) million for the three months ended September 30, 2018. The increase can be attributed to the increase in general and administrative and sales and marketing expense discussed above as well as the $0.8 million in acquisition related expenses incurred in the quarter.

Provision for income taxes

Income tax expense was approximately $9,000 for the three months ended September 30, 2019 and $7,000 for the three months ended September 30, 2018. Income tax expense for both periods was primarily driven by minimum state and local taxes.

Loss from discontinued operations, net of tax

We had a loss from discontinued operations of $(0.06) million for the three months ended September 30, 2019 and a loss from discontinued operations of $(0.03) million for the three months ended September 30, 2018.

Condensed Consolidated Results of Continuing Operations for the Nine Months Ended September 30, 2019 Compared to the Nine Months Ended September 30, 2018 (in thousands)

	Nine Months Ended September 30,			
	2019	2019	2018	2018
Revenue, net	$ 20,005	100.0%	$ 16,062	100.0%
Cost of revenue	10,489	52.4%	7,590	47.3%
Gross profit	9,516	47.6%	8,472	52.7%
Operating expenses:				
Sales and marketing	8,127	40.6%	6,135	38.2%
Research and development	2,032	10.2%	1,528	9.5%
General and administrative	9,790	48.9%	5,981	37.2%
Acquisition related expense	2,534	12.7%	-	0.0%
Acquisition related amortization expense	2,621	13.1%	2,439	15.2%
Total operating expenses	25,104	125.5%	16,083	100.1%
Operating loss	(15,588)	-77.9%	(7,611)	-47.4%
Accretion expense	(331)	-1.7%	(248)	-1.5%
Other expense, net	(12)	-0.1%	(143)	-0.9%
Loss from continuing operations before tax	(15,931)	-79.6%	(8,002)	-49.8%
Provision for income taxes	19	0.1%	21	0.1%
Loss from continuing operations	(15,950)	-79.7%	(8,023)	-50.0%
Loss from discontinued operations, net of tax	(51)	-0.3%	(129)	-0.8%
Net loss	$ (16,001)	-80.0%	$ (8,152)	-50.8%

Revenue, net

Consolidated revenue, net for the nine months ended September 30, 2019 increased by $3.9 million, or 25%, to $20.0 million, compared to $16.1 million for the nine months ended September 30, 2018. This increase was principally attributable to increased test volume in our diagnostic business and revenue from our newly acquired BioPharma business.

Cost of revenue

Consolidated cost of revenue for the nine months ended September 30, 2019 increased $2.9 million or 38%. This increase was in line with the increase in revenue discussed above related to increased test volume and the BioPharma business.

Gross profit

Consolidated gross profit for the nine months ended September 30, 2019 increased $1.0 million, or 12%, to $9.5 million, as compared to $8.5 million for the nine months ended September 30, 2018. The gross profit percentage was approximately 48% for the nine months ended September 30, 2019 as compared to 53% in the comparable prior year period. The decrease in gross profit percentage can be attributed to the lower margins associated with the BioPharma business and the reduction in the estimate of amounts to be collected resulting from our transition to a new billing and collections contractor.

Sales and marketing expense

Sales and marketing expense was $8.1 million for the nine months ended September 30, 2019, or 41% as a percentage of net revenue. For the nine months ended September 30, 2018, sales and marketing expense was $6.1 million, or 38% as a percentage of net revenue. The increase in sales and marketing expense primarily reflects an increase in employee and consulting costs of $1.3 million, as we expanded the size of our salesforce and have increased our contracting and marketing activities which are supporting our growth.

Research and development

Research and development expense totaled approximately $2.0 million for the nine months ended September 30, 2019 and $1.5 million for the nine months ended September 30, 2018.

General and administrative

General and administrative expense for the nine months ended September 30, 2019 was $9.8 million as compared to $6.0 million for the nine months ended September 30, 2018. This increase was primarily related to certain non-cash charges including bad debt expense from the ASC 606 conversion and the reversal of a contingent claim in the prior year as well as general and administrative costs associated with the BioPharma business discussed previously.

Acquisition related expense

During the nine months ended September 30, 2019 we incurred approximately $2.5 million in expenses related to our acquisition of the BioPharma business on July 15, 2019.

Acquisition related amortization expense

During the nine months ended September 30, 2019 and September 30, 2018, we recorded amortization expense of approximately $2.6 million and $2.4 million, respectively, which is related to intangible assets associated with prior acquisitions.

Operating loss

Operating loss from continuing operations was $(15.6) million for the nine months ended September 30, 2019 as compared to $(7.6) million for the nine months ended September 30, 2018. The increase can be attributed to the increase in general and administrative expense and sales and marketing expense discussed above as well as the $2.5 million in acquisition related expenses incurred during the nine months ended September 30, 2019.

Provision for income taxes

Income tax expense was approximately $19,000 for the nine months ended September 30, 2019 and $21,000 for the nine months ended September 30, 2018. Income tax expense for both periods was primarily driven by minimum state and local taxes.

Loss from discontinued operations, net of tax

We had a loss from discontinued operations of $(0.1) million for the nine months ended September 30, 2019 and a loss from discontinued operations of $(0.1) million for the nine months ended September 30, 2018.

LIQUIDITY AND CAPITAL RESOURCES

For the nine months ended September 30, 2019, we had an operating loss of $(15.6) million. As of September 30, 2019, we had cash and cash equivalents of $2.4 million, net accounts receivable of $14.7 million, total current assets of $20.6 million and current liabilities of $17.3 million.

During the nine months ended September 30, 2019, net cash used in operating activities was $12.6 million, all but $0.03 million of which was used in continuing operations. The main component of cash used in operating activities during the nine months ended September 30, 2019 was the net loss of $(16.0) million. During the nine months ended September 30, 2018, net cash used in operating activities was $6.8 million, of which $6.4 million was used in continuing operations and $0.4 million was used in discontinued operations. The main component of cash used in operating activities during the nine months ended September 30, 2018 was the net loss of $8.2 million.

For the nine months ended September 30, 2019, there was cash used in investing activities of $13.9 million, $13.8 million of which was used in our acquisition of the BioPharma business.

For the nine months ended September 30, 2019, there was cash provided from financing activities of $22.8 million, $6.0 million which resulted from the issuance of Common Stock in our underwritten public offering completed in January 2019, $13.1 million which resulted from the issuance of Preferred Stock in July 2019, and $3.7 million from the drawing down of funds under our revolving line of credit.

Additionally, on September 20, 2019, the Company entered into the Equity Distribution Agreement (the "Agreement") with Oppenheimer & Co. Inc., as sales agent (the "Agent"), pursuant to which the Company may, from time to time, issue and sell shares of its common stock in an aggregate offering price of up to $4.8 million through the Agent. Under the terms of the Agreement, the Agent may sell the Shares at market prices by any method that is deemed to be an "at the market offering", i.e., ATM, as defined in Rule 415 under the Securities Act, as amended.

Further, under the terms of the Financing Agreement with Ampersand, and as a result of the stockholder approval required by the Nasdaq Listing Rules and the satisfaction of customary conditions, the second tranche of funding of approximately $13.0 million of Preferred Stock was received in October 2019.

As of September 30, 2019, the Company had drawn $3.75 million of the $4.0 million of available funds under its Revolving Line with SVB. The funds drawn were used principally in conjunction with the acquisition of the BioPharma business of CGI and have been paid off as of the report date.

We do not expect to generate positive cash flows from operations for the year ending December 31, 2019. We intend to meet our ongoing capital needs by using proceeds under the Securities Purchase Agreement, additional borrowings under the line of credit resulting from the additional accounts receivable acquired in the BioPharma acquisition, selling shares under the Agreement, revenue growth and margin improvement, collecting accounts receivable, containing costs as well as exploring other financing options. Management believes that the Company has sufficient cash on hand and available to sustain operations through at least November 30, 2020. However, there is no guarantee that additional capital can be raised to fund our future operations.

Inflation

We do not believe that inflation had a significant impact on our results of operations for the periods presented. On an ongoing basis, we attempt to minimize any effects of inflation on our operating results by controlling operating costs and whenever possible, seeking to insure that billing rates reflect increases in costs due to inflation.

Off-Balance Sheet Arrangements

None.

Item 3. — Quantitative and Qualitative Disclosures About Market Risk.

As a smaller reporting company, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information requested by this Item.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Exchange Act as of the end of the period covered by this Form 10-Q. In designing and evaluating the disclosure controls and procedures, 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 including that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In addition, management is required to apply its judgment in evaluating the benefits of possible disclosure controls and procedures relative to their costs to implement and maintain.

Based on the evaluation of the Company's disclosure controls and procedures, as that term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended, the Chief Executive Officer of the Company and the Chief Financial Officer of the Company have concluded that the Company's disclosure controls and procedures are effective as of September 30, 2019.

Reference should be made to our Form 10-K for additional information regarding discussion of the effectiveness of the Company's controls and procedures.

Changes in internal controls

There has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

"Item 3- Legal Proceedings" and Note 10, *Commitments and Contingencies*, to the Consolidated Financial Statements of our Form 10-K, include a discussion of our legal proceedings, as does Note 8, *Commitments and Contingencies*, to the condensed consolidated financial statements furnished herewith. During the fiscal quarter ended September 30, 2019, there have been no material changes from the proceedings disclosed in our Form 10-K.

Item 1A. Risk Factors.

Not applicable as we are a smaller reporting company.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information.

None.

Item 6. Exhibits

Exhibit No.	Description
3.1**	Conformed version of Certificate of Incorporation of Interpace Biosciences, Inc., as amended by the Certificate of Amendment filed on November 14, 2019.
3.2	Amended and Restated Bylaws of Interpace Biosciences, Inc., incorporated by reference to the designated exhibit of the Company's Current Report on Form 8-K, dated November 12, 2019, filed with the Commission on November 14, 2019.
4.1**	Interpace Biosciences, Inc. 2019 Equity Incentive Plan..
4.2**	Interpace Biosciences, Inc. Employee Stock Purchase Plan.
4.3**	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under the Interpace Biosciences, Inc. 2019 Equity Incentive Plan.
4.4**	Form of Stock Option Grant Notice and Stock Option Agreement under the Interpace Biosciences, Inc. 2019 Equity Incentive Plan.
10.2	Equity Distribution Agreement, dated September 20, 2019, by and between Interpace Diagnostics Group, Inc. (now known as Interpace Biosciences, Inc.)and Oppenheimer & Co. Inc., incorporated by reference to the designated exhibit of the Company's Current Report on Form 8-K, dated September 20, 2019 filed with the Commission on September 20, 2019.
31.1**	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
31.2**	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
32.1+	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, furnished herewith.
32.2+	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, furnished herewith.
101	The following financial information from this Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2019 formatted in XBRL (Extensible Business Reporting Language) and furnished electronically herewith: (i) the Condensed Consolidated Balance Sheets; (ii) the Condensed Consolidated Statements of Operations; (iii) the Condensed Consolidated Statements of Stockholders' Equity; (iv) the Condensed Consolidated Statements of Cash Flows; and (v) the Notes to Condensed Consolidated Financial Statements.

* This exhibit is being filed pursuant to Item 601(b)(3)(i) of Regulation S-K which requires a conformed version of our charter reflecting all amendments in one document. The exhibit reflects our Certificate of Incorporation, as amended, as filed with the Delaware Secretary of State on November 14, 2018, revised for the Certificate of Amendment filed on November 13, 2019.

** Filed herewith.

+ Exhibits 32.1 and 32.2 are being furnished herewith and shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall such exhibits be deemed to be incorporated by reference to any registration statement or other document filed under the Securities Act or the Exchange Act, except as otherwise stated in any such filing.

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.

Date: November 14, 2019

Interpace Biosciences, Inc.
(Registrant)

/s/ Jack E. Stover
Jack E. Stover
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 14, 2019

/s/ James Early
James Early
Chief Financial Officer
(Principal Financial Officer)

Date: November 14, 2019

/s/ Thomas Freeburg
Thomas Freeburg
Chief Accounting Officer
(Principal Accounting Officer)

Exhibit 3.1

Certificate of Incorporation

of

Professional Detailing, Inc.

The undersigned, being a natural person, solely for the purpose of organizing a corporation under the provisions and subject to the requirements of the laws of the State of Delaware (particularly Chapter 1, Title 8 of the Delaware Code and the acts amendatory thereof and supplemental thereto, and known, identified and referred to as the "General Corporation Law of the State of Delaware"), hereby certifies that:

FIRST: The name of the corporation is Professional Detailing, Inc. (hereinafter called the "Corporation'').

SECOND: The address of the registered office of the Corporation in the State of Delaware is 9 East Loockerman Street, Dover, Delaware, Kent County, 19901. The name of the registered agent of the Corporation at such address is National Registered Agents, Inc. The Corporation's principle executive offices are located at 599 MacArthur Boulevard, Mahwah, New Jersey 07430.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

FOURTH: The total number of shares of all classes of stock which this Corporation shall have authority to issue is 35,000,000 shares, consisting of (i) 30,000,000 shares of Common Stock, $.01 par value per share ("Common Stock"), and (ii) 5,000,000 shares of Preferred Stock, $.01 par value per share ("Preferred Stock").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of this Corporation.

(a) Common Stock.

1. General. All shares of Common Stock are of one class. All authorized and outstanding shares of Common Stock are to be fully paid and non-assessable. The Common Stock has no preemptive, conversion or other subscription rights to subscribe for any shares of any class of stock of this Corporation whether now or hereafter authorized. The holders of Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights of the holders of the Preferred Stock of any series as may be designated by the Board of Directors upon any issuance of the Preferred Stock of any series.

2. No Pre-emptive Rights. No holder of any of the shares of the Common Stock of the Corporation, whether now or hereafter authorized and issued, shall be entitled as of right to purchase or subscribe for (1) any unissued stock of any class, or (2) any additional shares of any class to be issued by reason of any increase of the authorized capital stock of the Corporation of any class, or (3) bonds, certificates of indebtedness, debentures or other securities convertible into stock of the Corporation, or carrying any right to purchase stock of any class, but any such unissued stock or such additional authorized issue of any stock or of other securities convertible into stock, or carrying any right to purchase stock, may be issued and disposed of pursuant to resolution of the Board of Directors to such persons, firms, partnerships, corporations, associations or other entities and upon such terms as may be deemed advisable by the Board of Directors in the exercise of its discretion.

3. Voting. The holders of the Common Stock are entitled to one vote for each share held at all meetings of stockholders. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of this Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware.

4. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend rights of any then outstanding Preferred Stock.

5. Liquidation- Upon the dissolution or liquidation of this Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive all assets of this Corporation available for distribution to its stockholders, subject to any preferential rights of any then outstanding Preferred Stock.

(b) Preferred Stock.

1. General. The Board of Directors, in the exercise of its discretion, is authorized to issue the undesignated Preferred Stock in one or more series, to determine the powers, preferences and rights, and qualifications, limitations or restrictions, granted to or imposed upon any wholly unissued series of undesignated Preferred Stock, and to fix the number of shares constituting any series and the designation of such series, without any further vote or action by the stockholders

2. No Pre-emptive Rights. No holder of any of the shares of any series of Preferred Stock of the Corporation, whether now or hereafter authorized and issued, shall be entitled as of right to purchase or subscribe for (1) any unissued stock of any class, or (2) any additional shares of any class to be issued by reason of any increase of the authorized capital stock of the Corporation of any class, or (3) bonds, certificates of indebtedness, debentures or other securities convertible into stock of the Corporation, or carrying any right to purchase stock of any class, but any such unissued stock or such additional authorized issue of any stock or of other securities convertible into stock, or carrying any right to purchase stock, may be issued and disposed of pursuant to resolution of the Board of Directors to such persons, firms, partnerships, corporations, associations or other entities and upon such terms as may be deemed advisable by the Board of Directors in the exercise of its discretion.

FIFTH: The name and the mailing address of the incorporator are as follows:

Name	**Mailing Address**
Terence O'Brien	Morse, Zelnick, Rose & Lander, LLP 450 Park Avenue New York, New York 10022

SIXTH: The powers of the incorporator are to terminate upon the filing of the Certificate of Incorporation.

SEVENTH: (a) The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The phrase "whole Board" and the phrase "total number of directors" shall be deemed to have the same meaning, to wit, the total number of directors which the Corporation would have if there were no vacancies. The original or other Bylaws of the Corporation may be adopted, amended or repealed by the initial directors. After the original or other Bylaws of the Corporation have been adopted, amended, or repealed, as the case may be, in accordance with the provisions of Section 109 of the General Corporation Law of the State of Delaware, and after the Corporation has received any payment for any of its stock, the power to adopt, amend, or repeal the Bylaws of the Corporation may be exercised by the Board of Directors of the Corporation.

(b) Until the consummation of an initial public offering (an "IPO") of the Common Stock under the Securities Act of 1933, as amended (the "Act"), the Corporation shall have one or more directors, the number of directors to be determined from time to time by vote of a majority of the directors then in office. Immediately upon the consummation of an IPO, the following provisions shall apply:

1. Number of Directors. The number of directors of the Corporation shall not be less than one. The exact number of directors within the limitations specified in the preceding sentence shall be fixed from time to time by, or in the manner provided in, the Corporation's Bylaws.

2. Classes of Directors. The Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. No one class shall have more than one director more than any other class. If a fraction is contained in the quotient arrived at by dividing the designated number of directors by three, then if such fraction is one-third, the extra director shall be a member of Class II, and if such fraction is two-thirds, one of the extra directors shall be a member of Class II and one of the extra directors shall be a member of Class III, unless otherwise provided from time to time by resolution adopted by the Board of Directors. The persons who shall serve as the initial Class I, Class II and Class III directors upon consummation of the IPO may be designated by the Board of Directors prior to such IPO.

3. Election of Directors/Terms of Office. Election of directors need not be by written ballot except as and to the extent provided in the Bylaws of the Corporation. Except as otherwise provided herein, each director shall serve for a term ending on the date of the third annual meeting of the stockholders following the annual meeting at which such director was elected. A director shall hold office until the annual meeting for the year in which his term expires and until his successor shall be elected and shall qualify, subject, however, to prior death, resignation, retirement, disqualification or removal from office for cause. Each initial Class I director shall serve for a one year term; each initial Class II director shall serve for a two year term; and each initial Class III director shall serve for a three year term. Notwithstanding the foregoing, the term of each director shall be subject to the election and qualification of his successor and to his earlier death, resignation or removal.

4. Allocation of Directors among Classes in the Event of Increases or Decreases in the Number of Directors. In the event of any increase or decrease in the authorized number of directors, (i) each director then serving as such shall nevertheless continue as a director of the class of which he is a member and (ii) the newly created or eliminated directorships resulting from such increase or decrease shall be apportioned among the three classes of directors so as to ensure that no one class has more than one director more than any other class. To the extent possible, consistent with the foregoing rule, any newly created directorships shall be added to those classes whose terms of office are to expire at the latest dates following such allocation, and any newly eliminated directorships shall be subtracted from those classes whose terms of offices are to expire at the earliest dates following such allocation, unless otherwise provided from time to time by resolution adopted by the Board of Directors.

5. Preferred Stock Directors. Notwithstanding the foregoing, whenever the holders of any one or more classes or series of Preferred Stock issued by the Corporation shall have the right to vote separately by class or series to elect directors at an annual or special meeting of stockholders, the election, term of office, filling of vacancies and other features of such directorships shall be governed by the terms of this Certificate of Incorporation applicable thereto, and such directors so elected shall not be divided into classes provided by this Article Seventh, unless expressly provided by such terms.

6. Removal. Directors of the Corporation may be removed only for cause by the affirmative vote of the holders of at least two-thirds of the shares of capital stock of the Corporation issued and outstanding and entitled to vote generally in the election of directors.

