

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

Amendment No.1
to
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Sigma Labs, Inc.
(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of
incorporation or organization)

27-1865814
(I.R.S. Employer
Identification No.)

Sigma Labs, Inc.
3900 Paseo del Sol
Santa Fe, New Mexico 87507
(505) 438-2576
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

John Rice
Chief Executive Officer
Sigma Labs, Inc.
3900 Paseo del Sol
Santa Fe, New Mexico 87507
(505) 438-2576
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

Darren T. Freedman
TroyGould PC
1801 Century Park East, 16th Floor
Los Angeles, California 90067

From time to time after the effective date of this registration statement.
(Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. []

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. [X]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. []

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. []

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. (Check one):

Large accelerated filer []
Non-accelerated filer []

Accelerated filer []
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 to Section 7(a)(2)(B) of the Securities Act. []

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered ⁽¹⁾	Proposed maximum offering price per share ⁽²⁾	Proposed maximum aggregate offering price ⁽²⁾	Amount of registration fee

Common Stock, \$0.001 par value per share	121,704,222	\$	0.92	\$	111,967,884.24	\$	14,533.43
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- (1) Pursuant to Rule 416 under the Securities Act of 1933, the shares being registered on this registration statement include such indeterminate number of shares of common stock as may be issuable with respect to the shares being registered on this registration statement as a result of stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933 based upon the average of the high and low sale prices of the common stock as reported on The NASDAQ Capital Market on January 27, 2020

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Explanatory Note

On February 3, 2020, Sigma Labs, Inc. (the "Company") filed a registration statement with the Securities and Exchange Commission on Form S-3 ("Registration No. 333-236231) (the "Registration Statement"). This Amendment No. 1 to the Registration Statement is being filed by the Company solely to correct (a) the number of shares of Common Stock on the cover page of the prospectus being offered and (b) the list of Current Reports on Form 8-K on page 23.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THESE SECURITIES MAY NOT BE SOLD UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PRELIMINARY PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND WE ARE NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

Subject to completion, dated February 11, 2020

SIGMA LABS, INC.

Prospectus

121,704,222 Shares of Common Stock Offered by Selling Stockholders

This prospectus relates to the offer and sale from time to time of up to 121,704,222 shares of our common stock issuable upon (a) the conversion of the shares of the Company's Series D Convertible Preferred Stock currently outstanding (the "Initial Preferred Shares"), (b) the exercise of currently outstanding common stock purchase warrants (the "Common Warrants"), and (c) the conversion of the Company's Series D Convertible Stock (the "Additional Preferred Shares") issuable upon exercise of the currently outstanding warrants to purchase Preferred Stock (the "Preferred Warrants"). The Initial Preferred Shares, the Common Warrants and the Preferred Warrants were acquired by investors in a January 2020 private placement described herein. The investors are referred to in this prospectus as the "selling stockholders."

For a list of the selling stockholders, please see "Selling Stockholders." The selling stockholders may sell these shares from time to time in the principal market in which our common stock is traded at the prevailing market price, in negotiated transactions, or through any other means described in the section titled "Plan of Distribution." We do not know when or in what amount the selling stockholders may offer the securities for sale. The selling stockholders may sell some, all or none of the securities offered by this prospectus. The selling stockholders may be deemed underwriters within the meaning of the Securities Act of 1933, as amended, of the shares of common stock that they are offering. We will pay the expenses of registering these shares. We will not receive proceeds from the sale of our shares by the selling stockholders that are covered by this prospectus. However, we will receive payment of the exercise price upon any exercise of the Common Warrants and Preferred Warrants to the extent exercised on a cash basis, and any such proceeds we receive will be used for general corporate purposes and for working capital.

Our common stock is traded on The NASDAQ Capital Market under the symbol "SGLB." On January 31, 2020, the last reported sale price of our common stock as reported on The NASDAQ Capital Market was \$1.00.

You should understand the risks associated with investing in our common stock. Before making an investment, read the "Risk Factors," which begin on page 12 of this prospectus.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated _____, 2020.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed on behalf of the selling stockholders with the Securities and Exchange Commission, or the SEC, to permit the selling stockholders to sell the shares described in this prospectus in one or more transactions. The selling stockholders and the plan of distribution of the shares being offered by them are described in this prospectus under the headings “Selling Stockholders” and “Plan of Distribution.”

As permitted by the rules and regulations of the SEC, the registration statement filed by us includes additional information not contained in this prospectus. You may read the registration statement and the other reports we file with the SEC at the SEC’s web site or its offices described below under the heading “Where You Can Find More Information.”

You should rely only on the information that is contained in this prospectus or that is incorporated by reference into this prospectus. We and the selling stockholders have not authorized anyone to provide you with information that is in addition to or different from that contained in, or incorporated by reference into, this prospectus. If anyone provides you with different or inconsistent information, you should not rely on it.

The shares of common stock offered by this prospectus are not being offered in any jurisdiction where the offer or sale of such common stock is not permitted. You should not assume that the information contained in, or incorporated by reference into, this prospectus is accurate as of any date other than the date of this prospectus or, in the case of the documents incorporated by reference, the date of such documents, regardless of the date of delivery of this prospectus or any sale of the common stock offered by this prospectus. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

Unless otherwise stated or the context otherwise requires, the terms “Sigma,” “we,” “us,” “our” and the “Company” refer to Sigma Labs, Inc., a Nevada corporation.

PROSPECTUS SUMMARY

The following summary highlights selected information contained elsewhere in or incorporated by reference in this prospectus. This summary is not complete and does not contain all of the information that should be considered before investing in our securities. Potential investors should read the entire prospectus carefully, including the more detailed information regarding our business provided in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (the "Form 10-K") incorporated herein by reference, the risks related to our securities discussed under the "Risk Factors" section of the Form 10-K, and our financial statements and the accompanying notes to the financial statements incorporated herein by reference.