7. Vacancies. Any vacancy in the Board of Directors, however occurring, including a vacancy resulting from an enlargement of the Board of Directors, shall be filled only by a vote of a majority of directors then in office, although less than a quorum, or by a sole remaining director. A director elected to fill a vacancy shall be elected to hold office until the next election of the class for which such director shall have been chosen, subject to the election and qualification of his successor and to his earlier death, resignation or removal.

8. Stockholder Nominations and Introductions of Business. Advance notice of stockholder nominations for election of directors and other business to be brought by stockholders before either an annual or special meeting of stockholders shall be given in the manner provided by the Bylaws of the Corporation.

9. Committees. Wherever the term "Board of Directors" is used in this Certificate of Incorporation, such term shall mean the Board of Directors of the Corporation; provided, however that to the extent any committee of directors of the Board of Directors exists, such committee may exercise any right or authority of the Board of Directors under this Certificate of Incorporation.

10. Amendments to Article. Notwithstanding any other provision of law, this Certificate of Incorporation or the Bylaws of the Corporation, each as amended, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the shares of capital stock of the Corporation issued and outstanding and entitled to vote generally in the election of directors shall be required to amend or repeal or to adopt any provision inconsistent with this Article SEVENTH.

EIGHTH: The Corporation is to have perpetual existence.

NINTH: Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under § 291 of Title 8 of the Delaware Code or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under § 279 of Title 8 of the Delaware Code order a meeting of the creditors or class of creditors, and/or of the stockholder or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

TENTH: Whenever the Corporation shall be authorized to issue only one class of stock each outstanding share shall entitle the holder thereof to notice of, and the right to vote at, any meeting of stockholders. Whenever the Corporation shall be authorized to issue more than one class of stock no outstanding share of any class of stock which is denied voting power under the provisions of the Certificate of Incorporation shall entitle the holder thereof to the right to vote at any meeting of stockholders except as the provisions of paragraph (c)(2) of Section 242 of the General Corporation Law of the State of Delaware shall otherwise require; provided, that no share of any such class which is otherwise denied voting power shall entitle the holder thereof to vote upon the increase or decrease in the number of authorized shares of said class.

ELEVENTH: A director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit.

TWELFTH: (a) Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit, claim or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director or officer, of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the Delaware General Corporation Law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her heirs, executors and administrators: provided, however, that, except as provided in paragraph (b) hereof, the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the Board of Directors. The right to indemnification conferred in this Section shall be a contract right and shall include the right to be paid by the Corporation the expenses incurred in defending any such proceeding in advance of its final disposition: provided, however, that, if the Delaware General Corporation Law requires, the payment of such expenses incurred by a director or officer (in his or her capacity as a director or officer and not in any other capacity in which service was or is rendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of a proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified under this Section or otherwise. The Corporation may, by action of its Board of Directors, provide indemnification to employees and agents of the Corporation with the same scope and effect as the foregoing indemnification of directors and officers mentioned in this Article Twelfth. Notwithstanding the indemnification provisions throughout the Certificate of Incorporation, the Corporation, shall not be obligated, contractually or otherwise, to indemnify its directors and officers with respect to proceedings initiated or brought by any officer or director and not by way of defense, or, for any amounts paid in settlement of any proceeding against any officer or director, without the prior written consent of the Company.

(b) Right of Claimant to Bring Suit. If a claim under paragraph (a) of this Article is not paid in full by the Corporation within thirty days after a written claim has been received by the Corporation, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any is required, has been tendered to the Corporation) that the claimant has not met the standards of conduct which make it permissible under the Delaware General Corporation Law for the Corporation to indemnify the claimant for the amount claimed, but the burden of proving such defense shall be on the Corporation. Neither the failure of the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he or she has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) that the claimant has not met such applicable standard or conduct, shall be a defense to the action or create a presumption that the claimant has not met the applicable standard of conduct.

(c) Non-Exclusivity of Rights. The right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this Article shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

(d) Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

THIRTEENTH: From time to time any of the provisions of this Certificate of Incorporation may be amended, altered or repealed, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted in the manner and at the time prescribed by said laws, and all rights at any time conferred upon the stockholders of the Corporation by this Certificate of Incorporation are granted subject to the provisions of this Article Thirteenth.

FOURTEENTH: Meetings of the stockholders may be held within or without the State of Delaware, as the Bylaws, amendments thereto, or amendments to this Certificate of Incorporation may provide. The books of the Corporation may be kept outside of the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or by the Bylaws, and amendments thereto, or by the amendments to this Certificate of Incorporation.

FIFTEENTH: At any time during which a class of capital stock of this Corporation is registered under Section 12 of the Securities Exchange Act of 1934 or any similar successor statute, stockholders of this Corporation may not take any action by written consent in lieu of a meeting. Notwithstanding any other provisions of law, this Certificate of Incorporation or the Bylaws of this Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the shares of capital stock of this Corporation issued and outstanding and entitled to vote generally in the election of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article Fifteenth.

SIXTEENTH: Special meetings of stockholders may be called at any time by only the Chairman of the Board of Directors of the Corporation, the Chief Executive Officer (or if there is no Chief Executive Officer, the President) or the Board of Directors of the Corporation. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting. Notwithstanding any other provision of law, the Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the shares of capital stock of the Corporation issued and outstanding and entitled to vote generally in the election of directors shall be required to amend or repeal, or to adopt any provision inconsistent with this Article Sixteenth.

Dated: February 10, 1998

/s/ Terence O'Brien

Terence O'Brien, Incorporator

CERTIFICATE OF MERGER
OF
PROFESSIONAL DETAILING, INC.
[a New Jersey Corporation]

AND

PROFESSIONAL DETAILING, INC.
[a Delaware Corporation]

It is hereby certified that:

1. The constituent business corporations participating in the merger herein certified are:

(i) Professional Detailing, Inc., which is incorporated under the laws of the State of New Jersey ("PDI-NJ"); and

(ii) Professional Detailing, Inc., which is incorporated under the laws of the State of Delaware ("PDI-Del").

2. The Plan of Merger has been approved, adopted, certified, executed, and acknowledged by each of the aforesaid constituent corporations in accordance with the provisions of subsection (c) of Section 252 of the Delaware General Corporation Law, to wit, by PDI-NJ in accordance with the laws of the State of New Jersey and by PDI-Del in the same manner as is provided in Section 251 of the Delaware General Corporation Law.

3. The name of the surviving corporation in the merger herein certified is Professional Detailing, Inc., a Delaware corporation, which will continue its existence as said surviving corporation under its present name upon the effective date of said merger pursuant to the provisions of the Delaware General Corporation Law.

4. The Certificate of Incorporation of PDI-Del. as now in force and effect, shall continue to be the Certificate of Incorporation of said surviving corporation until amended and changed pursuant to the provisions of the Delaware General Corporation Law,

5. The executed Plan of Merger between the aforesaid constituent corporations is on file at the principal place of business of the aforesaid surviving corporation, the address of which is as follows:

599 MacArthur Boulevard
Mahwah, New Jersey 07430

6. A copy of the aforesaid Plan of Merger will be furnished by the aforesaid surviving corporation, on request, and without cost, to any stockholder of each of the aforesaid constituent corporations.

7. The authorized capital stock of PDI-NJ consists of 2,500 shares without par value.

8. The merger of PDI-NJ with and into PDI-Del shall be effective immediately upon the filing of this Certificate of Merger.

Executed on this 13th day of May, 1998

PROFESSIONAL DETAILING, INC.
A Delaware Corporation

By: */s/ Charles T. Saldarini*
President and Chief Executive Officer

CERTIFICATE OF AMENDMENT
OF CERTIFICATE OF INCORPORATION
OF
PROFESSIONAL DETAILING, INC.
(Pursuant to Section 242 of
the Delaware General Corporation Law)

Professional Detailing, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the Delaware General Corporation Law (the "DGCL") does hereby certifies that:

1. The name of the corporation is Professional Detailing, Inc.

2. The Board of Directors of the Corporation duly adopted resolutions setting forth two (2) proposed amendments (the "Amendments") to the Certificate of Incorporation of the Corporation (the "Certificate of Incorporation"), declaring the Amendments' advisability to its stockholders, and directing that the Amendments be considered at the year 2001 annual meeting of the stockholders of the Corporation. At the year 2001 annual meeting of stockholders of the Corporation, a majority of the stockholders approved the Amendments. The Amendments provide as follows:

(i) That Article First of the Certificate of Incorporation shall be amended to read in its entirety as follows:

"FIRST: The name of the corporation is PDI, Inc. (hereinafter called the "corporation")";

and

(ii) That the first paragraph of Article Fourth of the Certificate of Incorporation shall be amended to read in its entirety as follows:

"FOURTH: The total number of shares of all classes of stock which this corporation shall have authority to issue is 105,000,000, consisting of (i) 100,000,000 shares of common stock, $.01 par value per share ("Common Stock") and (ii) 5,000,000 shares of preferred stock, $.01 par value per share (the "Preferred Stock")."

3. The Amendments herein certified have been duly adopted in accordance with the provisions of Section 242 of the DGCL by the Board of Directors.

4. This Certificate of Amendment shall become effective as of 8:00 a.m., Eastern Standard Time, on October 1, 2001.

Executed on this 28th day of September, 2001.

Professional Detailing, Inc.

By: */s/ Bernard C. Boyle*
Bernard C. Boyle
Executive Vice President and Chief Financial Officer

CERTIFICATE OF OWNERSHIP AND MERGER
OF
LIFECYCLE VENTURES, INC.
(a Delaware corporation)

INTO

PDI, INC.
(a Delaware corporation)

PDI, Inc. (hereinafter referred to as the "Corporation"), a corporation organized and existing under and by virtue of the Delaware General Corporation Law, does hereby certify:

1. The Corporation is a business corporation of the State of Delaware.

2. The Corporation is the owner of all of the outstanding shares of the stock of LifeCycle Ventures, Inc. (hereinafter referred to as "LCV"), which is also a business corporation of the State of Delaware.

3. On December 21, 2001, the Board of Directors of the Corporation adopted the following resolutions to merge LCV into the Corporation:

RESOLVED: That LCV be merged into this Corporation, and that all of the estate, property, rights, privileges, powers and franchises of LCV be vested in and held and enjoyed by this Corporation as fully and entirely and without change or diminution as the same were before held and enjoyed by LCV in its name.

RESOLVED: That this Corporation shall assume all of the obligations of LCV.

RESOLVED: That this Corporation shall cause to be executed and filed and/or recorded the documents prescribed by the laws of the State of Delaware and by the laws of any other appropriate jurisdiction and will cause to be performed all necessary acts within the State of Delaware and within any other appropriate jurisdiction.

RESOLVED: That the merger of LCV into the Corporation shall be effective as of 11:59 p.m. December 31, 2001.

Executed on this 24th day of December, 2001.

PDI, INC.

By: */s/ Bernard C. Boyle*
Bernard C. Boyle, Executive Vice President, Secretary and Chief Financial Officer

CERTIFICATE OF AMENDMENT
TO THE CERTIFICATE OF INCORPORATION OF
PDI, INC.

PDI, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the state of Delaware, does hereby certify that:

1. The name of the Corporation is PDI, Inc.

2. The Board of Directors of the Corporation duly adopted resolutions approving and setting forth this proposed amendment (the "Amendment") to the Certificate of Incorporation of the Corporation (the "Certificate of Incorporation"), declaring the Amendment's advisability to its stockholders, and directing that the Amendment be considered at the 2012 annual meeting of the stockholders of the Corporation. At the annual meeting of the stockholders of the Corporation held on June 5, 2012, holders of a majority of the outstanding shares of the Corporation's common stock, being the only outstanding class of the Corporation's capital stock entitled to vote, voted in favor of the adoption of the Amendment.

3. The Amendment provides as follows:

The first paragraph of **ARTICLE FOURTH** of the Corporation's Certificate of Incorporation is amended to read as follows:

FOURTH: The total number of shares of all classes of stock which this corporation shall have authority to issue is 45,000,000, consisting of (i) 40,000,000 shares of common stock, par value $.01 per share ("Common Stock"), and 5,000,000 shares of preferred stock, par value $.01 per share ("Preferred Stock").

4. The Amendment herein certified has been duly adopted by the Board of Directors and stockholders of the Corporation in accordance with the provisions of Section 242 of the General Corporation Law of the state of Delaware.

IN WITNESS WHEREOF, this Certificate of Amendment to the Certificate of Incorporation of PDI, Inc. has been executed as of this 5th day of June, 2012.

PDI, Inc.

By: */s/ Nancy Lurker*
Name: Nancy Lurker
Title: Chief Executive Officer

STATE OF DELAWARE
CERTIFICATE OF OWNERSHIP

SUBSIDIARY INTO PARENT
Section 253

CERTIFICATE OF OWNERSHIP
MERGING

TVG 1, INC.

INTO

PDI, Inc.

(Pursuant to Section 253 of the General Corporation Law of Delaware)

PDI, Inc., a corporation incorporated on the 10th day of February, 1998, pursuant to the provisions of the General Corporation Law of the State of Delaware;

DOES HEREBY CERTIFY that this corporation owns 90% of the capital stock of TVG 1, Inc., a corporation incorporated on the 19th day of September, 1986, A.D., pursuant to the provisions of the State of Delaware, and that this corporation, by a resolution of its Board of Directors duly adopted on the 24th day of December, 2014, A.D., determined to and did merge into itself said TVG 1, Inc., which resolution is in the following words to wit:

WHEREAS this corporation lawfully owns 90% of the outstanding stock of TVG 1, Inc., a corporation organized and exiting under the laws of the State of Delaware, and

WHEREAS this corporation desires to merge into itself the said TVG 1, Inc., and to be possessed of all the estate, property, rights, privileges and franchises of said corporation,

NOW, THEREFORE, BE IT RESOLVED, that this corporation merge into itself said TVG 1, Inc. and assumes all of its liabilities and obligations, and

FURTHER RESOLVED, that an authorized officer of this corporation be and he/she is hereby directed to make and execute a certificate of ownership setting forth a copy of the resolution to merge said TVG 1, Inc. and assume its liabilities and obligations, and the date of adoption thereof, and to file the same in the office of the Secretary of State of Delaware, and a certified copy thereof in the office of the Recorder of Deeds of Kent County; and

FURTHER RESOLVED, that the officers of this corporation be and they hereby are authorized and directed to do all acts and things whatsoever, whether within or without the State of Delaware; which may be in any way necessary or proper to effect said merger.

IN WITNESS WHEREOF, said parent corporation has caused its corporate seal to be affixed and this certificate to be signed by an authorized officer this 29th day of December, 2014 A.D.

By: */s/ Graham Miao*
Authorized Officer
Name: Graham Miao
Print or Type
Title: Chief Financial Officer & EVP

(Insert if applicable)

FURTHER RESOLVED, that _____ relinquishes its corporate name and assumes in place thereof the name _____.

CERTIFICATE OF AMENDMENT
TO THE CERTIFICATE OF INCORPORATION OF
PDI, INC.

PDI, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify that:

1. The name of the Corporation is PDI, Inc.

2. The Board of Directors of the Corporation duly adopted resolutions approving and setting forth this proposed amendment (the "Amendment") to the Certificate of Incorporation of the Corporation, as amended (the "Certificate of Incorporation"), declaring the Amendment's advisability, and directing that the Amendment be considered at a special meeting of the stockholders of the Corporation. Thereafter a special meeting of the stockholders of the Corporation was held, at which holders of a majority of the outstanding shares of the Corporation's common stock, being the only outstanding class of the Corporation's capital stock entitled to vote, voted in favor of the adoption of the Amendment.

3. The Amendment provides as follows:

That the first paragraph of ARTICLE FOURTH of the Corporation's Certificate of Incorporation is amended to read in its entirety as follows:

FOURTH: The total number of shares of all classes of stock which this corporation shall have authority to issue is 105,000,000, consisting of (i) 100,000,000 shares of common stock, par value $.01 per share ("Common Stock"), and (ii) 5,000,000 shares of preferred stock, par value $.01 per share ("Preferred Stock").

4. The Amendment herein certified has been duly adopted by the Board of Directors and stockholders of the Corporation in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, this Certificate of Amendment to the Certificate of Incorporation of PDI, Inc. has been executed as of this 22nd day of December.

PDI, Inc.

By: */s/ Nancy Lurker*
Name: Nancy Lurker
Title: Chief Executive Officer

Signature Page to Charter Amendment re: Authorized Shares

CERTIFICATE OF AMENDMENT
TO THE CERTIFICATE OF INCORPORATION OF
PDI, INC.

PDI, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify that:

1. The name of the Corporation is PDI, Inc.

2. The Board of Directors of the Corporation duly adopted resolutions approving and setting forth this proposed amendment (the "Amendment") to the Certificate of Incorporation of the Corporation, as amended (the "Certificate of Incorporation"), declaring the Amendment's advisability, and directing that the Amendment be considered at a special meeting of the stockholders of the Corporation. Thereafter a special meeting of the stockholders of the Corporation was held, at which holders of a majority of the outstanding shares of the Corporation's common stock, being the only outstanding class of the Corporation's capital stock entitled to vote, voted in favor of the adoption of the Amendment.

3. The Amendment provides as follows:

That ARTICLE FIRST of the Corporation's Certificate of Incorporation is amended to read in its entirety as follows:

FIRST: The name of the corporation is Interpace Diagnostics Group, Inc. (hereinafter called the "Corporation").

4. The Amendment herein certified has been duly adopted by the Board of Directors and stockholders of the Corporation in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, this Certificate of Amendment to the Certificate of Incorporation of PDI, Inc. has been executed as of this 22nd day of December, 2015.

PDI, Inc.

By: */s/ Nancy Lurker*
Name: Nancy Lurker
Title: Chief Executive Officer

Signature Page to Charter Amendment re: Name Change

CERTIFICATE OF AMENDMENT
TO THE
CERTIFICATE OF INCORPORATION
OF
INTERPACE DIAGNOSTICS GROUP, INC.

INTERPACE DIAGNOSTICS GROUP, INC., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "Corporation"), does hereby certify as follows:

FIRST: At the Effective Time, as defined below, of this Certificate of Amendment pursuant to Section 242 of the General Corporation Law of the State of Delaware, each ten (10) shares of the Corporation's common stock, par value $.01 per share, issued and outstanding immediately prior to the Effective Time (the "Old Common Stock") shall automatically without further action on the part of the Corporation or any holder of Old Common Stock, be reclassified, combined, converted and changed into one (1) fully paid and nonassessable share of common stock, par value $.01 per share (the "New Common Stock"), subject to the treatment of fractional share interests as described below (the "reverse stock split"). The conversion of the Old Common Stock into New Common Stock will be deemed to occur at the Effective Time. From and after the Effective Time, certificates representing the Old Common Stock shall represent the number of shares of New Common Stock into which such Old Common Stock shall have been converted pursuant to this Certificate of Amendment. Holders who otherwise would be entitled to receive fractional share interests of New Common Stock upon the effectiveness of the reverse stock split shall be entitled to receive a cash payment in lieu of any fractional share created as a result of such reverse stock split equal to (i) the average closing price of the Old Common Stock as reported by The NASDAQ Capital Market for the five trading days immediately preceding the effective date of the reverse stock split by (ii) the amount of the fractional share.

SECOND: The foregoing amendment shall be effective at 5:00 p.m. (EST) on December 28, 2016 (the "Effective Time").

THIRD: That the stockholders of the Corporation have duly approved the foregoing amendment in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be duly adopted and executed in its corporate name and on its behalf by its duly authorized officer as of the 28th day of December, 2016.

INTERPACE DIAGNOSTICS GROUP, INC.

By: */s/ Jack E. Stover*
Name: Jack E. Stover
Title: President & CEO

STATE OF DELAWARE

CERTIFICATE OF CHANGE OF REGISTERED AGENT

AND/OR REGISTERED OFFICE

The corporation, organized and existing under the General Corporation Law of the State of Delaware, hereby certifies as follows:

4. The name of the corporation is INTERPACE DIAGNOSTICS GROUP, INC.

5. The Registered Office of the corporation in the State of Delaware is changed to 251 Little Falls Drive, in the City of Wilmington, DE, County of New Castle, Zip Code 19808. The name of the Registered Agent at such address upon whom process against this Corporation may be served is Corporation Service Company.

6. The foregoing change to the registered office/agent was adopted by a resolution of the Board of Directors of the corporation.

By: */s/ James E. Early*
Authorized Officer

Name James E. Early
Print or Type

INTERPACE DIAGNOSTICS GROUP, INC.

CERTIFICATE OF DESIGNATION OF PREFERENCES, RIGHTS AND LIMITATIONS

OF

SERIES A CONVERTIBLE PREFERRED STOCK

AND

SERIES A-1 CONVERTIBLE PREFERRED STOCK

PURSUANT TO SECTION 151 OF THE

DELAWARE GENERAL CORPORATION LAW

INTERPACE DIAGNOSTICS GROUP, INC., a Delaware corporation (the "**Corporation**"), in accordance with the provisions of Section 103 of the Delaware General Corporation Law (the "**DGCL**") does hereby certify that, in accordance with Section 151 of the DGCL, the following resolution was duly adopted by the Board of Directors of the Corporation on July 12, 2019:

RESOLVED, pursuant to authority expressly set forth in the Certificate of Incorporation of the Corporation (the "**Certificate of Incorporation**"), the issuance of a series of Preferred Stock designated as the Series A Convertible Preferred Stock, par value $0.01 per share, of the Corporation and the issuance of a series of Preferred Stock designated as the Series A-1 Convertible Preferred Stock, par value $0.01 per share, of the Corporation is each hereby authorized and the designation, number of shares, powers, preferences, rights, qualifications, limitations and restrictions thereof (in addition to any provisions set forth in the Certificate of Incorporation that are applicable to the Preferred Stock of all classes and series) are hereby fixed, and this Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock and Series A-1 Convertible Preferred Stock is hereby approved as follows:

SERIES A AND SERIES A-1 CONVERTIBLE PREFERRED STOCK

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

"**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Section 9(e) below, deemed to be issued) by the Corporation after the Issuance Date, other than: (a) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on Senior Preferred Stock; (b) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Section 9(a), Section 9(b) or Section 9(c); (c) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation, including the approval of at least one Series A Director; (d) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case, provided such issuance is pursuant to the terms of an Option or Convertible Security that is issued and outstanding prior to the Issuance Date (clauses a – d collectively, "**Exempted Securities**").

"**Affiliate**" means, with respect to any Person, any other Person that, directly or indirectly through one or more intermediaries, controls, is controlled by or is under common control with such Person, as such terms are used in and construed under Rule 405 under the Securities Act. With respect to a Purchaser, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Purchaser will be deemed to be an Affiliate of such Purchaser.

"**Business Day**" means any day except Saturday, Sunday, any day which shall be a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"**Commission**" means the U.S. Securities and Exchange Commission.

"**Common Stock**" means the Corporation's common stock, par value $0.01 per share.

"**Conversion Shares**" means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series A Preferred Stock in accordance with the terms hereof.

"**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

"**Deemed Liquidation**" shall mean (a) a merger or consolidation in which (i) the Corporation is a constituent party or (ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or (b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger, consolidation or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

"**DGCL**" shall mean the Delaware General Corporation Law.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"**Holder**" means any holder of Senior Preferred Stock.

"**Issuance Date**" means July 15, 2019.

"**Minimum Price**" means the lower of (a) the closing price of Common Stock (as reflected on Nasdaq.com) on the Trading Day immediately preceding the Issuance Date; or (b) the average closing price of the Common Stock (as reflected on Nasdaq.com) for the five Trading Days immediately preceding the Issuance Date.

"**Net Revenue**" means the consolidated net revenue recognized by the Corporation as set forth on the Corporation's audited consolidated statement of operations for the twelve month period ended December 31, 2020, as reported by the Corporation on Form 10-K as filed with the Commission, in each case, solely to the extent such consolidated net revenue arises from the Corporation's clinical testing business (which for the avoidance of doubt will exclude any products or services acquired or licensed by the Corporation or any of its direct or indirect subsidiaries from and after the Issuance Date, including pursuant to that certain Secured Creditor Asset Purchase Agreement, entered into by a subsidiary of the Corporation on the Issuance Date).

"**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

"**Person**" means any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"**Preferred Stock**" means the Corporation's preferred stock, par value $0.01 per share.

"**Series A Adjustment Amount**" means an amount equal to the product, of: (a) three cents ($0.03); multiplied by (b) (the amount, if any, by which the Net Revenue is less than Thirty Four Million Dollars ($34,000,000)) divided by 1,000,000; provided, however, in no event will the Series A Adjustment Amount equal an amount greater than twenty one cents $0.21 per share (it being understood that the Series A Adjustment Amount shall be subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares).

"**Series A Conversion Price**" means an amount initially equal to eighty cents ($0.80) (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) minus the Series A Adjustment Amount, subject to adjustment as provided herein.

"**Series A Conversion Ratio**" means, for each share of Series A Preferred Stock, the ratio obtained by dividing the Series A Liquidation Amount of such share by the Series A Conversion Price.

"Series A Liquidation Value" means an amount equal to the Series A Liquidation Amount divided by the number of shares of Series A Preferred Stock outstanding.

"Series A-1 Liquidation Value" means an amount equal to the Series A-1 Liquidation Amount divided by the number of shares of Series A-1 Preferred Stock outstanding.

"**Series A Mandatory Conversion Price**" means an amount equal to eighty cents ($0.80) minus the Series A Adjustment Amount.

"**Series A Minimum Voting Ratio** " means, for each share of Series A Preferred Stock, the ratio obtained by dividing the Stated Value by Eighty Cents ($0.80) (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares).

"**Stated Value**" means $100,000 per share.

"**Threshold Amount**" means 19.99% of the number of shares of Common Stock outstanding immediately prior to the issuance of Senior Preferred Stock on the Issuance Date.

"**Trading Day**" means a day on which the Common Stock is traded for any period on a principal securities exchange or if the Common Stock is not traded on a principal securities exchange, on a day that the Common Stock is traded on another securities market on which the Common Stock is then being traded.

Section 2. Designation, Amount and Par Value; Assignment.

(a) The first series of Preferred Stock designated by this Certificate of Designation shall be designated as the Corporation's Series A Convertible Preferred Stock (the "**Series A Preferred Stock**") and the number of shares so designated shall be 270. The second series of Preferred Stock designated by this Certificate of Designation shall be designated as the Corporation's Series A-1 Convertible Preferred Stock (the "**Series A-1 Preferred Stock**" and together with the Series A Preferred Stock, the "**Senior Preferred Stock**") and the number of shares so designated shall be 80. The Senior Preferred Stock shall have a par value of $0.01 per share.

(b) The Corporation shall register shares of the Senior Preferred Stock, upon records to be maintained by the Corporation for that purpose (the "**Senior Preferred Stock Register**"), in the name of the Holders thereof from time to time. The Corporation may deem and treat the registered Holder of shares of Senior Preferred Stock as the absolute owner thereof for the purpose of any conversion thereof and for all other purposes. Shares of Senior Preferred Stock may be issued solely in book-entry form or, if requested by any Holder, such Holder's shares may be issued in certificated form. The Corporation shall register the transfer of any shares of Senior Preferred Stock in the Senior Preferred Stock Register, upon surrender of the certificates (if applicable) evidencing such shares to be transferred, duly endorsed by the Holder thereof, to the Corporation at its address specified herein. Upon any such registration or transfer, a new certificate (or book-entry notation, if applicable) evidencing the shares of Senior Preferred Stock so transferred shall be issued to the transferee and a new certificate (or book-entry notation, if applicable) evidencing the remaining portion of the shares not so transferred, if any, shall be issued to the transferring Holder, in each case, within two (2) Business Days. The provisions of this Certificate of Designation are intended to be for the benefit of all Holders from time to time and shall be enforceable by any such Holder.

Section 3. Dividends.

(a) From and after the third (3rd) anniversary of the Issuance Date, each share of Series A-1 Preferred Stock shall accrue dividends at the rate per annum of twelve percent (12%) of the Stated Value plus the amount of previously declared or accrued, and not previously paid dividends (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (the "**Series A-1 Accruing Dividends**"). The Series A-1 Accruing Dividends shall accrue from day to day, whether or not declared, and shall be cumulative and be compounded quarterly; provided, however, that except as set forth in the following sentence of this Section 3(a) such Series A-1 Accruing Dividends shall be payable only when, as, and if declared by the Board of Directors and the Corporation shall be under no obligation to pay such Series A-1 Accruing Dividends. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than the Series A Accruing Dividend and dividends on shares of Common Stock payable in shares of Common Stock) unless the Holders of the Series A-1 Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Series A-1 Preferred Stock in an amount at least equal to the sum of (i) the amount of the aggregate Series A-1 Accruing Dividends then accrued on such share of Series A-1 Preferred Stock and not previously paid, plus (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series A-1 Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable had such share of Series A-1 Preferred Stock been converted into Series A Preferred Stock pursuant to Section 7 immediately prior to such dividend and immediately thereafter and effective prior to the consummation of such dividend each such share of Series A Preferred Stock had been converted to Common Stock pursuant to Section 8 without regard to the Exchange Cap, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series A-1 Preferred Stock determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) and (2) multiplying such fraction by an amount equal to the Stated Value; provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Series A-1 Preferred Stock pursuant to this Section 3(a) shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Series A-1 Preferred Stock dividend. Notwithstanding anything to the contrary herein, the Corporation shall not declare, pay or set aside a dividend on Series A-1 Preferred Stock consisting of Common Stock prior to the Nasdaq Approval Date.

(b) From and after the initial issuance date of a share of Series A Preferred Stock, including the date of conversion of any shares of Series A-1 Preferred Stock into Series A Preferred Stock, each such share of Series A Preferred Stock shall accrue dividends at the rate per annum of six percent (6%) of the Stated Value plus the amount of previously declared or accrued, and not previously paid dividends (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (the "**Series A Accruing Dividends**"). The Series A Accruing Dividends shall accrue from day to day, whether or not declared, and shall be cumulative and be compounded quarterly; provided, however, that except as set forth in the following sentence of this Section 3(b) such Series A Accruing Dividends shall be payable only when, as, and if declared by the Board of Directors and the Corporation shall be under no obligation to pay such Series A Accruing Dividends. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than the Series A-1 Accruing Dividend and dividends on shares of Common Stock payable in shares of Common Stock) unless the Holders of the Series A Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Series A Preferred Stock in an amount at least equal to the sum of (i) the amount of the aggregate Series A Accruing Dividends then accrued on such share of Series A Preferred Stock and not previously paid, plus (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series A Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Series A Preferred Stock pursuant to Section 8 without regard to the Exchange Cap, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series A Preferred Stock determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) and (2) multiplying such fraction by an amount equal to the Stated Value; provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the Holders of Series A Preferred Stock pursuant to this Section 3(b) shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Series A Preferred Stock dividend. Notwithstanding anything to the contrary herein, the Corporation shall not declare, pay or set aside a dividend on Series A Preferred Stock consisting of Common Stock prior to the Nasdaq Approval Date.

Section 4. Voting Rights.

(a) Non-Voting Series A-1 Preferred Stock. The Series A-1 Preferred Stock shall have no voting rights.

(b) General Series A Preferred Stock Voting Rights . From and after the Issuance Date until the earlier of: (i) the day following the Next Meeting Date (as defined below); and (ii) six (6) months following the Issuance Date (the "**Voting Date**"), the Series A Preferred Stock shall have no voting rights (the "**Voting Block**"); provided, however, that the Voting Block shall not apply to Section 4(c)(i), Section 4(c)(ii), Section 4(c)(iii), Section 4(c)(iv), Section 4(c)(vi), Section 4(d) or Section 4(e); provided, further, that from and after the day following the Next Meeting Date, the Voting Block shall not apply. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each Holder of outstanding shares of Series A Preferred Stock shall be entitled to cast the number of votes equal to the lesser of: (a) the number of whole shares of Common Stock into which the shares of Series A Preferred Stock held by such Holder are convertible as of the record date for determining stockholders entitled to vote on such matter; and (b) the number of whole shares of Common Stock equal to the number of shares of Series A Preferred Stock held by such Holder as of the record date for determining stockholders entitled to vote on such matter multiplied by the Series A Minimum Voting Ratio; provided, however, that at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting) pursuant to which the record date for determining the stockholders entitled to vote at such meeting (or by written consent) occurs prior to the Nasdaq Approval Date, each share of Series A Preferred Stock that exceeds the Exchange Cap shall have no voting rights (the "**Voting Cap**"); provided, further, that from and after the Nasdaq Approval Date, the Voting Cap shall not apply. Except as provided by law or by the other provisions of this Certificate of Designation, Holders of Series A Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis.

(c) Directors.

(i) After the Nasdaq Approval Date, for so long as at least 135 shares of Series A Preferred Stock remain outstanding that are not subject to the Voting Cap (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) or if the Holders of Series A Preferred obtain an exemption to the Voting Cap from the Nasdaq Capital Market with respect to the right to appoint directors of the Corporation, the Holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect three (3) directors of the Corporation.

(ii) After the Nasdaq Approval Date, for so long as at least 90 shares of Series A Preferred Stock remain outstanding that are not subject to the Voting Cap (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) or if the Holders of Series A Preferred obtain an exemption to the Voting Cap from the Nasdaq Capital Market with respect to the right to appoint directors of the Corporation, the Holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect two (2) directors of the Corporation.

(iii) For so long as at least 45 shares of Series A Preferred Stock remain outstanding that are not subject to the Voting Cap (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares), the Holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (each director elected pursuant to this Section 4(c) shall hereinafter referred to as a "**Series A Director**").

(iv) If the Corporation is unable to redeem for cash in compliance with Section 6 all of the shares of Senior Preferred Stock subject to a Redemption Notice in compliance with applicable law, the Holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect a majority of the directors of the Corporation then in-office.

(v) The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Series A Preferred Stock), exclusively and voting together as a single class, shall, subject to the rights of any additional series of Preferred Stock that may be established from time to time, be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director.

(vi) Any director elected pursuant to this Section 4(c) may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. A vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Section 4(c).

(d) Protective Provisions. Notwithstanding anything in this Certificate of Designation to the contrary, for so long as any shares of the Senior Preferred Stock remain outstanding, the following actions may only be taken by the Corporation or any of its direct or indirect subsidiaries with the written consent of Holders representing a majority of the outstanding shares of Senior Preferred Stock (voting as a single class):

(i) amend, waive, alter or repeal the preferences, rights, privileges or powers of the Holders of the Senior Preferred Stock;

(ii) amend, alter or repeal any provision of this Certificate of Designation in a manner that is adverse to the Holders of Senior Preferred Stock;

(iii) authorize, create or issue any equity securities senior to or pari passu with either series of the Senior Preferred Stock; or

(iv) increase or decrease the number of directors constituting the Board.

(e) Additional Protective Provisions. Notwithstanding anything in this Certificate of Designation to the contrary, for so long as either: (i) at least 105 shares of Senior Preferred Stock remain outstanding (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares); or (ii) at least 28 shares of Series A-1 Preferred Stock remain outstanding (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares), the following actions may only be taken by the Corporation or any of its direct or indirect subsidiaries with the written consent with the consent of Holders representing a majority of the outstanding shares of Senior Preferred Stock (voting as a single class):

(A) (1) authorize, create or issue any debt securities for borrowed money or funded debt pursuant to which the Corporation or any of its direct or indirect subsidiaries issues shares, warrants or any other convertible security in the same transaction or a series of related transactions; or (2) authorize, create or issue any debt securities for borrowed money or funded debt pursuant to which the Corporation or any of its direct or indirect subsidiaries does not issue shares, warrants or any other convertible security in the same transaction or a series of related transactions exceeding $4.5 million initially (the "**Debt Threshold**"), excluding, however: (w) any capitalized and operating leases entered into by the Corporation or its direct or indirect subsidiaries in the ordinary course of business consistent with past practice; and (x) any debt incurred by the Corporation pursuant to the terms of the Corporation's existing term loan and credit facility with Silicon Valley Bank as it is proposed to be expanded on the Issuance Date on similar terms with Silicon Valley Bank or another comparable credit facility provider subsequent to the Issuance Date; provided, that if the aggregate consolidated revenue recognized by the Corporation and its direct or indirect subsidiaries (the "**Combined Revenue**") as reported by the Corporation on Form 10-K as filed with the Commission for any fiscal year ending after the Issuance Date exceeds $45 million dollars, the Debt Threshold for the following fiscal year shall increase to an amount equal to: (y) ten percent (10%); multiplied by (z) the Combined Revenue as reported by the Corporation on Form 10-K as filed with the Commission for the previous fiscal year;

(B) merge with or acquire all or substantially all of the assets of one or more other companies or entities with a value in excess of $20 million (the "**Acquisition Threshold**"); provided, that the Acquisition Threshold shall increase on a straight line basis to an amount up to $40 million, but in no event greater than $40 million, to the extent Combined Revenue for the then-most recently completed quarterly period as reported by the Corporation on Form 10-K as filed with the Commission or Form 10-Q as filed with the Commission, as applicable, falls between the Combined Revenue for the Corporation's fiscal quarter ended on September 30, 2019, and 100% greater than the Combined Revenue for the Corporation's fiscal quarter ended on September 30, 2019;

(C) materially change the nature of the business of the Corporation or any of its direct or indirect subsidiaries as it is proposed to be conducted as of the Issuance Date.;

(D) consummate any Liquidation (as defined below);

(E) transfer, by sale, exclusive license or otherwise, material intellectual property rights of the Corporation or any of its direct or indirect subsidiaries, other than licenses, transfers or sales of products accomplished in the ordinary course of business consistent with past practice;

(F) declare or pay any cash dividend or make any cash distribution on any equity interests of the Corporation other than the Senior Preferred Stock;

(G) repurchase or redeem any shares of capital stock of the Corporation, except for: (1) the redemption of the Senior Preferred Stock pursuant to Section 5(e) or Section 6; or (2) repurchases of Common Stock under agreements previously approved by the Board of Directors of the Corporation with employees, consultants, advisors or others who performed services for the Corporation or any direct or indirect subsidiary in connection with the cessation of such employment or service;

(H) incur any additional individual debt, indebtedness for borrowed money or other additional liabilities pursuant to which the Corporation or any of its direct or indirect subsidiaries issues shares, warrants or any other convertible security in the same transaction or a series of related transactions; or (b) incur any individual debt, indebtedness for borrowed money or other liabilities pursuant to which the Corporation or any of its direct or indirect subsidiaries does not issue shares, warrants or any other convertible security in the same transaction or a series of related transactions in excess of the Debt Threshold (in each case, excluding: (i) any capitalized and operating leases entered into by the Corporation or its direct or indirect subsidiaries in the ordinary course of business consistent with past practice; (ii) any debt incurred by the Corporation pursuant to the terms of the Corporation's existing term loan and credit facility with Silicon Valley Bank as it is proposed to be expanded on the Issuance Date on similar terms with Silicon Valley Bank or another comparable credit facility provider subsequent to the Issuance Date; and (iii) any purchase money financing in connection with the acquisition of equipment or otherwise); or

(I) change any accounting methods or practices of the Corporation or any of its direct or indirect subsidiaries, except for those changes required by GAAP or applicable regulatory agencies or authorities, including but not limited to the Securities and Exchange Commission and the Financial Accounting Standards Board, in each case, as consented to by the Corporation's independent auditors.