Our Company

Summary

Sigma is a software company that has developed In-Process-Quality-Assurance ("IPQA") software known as PrintRite3D®. This technology is also sometimes referred to as Real-Time-Computer-Aided Inspection ("CAI"). Sigma believes that its PrintRite3D® solves the major problem that has prevented large-scale metal part production using 3D printers for cost efficient production runs.

3D metal manufacturing, also known as Additive Manufacturing, is a technology that uses lasers to sculpt parts by welding powdered metals into 3-dimensional (3D) objects and, to date, the quality of these parts can vary from part to part in a single production run, as well as from machine to machine in a production line. Traditional quality assurance methods relying on statistically based post-process inspection methods so well proven by "Subtractive Manufacturing" cannot be used effectively to improve and assure quality of parts manufactured using 3D metal printers. The aforementioned traditional quality assurance methods are based on a manufacturing process that is the opposite of 3D Additive Manufacturing; Subtractive Manufacturing begins with quality-assured already formed pieces of metal as a raw material (not powdered metal as is used as raw material in 3D) and machines it with equipment such as lathes, milling machines, and CNC machines to subtract metal and thus form finished metal parts, or by casting molten metal into molded parts usually to then be further machined. Since the metal used in Subtractive Manufacturing is already of proven quality, the quality of the metal for all parts in a production run is known to be uniform, subject to post process inspection of a statistically determined valid sample size focused primarily on metrology to determine dimensional accuracy rather than metallurgy to determine metal quality.

The lynchpin reality of 3D Additive Manufacturing (AM) quality assurance is illustrated by the fact that if a 3D metal manufacturing machine fabricates 10 parts, and quality inspectors then rigorously inspect three of them, the inspectors will have learned about the quality of only the three parts they destroyed or CT-scanned and nothing that is sufficient to confirm or reject the quality of the remaining seven. Quality assurance of 3D Additive metal parts requires high quality sensitive manufacturers to institute procedures to inspect 100% of the parts being made. Sigma believes that the best, indeed, the only known way to attain high yields for both manufacturing quality and cost efficiency is an In-Process-Quality-Assurance (IPQA®) approach that examines each part in real time as it is being manufactured, determines in real time whether it meets quality specifications and permits machine operators to act on the information if a part is beginning to deviate from its design specifications.

GE Aviation stated in 2016 that it planned to commit \$3.5 billion by 2020 to, among other things, build a metal 3D production facility to produce 3D printed metal parts for its Leap engine and other engines. Starting in September 2016 and continuing into 2017 GE Aviation spent over \$1 billion buying controlling interests in AM equipment manufacturers, Concept Laser and Arcam AB, and later announced that it had invested over \$300 million creating AM manufacturing capability in both the United States and India, and was an investor in a \$115 million series D investment round of Desktop Metal, a metal 3D printing company. In the course of 2017, GE Additive continued with lateral growth into additive manufacturing, announcing collaborations with Oerlikon and Stryker, and then a partnership with GKN. Sigma Labs has learned from its interactions in the marketplace that the pent-up demand apparent from GE and others, such as Airbus, to press forward into advanced 3D manufacturing production are taking place with the assumption that highly reliable in-process quality assurance capability will no doubt emerge either from their own internal efforts or be attained through licensing, or possibly acquisition. In the meantime, CT scans and other costly post-process inspection appear to be an accepted cost as initially sustainable in the startup phases of production. However, until companies that utilize 3D production facilities like GE Aviation are able to effectively verify that each part conforms to design specifications of attributes of shape, density, strength and consistency in real-time during the manufacturing process, we believe that such companies will be at risk of letting some substandard parts through and, also, be unable to improve the workflow to high quality cost-optimum yields of 3D printed metal parts. No matter how much acuity and at what cost a suite of post process inspection tools might provide 3D manufactured metal parts, it currently can only assure quality yield by rejecting fully formed parts, and, over time, applying comprehensive ‘reverse engineering’ forensic analyses of each rejected part to identify repeating quality flaws attributable to constants such as location, design, or scan strategy. Once the locations of these repeating flaws are identified, process engineers can act to make the AM equipment deliver better quality by adjusting the computer-based manufacturing instructions of AM equipment to offset the repeating flaws discovered by that deep analyses of individual rejected parts in many manufacturing runs. This prolonged post-process methodology is very costly due to the loss of material and rejected parts as well as post-process analysis labor cost and inspection cost such as CT scanning. Additionally, there still lingers the question of whether or not the post-process inspections were sufficiently granular to assure that flawed parts were not accepted and shipped.

We believe that our principal product, PrintRite3D®, which can be installed on 3D metal printers, solves these problems by determining if each part is being made to the metallurgical quality specifications of the Design/Specification file as each part is being made. Our software enables 3D prototyping to evolve forward into serial production 3D manufacturing by providing a software suite with algorithm-based tools that address and overcome quality issues that are specific to 3D Metal Additive Manufacturing and that are not solved using the post-production quality methods derived for Subtractive manufacturing along with and newly dependent upon CT scanning. The PrintRite3D® suite has substantially lower operating costs and can attain higher yields by inspecting parts as they are made and providing machines and their operators actionable information that includes the options of either stopping manufacture of given part(s) while operations continue to complete parts that are in specification, thus saving time and money while raising yields or rescuing parts that are beginning to go out of design specification by adjusting the machine controls. PrintRite3D® also gives operators information from run to run that enables them to ‘learn up’ quality for a given machine by using PrintRite3D® data about machine behaviors that can then be offset by making adjustments to power settings directed at a given sector. PrintRite3D®’s Thermal Energy Density™ (“TED”) feature supersedes and truncates the “reverse engineering” process of post process inspection described above by providing process engineers the data required to optimize individual machines as well as machines in series in days or weeks and before serial production is launched rather than months after production and rejection rates have accrued in costly quantities. PrintRite3D®’s Thermal Energy Planck (“TEP”) feature provides machine operators and engineers with in-process real-time identification of signatures of quality anomalies as they begin to develop and permits terminating or curing a part in process.