(f) Notwithstanding the foregoing, nothing in Section 4(e) shall restrict the Corporation's ability to adopt an at-the-market offering of its Common Stock or other public offering of Common Stock registered with the Commission on Form S-3 for up to $5 million worth of the Common Stock ("**Permitted Financings**"); provided, however, that Permitted Financings will not include any transaction or series of related transactions pursuant to which the Corporation issues warrants or any other convertible security without the written consent of Holders representing a majority of the outstanding shares of Senior Preferred Stock.

Section 5. Liquidation.

(a) In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation (a "**Liquidation**"), the Holders of shares of Series A-1 Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders (on a pari passu basis with the holders of any class or series of Preferred Stock ranking on liquidation on a parity with the Series A-1 Preferred Stock), and before any payment shall be made to the Holders of Series A Preferred Stock, Common Stock or any other class or series of Preferred Stock ranking on liquidation junior to the Series A-1 Preferred Stock by reason of their ownership thereof, an amount per share of Series A-1 Preferred Stock equal to the greater of (based on the date of the related Liquidation): (a) from and after the Issuance Date until the second (2nd) anniversary of the Issuance Date, two times (2x) the Stated Value of such share of Series A-1 Preferred Stock; (b) after the second (2nd) anniversary of the Issuance Date until the third (3rd) anniversary of the Issuance Date, two and one-half times (2½x) the Stated Value of such share of Series A-1 Preferred Stock; or (c) from and after the third (3rd) anniversary of the Issuance Date three times (3x) the Stated Value of such share of Series A-1 Preferred Stock, plus any Series A-1 Accruing Dividends accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon or (ii) such amount per share as would have been payable in respect of such share had such share been converted into Series A Preferred Stock pursuant to Section 7 immediately prior to such Liquidation and immediately thereafter and effective prior to the consummation of such Liquidation each such share of Series A Preferred Stock had been converted to Common Stock pursuant to Section 8 without regard to the Exchange Cap (the amount payable in respect of shares of Series A-1 Preferred Stock pursuant to this sentence is hereinafter referred to as the "**Series A-1 Liquidation Amount**"). If upon any such Liquidation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the Holders of shares of Series A-1 Preferred Stock and any series of Preferred Stock ranking on liquidation on a parity with the Series A-1 Preferred Stock the full amount to which they shall be entitled under this Section 5(a), the Holders of shares of Series A-1 Preferred Stock and any series of Preferred Stock ranking on liquidation on a parity with the Series A-1 Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Series A-1 Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(b) In the event of any Liquidation, the Holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders (on a pari passu basis with the holders of any class or series of Preferred Stock ranking on liquidation on a parity with the Series A Preferred Stock), and before any payment shall be made to the holders of Common Stock or any other class or series of Preferred Stock ranking on liquidation junior to the Series A Preferred Stock by reason of their ownership thereof, an amount per share of Series A Preferred Stock equal to the greater of (i) the Stated Value of such share of Series A Preferred Stock, plus any Series A Accruing Dividends accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each such share been converted into Common Stock pursuant to Section 8 immediately prior to such Liquidation without regard to the Exchange Cap, (the amount payable in respect of shares of Series A Preferred Stock pursuant to this sentence is hereinafter referred to as the "**Series A Liquidation Amount**"). If upon any such Liquidation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the Holders of shares of Series A Preferred Stock and any series of Preferred Stock ranking on liquidation on a parity with the Series A Preferred Stock the full amount to which they shall be entitled under this Section 5(b), the Holders of shares of Series A Preferred Stock and any series of Preferred Stock ranking on liquidation on a parity with the Series A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(c) In the event of any Liquidation, after the payment of all preferential amounts required to be paid to the Holders of shares of Series A-1 Preferred Stock, Series A Preferred Stock and any other series of Preferred Stock ranking on liquidation senior to the Common Stock, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

(d) The Corporation shall not have the power to effect a Deemed Liquidation unless the definitive agreement regarding such transaction provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Section 5 of this Certificate of Designation.

(e) If following a Deemed Liquidation the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within sixty (60) days after such Deemed Liquidation, then (i) the Corporation shall send a written notice to each Holder of Senior Preferred Stock no later than the sixtieth (60th) day after the Deemed Liquidation advising such Holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (ii) to require the redemption of such shares of Senior Preferred Stock, and (ii) if the Holders of a majority of the then outstanding shares of Senior Preferred Stock so request in a written instrument delivered to the Corporation not later than sixty (60) days after receipt of such notice, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation) (the "**Net Proceeds**"), to the extent legally available therefor, on the one hundred fiftieth (150th) day after such Deemed Liquidation, to redeem all outstanding shares of Senior Preferred Stock at a price per share equal to the Series A-1 Liquidation Value or Series A Liquidation Value, as applicable. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Net Proceeds are not sufficient to redeem all outstanding shares of Senior Preferred Stock and of any other series of Preferred Stock ranking on redemption on parity with the Senior Preferred Stock that is required to then be redeemed, or if the Corporation does not have sufficient lawfully available funds to effect such redemption, the Corporation shall first redeem a pro rata portion of each Holder's shares of Series A Preferred Stock and any such other series of Preferred Stock ranking on redemption on a parity with the Series A Preferred Stock to the fullest extent of such Net Proceeds or such lawfully available funds, as the case may be, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds were sufficient to redeem all such shares. If upon any such redemption, the assets of the Corporation lawfully available to effect such redemption shall be insufficient to pay the Holders of shares of Series A Preferred Stock and any series of Preferred Stock ranking on redemption on a parity with the Series A Preferred Stock, the full amount to which they shall be entitled under this Section 5(e), the Holders of shares of Series A Preferred Stock and any series of Preferred Stock ranking on redemption on a parity with the Series A Preferred Stock shall share ratably in any distribution of the assets lawfully available for such redemption in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such redemption if all amounts payable on or with respect to such shares were paid in full, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor. Thereafter, the Corporation shall next redeem a pro rata portion of each Holder's shares of Series A-1 Preferred Stock and any such other series of Preferred Stock ranking on redemption on parity with the Series A-1 Preferred Stock to the fullest extent of such Net Proceeds or such lawfully available funds, as the case may be, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds were sufficient to redeem all such shares. If upon any such redemption, the assets of the Corporation lawfully available to effect such redemption shall be insufficient to pay the Holders of shares of Series A-1 Preferred Stock and any series of Preferred Stock ranking on redemption on a parity with the Series A-1 Preferred Stock, the full amount to which they shall be entitled under this Section 5(e), the Holders of shares of Series A-1 Preferred Stock and any series of Preferred Stock ranking on redemption on a parity with the Series A-1 Preferred Stock shall share ratably in any distribution of the assets lawfully available for such redemption in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such redemption if all amounts payable on or with respect to such shares were paid in full, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor. The provisions of Section 6(b) below shall apply, with such necessary changes in the details thereof as are necessitated by the context, to the redemption of the Senior Preferred Stock pursuant to this Section 5(e). Prior to the distribution or redemption provided for in this Section 5(e), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation, except to discharge expenses incurred in connection with such Deemed Liquidation or in the ordinary course of business consistent with past practice.

(f) The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any Liquidation Event shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity; provided, that the value of any such non-cash property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation.

Section 6. Redemption.

(a) If the Corporation shall have failed to obtain the Nasdaq Approval on, or prior to, the third (3rd) anniversary of the Issuance Date (the "**Triggering Event Date**"), each Holder shall have the right (the "**Redemption Right**") beginning on the date following the Triggering Event Date to require the Corporation to redeem all of the shares of Series A Preferred Stock, if any, then held by such Holder that are convertible into a number of shares of Common Stock that exceeds the Exchange Cap and all of the shares of Series A-1 Preferred Stock then held by such Holder by delivering written notice thereof to the Corporation (the "**Redemption Notice**") together with the applicable certificates, if any, representing such shares of Senior Preferred Stock which Redemption Notice shall indicate that Holder is electing to redeem such shares of Senior Preferred Stock. Each of the shares of Senior Preferred Stock subject to redemption by the Corporation pursuant to this Section 6(a) shall be redeemed by the Corporation at a price equal to the Series A-1 Liquidation Value or Series A Liquidation Value, as applicable. Payment of the Series A-1 Liquidation Value or Series A Liquidation Value, as applicable, required by this Section 6(a) shall be made in accordance with the provisions of Section 6(b). Notwithstanding anything to the contrary in this Section 6(a), until the Series A Liquidation Value for each share of Series A Preferred Stock subject to a Redemption Notice is paid in full, such shares of Series A Preferred Stock that have not been so redeemed under this Section 6(a) may be converted, in whole or in part, by Holder into Common Stock pursuant to Section 8; provided, that the Corporation shall not be obligated to pay Holder the Series A Liquidation Value in respect of any shares of Senior Preferred Stock subject to a Redemption Notice that are so converted into shares of Common Stock.

(b) If a Holder submits a Redemption Notice in accordance with Section 6(a), the Corporation shall pay such Holder an amount equal to the aggregate Series A-1 Liquidation Value or Series A Liquidation Value, as applicable, payable in respect of all Senior Preferred Stock held by such Holder to be redeemed pursuant to Section 6(a) by wire transfer of immediately available funds to the account(s) designated in the Redemption Notice as soon as reasonably practicable, but in no event later than sixty (60) days, following the date of such Redemption Notice. Upon payment of the aggregate Series A-1 Liquidation Value or Series A Liquidation Value, as applicable, in respect of any shares of Senior Preferred Stock subject to a Redemption Notice, such shares of Senior Preferred Stock will be automatically cancelled without any further action on the part of the Corporation, Holder or any other Person and such cancelled shares of Senior Preferred Stock shall no longer be issued and outstanding shares of capital stock of the Corporation. In the event that the Corporation does not pay to Holder any portion of the Series A-1 Liquidation Value or Series A Liquidation Value, as applicable, in respect of shares of Senior Preferred Stock subject to a Redemption Notice in full within the time period required for any reason (including, without limitation, to the extent such payment is prohibited pursuant to applicable law), at any time thereafter and until the Corporation pays such Series A-1 Liquidation Value or Series A Liquidation Value, as applicable, in full, such Holder shall have the option, in lieu of redemption, to require the Corporation to promptly return to such Holder all or any of the shares of Senior Preferred Stock subject to a Redemption Notice that were submitted for redemption and for which the applicable Series A-1 Liquidation Value or Series A Liquidation Value, as applicable, has not been paid. Upon the Corporation's receipt of such notice, (A) the Redemption Notice shall be null and void with respect to such shares of Senior Preferred Stock, and (B) the Corporation shall immediately return the applicable certificate, if any, or issue a new, to Holder (unless such shares of Senior Preferred Stock are held in book-entry form, in which case the Corporation shall deliver evidence to such Holder that a book-entry for such shares of Senior Preferred Stock then exists).

Section 7. Conversion of Series A-1 Preferred Stock into Series A Preferred Stock.

(a) Automatic Conversion of Series A-1 Preferred Stock into Series A Preferred Stock. If the Corporation obtains the Nasdaq Approval at any time prior to the eighteen (18) month anniversary of the Issuance Date, on the date that the Corporation obtains such Nasdaq Approval (the "**Nasdaq Approval Date**"), each share of Series A-1 Preferred Stock shall automatically be converted into one share of Series A Preferred Stock.

(b) No Conversion of Series A-1 Preferred Stock into Common Stock. Shares of Series A-1 Preferred Stock shall not be convertible into shares of Common Stock.

Section 8. Conversion of Series A Preferred Stock into Common Stock.

(a) Conversion of Series A Preferred Stock into Common Stock at Option of Holder. Subject to Section 8(c) below, each share of Series A Preferred Stock shall be convertible, at any time and from time to time from and after the Issuance Date, at the option of the Holder thereof, into a number of shares of Common Stock equal to the product of the Series A Conversion Ratio and the number of shares of Series A Preferred Stock to be converted. Holders shall effect conversions of Series A Preferred Stock into Common Stock by providing the Corporation with the form of conversion notice attached hereto as **Annex A** (a "**Notice of Conversion**"), duly completed and executed. Provided the Corporation's transfer agent is participating in the Depository Trust Corporation ("**DTC**") Fast Automated Securities Transfer program, the Notice of Conversion may specify, at the Holder's election, whether the applicable Conversion Shares shall be credited to the DTC participant account nominated by the Holder through DTC's Deposit Withdrawal Agent Commission system (a "**DWAC Delivery**"). The "**Optional Conversion Date**", or the date on which a conversion shall be deemed effective, shall be defined as the Trading Day after the Trading Date that the Notice of Conversion, completed and executed, is sent by facsimile or other electronic transmission to, and received during regular business hours by, the Corporation; provided that the original certificate(s) (if any) representing such shares of Series A Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation within two (2) Trading Days thereafter. In all other cases, the Optional Conversion Date shall be defined as the Trading Day after the Trading Date on which the original shares of Series A Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation.

(b) Mandatory Conversion of Series A Preferred Stock into Common Stock. If at any time after the Corporation shall have obtained the Nasdaq Approval, the Corporation consummates the sale of shares of Common Stock to the public in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, pursuant to which (A) the price per share of the Common Stock in such offering is at least the Series A Mandatory Conversion Price (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) and such offering results in at least $25 million in proceeds, net of the underwriting discount and commissions, to the Corporation and the Common Stock continues to be listed for trading on the Nasdaq Capital Market or another Exchange such as NYSE (such offering, an "**Underwritten Offering**", and the date of the consummation of such Underwritten Offering is referred to herein as the "**Mandatory Conversion Date**" and together with each Optional Conversion Date, a "**Conversion Date**"), (i) all outstanding shares of Series A Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective Series A Conversion Ratio and (ii) such shares may not be reissued by the Corporation. The provisions of Section 8(d) shall apply, with such necessary changes in the details thereof as are necessitated by the context, to the conversion of shares of Series A Preferred Stock into Common Stock pursuant to this Section 8(b). Notwithstanding the foregoing, an Underwritten Offering shall not include, and shares of Series A Preferred Stock will not automatically convert to shares of Common Stock upon the consummation of, any Underwritten Offering that includes the issuance of warrants to purchase capital stock of the Corporation or any other Convertible Security.

(c) Series A Conversion Limitation. Notwithstanding anything herein to the contrary, from and after the Issuance Date until the Voting Date, the Corporation shall not effect any conversion of the Series A Preferred (the "**Exchange Block**"); provided, however, that from and after the Voting Date, the Exchange Block shall not apply. From and after the Voting Date, the Corporation shall not effect any conversion of the Series A Preferred Stock into Common Stock, and a Holder shall not have the right to convert any portion of the Series A Preferred Stock into Common Stock, if the issuance of such shares of Common Stock would exceed the aggregate number of shares of Common Stock which the Corporation may issue upon conversion of the Series A Preferred Stock under applicable Nasdaq Marketplace rules (the number of shares of Common Stock which may be issued without violating such rules, the "**Exchange Cap**"), except that the Exchange Cap shall not apply in the event that the Corporation obtains the approval of its stockholders as required by applicable Nasdaq Marketplace rules for issuances of shares of Common Stock without regard to the Exchange Cap (the "**Nasdaq Approval**"). Within six (6) months following the Issuance Date, the Corporation shall call a meeting (the date that such meeting is completed, the "**Next Meeting Date**") of the Corporation's stockholders for the purpose of soliciting the Nasdaq Approval for the issuance of the full amount of shares of Common Stock issuable upon the conversion of the Series A Preferred Stock, including the Series A Preferred Stock issuable upon conversion of the Series A-1 Preferred Stock, authorized and designated under this Certificate of Designation without regard to the Exchange Cap.

(d) Mechanics of Conversion of Series A Preferred Stock into Common Stock.

(i) Delivery of Certificate or Electronic Issuance Upon Conversion. Not later than three (3) Trading Days after the applicable Conversion Date (the "**Share Delivery Date**"), the Corporation shall (a) deliver, or cause to be delivered, to the converting Holder or recipient of the Conversion Shares a physical certificate or certificates representing the number of Conversion Shares set forth in a Notice of Conversion being acquired upon the conversion of shares of Series A Preferred Stock, or (b) in the case of a DWAC Delivery (if so requested by the Holder), electronically transfer such Conversion Shares by crediting the DTC participant account nominated by the Holder through DTC's DWAC system. If in the case of any Notice of Conversion such certificate or certificates are not delivered to or as directed by or, in the case of a DWAC Delivery, such shares are not electronically delivered to or as directed by, the applicable Holder by the Share Delivery Date, the applicable Holder shall be entitled to elect to rescind such Conversion Notice by written notice to the Corporation at any time on or before its receipt of such certificate or certificates for Conversion Shares or electronic receipt of such shares, as applicable, in which event the Corporation shall promptly return to such Holder any original Series A Preferred Stock certificate delivered to the Corporation and such Holder shall promptly return to the Corporation any Common Stock certificates or otherwise direct the return of any shares of Common Stock delivered to the Holder through the DWAC system, representing the shares of Series A Preferred Stock unsuccessfully tendered for conversion to the Corporation.

(ii) Obligation Absolute. Subject to Section 8(c) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 8(d)(i) above, the Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Series A Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief; provided that Holder shall not receive duplicate damages for the Corporation's failure to deliver Conversion Shares within the period specified herein. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

(iii) Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Conversion. If the Corporation fails to deliver to a Holder (or its transferee) the applicable certificate or certificates or to effect a DWAC Delivery, as applicable, in each case that represent shares of Common Stock by the Share Delivery Date pursuant to Section 8(d)(i) (other than a failure caused by incorrect or incomplete information provided by Holder to the Corporation), and if after such Share Delivery Date such Holder is required to or otherwise purchases (in an open market transaction or otherwise), shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "**Buy-In**"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount by which (x) such Holder's total purchase price (including any brokerage commissions) for the shares of Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Series A Preferred Stock equal to the number of shares of Series A Preferred Stock submitted for conversion or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 8(d)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted conversion of shares of Series A Preferred Stock with respect to which the actual sale price (including any brokerage commissions) giving rise to such purchase obligation was a total of $10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder $1,000. The Holder shall provide the Corporation written notice, within three (3) Trading Days after the occurrence of a Buy-In, indicating the amounts payable to such Holder in respect of such Buy-In together with applicable confirmations and other evidence reasonably requested by the Corporation. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver certificates representing shares of Common Stock upon conversion of the shares of Series A Preferred Stock as required pursuant to the terms hereof; provided, however, that the Holder shall not be entitled to both (i) require the reissuance of the shares of Series A Preferred Stock submitted for conversion for which such conversion was not timely honored and (ii) receive the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 8(d)(i).

(iv) Not later than two (2) Business Days after the Nasdaq Approval Date, the Corporation shall issue to each Holder the number of shares of Series A Preferred Stock being acquired upon the conversion of shares of Series A-1 Preferred Stock held by such Holder pursuant to Section 7(a) solely in book-entry form or, if requested by any Holder, such shares may be issued in certificated form.

(e) Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will, at all times reserve and keep available out of its authorized and unissued shares of Series A Preferred Stock for the sole purpose of issuance upon conversion of the Series A-1 Preferred Stock, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holders of the Series A-1 Preferred Stock, not less than such aggregate number of shares of the Series A Preferred Stock as shall be issuable upon the conversion of all outstanding shares of Series A-1 Preferred Stock. The Corporation covenants that all shares of Series A Preferred Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid, non-assessable and free and clear of all liens and other encumbrances. The Corporation covenants that it will, at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Series A Preferred Stock, including all shares of Series A Preferred Stock issuable upon conversion of shares of Series A-1 Preferred Stock, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holders of the Series A Preferred Stock, not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments of Section 9) upon the conversion of all outstanding shares of Series A Preferred Stock, including all shares of Series A Preferred Stock issuable upon conversion of shares of Series A-1 Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid, non-assessable and free and clear of all liens and other encumbrances.