We have filed 35 patents/patent applications pending on our In-Process Quality Assurance™ (“IPQA®”) processes and procedures for advanced manufacturing. In addition, we anticipate that our core PrintRite3D® software will enable our customers to combine their digital manufacturing technologies with our 3D manufacturing QA to achieve both cost savings and more reliable parts. We believe that certain vertical markets would benefit from our technology and software, including aerospace, defense, bio-medical, power generation, and oil & gas industries because: (1) they each stand to benefit by taking advantage of the weight/strength/performance ratios that can often be optimized by taking advantage of 3D design; (2) they each stand to benefit by taking maximum advantage of 3D manufacturing’s material cost savings resulting from designing parts to needed tolerances while requiring less metal; and (3) there are severe consequences for quality failures in some of their products. We provide our software products to customers in the form of Software as a Service (“SaaS”), as well as in custom arrangements.

About 3D Printing

3D printing (“3DP”) or additive manufacturing (“AM”) is changing the manufacturing world by producing complex metal parts from a computerized input. 3D printing has been applied to the manufacture of plastic parts for decades. 3D manufacturing of metal parts involves directing a laser or other energy source at a layer of powdered metal and melting it. These layers become melted together from the bottom up. Worldwide revenues attributable to 3D manufacturing for metal products were reported at \$88.1 million in 2015 (Wohlers Report 2016, 3D Printing and Additive Manufacturing State of the Industry – Annual Worldwide Progress Report). By 2017, Wohlers Report stopped estimating annual 3D metal parts revenue, stating that too much of the revenue is proprietary information and unavailable from aerospace and similar high-tech sectors. Large powdered metal suppliers surveyed by Wohlers about their growth forecasts for 2017 averaged expectations of a 59% increase for 2017. According to Sigma’s experience in costing and pricing the manufacturing of AM metal parts, as confirmed by consultation with other service providers, the total powdered metal sales forecast for 2017 is enough raw material to produce a “retail value” of the metal parts of ~\$800 million. On another vector, according to Wohlers, an estimated 1,768 metal AM machines were sold in 2017, an increase of 79% over 2016. As large established companies including Toshiba, HP, Lenovo, Canon and Ricoh in the course of 2016-2017 announced products or intents of entry in AM manufacturing, Electro Optical Systems (“EOS”), a well-established vendor of AM manufacturing equipment opened a new plant in January 2018 that, according to EOS, doubled its 2017 capacity to 1,000 units per year. SLM Solutions AG also reportedly expanded into a new factory during this period.

About Quality Assurance in 3D Printing

Sigma believes that the largest future growth for the 3D printing industry will be in metal parts, given the interest and investment being made by Fortune 100 companies, Federal government laboratories and agencies as well as university-based institutions. These high-end manufacturers and technology leaders are strongly focused on helping transform analog manufacturing of precision, high-tolerance parts in the U.S. to digital manufacturing encompassing automation, robotics and closed-loop process control. We believe that the future growth and success of 3D printing for metal parts will be highly dependent upon the availability of in-process and real-time digital quality assurance tools, such as our PrintRite3D®.

Current methods for providing quality in 3DP are generally either (i) inaccurate due to use of procedures that do not recognize and measure the primary quality issues of 3D metal manufacturing or due to the misuse of non-applicable statistically based assessments, or (ii) are cost prohibitive due to the expense of labor and equipment required to examine the interior of complex dense parts that 3D manufacturing can create after the parts are manufactured. After 3D-manufacture, costs are normally incurred for using non-destructive technologies such as ultrasound and non-traditional CT technology on these parts, and old-fashioned visual inspection. Destructive testing of 3D parts is a mis-applied carryover from current Subtractive Manufacturing quality assurance practice, in which the great part to part consistency of traditional metal machining equipment permits quality inspectors to infer the quality of a production run by cutting up and analyzing a statistically relevant number of parts. The test result of the parts that are destroyed and analyzed have too often been, after great time and expense, statistically demonstrated to be insufficiently representative of the rest of the parts in the production lot. The underlying premise of quality assurance for Subtractive Manufactured parts is that if a machine is set up properly, then all parts it produces will be repeatedly the same. This simple, effective and accurate quality system does not apply to Additive Manufacturing, in which each part is built in an average single laser production lot of 5-40, and in which quality variance may occur from part to part and within any part notwithstanding that the AM machine settings are the same. Therefore, unable to rely on a traditional statistically based quality system, 3D Manufacturing's optimum quality assurance system would evaluate the quality of each individual part. PrintRite3D®'s in-process quality inspection approach of each part individually allows a manufacturer to use AM to form a single part, such as a hip replacement or one spare aircraft part needed on an aircraft carrier, or several lots of the same part, in large quality – each approved or rejected in real time and based upon complete inspection during fabrication. We offer our customers the ability to use real-time sensors to track individual scans of each layer, and our software continuously analyzes the part health so that both during and after it is finished, we can determine if it meets the production parameters of quality standard set by the customer. We believe our PrintRite3D® software could reduce inspection costs requiring CT scanning by as much as a factor of 10 and development time for new parts by 50% or more because IPQA permits factories to make the part manufactured the constant and the machines manufacturing them the variable. Consequently, the lower cost statistical based post-process inspection methods that work well with Subtractive Manufacturing could be successfully and economically applied to parts made with 3D Metal machines, and because utilizing PrintRite3D® for design reduces the number and iterations of development parts required to lead to a final design. Also important is the ability of our software to reduce risk associated with the qualification and certification of printed parts.

By using PrintRite3D® software, a high-precision manufacturer would have the ability to offer its customers product warranties and assurances that its printed parts were produced in compliance with stringent quality requirements. Orders for our software have been received from, among others, Honeywell Aerospace, Aerojet Rocketdyne, Woodward, Siemens Turbomachinery, Pratt and Whitney, Baker Hughes, and Solar Turbines.

We believe there is potential for our PrintRite3D® software to be incorporated into a majority of 3D metal printing devices made by companies like Electro-Optical Systems ("EOS"), Additive Industries, ARCAM, Concept Lasers, Farsoon, Desktop Metal, DMG Mori, Renishaw, Sentrol, SLM, Trumpf Lasers, and others.

Sigma's Cloud-Based IIoT Solutions

The process of making a 3D printed part could start with our customers loading a computer aided design ("CAD") model of the part into the Cloud as shown in "A" in Figure 1. Next, computer aided engineering ("CAE") and/or computer aided manufacturing ("CAM") instructions are sent to the 3D printer (see "B", as shown in Figure 1). Metal powder in the machine is then deposited onto the build platform where a laser beam, or other energy source, focused onto the build platform melts each successive layer of powder in 20-60 micron increments. Our PrintRite3D SENSORPAK® (see "C" in Figure 1) detects, records, analyzes and compares the part as it is being made layer-by-layer against the CAD/CAM specifications and physical reference points for quality assurance during manufacturing. Our PrintRite3D INSPECT®, Version 5.02 software utilizes our patent applied for TED and TEP tools to determine compliance of each part for its metallurgical quality. Our artificial intelligence (AI) tools enable our software to learn signatures of quality related anomalies specific to individual machines, parts, and materials. This information enables production machine operator to make in process adjustments to either terminate a spoiled part and to make control adjustments to correct quality errors that are in early stages. We believe this machine learning data will help the industry to close the controls loop that may lead to "self-driving" laser powderbed machines. Our User Interface included in versions 5.0 and after gives operators a clear and simple, and it gives process engineers a sophisticated analytical tool enabling them to probe and monitor deeply into the process.

Our PrintRite3D® CAI web-based software suite (see “D” in Figure 1) resides in situ and/or in the Cloud (see “A” in Figure 1) of the Industrial Internet of Things (“IIoT”). We enable manufacturing engineers to confirm the part quality layer-by-layer, provide for manufacturing statistical process control and harvest, aggregate, and analyze big data from the real-time manufacturing data collected from our PrintRite3D SENSORPAK® (see “C” in Figure 1), as well as post-process manufacturing data collected by our customers (see “E” in Figure 1).

Our specialized sensor suite (see “C” in Figure 1), known as PrintRite3D SENSORPAK®, is an edge computing device, which means that it can be operated outside of a customer’s primary computer hardware and software systems while delivering actionable information to these systems. Thus, PrintRite3D SENSORPAK® contains the modular hardware and software necessary to connect to “cyber-physical” objects (see “B” in Figure 1) living on the manufacturing floor. It allows for bi-directional information flow between the manufacturing floor and the Cloud (see “A” in Figure 1). It starts with a million-fold data reduction required to manage and analyze the very large quantities of data garnered that layer by layer monitoring +/- 30 Micron thicknesses create. It finishes with our PrintRite3D® Digital Quality Record (“DQR”) and report, which provides customers with product guarantees and assurances that parts were produced in compliance with stringent quality standards. It can collect, analyze, aggregate, filter, and then further communicate data from the manufacturing floor to the Cloud (see “A” in Figure 1) and enable links to other areas (see “F” in Figure 1) of the IIoT.

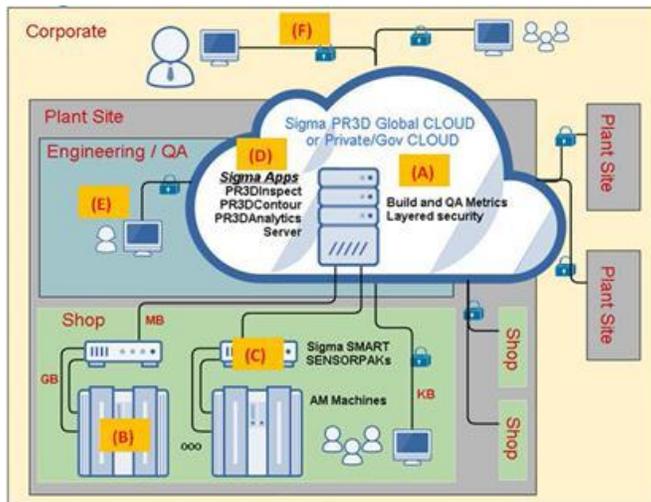


Figure 1. Sigma’s Industrial IoT / PrintRite3D® Cloud Architecture

Business Activities and Industry Applications

Our business is currently focused on the continued development and commercialization of our PrintRite3D® suite of software applications. We are specifically focusing on the 3D Metal Printing and AM industries and further developing our contract additive manufacturing business for metal 3DP to be a customer prototype center available for cutting edge 3D challenges and a concurrent means of demonstrating and proving the merit of PrintRite3D® for customers’ parts or application. Our strategy is to continue to leverage our advanced manufacturing knowledge, experience and capabilities through the following means:

- Identify, develop and commercialize our quality assurance software applications for advanced manufacturing technologies. The applications are designed to assure part quality in real time, and improve process control practices for a variety of industries;

- Provide materials and process engineering consulting services with our PrintRite3D® CAI quality assurance software applications for advanced manufacturing to customers that need:
 - to learn and characterize the individual performance parameters of each machine intended to produce 3D metal parts;
 - to determine and characterize the traits, signatures, and in-process behaviors of the materials designated for a given part's production;
 - to improve manufacturing quality yields by utilizing IPQA;
 - to improve, perhaps for the first time, documentable third-party part-by-part quality certification.

We are presently engaged with and focused primarily on the following industry sectors:

- Aerospace and defense manufacturing;
- Auto industry (niches)
- Energy and power generation;
- Bio-medical manufacturing;
- Oil and gas exploration, extraction, and distribution.