(f) Fractional Shares No fractional shares or scrip representing fractional shares of Series A Preferred Stock shall be issued upon the conversion of the Series A-1 Preferred Stock. As to any fraction of a share of Series A Preferred Stock which a Holder would otherwise be entitled to receive upon such conversion, the Corporation shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Stated Value. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon the conversion of the Series A Preferred Stock. As to any fraction of a share of Common Stock which a Holder would otherwise be entitled to receive upon such conversion, the Corporation shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Series A Conversion Price.

(g) Transfer Taxes. The issuance of certificates (or book entry notations) for shares of Series A Preferred Stock upon conversion of the Series A-1 Preferred Stock and the issuance of certificates (or book entry notations) for shares of the Common Stock upon conversion of the Series A Preferred Stock, in each case, shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such certificates (or such book entry notation), provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate (or such book entry notation) upon conversion in a name other than that of the registered Holder(s) of such shares of Series A-1 Preferred Stock or Series A Preferred Stock, as applicable, and the Corporation shall not be required to issue or deliver such certificates (or such book entry notation) unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid.

(h) Status as Stockholder. Upon each Conversion Date and Mandatory Conversion Date: (i) the shares of Series A Preferred Stock being converted shall be deemed converted into shares of Common Stock; and (ii) the Holder's rights as a holder of such converted shares of Series A Preferred Stock shall cease and terminate, excepting only the right to receive certificates (or book entry notations) for such shares of Common Stock and to any remedies provided herein or otherwise available at law or in equity to such Holder because of a failure by the Corporation to comply with the terms of this Certificate of Designation. In all cases, the Holder shall retain all of its rights and remedies for the Corporation's failure to convert Series A Preferred Stock. From and after the Nasdaq Approval Date: (i) the shares of Series A-1 Preferred Stock shall be deemed converted into shares of Series A Preferred Stock; and (ii) the Holder's rights as a Holder of such converted shares of Series A-1 Preferred Stock shall cease and terminate, excepting only the right to receive certificates (or book entry notations) for such shares of Series A Preferred Stock and to any remedies provided herein or otherwise available at law or in equity to such Holder because of a failure by the Corporation to comply with the terms of this Certificate of Designation. In all cases, the Holder shall retain all of its rights and remedies for the Corporation's failure to convert Series A-1 Preferred Stock.

Section 9. Certain Adjustments.

(a) Stock Dividends and Stock Splits. If the Corporation, at any time while any shares of Series A Preferred Stock are outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock with respect to the then outstanding shares of Common Stock; (ii) subdivides outstanding shares of Common Stock into a larger number of shares; or (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, then the Series A Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event (excluding any treasury shares of the Corporation). Any adjustment made pursuant to this Section 9(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision or combination.

(b) Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Issuance Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 3 do not apply to such dividend or distribution, then and in each such event the Holders of Senior Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Series A Preferred Stock, including if all shares of Series A-1 Preferred Stock shall have been converted to Series A Preferred Stock, had been converted into Common Stock on the date of such event.

(c) Adjustment for Merger or Reorganization, etc. Subject to the provisions of Section 5, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Series A Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Section 9(a), Section 9(b), Section 9(e) or Section 9(f)), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Series A Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Series A Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Certificate of Designation with respect to the rights and interests thereafter of the Holders of the Series A Preferred Stock, to the end that the provisions set forth in this Certificate of Designation (including provisions with respect to changes in and other adjustments of the Series A Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Series A Preferred Stock.

(d) No Adjustment of Series A Conversion Price . No adjustment in the Series A Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the Holders representing a majority of the Senior Preferred Stock (voting as a single class) then-outstanding agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

(e) Deemed Issue of Additional Shares of Common Stock.

(i) If the Corporation at any time or from time to time after the Issuance Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(ii) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Series A Conversion Price pursuant to the terms of Section 9(f), are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security pursuant to which an adjustment has already been made under this Section 9(e)) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Series A Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Series A Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this Section 9(e)(ii) shall have the effect of increasing the Series A Conversion Price to an amount which exceeds the lower of (i) the Series A Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Series A Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(iii) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Series A Conversion Price pursuant to the terms of Section 9(f) (either because the consideration per share (determined pursuant to Section 9(g)) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Series A Conversion Price then in effect, or because such Option or Convertible Security was issued before the Issuance Date), are revised after the Issuance Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security pursuant to which an adjustment has already been made under this Section 9(e)) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 9(e)(ii)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(iv) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Series A Conversion Price pursuant to the terms of Section 9(f), the Series A Conversion Price shall be readjusted to such Series A Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(v) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Series A Conversion Price provided for in this Section 9(e) shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (ii) and (iii) of this Section 9(e)). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Series A Conversion Price that would result under the terms of this Section 9(e) at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Series A Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

(f) Adjustment of Series A Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Issuance Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 9(e)), without consideration or for a consideration per share less than the Series A Conversion Price in effect immediately prior to such issuance or deemed issuance, then the Series A Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

CP2 = CP1* (A + B) ÷ (A + C).

For purposes of the foregoing formula, the following definitions shall apply:

"**CP2**" shall mean the Series A Conversion Price in effect immediately after such issuance or deemed issuance of Additional Shares of Common Stock.

"**CP1**" shall mean the Series A Conversion Price in effect immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock;

"**A**" shall mean the number of shares of Common Stock outstanding immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance or deemed issuance or upon conversion or exchange of Convertible Securities (including the Series A Preferred Stock into Common Stock, including the shares of Series A-1 Preferred Stock into Series A Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

"**B**" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued or deemed issued at a price per share equal to CP1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP1); and

"**C**" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(g) Determination of Consideration. For purposes of this Certificate of Designation, the consideration received by the Corporation for the issuance or deemed issuance of any Additional Shares of Common Stock shall be computed as follows: (i) such consideration shall: (A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest; (B) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and (C) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as determined in good faith by the Board of Directors of the Corporation.

(h) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 9(e), relating to Options and Convertible Securities, shall be determined by dividing: (i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by (ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

(i) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Series A Conversion Price pursuant to the terms of Section 9(f), then, upon the final such issuance, the Series A Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

(j) Calculations. All calculations under this Certificate of Designation shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 9, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

(k) Notice to the Holders.

(i) Adjustment to Series A Conversion Price. Whenever the Series A Conversion Price is adjusted pursuant to any provision of this Section 9, the Corporation shall promptly deliver to each Holder a notice setting forth the Series A Conversion Ratio after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

(ii) Other Notices. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any Liquidation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) consent of the Holders of Senior Preferred Stock is required pursuant to Section 4(d) or Section 4(e), then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of the shares of Series A Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at least ten (10) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer, Liquidation or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice.

Section 10. Miscellaneous.

(a) Lost or Mutilated Stock Certificates. If a Holder's certificate representing shares of Series A Preferred Stock or Series A-1 Preferred Stock, if applicable, shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, if requested by the Holder, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series A Preferred Stock or Series A-1 Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership thereof, reasonably satisfactory to the Corporation and, in each case, customary and reasonable indemnity, if requested, without the requirement to post a bond. Applicants for a new certificate under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Corporation may prescribe, without the requirement to post a bond.

(b) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation. Any waiver by the Corporation or a Holder must be in writing. Notwithstanding any provision in this Certificate of Designation to the contrary, any provision contained herein and any right of the Holders of Senior Preferred Stock granted hereunder may be waived as to all shares of Senior Preferred Stock (and the Holders thereof) upon the written consent of the Holders of a majority of the shares of Senior Preferred Stock (voting as a single class) then outstanding, unless a higher percentage is required by the DGCL, in which case the written consent of the Holders of not less than such higher percentage shall be required.

(c) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

(d) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

(e) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

(f) Status of Converted Senior Preferred Stock. If any shares of Senior Preferred Stock shall be converted or redeemed by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series A Preferred Stock or Series A-1 Preferred Stock, as applicable.

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IN WITNESS WHEREOF, Interpace Diagnostics Group, Inc., has caused this Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock and Series A-1 Convertible Preferred Stock to be executed by its duly authorized officer this 15th day of July, 2019.

INTERPACE DIAGNOSTICS GROUP, INC.

By: */s/ Jack E. Stover*
Name: Jack E. Stover
Title: President & Chief Executive Officer

[SIGNATURE PAGE TO CERTIFICATE OF DESIGNATION]

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
INTERPACE DIAGNOSTICS GROUP, INC.

Interpace Diagnostics Group, Inc. (the "Corporation''), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware ("DGCL"), does hereby certify:

FIRST: That the board of directors of the Corporation duly adopted resolutions declaring advisable the amendment of the Certificate of Incorporation of the Corporation. The resolutions setting forth the proposed amendment are as follows:

RESOLVED, that Article FIRST of the Corporation's Certificate of Incorporation be amended to read in its entirety as follows:

FIRST: The name of the Corporation is Interpace Biosciences, Inc. (hereinafter called the "Corporation").

SECOND: That the foregoing amendment was duly adopted in accordance with the provisions of § 242 of the DGCL.

IN WITNESS WHEREOF, Interpace Diagnostics Group, Inc. has caused this certificate to be signed by a duly authorized officer, this 12th day of November, 2019.

/s/ Jack E. Stover
Name: Jack E. Stover
Title: President & Chief Executive Officer

Exhibit 4.1

INTERPACE BIOSCIENCES, INC.
2019 EQUITY INCENTIVE PLAN

Section 1. Purpose; Definitions. The purposes of the Interpace Biosciences, Inc. 2019 Equity Incentive Plan (as amended from time to time, the "Plan") are to: (a) enable Interpace Biosciences, Inc. (the "Company") and its affiliated companies to recruit and retain highly qualified employees, directors and consultants; (b) provide those employees, directors and consultants with an incentive for productivity; and (c) provide those employees, directors and consultants with an opportunity to share in the growth and value of the Company.

For purposes of the Plan, the following terms will have the meanings defined below, unless the context clearly requires a different meaning:

(a) "Affiliate" means, with respect to a Person, a Person that directly or indirectly controls, is controlled by, or is under common control with such Person.

(b) "Applicable Law" means the legal requirements relating to the administration of and issuance of securities under stock incentive plans, including, without limitation, the requirements of state corporations law, federal, state and foreign securities law, federal, state and foreign tax law, and the requirements of any stock exchange or quotation system upon which the Shares may then be listed or quoted.

(c) "Award" means an award of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, or Cash Awards made under this Plan.

(d) "Award Agreement" means, with respect to any particular Award, the written document that sets forth the terms of that particular Award.

(e) "Board" means the Board of Directors of the Company, as constituted from time to time.

(f) "Cash Award" means an award that is granted under Section 10.

(g) "Cause" means (i) Participant's refusal to comply with any lawful directive or policy of the Company which refusal is not cured by the Participant within ten (10) days of such written notice from the Company; (ii) the Company's determination that Participant has committed any act of dishonesty, embezzlement, unauthorized use or disclosure of confidential information or other intellectual property or trade secrets, common law fraud or other fraud against the Company or any Subsidiary or Affiliate; (iii) a material breach by the Participant of any written agreement with or any fiduciary duty owed to any Company or any Subsidiary or Affiliate; (iv) Participant's conviction (or the entry of a plea of a nolo contendere or equivalent plea) of a felony or any misdemeanor involving material dishonesty or moral turpitude; or (v) Participant's habitual or repeated misuse of, or habitual or repeated performance of Participant's duties under the influence of, alcohol, illegally obtained prescription controlled substances or non-prescription controlled substances. Notwithstanding the foregoing, if a Participant and the Company (or any of its Affiliates) have entered into an employment agreement, consulting agreement or other similar agreement that specifically defines "cause," then with respect to such Participant, "Cause" shall have the meaning defined in such other agreement.

(h) "Change in Control" shall mean the occurrence of any of the following events: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) is or becomes a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of the total power to vote for the election of directors of the Company; (ii) during any twelve month period, individuals who at the beginning of such period constitute the Board and any new director (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in Section 1(h)(i), Section 1(h)(iii), Section 1(h)(iv) or Section 1(h)(v) hereof) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least a majority of the directors then still in office who either were directors at the beginning of the period of whose election or nomination for election was previously approved, cease for any reason to constitute a majority thereof; (iii) the merger or consolidation of the Company with another corporation where the stockholders of the Company, immediately prior to the merger or consolidation, will not beneficially own, immediately after the merger or consolidation, shares entitling such stockholders to 50% or more of all votes to which all stockholders of the surviving corporation would be entitled in the election of directors (without consideration of the rights of any class of stock to elect directors by a separate class vote); (iv) the sale or other disposition of all or substantially all of the assets of the Company; (v) a liquidation or dissolution of the Company or (vi) acceptance by stockholders of the Company of shares in a share exchange if the stockholders of the Company immediately before such share exchange do not or will not own directly or indirectly immediately following such share exchange more than fifty percent (50%) of the combined voting power of the outstanding voting securities of the entity resulting from or surviving such share exchange in substantially the same proportion as their ownership of the voting securities outstanding immediately before such share exchange.

Notwithstanding anything in the Plan or an Award Agreement to the contrary, if an Award is subject to Section 409A of the Code, no event that, but for the application of this paragraph, would be a Change in Control as defined in the Plan or the Award Agreement, as applicable, shall be a Change in Control unless such event is also a "change in control event" as defined in Section 409A of the Code.

(i) "Code" means the Internal Revenue Code of 1986, as amended from time to time, and any successor thereto.

(j) "Committee" means the committee designated by the Board to administer the Plan under Section 2. To the extent required under Applicable Law, the Committee shall have at least two members and each member of the Committee shall be a Non-Employee Director.

(k) "Director" means a member of the Board.

(l) "Disability" means a condition rendering a Participant Disabled.

(m) "Disabled" will have the same meaning as set forth in Section 22(e)(3) of the Code.

(n) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(o) "Fair Market Value" means, as of any date, the value of a Share determined as follows: (i) if the Shares are listed on any established stock exchange or a national market system, including, without limitation, the Nasdaq Capital Market, the Fair Market Value of a Share will be the closing sales price for such stock as quoted on that system or exchange (or the system or exchange with the greatest volume of trading in Shares) at the close of regular hours trading on the day of determination; (ii) if the Shares are regularly quoted by recognized securities dealers but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for Shares at the close of regular hours trading on the day of determination; or (iii) if Shares are not traded as set forth above, the Fair Market Value will be determined in good faith by the Committee taking into consideration such factors as the Committee considers appropriate, such determination by the Committee to be final, conclusive and binding. Notwithstanding the foregoing, in connection with a Change in Control, Fair Market Value shall be determined in good faith by the Committee, such determination by the Committee to be final conclusive and binding.

(p) "Incentive Stock Option" means any Option intended to be an "Incentive Stock Option" within the meaning of Section 422 of the Code.

(q) "Non-Employee Director" will have the meaning set forth in Rule 16b-3(b)(3)(i) promulgated by the Securities and Exchange Commission under the Exchange Act, or any successor definition adopted by the Securities and Exchange Commission.

(r) "Non-Qualified Stock Option" means any Option that is not an Incentive Stock Option.

(s) "Option" means any option to purchase Shares (including an option to purchase Restricted Stock, if the Committee so determines) granted pursuant to Section 5 hereof.

(t) "Parent" means, in respect of the Company, a "parent corporation" as defined in Section 424(e) of the Code.

(u) "Participant" means an employee, consultant, Director, or other service provider of or to the Company or any of its respective Affiliates to whom an Award is granted.

(v) "Person" means an individual, partnership, corporation, limited liability company, trust, joint venture, unincorporated association, or other entity or association.

(w) "Restricted Stock" means Shares that are subject to restrictions pursuant to Section 8 hereof.

(x) "Restricted Stock Unit" means a right granted under and subject to restrictions pursuant to Section 9 hereof.

(y) "Shares" means shares of the Company's common stock, par value $0.01, subject to substitution or adjustment as provided in Section 3(c) hereof.

(z) "Stock Appreciation Right" means a right granted under and subject to Section 6 hereof.

(aa) "Subsidiary" means, in respect of the Company, a subsidiary company as defined in Sections 424(f) and (g) of the Code.

Section 2. Administration. The Plan shall be administered by the Committee. Any action of the Committee in administering the Plan shall be final, conclusive and binding on all persons, including the Company, its Subsidiaries, Affiliates, their respective employees, the Participants, persons claiming rights from or through Participants and stockholders of the Company.

The Committee will have full authority to grant Awards under this Plan and determine the terms of such Awards. Such authority will include the right to:

(a) select the individuals to whom Awards are granted (consistent with the eligibility conditions set forth in Section 4);

(b) determine the type of Award to be granted;

(c) determine the number of Shares, if any, to be covered by each Award;

(d) establish the terms and conditions of each Award;

(e) establish the performance conditions relevant to any Award and certify whether such performance conditions have been satisfied;

(f) approve forms of agreements (including Award Agreements) for use under the Plan;

(g) determine whether and under what circumstances an Option may be exercised without a payment of cash under Section 5(d);

(h) accelerate the vesting or exercisability of an Award and to modify or amend each Award, subject to Section 11; and

(i) extend the period of time for which an Option or Stock Appreciation Right is to remain exercisable following a Participant's termination of service to the Company from the limited period otherwise in effect for that Option or Stock Appreciation Right to such greater period of time as the Committee deems appropriate, but in no event beyond the expiration of the term of the Option or Stock Appreciation Right.

The Committee will have the authority to adopt, alter and repeal such administrative rules, guidelines and practices governing the Plan as it, from time to time, deems advisable; to establish the terms and form of each Award Agreement; to interpret the terms and provisions of the Plan and any Award issued under the Plan (and any Award Agreement); and to otherwise supervise the administration of the Plan. The Committee may correct any defect, supply any omission or reconcile any inconsistency in the Plan or in any Award Agreement in the manner and to the extent it deems necessary to carry out the intent of the Plan.

The Committee may delegate to one or more officers of the Company the authority to grant Awards to Participants who are not subject to the requirements of Section 16 of the Exchange Act and the rules and regulations thereunder, provided that the Committee shall have fixed the total number of Shares subject to such delegation. Any such delegation shall be subject to the applicable corporate laws of the State of Delaware. The Committee may revoke any such allocation or delegation at any time for any reason with or without prior notice.

No Director will be liable for any good faith determination, act or omission in connection with the Plan or any Award.

Section 3. Shares Subject to the Plan.

(a) Shares Subject to the Plan. Subject to adjustment as provided in Section 3(c) of the Plan, the maximum number of Shares that may be issued in respect of Awards under the Plan is 2,300,000 Shares (the "Plan Limit"), all of which may be issued in respect of Incentive Stock Options. Any Shares issued hereunder may consist, in whole or in part, of authorized and unissued Shares or treasury shares. Any Shares issued by the Company through the assumption or substitution of outstanding grants in connection with the acquisition of another entity shall not reduce the maximum number of Shares available for delivery under the Plan.

(i) Any Shares that are available for issuance under the Interpace Diagnostics Group, Inc. Amended and Restated 2004 Stock Award and Incentive Plan (the "2004 Plan") as of the Effective Date, and any Shares that become available for issuance under the 2004 Plan following the Effective Date in accordance with the terms of the 2004 Plan (the "Additional Shares") may be issued to Participants pursuant to the terms of this Plan. The Plan Limit shall be increased by such number of Additional Shares.

(ii) The maximum total grant date fair value of Awards (as measured by the Company for financial accounting purposes) granted to any Participant in his or her capacity as a Non-Employee Director in any single calendar year shall not exceed $250,000.

(b) Effect of the Expiration or Termination of Awards. If and to the extent that an Option or a Stock Appreciation Right expires, terminates or is canceled or forfeited for any reason without having been exercised in full, the Shares associated with that Award will again become available for grant under the Plan. Similarly, if and to the extent an Award of Restricted Stock or Restricted Stock Units is canceled or forfeited for any reason, the Shares subject to that Award will again become available for grant under the Plan. Shares withheld in settlement of a tax withholding obligation associated with an Award, or in satisfaction of the exercise price payable upon exercise of an Option, will not become available for grant under the Plan.

(c) Other Adjustment. In the event of any corporate event or transaction such as a merger, consolidation, reorganization, recapitalization, stock split, reverse stock split, split up, spin-off, combination of shares, exchange of shares, stock dividend, dividend in kind, or other like change in capital structure (other than ordinary cash dividends) to stockholders of the Company, or other similar corporate event or transaction affecting the Shares, the Committee, to prevent dilution or enlargement of Participants' rights under the Plan, shall, in such manner as it may deem equitable, substitute or adjust, in its sole discretion, the number and kind of shares that may be issued under the Plan or under any outstanding Awards, the number and kind of shares subject to outstanding Awards, the exercise price, grant price or purchase price applicable to outstanding Awards, and/or any other affected terms and conditions of this Plan or outstanding Awards.

(d) Change in Control. Notwithstanding anything to the contrary set forth in the Plan, upon any Change in Control, the Committee may, in its sole and absolute discretion and without the need for the consent of any Participant, take one or more of the following actions contingent upon the occurrence of that Change in Control:

(i) cause any or all outstanding Awards to become vested and immediately exercisable (as applicable), in whole or in part;

(ii) cause any outstanding Option or Stock Appreciation Right to become fully vested and immediately exercisable for a reasonable period in advance of the Change in Control and, to the extent not exercised prior to that Change in Control, cancel that Option or Stock Appreciation Right upon closing of the Change in Control;

(iii) cancel any unvested Award or unvested portion thereof, with or without consideration;

(iv) cancel any Award in exchange for a substitute award;

(v) redeem any Restricted Stock or Restricted Stock Unit for cash and/or other substitute consideration with value equal to the Fair Market Value of an unrestricted Share on the date of the Change in Control;

(vi) cancel any Option or Stock Appreciation Right in exchange for cash and/or other substitute consideration with a value equal to: (A) the number of Shares subject to that Option or Stock Appreciation Right, multiplied by (B) the difference, if any, between the Fair Market Value per Share on the date of the Change in Control and the exercise price of that Option or the base price of the Stock Appreciation Right; *provided,* that if the Fair Market Value per Share on the date of the Change in Control does not exceed the exercise price of any such Option or the base price of any such Stock Appreciation Right, the Committee may cancel that Option or Stock Appreciation Right without any payment of consideration therefor; and/or

(vii) take such other action as the Committee shall determine to be reasonable under the circumstances.

Notwithstanding any provision of this Section 3(d), in the case of any Award subject to Section 409A of the Code, such Award shall vest and be distributed only in accordance with the terms of the applicable Award Agreement and the Committee shall only be permitted to use discretion to the extent that such discretion would be permitted under Section 409A of the Code.

In the discretion of the Committee, any cash or substitute consideration payable upon cancellation of an Award may be subjected to (i) vesting terms substantially identical to those that applied to the cancelled Award immediately prior to the Change in Control, or (ii) earn-out, escrow, holdback or similar arrangements, to the extent such arrangements are applicable to any consideration paid to stockholders in connection with the Change in Control.

Section 4. Eligibility. Employees, Directors, consultants, and other individuals who provide services to the Company or its Affiliates are eligible to be granted Awards under the Plan; *provided, however*, that only employees of the Company, any Parent or a Subsidiary are eligible to be granted Incentive Stock Options.

Section 5. Options. Options granted under the Plan may be of two types: (i) Incentive Stock Options or (ii) Non-Qualified Stock Options. The Award Agreement shall state whether such grant is an Incentive Stock Option or a Non-Qualified Stock Option. Any Option granted under the Plan will be in such form as the Committee may at the time of such grant approve.

The Award Agreement evidencing any Option will incorporate the following terms and conditions and will contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Committee deems appropriate in its sole and absolute discretion:

(a) Option Price. The exercise price per Share under an Option will be determined by the Committee and will not be less than 100% of the Fair Market Value of a Share on the date of the grant. However, any Incentive Stock Option granted to any Participant who, at the time the Option is granted, owns, either directly and/or within the meaning of the attribution rules contained in Section 424(d) of the Code, stock possessing more than 10% of the total combined voting power of all classes of stock of the Company, will have an exercise price per Share of not less than 110% of Fair Market Value per Share on the date of the grant.

(b) Option Term. The term of each Option will be fixed by the Committee, but no Option will be exercisable more than 10 years after the date the Option is granted. However, any Incentive Stock Option granted to any Participant who, at the time such Option is granted, owns, either directly and/or within the meaning of the attribution rules contained in Section 424(d) of the Code, stock possessing more than 10% of the total combined voting power of all classes of stock of the Company, may not have a term of more than 5 years. No Option may be exercised by any Person after expiration of the term of the Option.

(c) Exercisability. Options will vest and be exercisable at such time or times and subject to such terms and conditions as determined by the Committee. Such terms and conditions may include the continued employment or service of the Participant, the attainment of specified individual or corporate performance goals, or such other factors as the Committee may determine in its sole discretion (the "Vesting Conditions").

(d) Method of Exercise. Subject to the terms of the applicable Award Agreement, the exercisability provisions of Section 5(c) and the termination provisions of Section 7, Options may be exercised in whole or in part from time to time during their term by the delivery of written notice to the Company specifying the number of Shares to be purchased. Such notice will be accompanied by payment in full of the purchase price, either by certified or bank check, or such other means as the Committee may accept. The Committee may, in its sole discretion, permit payment of the exercise price of an Option in the form of previously acquired Shares based on the Fair Market Value of the Shares on the date the Option is exercised or through means of a "net settlement," whereby the Option exercise price will not be due in cash and where the number of Shares issued upon such exercise will be equal to: (A) the product of (i) the number of Shares as to which the Option is then being exercised, and (ii) the excess, if any, of (a) the then current Fair Market Value per Share over (b) the Option exercise price, divided by (B) the then current Fair Market Value per Share.

No Shares will be issued upon exercise of an Option until full payment therefor has been made. A Participant will not have the right to distributions or dividends or any other rights of a stockholder with respect to Shares subject to the Option until the Participant has given written notice of exercise, has paid in full for such Shares, if requested, has given the representation described in Section 17(a) hereof and fulfills such other conditions as may be set forth in the applicable Award Agreement.

(e) Incentive Stock Option Limitations. In the case of an Incentive Stock Option, the aggregate Fair Market Value (determined as of the time of grant) of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year under the Plan and/or any other plan of the Company, its Parent or any Subsidiary will not exceed $100,000. For purposes of applying the foregoing limitation, Incentive Stock Options will be taken into account in the order granted. To the extent any Option does not meet such limitation, that Option will be treated for all purposes as a Non-Qualified Stock Option.

(f) Termination of Service. Unless otherwise specified in the applicable Award Agreement or as otherwise provided by the Committee at or after the time of grant, Options will be subject to the terms of Section 7 with respect to exercise upon or following termination of employment or other service.

Section 6. Stock Appreciation Right. Subject to the other terms of the Plan, the Committee may grant Stock Appreciation Rights to eligible individuals. Each Stock Appreciation Right shall represent the right to receive, upon exercise, an amount equal to the number of Shares subject to the Award that is being exercised multiplied by the excess of (i) the Fair Market Value of a Share on the date the Award is exercised, over (ii) the base price specified in the applicable Award Agreement. Distributions may be made in cash, Shares, or a combination of both, at the discretion of the Committee. The Award Agreement evidencing each Stock Appreciation Right shall indicate the base price, the term and the Vesting Conditions for such Award. A Stock Appreciation Right base price may never be less than the Fair Market Value of the underlying common stock of the Company on the date of grant of such Stock Appreciation Right. The term of each Stock Appreciation Right will be fixed by the Committee, but no Stock Appreciation Right will be exercisable more than 10 years after the date the Stock Appreciation Right is granted. Subject to the terms and conditions of the applicable Award Agreement, Stock Appreciation Rights may be exercised in whole or in part from time to time during their term by the delivery of written notice to the Company specifying the number of Shares to be exercised. Unless otherwise specified in the applicable Award Agreement or as otherwise provided by the Committee at or after the time of grant, Stock Appreciation Rights will be subject to the terms of Section 7 with respect to exercise upon or following termination of employment or other service.

Section 7. Termination of Service. Unless otherwise specified with respect to a particular Option or Stock Appreciation Right in the applicable Award Agreement or otherwise determined by the Committee, any portion of an Option or Stock Appreciation Right that is not exercisable upon termination of service will expire immediately and automatically upon such termination and any portion of an Option or Stock Appreciation Right that is exercisable upon termination of service will expire on the date it ceases to be exercisable in accordance with this Section 7.

(a) Termination by Reason of Death. If a Participant's service with the Company or any Affiliate terminates by reason of death, any Option or Stock Appreciation Right held by such Participant may thereafter be exercised, to the extent it was exercisable at the time of his or her death or on such accelerated basis as the Committee may determine at or after grant, by the legal representative of the estate or by the legatee of the Participant, for a period expiring (i) at such time as may be specified by the Committee at or after grant, or (ii) if not specified by the Committee, then 12 months from the date of death, or (iii) if sooner than the applicable period specified under (i) or (ii) above, upon the expiration of the stated term of such Option or Stock Appreciation Right.

(b) Termination by Reason of Disability. If a Participant's service with the Company or any Affiliate terminates by reason of Disability, any Option or Stock Appreciation Right held by such Participant may thereafter be exercised by the Participant or his or her personal representative, to the extent it was exercisable at the time of termination, or on such accelerated basis as the Committee may determine at or after grant, for a period expiring (i) at such time as may be specified by the Committee at or after grant, or (ii) if not specified by the Committee, then 12 months from the date of termination of service, or (iii) if sooner than the applicable period specified under (i) or (ii) above, upon the expiration of the stated term of such Option or Stock Appreciation Right.

(c) Cause. If a Participant's service with the Company or any Affiliate is terminated for Cause: (i) any Option or Stock Appreciation Right, or portion thereof, not already exercised will be immediately and automatically forfeited as of the date of such termination, and (ii) any Shares for which the Company has not yet delivered share certificates will be immediately and automatically forfeited and the Company will refund to the Participant the Option exercise price paid for such Shares, if any.

(d) Other Termination. If a Participant's service with the Company or any Affiliate terminates for any reason other than death, Disability or Cause, any Option or Stock Appreciation Right held by such Participant may thereafter be exercised by the Participant, to the extent it was exercisable at the time of such termination, or on such accelerated basis as the Committee may determine at or after grant, for a period expiring (i) at such time as may be specified by the Committee at or after grant, or (ii) if not specified by the Committee, then 90 days from the date of termination of service, or (iii) if sooner than the applicable period specified under (i) or (ii) above, upon the expiration of the stated term of such Option or Stock Appreciation Right.

Section 8. Restricted Stock.

(a) Issuance. Restricted Stock may be issued either alone or in conjunction with other Awards. The Committee will determine the time or times within which Restricted Stock may be subject to forfeiture, and all other conditions of such Awards. The purchase price for Restricted Stock may, but need not, be zero. The prospective recipient of an Award of Restricted Stock will not have any rights with respect to such Award, unless and until such recipient has delivered to the Company an executed Award Agreement and has otherwise complied with the applicable terms and conditions of such Award.

(b) Certificates. Upon the Award of Restricted Stock, the Committee may direct that a certificate or certificates representing the number of Shares subject to such Award be issued to the Participant or placed in a restricted stock account (including an electronic account) with the transfer agent and in either case designating the Participant as the registered owner. The certificate(s), if any, representing such shares shall be physically or electronically legended, as applicable, as to sale, transfer, assignment, pledge or other encumbrances during the Restriction Period and if issued to the Participant, returned to the Company, to be held in escrow during the Restriction Period. As a condition to any Award of Restricted Stock, the Participant may be required to deliver to the Company a share power, endorsed in blank, relating to the Shares covered by such Award.

(c) Restrictions and Conditions. The Award Agreement evidencing the grant of any Restricted Stock will incorporate the following terms and conditions and such additional terms and conditions, not inconsistent with the terms of the Plan, as the Committee deems appropriate in its sole and absolute discretion:

(i) During a period commencing with the date of an Award of Restricted Stock and ending at such time or times as specified by the Committee (the "Restriction Period"), the Participant will not be permitted to sell, transfer, pledge, assign or otherwise encumber Restricted Stock awarded under the Plan. The Committee may condition the lapse of restrictions on Restricted Stock upon one or more Vesting Conditions.

(ii) While any Share of Restricted Stock remains subject to restriction, the Participant will have, with respect to the Restricted Stock, the right to vote the Shares, but will not have the right to receive any cash distributions or dividends prior to the lapse of the Restriction Period underlying such Shares unless otherwise provided under the applicable Award Agreement or as determined by the Committee. If any cash distributions or dividends are payable with respect to the Restricted Stock, the Committee, in its sole discretion, may require the cash distributions or dividends to be subjected to the same Restriction Period as is applicable to the Restricted Stock with respect to which such amounts are paid, or, if the Committee so determines, reinvested in additional Restricted Stock to the extent Shares are available under Section 3(a) of the Plan. A Participant shall not be entitled to interest with respect to any dividends or distributions subjected to the Restriction Period. Any distributions or dividends paid in the form of securities with respect to Restricted Stock will be subject to the same terms and conditions as the Restricted Stock with respect to which they were paid, including, without limitation, the same Restriction Period.

(iii) Subject to the provisions of the applicable Award Agreement or as otherwise determined by the Committee, if a Participant's service with the Company and its Affiliates terminates prior to the expiration of the applicable Restriction Period, the Participant's Restricted Stock that then remains subject to forfeiture will then be forfeited automatically.

Section 9. Restricted Stock Units. Subject to the other terms of the Plan, the Committee may grant Restricted Stock Units to eligible individuals and may impose one or more Vesting Conditions on such units. Each Restricted Stock Unit will represent a right to receive from the Company, upon fulfillment of any applicable conditions, an amount equal to the Fair Market Value (at the time of the distribution) of one Share. Distributions may be made in cash, Shares, or a combination of both, at the discretion of the Committee. The Award Agreement evidencing a Restricted Stock Unit shall set forth the Vesting Conditions and time and form of payment with respect to such Award. The Participant shall not have any stockholder rights with respect to the Shares subject to a Restricted Stock Unit Award until that Award vests and the Shares are actually issued thereunder. Subject to the provisions of the applicable Award Agreement or as otherwise determined by the Committee, if a Participant's service with the Company terminates prior to the Restricted Stock Unit Award vesting in full, any portion of the Participant's Restricted Stock Units that then remain subject to forfeiture will then be forfeited automatically.

Section 10. Cash Award. Subject to the other terms of the Plan, the Committee may grant Cash Awards to eligible individuals and may impose one or more Vesting Conditions on such Awards. Unless otherwise determined by the Committee, a Participant must provide services to the Company or its Affiliates through the last day of the performance period applicable to the Cash Award in order to be eligible to receive payment. Unless otherwise specified by the Committee, payment in respect of a Cash Award will be made in cash, by the fifteenth day of the third month following the year in which such Award is earned.

Section 11. Amendments and Termination. The Board may amend, alter or discontinue the Plan at any time. However, except as otherwise provided in Section 3, no amendment, alteration or discontinuation will be made which would impair the rights of a Participant with respect to an Award without that Participant's consent or which, without the approval of such amendment within 365 days of its adoption by the Board or by the Company's stockholders in a manner consistent with Treas. Reg. § 1.422-3 (or any successor provision), would: (i) increase the total number of Shares reserved for issuance hereunder, or (ii) change the persons or class of persons eligible to receive Awards.

Section 12. Prohibition on Repricing Programs. Neither the Committee nor the Board shall (i) implement any cancellation/re-grant program pursuant to which outstanding Options or Stock Appreciation Rights under the Plan are cancelled and new Options or Stock Appreciation Rights are granted in replacement with a lower exercise or base price per share, (ii) cancel outstanding Options or Stock Appreciation Rights under the Plan with exercise prices or base prices per share in excess of the then current Fair Market Value per Share for consideration payable in equity securities of the Company or (iii) otherwise directly reduce the exercise price or base price in effect for outstanding Options or Stock Appreciation Rights under the Plan, without in each such instance obtaining stockholder approval.

Section 13. Conditions Upon Grant of Awards and Issuance of Shares.

(a) The implementation of the Plan, the grant of any Award and the issuance of Shares in connection with the issuance, exercise or vesting of any Award made under the Plan shall be subject to the Company's procurement of all approvals and permits required by regulatory authorities having jurisdiction over the Plan, the Awards made under the Plan and the Shares issuable pursuant to those Awards.

(b) No Shares or other assets shall be issued or delivered under the Plan unless and until there shall have been compliance with all applicable requirements of Applicable Law, including the filing and effectiveness of the Form S-8 registration statement for the Shares issuable under the Plan, and all applicable listing requirements of any stock exchange on which Shares are then listed for trading.

Section 14. Limits on Transferability; Beneficiaries. No Award or other right or interest of a Participant under the Plan shall be pledged, encumbered, or hypothecated to, or in favor of, or subject to any lien, obligation, or liability of such Participant to, any party, other than the Company, any Subsidiary or Affiliate, or assigned or transferred by such Participant other than by will or the laws of descent and distribution, and such Awards and rights shall be exercisable during the lifetime of the Participant only by the Participant or his or her guardian or legal representative. Notwithstanding the foregoing, the Committee may, in its discretion, provide that Awards or other rights or interests of a Participant granted pursuant to the Plan (other than an Incentive Stock Option) be transferable, without consideration, to immediate family members (i.e., children, grandchildren or spouse), to trusts for the benefit of such immediate family members and to partnerships in which such family members are the only partners. The Committee may attach to such transferability feature such terms and conditions as it deems advisable. In addition, a Participant may, in the manner established by the Committee, designate a beneficiary (which may be a person or a trust) to exercise the rights of the Participant, and to receive any distribution, with respect to any Award upon the death of the Participant. A beneficiary, guardian, legal representative or other person claiming any rights under the Plan from or through any Participant shall be subject to all terms and conditions of the Plan and any Award Agreement applicable to such Participant, except as otherwise determined by the Committee, and to any additional restrictions deemed necessary or appropriate by the Committee.

Section 15. Withholding of Taxes.

(a) Required Withholding. All Awards under the Plan shall be subject to applicable federal (including FICA), state and local tax withholding requirements. The Company may require that the Participant or other person receiving or exercising Awards pay to the Company the amount of any federal, state or local taxes that the Company is required to withhold with respect to such Awards, or the Company may deduct from other wages paid by the Company the amount of any withholding taxes due with respect to such Awards.

(b) Election to Withhold Shares. If the Committee so permits, Shares subject to an Award may be withheld to satisfy tax withholding obligations arising with respect thereto based on the Fair Market Value of such Shares at the time of withholding, to the extent that such withholding would not result in liability classification of such Award (or any portion thereof) under applicable accounting rules.

Section 16. Liability of Company.

(a) Inability to Obtain Authority. If the Company cannot, by the exercise of commercially reasonable efforts, obtain authority from any regulatory body having jurisdiction for the sale of any Shares under this Plan, and such authority is deemed by the Company's counsel to be necessary to the lawful issuance of those Shares, the Company will be relieved of any liability for failing to issue or sell those Shares.

(b) Grants Exceeding Allotted Shares. If Shares subject to an Award exceed, as of the date of grant, the number of Shares which may be issued under the Plan without additional shareholder approval, that Award will be contingent with respect to such excess Shares, on the effectiveness under Applicable Law of a sufficient increase in the number of Shares subject to this Plan.