We generate revenues through PrintRite3D® hardware and CAI software licensing of our PrintRite3D® technology to customers that seek to improve their manufacturing production processes, and through ongoing annual software upgrades and maintenance fees. Additionally, we generate modest revenues from our contract manufacturing activities in metal AM. By running a small-scale contract AM services operation, we are able to understand and keep pace with the current needs and technology trends of our customers and where they are going with their next-generation product development efforts. Contract AM further allows us a means for material on-going partial self-funding of our IPQA®-enabled R&D and product development activities for CAI software. We provide our AM contract manufacturing services to customers in the form of Quality as a Service ("QaaS"). Starting with our PrintRite3D® cloud-based SaaS model, customers will contract with us for CAE, CAM and CAI services to generate and establish a Digital Quality Record (DQR) for AM built parts. Each DQR is cloud-based and allows for archiving and storage of quality data, access to our big data ANALYTICS™ software App for continuous quality monitoring and improvement, and automatic industry benchmarking while maintaining firewalls between company-specific data.

In late November 2018 at the Formnext tradeshow, we released a new version of our hardware along Version 4.0 of PrintRite3D. The Company believes that this combination of advanced new hardware and its PrintRite3D® Version 4.0 software completes the evolution of the Company's PrintRite3D® technology from its well-stressed and tested roots in research and development, into a streamlined and hardened commercial-industrial product that is deployable into demanding serial production settings. We also launched during that period a Rapid Test and Evaluation (RTE) program for the market. The Company's RTE program targets high technology quality sensitive companies that are already manufacturing or buying parts manufactured in production runs on AM metal machines. The program is a "try before you buy" agreement under the terms of which customers enter into an agreement pursuant to which they agree to pay the Company a fee, equivalent to a down payment, and to test protocol mutually defined to demonstrate both the Company's technology capability in general and the measurable impact it can have on the customers' processes, parts and yields. The Company's goal is that successes in the RTE program will lead to increased revenues in 2020.

Additionally, at the RAPID+TCT 2019 Additive Manufacturing Conference that commenced on May 21, 2019, the Company launched Version 5.0 of its PrintRite3D® platform. Before the release of PrintRite3D® Version 4.0 in November 2018, companies engaged in additive manufacturing had been hindered by the unavailability of a tool with the ability to determine and analyze the metallurgical structure of a part during the manufacturing process as well as the inability to ensure an acceptable level of part quality. PrintRite3D® Version 4.0 resolved this challenge with results confirmed and validated by CT testing. Now with the release of PrintRite3D® Version 5.0 in May 2019, machine operators using Version 5.0 with its new fast and friendly user interface can make rapid data and warning assessments and timely adjustments to assure quality. This advance provides value to both original equipment manufacturers and end-user manufacturers, and is designed to increase production yield of 3D metal manufactured parts, cut post-process quality inspection costs and reduce time to market, enabling true industrialization of metal AM.

2019 RTE Developments

Sigma entered 2019 six weeks after releasing the commercial industrial model of its technology, PrintRite3D® 4.0, wrapped in a strategy called the Rapid Test and Evaluation Program (“RTE”) to take the product to market. The RTE is a ‘drive before you buy’ approach that is aimed only at companies that meet four criteria: (1) the company must be a large recognized brand; (2) the company must be either an end-user manufacturing or buying Additive Manufacturing (AM) metal parts requiring the capacity of 20 or more AM metal machines, or the target company must be an Original Equipment Manufacturer (“OEM”) with a well-recognized brand and a significant AM metal manufacturing growth initiative in process; (3) the company must have substantial concern about the quality yields and risks of its AM metal production; and (4) the company must be willing to stipulate what PrintRite3D® 4.0 would have to prove in order to meet the company’s quality improvement and sustainability goals. Sigma Labs asserted that the way to measure RTEs in 2019 would be the number and quality of the companies that contracted with Sigma in the program, rather than the immediate revenue from the program, because ‘drive before you buy’ causes revenue to be back-end loaded.

In the first quarter of 2019, Sigma determined what would become a norm in the RTE requirement for the target companies: they would install PrintRite3D® on one of their laser powderbed AM machines and if the results were confirmed by a third party laboratory to meet their written quality needs, they would then ask Sigma to install a Phase 2 on one or two additional machines of different manufacturers than the first in order to determine if PrintRite3D® works equally effectively on multiple OEM brands, as well as multiple machines of the same brand, and finally on multiple laser machines as well. This unexpected customer enhancement to the scope of the RTE program raised the revenue potential that ultimately may be derived from the conversion of a single unit test run into a permanent license sale from a single unit followed by 2 or 3 (simultaneously) in Phase 2. This potential expansion of RTE scope commensurately increased the duration of some RTEs due to the serial nature of testing first on one machine, followed by a Phase 2 validation on multiple machines. There is a perceptible customer learning curve factor on RTEs, and we expect Phase 2 testing to benefit from this Phase 1 learning curve and be much more rapid than Phase 1 tests.

Throughout 2019, the RTE results were favorable. A leading global energy technology company for whom on-site testing began in April 2019, has ordered a Phase 2 and as stated in our November 13, 2019 press release, this is the final phase ahead of a potentially broader global rollout of the technology to their additive manufacturing machine base. The major service provider, with whom on-site testing began in March 2019, has also now begun its second RTE to start on a different OEM brand from the first RTE tests. The major OEM whose purchase order for an RTE we announced in August 2019 has only its own brand and has agreed to complete two simultaneous test units on different models and is thus on a fast track. Airbus is developing on schedule and expects to require a Phase 2 if and after the current RTE meets their needs. Materialise, a diverse AM company and an OEM for AM control systems and software, was a Sigma alpha test of the RTE program and with whom we announced in June 2019 that Sigma had entered into a non-binding Memorandum of Understanding to integrate PrintRite3D® with Materialise's new MPC AM equipment control system. As noted below, we recently announced that Materialise has invited Sigma's Chief Technology Officer to deliver two lectures in November 2019 in Materialise's booth at FormNext on "Integration of PrintRite3D Melt Pool Monitoring Software with Materialise's MPC Machine Control System for Advanced Process Control."

Additionally, commencing in June 2019, Sigma opened a third channel to market. With the release of PrintRite3D® 5.0, Sigma brought a user-friendly version of its product to market that no longer requires substantial onsite customer support from Sigma. Therefore, the Company commenced calling on research tanks, universities, and small users to open a 'retail' channel.

January 2020 Private Placement

On January 27, 2020, the Company entered into a Securities Purchase Agreement (the "SPA") with certain institutional investors. Pursuant to the SPA, on January 28, 2020 the Company issued and sold 1,640 shares of the Company's Series D Convertible Preferred Stock (the "Series D Preferred Stock") under a certificate of designations (the "Certificate of Designations"), warrants to purchase 7,796,000 shares of the Company's Common Stock (the "Common Warrants") and warrants to purchase 6,156 shares of the Series D Preferred Stock (the "Preferred Warrants") for a total gross purchase price of \$1,600,000.

Certificate of Designations

Under the Certificate of Designations for the Series D Preferred Stock, the Series D Preferred Stock has an initial stated value of \$1,000 per share (the "Stated Value") and the following provisions:

Dividends

Dividends accrue at a dividend rate of 9% per annum (subject to increase upon the occurrence (and during the continuance) of certain triggering events described therein) will accrue and, on a monthly basis, shall be payable in kind by the increase of the Stated Value of the Series D Preferred Shares by said amount.

Conversion

The holders of the Series D Preferred Shares will have the right at any time to convert all or a portion of the Series D Preferred Shares (including, without limitation, accrued and unpaid dividends and make-whole dividends through the third anniversary of the closing date) into shares of the Company's Common Stock at the conversion price then in effect, which initially is \$1.00 (subject to adjustment for stock splits, dividends, recapitalizations and similar events and full ratchet price protection). In addition, a holder may at any time, alternatively, convert all, or any part, of its Series D Preferred Shares at an alternative conversion price, which equals the lower of the applicable conversion price then in effect, and the greater of (x) \$0.18 and (y) 85% of the average volume weighted average price ("VWAP") of the Common Stock for a five (5) trading day period prior to such conversion.

Triggering Events

Upon the occurrence of certain triggering events, described in the Certificate of Designations, including, but not limited to payment defaults, breaches of transaction documents, failure to maintain listing on the Nasdaq Capital Market, and other defaults set forth therein, the Series D Preferred Shares would become subject to redemption, at the option of a holder, at a 125% premium to the underlying value of the Series D Preferred Shares being redeemed.

Limitation on Issuance

The Certificate of Designations contains a prohibition on the issuance of any shares of Common Stock upon conversion of the Series D Preferred Shares in excess of the amount set forth in NASDAQ Listing Rule 5635(d) (20% or more of the outstanding shares of common stock) until the Company obtains shareholder approval for issuance of shares of Common Stock in excess of such amount. In the Institutional SPA, the Company has agreed to promptly obtain such shareholder approval and amend its articles of incorporation and/or effect a reverse split in order to have sufficient shares of Common Stock available to allow the holders of the Series D Preferred Shares to convert in full the Series D Preferred Shares and exercise in full the Institutional Common Warrants. The Certificate of Designations prohibits a conversion of Series D Preferred Shares if and to the extent that, after the conversion, the holder would beneficially own more than 4.99% of the shares of Common Stock outstanding immediately after giving effect to the conversion.

Common Warrants

The Common Warrants are not exercisable until the six month and one day anniversary of the closing, and, at such time, are initially exercisable into 7,796,000 shares of Common Stock, with an additional 1,000 shares of Common Stock becoming exercisable upon each exercise of a Preferred Warrant for a Preferred Share. The Common Warrants have a term of 5½ years. The initial exercise price is \$1.00 and is subject to adjustment for stock splits, dividends, recapitalizations and similar events. The initial exercise price is also subject to full ratchet antidilution price protection, which unless shareholder approval is obtained by the Company, is subject to a floor of \$0.95. The Common Warrants prohibit an exercise of the Common Warrants if and to the extent that, after the exercise, the holder would beneficially own more than 4.99% of the shares of Common Stock outstanding immediately after giving effect to the exercise.

Preferred Warrants

The Preferred Warrants have a term of one year from the date that the securities referenced in the Institutional SPA become fully tradeable (whether by registration with the SEC of such securities or the expiration of the requisite holding period under Rule 144 of the Securities Act of 1933, as amended). The Company has the right to force the exercise of up to 512 Preferred Warrants subject to certain equity conditions, which would result in gross proceeds to the Company of approximately \$500,000. The initial exercise price for the Preferred Warrants is \$975 per share, which is subject to adjustment for stock splits, dividends, recapitalizations and similar events.

Registration Rights Agreement

Pursuant to a Registration Rights Agreement, the Company has agreed to prepare and, as soon as practicable, file with the Securities and Exchange Commission a registration statement covering the resale of all the shares issuable upon conversion of the Series D Preferred Shares, and the shares issuable upon exercise of the Common Warrants. This prospectus pertains to the registration of those securities.

Corporate Information

We were incorporated as Messidor Limited in Nevada on December 23, 1985 and changed our name to Framewaves Inc. in 2001. On September 27, 2010, we changed our name from Framewaves Inc. to Sigma Labs, Inc. We commenced our current business operations in 2010.

Our principal executive offices are located at 3900 Paseo del Sol, Santa Fe, New Mexico 87507, and our telephone number is (505) 438-2576. Our website address is www.sigmalabsinc.com, although the information on our website is not deemed to be part of this prospectus.

The Offering

Common Stock offered by the selling stockholders	121,704,222 shares(1)
Common Stock offered by us	None
Common Stock outstanding	14,037,590 shares(2)
Common Stock to be outstanding after the offering	76,838,701 shares(2)(3)
Nasdaq Capital Market Symbol	SGLB

Use of proceeds

We will not receive any proceeds from the sale of the common stock offered hereby. However, we may receive up to a maximum of approximately \$13,798,100 of gross proceeds from the exercise of Common Warrants (based on an initial exercise price of \$1.00 per share) and Preferred Warrants (based on an initial exercise price of \$975 per share) by selling stockholders to the extent they are exercised on a cash basis, which proceeds we expect to use for general corporate purposes and for working capital. No assurances can be given that all or any portion of the Common Warrants and/or Preferred Warrants will ever be exercised.