(c) Rights of Participants and Beneficiaries. The Company will pay all amounts payable under this Plan only to the applicable Participant, or beneficiaries entitled thereto pursuant to this Plan. The Company will not be liable for the debts, contracts, or engagements of any Participant or his or her beneficiaries, and rights to cash payments under this Plan may not be taken in execution by attachment or garnishment, or by any other legal or equitable proceeding while in the hands of the Company.

Section 17. General Provisions.

(a) The Board may require each Participant to represent to and agree with the Company in writing that the Participant is acquiring securities of the Company for investment purposes and without a view to distribution thereof and as to such other matters as the Board believes are appropriate.

(b) The Awards shall be subject to the Company's stock ownership policies, as in effect from time to time.

(c) All certificates for Shares or other securities delivered under the Plan will be subject to such share-transfer orders and other restrictions as the Board may deem advisable under the rules, regulations and other requirements of the Securities Act of 1933, as amended, the Exchange Act, any stock exchange upon which the Shares are then listed, and any other Applicable Law, and the Board may cause a legend or legends to be put on any such certificates to make appropriate reference to such restrictions.

(d) Nothing contained in the Plan will prevent the Board from adopting other or additional compensation arrangements, subject to stockholder approval if such approval is required.

(e) Neither the adoption of the Plan nor the execution of any document in connection with the Plan will: (i) confer upon any employee or other service provider of the Company or an Affiliate any right to continued employment or engagement with the Company or such Affiliate, or (ii) interfere in any way with the right of the Company or such Affiliate to terminate the employment or engagement of any of its employees or other service providers at any time.

(f) The Awards (whether vested or unvested) shall be subject to rescission, cancellation or recoupment, in whole or in part, under any current or future "clawback" or similar policy of the Company that is applicable to the Participant. Notwithstanding any other provisions in this Plan, any Award which is subject to recovery under any law, government regulation or stock exchange listing requirement, will be subject to such deductions and clawback as may be required to be made pursuant to such law, government regulation or stock exchange listing requirement.

Section 18. Effective Date of Plan. The Plan became effective on [ ] (the 'Effective Date"), upon its approval by the holders of a majority of the voting power of the shares deemed present and entitled to vote at the meeting of stockholders of the Company.

Section 19. Term of Plan. Unless the Plan shall theretofore have been terminated in accordance with Section 11, the Plan shall terminate on the 10-year anniversary of the Effective Date, and no Awards under the Plan shall thereafter be granted.

Section 20. Invalid Provisions. In the event that any provision of this Plan is found to be invalid or otherwise unenforceable under any Applicable Law, such invalidity or unenforceability will not be construed as rendering any other provisions contained herein as invalid or unenforceable, and all such other provisions will be given full force and effect to the same extent as though the invalid or unenforceable provision was not contained herein.

Section 21. Governing Law. The Plan and all Awards granted hereunder will be governed by and construed in accordance with the laws and judicial decisions of the State of Delaware, without regard to the application of the principles of conflicts of laws.

Section 22. Notices. Any notice to be given to the Company pursuant to the provisions of this Plan must be given in writing and addressed, if to the Company, to its principal executive office to the attention of its Chief Financial Officer (or such other Person as the Company may designate in writing from time to time), and, if to a Participant, to the address contained in the Company's personnel files, or at such other address as that Participant may hereafter designate in writing to the Company. Any such notice will be deemed duly given: if delivered personally or via recognized overnight delivery service, on the date and at the time so delivered; if sent via telecopier or email, on the date and at the time telecopied or emailed with confirmation of delivery; or, if mailed, five (5) days after the date of mailing by registered or certified mail.

Exhibit 4.2

INTERPACE BIOSCIENCES, INC.
EMPLOYEE STOCK PURCHASE PLAN

1. Purpose. The purpose of the Interpace Biosciences, Inc. Employee Stock Purchase Plan is to provide employees of the Company and its Participating Subsidiaries with an opportunity to acquire a proprietary interest in the Company through the purchase of shares of Common Stock. The Company intends that the Plan qualify as an "employee stock purchase plan" under Code section 423, and the Plan shall be interpreted in a manner that is consistent with that intent.

2. Definitions.

"**Board**" means the Board of Directors of the Company, as constituted from time to time.

"**Code**" means the U.S. Internal Revenue Code of 1986, as amended. Any reference to a section of the Code shall be deemed to include any regulations promulgated thereunder.

"**Committee**" means the Compensation and Management Committee of the Board.

"**Common Stock**" means the common stock of the Company, par value $0.01 per share.

"**Company**" means Interpace Biosciences, Inc., a Delaware corporation, including any successor thereto.

"**Compensation**" means base salary, wages, annual bonuses and commissions paid to an Eligible Employee by the Company or a Participating Subsidiary as compensation for services to the Company or Participating Subsidiary, before deduction for any salary deferral contributions made by the Eligible Employee to any tax-qualified or nonqualified deferred compensation plan, and including overtime, vacation pay, holiday pay, jury duty pay and funeral leave pay, but excluding education or tuition reimbursements, imputed income arising under any group insurance or benefit program, travel expenses, business and relocation expenses, and income received in connection with stock options or other equity-based awards.

"**Corporate Transaction**" means a merger, consolidation, acquisition of property or stock, separation, reorganization or other corporate event described in Code section 424.

"**Designated Broker**" means the financial services firm or other agent designated by the Company to maintain ESPP Share Accounts on behalf of Participants who have purchased shares of Common Stock under the Plan.

"**Effective Date**" means the date as of which this Plan is adopted by the Board, subject to the Plan obtaining shareholder approval in accordance with Section 19.11.

"**Employee**" means any person who renders services to the Company or a Participating Subsidiary as an employee pursuant to an employment relationship with such employer. For purposes of the Plan, the employment relationship shall be treated as continuing intact while the individual is on military leave, sick leave or other leave of absence approved by the Company or a Participating Subsidiary that meets the requirements of Treasury Regulations section 1.421-1(h)(2). Where the period of leave exceeds three (3) months, or such other period of time specified in Treasury Regulations section 1.421-1(h)(2), and the individual's right to re-employment is not guaranteed by statute or contract, the employment relationship shall be deemed to have terminated on the first day immediately following such three-month period, or such other period specified in Treasury Regulations section 1.421-1(h)(2).

"**Eligible Employee**" means an Employee who (i) has been continuously employed by the Company or a Participating Subsidiary for at least one (1) year and (ii) is customarily employed for at least twenty (20) hours per week and for more than five (5) months in any calendar year. Notwithstanding the foregoing, the Committee may exclude from participation in the Plan or any Offering Employees who are "highly compensated employees" of the Company or a Participating Subsidiary (within the meaning of Code section 414(q)) or a sub-set of such highly compensated employees.

"**Enrollment Form**" means an agreement pursuant to which an Eligible Employee may elect to enroll in the Plan, authorize a new level of payroll deductions, or stop payroll deductions and withdraw from an Offering Period.

"**ESPP Share Account**" means an account into which Common Stock purchased with accumulated payroll deductions at the end of an Offering Period are held on behalf of a Participant.

"**Exchange Act**" means the U.S. Securities Exchange Act of 1934, as amended.

"**Fair Market Value**" means, as of any date, the value of the shares of Common Stock as determined below. If the shares are listed on any established stock exchange or a national market system, including, without limitation, the New York Stock Exchange or the NASDAQ Stock Market, the Fair Market Value shall be the closing price of a share (or if no sales were reported, the closing price on the date immediately preceding such date) as quoted on such exchange or system on the day of determination, as reported in The Wall Street Journal. In the absence of an established market for the shares, the Fair Market Value shall be determined in good faith by the Committee and such determination shall be conclusive and binding on all persons.

"**Offering**" means the grant of rights to an Eligible Employee to purchase shares of Common Stock during an Offering Period in accordance with the Plan.

"**Offering Date**" means the first Trading Day of each Offering Period, as designated by the Committee.

"**Offering Period**" means a period of six (6) months beginning each January 1st and July 1st;provided that, pursuant to Section 5, the Committee may change the duration of future Offering Periods (subject to a maximum Offering Period of twenty-seven (27) months) and/or the start and end dates of future Offering Periods.

"**Participant**" means an Eligible Employee who is actively participating in the Plan.

"**Participating Subsidiaries**" means the Subsidiaries that the Committee has designated as eligible to participate in the Plan, and such other Subsidiaries that may be designated by the Committee from time to time in its sole discretion.

"**Plan**" means this Interpace Biosciences, Inc. Employee Stock Purchase Plan, as set forth herein, and as amended from time to time.

"**Purchase Date**" means the last Trading Day of each Offering Period.

"**Purchase Price**" means an amount equal to the *lesser* of (i) eighty-five percent (85%) of the Fair Market Value of a share of Common Stock on the Offering Date or (ii) eighty-five percent (85%) of the Fair Market Value of a share of Common Stock on the Purchase Date;provided that, the Purchase Price per share of Common Stock will in no event be less than the par value of the Common Stock.

"**Securities Act**" means the Securities Act of 1933, as amended.

"**Subsidiary**" means any corporation, domestic or foreign, of which not less than 50% of the combined voting power is held by the Company or a Subsidiary, whether or not such corporation exists now or is hereafter organized or acquired by the Company or a Subsidiary. In all cases, the determination of whether an entity is a Subsidiary shall be made in accordance with Code section 424(f).

"**Trading Day**" means any day on which the national stock exchange upon which the Common Stock is listed is open for trading or, if the Common Stock is not listed on an established stock exchange or national market system, a business day, as determined by the Committee in good faith.

3. Administration. The Committee shall administer the Plan and shall have the authority to construe and interpret the Plan, prescribe, amend and rescind rules relating to the Plan's administration and take any other actions necessary or desirable for the administration of the Plan, and to ensure compliance with Code section 423 and other applicable law. The Committee's decisions shall be final and binding on all persons. All expenses of administering the Plan shall be borne by the Company.

4. Eligibility.

4.1 Unless otherwise determined by the Committee in a manner consistent with Code section 423, any individual who is an Eligible Employee as of the first day of the enrollment period designated by the Committee for a particular Offering Period shall be eligible to participate in such Offering Period, subject to Code section 423 requirements.

4.2 Notwithstanding any provision of the Plan to the contrary, no Eligible Employee shall be granted an option under the Plan if (i) immediately after the grant of the option, such Eligible Employee (or any other person whose stock would be attributed to such Eligible Employee pursuant to Code section 424(d)) would own capital stock of the Company or hold outstanding options to purchase stock possessing 5% or more of the total combined voting power or value of all classes of stock of the Company or any Subsidiary, or (ii) such option would permit his or her rights to purchase stock under all Code section 423 employee stock ownership plans of the Company and its Subsidiaries to accrue at a rate that exceeds $25,000 of the Fair Market Value of such stock (determined at the time the option is granted) for each calendar year in which such option is outstanding at any time.

5. Offering Periods. The Plan shall be implemented by a series of Offering Periods, each of which shall be six (6) months in duration, with new Offering Periods commencing on or about January 1st and July 1st of each year (or such other times as determined by the Committee). The Committee shall have the authority to change the duration, frequency, start and end dates of Offering Periods.

6. Participation.

6.1 Enrollment and Payroll Deductions. An Eligible Employee may elect to participate in the Plan by completing an Enrollment Form and submitting it to the Company, in accordance with the enrollment procedures established by the Committee. Participation in the Plan is entirely voluntary. By submitting an Enrollment Form, an Eligible Employee authorizes payroll deductions from his or her pay check in an amount equal to at least 1%, but not more than 10%, of his or her Compensation on each pay day occurring during an Offering Period (or such other maximum percentage as the Committee may establish from time to time before an Offering Period begins). Payroll deductions shall commence on the first payroll date following the Offering Date and end on the last payroll date on or before the Purchase Date. The Company shall maintain records of all payroll deductions but shall have no obligation to pay interest on payroll deductions or to hold such amounts in a trust or in any segregated account. Unless expressly permitted by the Committee, a Participant may not make any separate contributions or payments to the Plan.

6.2 Election Changes. During an Offering Period, a Participant may decrease or increase his or her rate of payroll deductions applicable to such Offering Period only once. To make such a change, the Participant must submit a new Enrollment Form authorizing the new rate of payroll deductions at least fifteen (15) days before the Purchase Date. A Participant may decrease or increase his or her rate of payroll deductions for future Offering Periods by submitting a new Enrollment Form authorizing the new rate of payroll deductions at least fifteen (15) days before the start of the next Offering Period.

6.3 Automatic Re-enrollment. The deduction rate selected by a Participant in an Enrollment Form shall remain in effect for subsequent Offering Periods, unless the Participant (i) submits a new Enrollment Form authorizing a new level of payroll deductions in accordance with Section 6.2, (ii) withdraws from the Plan in accordance with Section 10, or (iii) terminates employment or otherwise becomes ineligible to participate in the Plan.

7. Grant of Option. On each Offering Date, each Participant in the applicable Offering Period shall be granted an option to purchase, on the Purchase Date, a number of shares of Common Stock determined by dividing the Participant's accumulated payroll deductions by the applicable Purchase Price; provided, that in no event shall any Participant purchase more than 100,000 shares of Common Stock during an Offering Period (subject to adjustment in accordance with Section 18 and the limitations set forth in Section 13).

8. Exercise of Option/Purchase of Shares. A Participant's option to purchase shares of Common Stock will be exercised automatically on the Purchase Date of each Offering Period. The Participant's accumulated payroll deductions will be used to purchase the maximum number of whole shares that can be purchased with the amounts in the Participant's notional account. No fractional shares may be purchased but notional fractional shares of Common Stock will be allocated to the Participant's ESPP Share Account to be aggregated with other notional fractional shares of Common Stock on future Purchase Dates, subject to earlier withdrawal by the Participant in accordance with Section 10 or termination of employment in accordance with Section 11.

9. Transfer of Shares. As soon as reasonably practicable after each Purchase Date, the Company will arrange for the delivery to each Participant of the shares of Common Stock purchased upon exercise of his or her option. The Committee may permit or require that the shares be deposited directly into an ESPP Share Account established in the name of the Participant with a Designated Broker and may require that the shares of Common Stock be retained with such Designated Broker for a specified period of time. Participants will not have any voting, dividend or other rights of a shareholder with respect to the shares of Common Stock subject to any option granted hereunder until such shares have been delivered pursuant to this Section 9.

10. Withdrawal.

10.1 Withdrawal Procedure. A Participant may withdraw from an Offering by submitting a revised Enrollment Form to the Committee indicating his or her election to withdraw at least fifteen (15) days before the Purchase Date. The accumulated payroll deductions held on behalf of a Participant in his or her notional account (that have not been used to purchase shares of Common Stock) shall be paid to the Participant promptly following receipt of the Participant's Enrollment Form indicating his or her election to withdraw and the Participant's option shall be automatically terminated. If a Participant withdraws from an Offering Period, no payroll deductions will be made during any succeeding Offering Period, unless the Participant re-enrolls in accordance with Section 6.1.

10.2 Effect on Succeeding Offering Periods. A Participant's election to withdraw from an Offering Period will not have any effect upon his or her eligibility to participate in succeeding Offering Periods that commence following the completion of the Offering Period from which the Participant withdraws.

11. Termination of Employment; Change in Employment Status. Upon termination of a Participant's employment for any reason, including death, disability or retirement, or a change in the Participant's employment status following which the Participant is no longer an Eligible Employee, which in either case occurs at least thirty (30) days before the Purchase Date, the Participant will be deemed to have withdrawn from the Plan and the payroll deductions in the Participant's notional account that have not been used to purchase shares of Common Stock shall be returned to the Participant, or in the case of the Participant's death, to the person(s) entitled to such amounts under Section 17, and the Participant's option shall be automatically terminated. If the Participant's termination of employment or change in status occurs within thirty (30) days before a Purchase Date, the accumulated payroll deductions shall be used to purchase shares on the Purchase Date.

12. Interest. No interest shall accrue on or be payable with respect to the payroll deductions of a Participant in the Plan.

13. Shares Reserved for Plan.

13.1 Number of Shares. A total of 1,000,000 shares of Common Stock have been authorized and reserved for issuance under the Plan. Such shares of Common Stock may be newly issued shares, treasury shares or shares acquired on the open market.

13.2 Over-subscribed Offerings. The number of shares of Common Stock which a Participant may purchase in an Offering under the Plan may be reduced if the Offering is over-subscribed. No option granted under the Plan shall permit a Participant to purchase shares of Common Stock which, if added together with the total number of shares of Common Stock purchased by all other Participants in such Offering would exceed the total number of shares of Common Stock remaining available under the Plan. If the Committee determines that, on a particular Purchase Date, the number of shares of Common Stock with respect to which options are to be exercised exceeds the number of shares of Common Stock then available under the Plan, the Company shall make a *pro rata* allocation of the shares of Common Stock remaining available for purchase in as uniform a manner as practicable and as the Committee determines to be equitable.

14. Transferability. No payroll deductions credited to a Participant, nor any rights with respect to the exercise of an option or any rights to receive Common Stock hereunder may be assigned, transferred, pledged or otherwise disposed of in any way by the Participant, other than by will, the laws of descent and distribution, or as provided in Section 17. Any attempt to assign, transfer, pledge or otherwise dispose of such rights or amounts shall be without effect.

15. Application of Funds. All payroll deductions received or held by the Company under the Plan may be used by the Company for any corporate purpose to the extent permitted by applicable law, and the Company shall not be required to segregate such payroll deductions or contributions.

16. Statements. Participants will be provided with statements at least annually which shall set forth the contributions made by the Participant to the Plan, the Purchase Price of any shares of Common Stock purchased with accumulated funds, the number of shares of Common Stock purchased, and any payroll deduction amounts remaining in the Participant's notional account.

17. Designation of Beneficiary. A Participant may file, on forms supplied by the Committee, a written designation of beneficiary who is to receive any shares of Common Stock and cash in respect of any fractional shares of Common Stock, if any, from the Participant's ESPP Share Account under the Plan in the event of such Participant's death. In addition, a Participant may file a written designation of beneficiary who is to receive any cash withheld through payroll deductions and credited to the Participant's notional account in the event of the Participant's death prior to the Purchase Date of an Offering Period.

18. Adjustments; Dissolution or Liquidation; Corporate Transactions.

18.1 Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Common Stock, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Common Stock or other securities of the Company, or other change in the Company's structure affecting the Common Stock occurs, then in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, the Committee will, in such manner as it deems equitable, adjust the number of shares and class of Common Stock that may be delivered under the Plan, the Purchase Price per share and the number of shares of Common Stock covered by each outstanding option under the Plan, and the numerical limits of Section 7 and Section 13.

18.2 Dissolution or Liquidation. Unless otherwise determined by the Committee, in the event of a proposed dissolution or liquidation of the Company, any Offering Period then in progress will be shortened by setting a new Purchase Date, and the Offering Period will end immediately prior to the proposed dissolution or liquidation. The new Purchase Date will be before the date of the Company's proposed dissolution or liquidation. Before the new Purchase Date, the Committee will provide each Participant with written notice, which may be electronic, of the new Purchase Date and that the Participant's option will be exercised automatically on such date, unless before such time, the Participant has withdrawn from the Offering in accordance with Section 10.

18.3 Corporate Transaction. In the event of a Corporate Transaction, each outstanding option will be assumed or an equivalent option substituted by the successor corporation or a parent or Subsidiary of such successor corporation. If the successor corporation refuses to assume or substitute the option, the Offering Period with respect to which the option relates will be shortened by setting a new Purchase Date on which the Offering Period will end. The new Purchase Date will occur before the date of the Corporate Transaction. Prior to the new Purchase Date, the Committee will provide each Participant with written notice, which may be electronic, of the new Purchase Date and that the Participant's option will be exercised automatically on such date, unless before such time, the Participant has withdrawn from the Offering in accordance with Section 10.