Risk factors

An investment in our common stock involves significant risks. See "Risk Factors" beginning on page 12, below.

(1) Consists of (i) 23,142,222 shares of our common stock consisting of 200% of common shares issuable upon conversion of the shares of the Company's Series D Convertible Preferred Stock currently outstanding (the "Initial Preferred Shares") based on a conversion price equal to the floor price of such Initial Preferred Shares of \$0.18 per share, (ii) 11,694,000 shares of common stock consisting of 150% of the common shares issuable upon the exercise of outstanding Common Warrants, and (iii) 86,868,000 shares of our common stock consisting of 200% of common shares issuable upon conversion of the additional preferred shares issuable upon exercise of the Preferred Warrants (the "Additional Preferred Shares") based on a conversion price of such additional preferred shares at the floor price of \$0.18 per share. The number of common shares issuable upon conversion of the Initial Preferred Shares and the Additional Preferred Shares includes accrued dividends on such shares through January 28, 2023.

(2) As of February 3, 2020, and does not include (i) a total of 5,842,148 shares of common stock issuable upon the exercise of outstanding options (with exercise prices ranging from \$0.52 to \$12.30 per share) and warrants (with exercise prices ranging from \$0.01 to \$4.00), (ii) a total of 620,438 shares issuable upon the conversion of all of the shares of the Company's Series E Convertible Preferred Stock (the "Series E Preferred Shares"), based on a conversion price of \$1.03, and (iii) 25,000 shares to be issued on or before February 15, 2020 for services rendered.

(3) Assumes the conversion of the Initial Preferred Shares and Additional Preferred Shares and the exercise of all of the Common Warrants by the selling stockholders at the initial conversion price of \$1.00 and the initial exercise price of \$1.00, respectively, and the sale of the shares issued upon such conversion and exercise, but does not include the 5,842,148 shares of common stock issuable upon the exercise of outstanding options and other warrants and 620,438 shares of common stock issuable upon conversion of the Series E Preferred Shares.

RISK FACTORS

Investing in our common stock involves certain risks. Before you decide whether to purchase any shares of our common stock, in addition to the other information in this prospectus, you should carefully consider the risks described under the heading “Risk Factors” in our most recent Annual Report on Form 10-K, which are incorporated by reference into this prospectus, as such risk factors may be updated from time to time by our future filings with the SEC. If one or more of these risks materializes, our business, financial condition and results of operations may be adversely affected. In that event, the value of our common stock could decline. The risks that are described in this prospectus or in any document that is incorporated by reference into this prospectus are not the only risks that we face. Additional risks not presently known to us or that we currently believe to be immaterial may also adversely affect our business, financial condition and results of operations.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements contained or incorporated by reference in this prospectus may include forward-looking statements that reflect our current views with respect to our research and development activities, business strategy, business plan, financial performance and other future events. These statements include forward-looking statements both with respect to us, specifically, and our industry sector, in general. We make these statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements that include the words “expect,” “intend,” “plan,” “believe,” “project,” “estimate,” “may,” “should,” “anticipate,” “will” and similar statements of a future or forward-looking nature identify forward-looking statements for purposes of the federal securities laws or otherwise.

All forward-looking statements involve inherent risks and uncertainties, and there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. We believe that these factors include, but are not limited to, those factors set forth in the “Risk Factors” section of this prospectus, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus and the accompanying prospectus. We undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise.

If one or more of these or other risks or uncertainties materializes, or if our underlying assumptions prove to be incorrect, actual results may vary materially from what we anticipate. All subsequent written and oral forward-looking statements attributable to us or to individuals acting on our behalf are expressly qualified in their entirety by this Note. Before purchasing any of our securities, you should consider carefully all of the factors set forth or referred to in this prospectus that could cause actual results to differ.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the common stock by the selling stockholders pursuant to this prospectus. All proceeds from the sale of the shares will be for the account of the selling stockholders. The selling stockholders may sell these shares on The NASDAQ Capital Market or otherwise, at market prices prevailing at the time of sale, at prices related to the prevailing market price, or at negotiated prices. However, we will receive proceeds upon the cash exercise of the Common Warrants and Preferred Warrants held by the selling stockholders. If all of the Common Warrants are exercised at the initial exercise price of \$1.00 per share (as to 7,796,000 shares) and the Preferred Warrants at an initial exercise price of \$975 per share (as to 6,156 shares), then we will receive gross proceeds of approximately \$13,798,100 to the extent the Warrants are exercised on a cash basis. Any such proceeds will be used for working capital and general corporate purposes. No assurance can be given, however, that all or any portion of such Warrants will be exercised for cash or otherwise.

The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by the selling stockholders for brokerage or legal services or any other expenses incurred by the selling stockholders in disposing of the shares included in this prospectus. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including all registration and filing fees and fees and expenses of our counsel and accountants.

SELLING STOCKHOLDERS

Selling Stockholders Table

The shares of common stock being offered by the selling stockholders are those issuable to the selling stockholders upon exercise of the Common Warrants and conversion of the Initial Preferred Shares and Additional Preferred Shares. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of our securities issued pursuant to the Securities Purchase Agreement, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder) of the shares of common stock held by each of the selling stockholders. The second column lists the number of shares of common stock beneficially owned by the selling stockholders, based on their respective ownership of shares of common stock and preferred shares, as of February 3, 2020, assuming conversion of the Initial Preferred Shares and Additional Preferred Shares (collectively, the “Preferred Shares”) and exercise of the Common Warrants held by each such selling stockholder on that date but taking account of any limitations on conversion in the certificate of designations and limitations on exercise set forth in the Common Warrants. The third column lists the shares of common stock being offered by this prospectus by the selling stockholders and does not take in account any limitations on (i) conversion of the preferred stock set forth in the certificate of designations or (ii) exercise of the common warrants set forth therein. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus.