19. General Provisions.

19.1 Equal Rights and Privileges. Notwithstanding any provision of the Plan to the contrary and in accordance with Code section 423, all Eligible Employees who are granted options under the Plan shall have the same rights and privileges.

19.2 No Right to Continued Service. Neither the Plan nor any compensation paid hereunder will confer on any Participant the right to continue as an Employee or in any other capacity.

19.3 Rights as Shareholder. A Participant will become a shareholder with respect to the shares of Common Stock that are purchased pursuant to options granted under the Plan when the shares are transferred to the Participant's ESPP Share Account. A Participant will have no rights as a shareholder with respect to shares of Common Stock for which an election to participate in an Offering Period has been made until such Participant becomes a shareholder as provided above.

19.4 Successors and Assigns. The Plan shall be binding on the Company and its successors and assigns.

19.5 Entire Plan. This Plan constitutes the entire plan with respect to the subject matter hereof and supersedes all prior plans with respect to the subject matter hereof.

19.6 Compliance with Law. The obligations of the Company with respect to payments under the Plan are subject to compliance with all applicable laws and regulations. Common Stock shall not be issued with respect to an option granted under the Plan unless the exercise of such option and the issuance and delivery of the shares of Common Stock pursuant thereto shall comply with all applicable provisions of law, including, without limitation, the Securities Act, the Exchange Act, and the requirements of any stock exchange upon which the shares may then be listed.

19.7 Notice of Disqualifying Dispositions. Each Participant shall give the Company prompt written notice of any disposition or other transfer of shares of Common Stock acquired pursuant to the exercise of an option acquired under the Plan, if such disposition or transfer is made within two years after the Offering Date or within one year after the Purchase Date.

19.8 Term of Plan. The Plan shall become effective on the Effective Date and, unless terminated earlier pursuant to Section 19.9, shall have a term of ten (10) years.

19.9 Amendment or Termination. The Committee may, in its sole discretion, amend, suspend or terminate the Plan at any time and for any reason. If the Plan is terminated, the Committee may elect to terminate all outstanding Offering Periods either immediately or once shares of Common Stock have been purchased on the next Purchase Date (which may, in the discretion of the Committee, be accelerated) or permit Offering Periods to expire in accordance with their terms (and subject to any adjustment in accordance with Section 18). If any Offering Period is terminated before its scheduled expiration, all amounts that have not been used to purchase shares of Common Stock will be returned to Participants (without interest, except as otherwise required by law) as soon as administratively practicable.

19.10 Applicable Law. The laws of the State of Delaware shall govern all questions concerning the construction, validity and interpretation of the Plan, without regard to such state's conflict of law rules.

19.11 Shareholder Approval. The Plan shall be subject to approval by the shareholders of the Company within twelve (12) months before or after the date the Plan is adopted by the Board.

19.12 Code Section 423. The Plan is intended to qualify as an employee stock ownership plan under Code section 423. Any provision of the Plan that is inconsistent with Code section 423 shall be reformed to comply with Code section 423.

19.13 Withholding. To the extent required by applicable federal, state or local law, a Participant must make arrangements satisfactory to the Company for the payment of any withholding or similar tax obligations that arise in connection with the Plan.

19.14 Severability. If any provision of the Plan shall for any reason be held to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision hereof, and the Plan shall be construed as if such invalid or unenforceable provision were omitted.

19.15 Headings. The headings of sections herein are included solely for convenience and shall not affect the meaning of any of the provisions of the Plan.

Exhibit 4.3

INTERPACE BIOSCIENCES, INC. 2019 EQUITY INCENTIVE PLAN

RESTRICTED STOCK UNIT GRANT NOTICE AND RESTRICTED STOCK UNIT AGREEMENT

Interpace Biosciences, Inc., a Delaware corporation (the "Company"), pursuant to its 2019 Equity Incentive Plan, as amended from time to time (the "Plan"), hereby grants to the individual listed below ("Participant") an award of the number of Restricted Stock Units set forth below (the "Restricted Stock Units"). The Restricted Stock Units are subject to the terms and conditions set forth in this Restricted Stock Unit Grant Notice (the "Grant Notice"), the Restricted Stock Unit Agreement attached hereto as Exhibit A (the "Agreement") and the Plan, each of which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Agreement.

Participant:	[_____]
Grant Date:	[_____]
Total Number of Restricted Stock Units:	[_____]
Vesting Schedule:	1/3 of the Restricted Stock Units shall vest on each of the first three anniversaries of the Grant Date

By Participant's signature below, Participant agrees to be bound by the terms and conditions of the Plan, the Agreement and the Grant Notice. Participant has reviewed the Agreement, the Plan and the Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing the Grant Notice and fully understands all provisions of the Grant Notice, the Agreement and the Plan.

INTERPACE BIOSCIENCES, INC.	**PARTICIPANT**
Name: Jack Stover	Name:
Title: CEO	

EXHIBIT A
TO RESTRICTED STOCK UNIT GRANT NOTICE

RESTRICTED STOCK UNIT AGREEMENT

Pursuant to the Grant Notice to which this Agreement is attached, the Company has granted to Participant Restricted Stock Units under the Plan in an amount set forth in the Grant Notice.

1. Award of Restricted Stock Units. In consideration of Participant's past and/or continued employment with or service to the Company and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice, the Company has granted to Participant the number of Restricted Stock Units set forth in the Grant Notice, upon the terms and conditions set forth in the Grant Notice, the Plan and this Agreement. Each Restricted Stock Unit represents the right to receive one Share or, at the option of the Company, an amount of cash as set forth in Section 4(b), in either case, at the times and subjection to the conditions set forth herein. However, unless and until the Restricted Stock Units have vested, Participant will have no right to the payment of any Shares subject thereto. Prior to the actual delivery of any Shares, the Restricted Stock Units will represent an unsecured obligation of the Company, payable only from the general assets of the Company.

2. Date of Grant. The Restricted Stock Units are granted on the Grant Date.

3. Vesting of Restricted Stock Units. The Restricted Stock Units will become vested only in accordance with the terms and provisions of the Plan and this Agreement, as follows:

(a) Vesting. Subject to the continued service of the Participant by the Company through the relevant vesting dates, the Restricted Stock Units shall become vested in such amounts and at such times as are set forth in the Grant Notice.

(b) Service with Affiliates. Solely for purposes of this Agreement, service with the Company will be deemed to include service with any Affiliate of the Company (for only so long as such entity remains an Affiliate of the Company).

(c) Effect of Termination of Service on the Restricted Stock Units. If the Participant's service terminates or is terminated for any reason, the unvested portion of the Restricted Stock Units shall be forfeited immediately with no further compensation due to the Participant.

4. Distribution or Payment of Restricted Stock Units.

(a) The Restricted Stock Units shall be distributed in Shares (either in book-entry form or otherwise) or, at the option of the Company, paid in an amount of cash as set forth in Section 4(b), in either case, as soon as administratively practicable following the vesting of the applicable Restricted Stock Unit, and, in any event, within sixty (60) days following such vesting (for the avoidance of doubt, this deadline is intended to comply with the "short-term deferral" exemption from Section 409A of the Code). Notwithstanding the foregoing, the Company may delay a distribution or payment in settlement of Restricted Stock Units if it reasonably determines that such payment or distribution will violate federal securities laws or any other applicable law, provided that such distribution or payment shall be made at the earliest date at which the Company reasonably determines that the making of such distribution or payment will not cause such violation, as required by Proposed Treasury Regulation Section 1.409A-1(b)(4)(ii), and provided further that no payment or distribution shall be delayed under this Section 4(a) if such delay will result in a violation of Section 409A of the Code.

(b) In the event that the Company elects to make payment of the Restricted Stock Units in cash, the amount of cash payable with respect to each Restricted Stock Unit shall be equal to the Fair Market Value of a Share on the day immediately preceding the applicable distribution or payment date set forth in Section 4(a). All distributions made in Shares shall be made by the Company in the form of whole Shares, and any fractional Share shall be distributed in cash in an amount equal to the value of such fractional Share determined based on the Fair Market Value as of the date immediately preceding the date of such distribution.

5. Non-Transferability of Restricted Stock Units. The Restricted Stock Units may not be sold, pledged, assigned, hypothecated, gifted, transferred or disposed of in any manner either voluntarily or involuntarily by operation of law or otherwise, other than by will or by the laws of descent and distribution.

6. Investment Representations. The Participant represents and warrants to the Company that the Participant is acquiring the Restricted Stock Units (and upon settlement of the Restricted Stock Units, may be acquiring Shares) for investment for the Participant's own account, not as a nominee or agent, and not with a view to, or for resale in connection with, any distribution thereof. As a further condition to the settlement of the Restricted Stock Units, the Board may require that certain agreements, undertakings, representations, certificates, legends and/or information or other matters, as the Board may deem necessary or advisable, be executed, agreed to and/or provided to the Company to assure compliance with all such applicable laws or regulations.

7. Tax Consequences. The Participant acknowledges that the Company has not advised the Participant regarding the Participant's income tax liability in connection with the grant of the Restricted Stock Units and that the Company does not guarantee any particular tax treatment. The Participant acknowledges that the Participant has reviewed with the Participant's own tax advisors the tax treatment of the Restricted Stock Units and is relying solely on those advisors in that regard. The Participant understands that the Participant (and not the Company) will be responsible for the Participant's own tax liabilities arising in connection with the Restricted Stock Units.

8. No Continuation of Service. Neither the Plan nor this Agreement will confer upon the Participant any right to continue in the employment or service of the Company or any of its Affiliates, or limit in any respect the right of the Company or its Affiliates to discharge the Participant at any time, with or without Cause and with or without notice.

9. Withholding. The Company is hereby authorized to withhold from any consideration payable or property transferable to the Participant any taxes required to be withheld by applicable law in connection with the grant, vesting or settlement of the Restricted Stock Units or the disposition of the Shares subject to the Restricted Stock Units.

10. The Plan. The Participant has received a copy of the Plan, has read the Plan and is familiar with its terms, and hereby accepts the Restricted Stock Units subject to the terms and provisions of the Plan. Pursuant to the Plan, the Board is authorized to interpret the Plan and to adopt rules and regulations not inconsistent with the Plan as it deems appropriate. The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board with respect to questions arising under the Plan, the Grant Notice or this Agreement.

11. Entire Agreement. The Grant Notice and this Agreement, together with the Plan, and any other exhibits attached hereto, represents the entire agreement between the parties with respect to the subject matter hereof and supersedes any prior agreement, written or otherwise, relating to the subject matter hereof.

12. Amendment. Except as otherwise provided herein, in the Grant Notice or in the Plan, or as would otherwise not have a material adverse effect on the Participant, this Agreement may only be amended by a writing signed by each of the parties hereto.

13. Governing Law. This Agreement will be construed in accordance with the laws of the State of Delaware, without regard to the application of the principles of conflicts of laws.

14. Execution. The Grant Notice may be executed, including execution by facsimile signature, in one or more counterparts, each of which will be deemed an original, and all of which together shall be deemed to be one and the same instrument.

Exhibit 4.4

INTERPACE BIOSCIENCES, INC. 2019 EQUITY INCENTIVE PLAN

STOCK OPTION GRANT NOTICE AND
STOCK OPTION AGREEMENT

Interpace Biosciences, Inc., a Delaware corporation (the "Company"), pursuant to its 2019 Equity Incentive Plan, as amended from time to time (the "Plan"), hereby grants to the individual listed below ("Participant") an option to purchase the number of Shares set forth below (the "Option"). The Option is subject to the terms and conditions set forth in this Stock Option Grant Notice (the "Grant Notice"), the Stock Option Agreement attached hereto as Exhibit A (the "Agreement") and the Plan, each of which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Agreement.

Participant:	[_____]
Grant Date:	[_____]
Exercise Price Per Share:	[_____]
Total Number of Shares Subject to Option:	[_____]
Expiration Date:	[_____]
Type of Option:	[ ] Incentive Stock Option [ ] Non-Qualified Stock Option
Vesting Schedule:	1/3 of the Option shall vest on each of the first three anniversaries of the Grant Date

By Participant's signature below, Participant agrees to be bound by the terms and conditions of the Plan, the Agreement and the Grant Notice. Participant has reviewed the Agreement, the Plan and the Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing the Grant Notice and fully understands all provisions of the Grant Notice, the Agreement and the Plan.

INTERPACE BIOSCIENCES, INC.	**PARTICIPANT**
Name: Jack Stover	Name:
Title: CEO	

EXHIBIT A
TO STOCK OPTION GRANT NOTICE

STOCK OPTION AGREEMENT

Pursuant to the Grant Notice to which this Agreement is attached, the Company has granted to Participant an Option under the Plan to purchase the number of Shares set forth in the Grant Notice.

1. Award of Option. In consideration of Participant's past and/or continued employment with or service to the Company and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice, the Company has granted to Participant the Option to purchase any part or all of the aggregate number of Shares set forth in the Grant Notice, upon the terms and conditions set forth in the Grant Notice, the Plan and this Agreement.

2. Date of Grant; Term of Option. The Option is granted on the Grant Date and may not be exercised later than the Expiration Date, subject to earlier termination in accordance with the Plan and this Agreement.

3. Option Exercise Price. The exercise price per Share of the Shares subject to the Option (the "Exercise Price") shall be as set forth in the Grant Notice.

4. Vesting and Exercise of Option. The Option will become vested and exercisable only in accordance with the terms and provisions of the Plan and this Agreement, as follows:

(a) Vesting. Subject to the continued service of the Participant by the Company through the relevant vesting dates, the Option shall become vested and exercisable in such amounts and at such times as are set forth in the Grant Notice.

(b) Service with Affiliates. Solely for purposes of this Agreement, service with the Company will be deemed to include service with any Affiliate of the Company (for only so long as such entity remains an Affiliate of the Company).

(c) Effect of Termination of Service on the Option.

(i) Forfeiture of Unvested Option. If the Participant's service terminates or is terminated for any reason, the unvested portion of the Option shall be forfeited immediately with no further compensation due to the Participant.

(ii) Vested Portion of the Option. If the Participant's service terminates or is terminated for any reason, the vested portion of the Option shall remain exercisable for such period as set forth in Section 7 of the Plan.

(d) Method of Exercise. The Participant may exercise the Option by delivering a written notice of exercise to the Company in accordance with Section 5(d) of the Plan.

(e) Partial Exercise. The Option may be exercised in whole or in part;*provided*, *however*, that any exercise may apply only with respect to a whole number of Shares.

(f) Restrictions on Exercise. The Option may not be exercised, and any purported exercise will be void, if the issuance of Shares upon such exercise would constitute a violation of any law, regulation or exchange listing requirement. The Board may from time to time modify the terms of the Option or impose additional conditions on the exercise of the Option as it deems necessary or appropriate to facilitate compliance with any law, regulation or exchange listing requirement. As a further condition to the exercise of the Option, the Company may require the Participant to make any representation or warranty as may be required by or advisable under any applicable law or regulation.

5. Non-Transferability of Option. The Option may not be sold, pledged, assigned, hypothecated, gifted, transferred or disposed of in any manner either voluntarily or involuntarily by operation of law or otherwise, other than by will or by the laws of descent and distribution.

6. Investment Representations. The Participant represents and warrants to the Company that the Participant is acquiring the Option (and upon exercise of the Option, will be acquiring Shares) for investment for the Participant's own account, not as a nominee or agent, and not with a view to, or for resale in connection with, any distribution thereof. As a further condition to the exercise of the Option, the Board may require that certain agreements, undertakings, representations, certificates, legends and/or information or other matters, as the Board may deem necessary or advisable, be executed, agreed to and/or provided to the Company to assure compliance with all such applicable laws or regulations.

7. Tax Consequences. The Participant acknowledges that the Company has not advised the Participant regarding the Participant's income tax liability in connection with the grant of the Option and that the Company does not guarantee any particular tax treatment. The Participant acknowledges that the Participant has reviewed with the Participant's own tax advisors the tax treatment of the Option (including the purchase and sale of Shares subject hereto) and is relying solely on those advisors in that regard. The Participant understands that the Participant (and not the Company) will be responsible for the Participant's own tax liabilities arising in connection with the Option.

8. No Continuation of Service. Neither the Plan nor this Agreement will confer upon the Participant any right to continue in the employment or service of the Company or any of its Affiliates, or limit in any respect the right of the Company or its Affiliates to discharge the Participant at any time, with or without Cause and with or without notice.

9. Withholding. The Company is hereby authorized to withhold from any consideration payable or property transferable to the Participant any taxes required to be withheld by applicable law in connection with the grant, vesting or exercise of the Option or the disposition of the Shares subject to the Option.

10. The Plan. The Participant has received a copy of the Plan, has read the Plan and is familiar with its terms, and hereby accepts the Option subject to the terms and provisions of the Plan. Pursuant to the Plan, the Board is authorized to interpret the Plan and to adopt rules and regulations not inconsistent with the Plan as it deems appropriate. The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board with respect to questions arising under the Plan, the Grant Notice or this Agreement.

11. Entire Agreement. The Grant Notice and this Agreement, together with the Plan, and any other exhibits attached hereto, represents the entire agreement between the parties with respect to the subject matter hereof and supersedes any prior agreement, written or otherwise, relating to the subject matter hereof.

12. Amendment. Except as otherwise provided herein, in the Grant Notice or in the Plan, or as would otherwise not have a material adverse effect on the Participant, this Agreement may only be amended by a writing signed by each of the parties hereto.

13. Governing Law. This Agreement will be construed in accordance with the laws of the State of Delaware, without regard to the application of the principles of conflicts of laws.

14. Execution. The Grant Notice may be executed, including execution by facsimile signature, in one or more counterparts, each of which will be deemed an original, and all of which together shall be deemed to be one and the same instrument.

15. Incentive Stock Options. Participant acknowledges that to the extent the aggregate Fair Market Value of Shares (determined as of the time the option with respect to the Shares is granted) with respect to which Incentive Stock Options, including the Option (if applicable), are exercisable for the first time by Participant during any calendar year exceeds $100,000 or if for any other reason such Incentive Stock Options do not qualify or cease to qualify for treatment as "incentive stock options" under Section 422 of the Code, such Incentive Stock Options shall be treated as Non-Qualified Stock Options. Participant further acknowledges that the rule set forth in the preceding sentence shall be applied by taking the Option and other stock options into account in the order in which they were granted, as determined under Section 422(d) of the Code and the Treasury Regulations thereunder. Participant also acknowledges that an Incentive Stock Option exercised more than three months after Participant's termination of service, other than by reason of death or disability, will be taxed as a Non-Qualified Stock Option.

16. Notification of Disposition. If the Option is designated as an Incentive Stock Option, Participant shall give prompt written notice to the Company of any disposition or other transfer of any Shares acquired under this Agreement if such disposition or transfer is made (a) within two years from the Grant Date or (b) within one year after the transfer of such Shares to Participant. Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by Participant in such disposition or other transfer.

Exhibit 31.1

CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002

I, Jack E. Stover, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 of Interpace Biosciences, Inc. (the "registrant");

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 14, 2019

/s/ Jack E. Stover
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002

I, James Early, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 of Interpace Biosciences, Inc. (the "registrant");

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 14, 2019

/s/ James Early
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION 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 Interpace Biosciences, Inc. (the "Company") on form 10-Q for the period ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jack E. Stover, as Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 14, 2019

/s/ Jack E. Stover
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION 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 Interpace Biosciences, Inc. (the "Company") on form 10-Q for the period ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James Early, as Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 14, 2019

/s/ James Early
Chief Financial Officer
(Principal Financial Officer)