In accordance with the terms of a registration rights agreement with the holders of the preferred shares, this prospectus generally covers the resale of 200% of the maximum number of shares of common stock issued or issuable pursuant to Certificate of Designations and 150% of the maximum number of shares of common stock issued or issuable pursuant to the common warrants, including payment of dividends on the preferred shares through January 28, 2023, in each case, determined as if the outstanding Preferred Shares (including dividends on the Preferred Shares through January 28, 2023) were converted in full (without regard to any limitations on conversion contained therein solely for the purpose of such calculation) at the floor price of \$0.18. Because the conversion price of the preferred shares and exercise price of the Common Warrants may be adjusted, the number of shares of common stock that will actually be issued may be more or less than the number of shares of common stock being offered by this prospectus.

Under the terms of the Preferred Shares and the common warrants, a selling stockholder may not convert the preferred shares or exercise the common warrants, as applicable, to the extent (but only to the extent) such selling stockholder or any of its affiliates would beneficially own a number of shares of our common stock which would exceed 4.99% of the outstanding shares of the Company. The number of shares of common stock in the second column in the second table reflects these limitations. The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”

The Certificate of Designations for the Series D Preferred Stock also contains a prohibition on the issuance of any shares of common stock upon conversion of the Preferred Shares in excess of the amount set forth in NASDAQ Listing Rule 5635(d) (20% or more of the outstanding shares of common stock) until we obtain shareholder approval for issuance of shares of common stock in excess of such amount. For the purpose of these tables we have disregarded this limitation. We have agreed to promptly obtain such shareholder approval and amend our articles of incorporation to increase the number of authorized shares of our common stock and/or effect a reverse split, if required, to allow the holders of the Preferred Shares to convert in full the Preferred Shares and exercise in full the Common Warrants.

Name of Selling Stockholder	Number of Shares of Common Stock Owned Prior to Offering (1)	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus (6)	Number of Shares of Common Stock of Owned After Offering
Iroquois Master Fund Ltd.(2)	700,476	17,141,000	0
Iroquois Capital Investment Group LLC(3)	700,476	44,460,445	0
Anson Investments Master Fund Ltd(4)	700,476	41,088,445	0
Brio Capital Master Fund Ltd(5)	700,476	19,014,332	0

- (1) Under the terms of the Common Warrants, the holders do not have the right to exercise the warrants to the extent that, after giving effect to such exercise, the holder (together with its affiliates) would beneficially own in excess of 4.99% (the "Maximum Percentage") of the shares of our common stock outstanding immediately after giving effect to such exercise. Under the terms of the Series D Preferred Stock, the holders do not have the right to convert the Series D Convertible Preferred Stock to the extent that after giving effect to such conversion, the holder (together with its affiliates) would beneficially own in excess of the Maximum Percentage. The number of shares of common stock beneficially owned prior to the offering represents the maximum number of shares of common stock beneficially owned after giving effect to the Maximum Percentage.
- (2) The aggregate number of shares beneficially owned prior to the offering, without giving effect to the Maximum Percentage, assuming conversion of the Series D Preferred Stock at the initial conversion price of \$1.00 and exercise of the Common Warrants at the initial exercise price of \$1.00, respectively, and assuming the full exercise of the Preferred Warrants, would equal 2,492,460 shares of common stock as follows: (i) 1,098,000 shares of common stock issuable upon exercise of the Common Warrants (including 867,000 shares of common stock that would only become exercisable following the exercise of the Preferred Warrants at a rate of 1,000 shares of common stock per each share of Series D Preferred Stock exercised thereunder) and (ii) 1,394,460 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock (including 1,101,090 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock issuable upon exercise of the Preferred Warrants).

Iroquois Capital Management L.L.C. is the investment manager of Iroquois Master Fund, Ltd. Iroquois Capital Management, LLC has voting control and investment discretion over securities held by Iroquois Master Fund. As managing members of Iroquois Capital, Kimberly Page and Richard Abbe make voting and investment decisions on behalf of Iroquois Capital Management, LLC in its capacity as investment manager to Iroquois Master Fund Ltd. As a result of the foregoing, Ms. Page and Mr. Abbe may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the securities held by Iroquois Capital Management and Iroquois Master Fund.

- (3) The aggregate number of shares beneficially owned prior to the offering, without giving effect to the Maximum Percentage, assuming conversion of the Series D Preferred Stock at the initial conversion price of \$1.00 and exercise of the Common Warrants at the initial exercise price of \$1.00, respectively, and assuming the full exercise of the Preferred Warrants, would equal 6,494,960 shares of common stock as follows: (i) 2,848,000 shares of common stock issuable upon exercise of the Common Warrants (including 2,249,000 shares of common stock that would only become exercisable following the exercise of the Preferred Warrants at a rate of 1,000 shares of common stock per each share of Series D Preferred Stock exercised thereunder) and (ii) 3,616,960 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock (including 2,856,230 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock issuable upon exercise of the Preferred Warrants).

Richard Abbe is the managing member of Iroquois Capital Investment Group LLC. Mr. Abbe has voting control and investment discretion over securities held by Iroquois Capital Investment Group LLC. As such, Mr. Abbe may be deemed to be the beneficial owner (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the securities held by Iroquois Capital Investment Group LLC

- (4) The aggregate number of shares beneficially owned prior to the offering, without giving effect to the Maximum Percentage, assuming conversion of the Series D Preferred Stock at the initial conversion price of \$1.00 and exercise of the Common Warrants at the initial exercise price of \$1.00, respectively, and assuming the full exercise of the Preferred Warrants, would equal 5,974,640 shares of common stock as follows: (i) 2,632,000 shares of common stock issuable upon exercise of the Common Warrants (including 2,078,000 shares of common stock that would only become exercisable following the exercise of the Preferred Warrants at a rate of 1,000 shares of common stock per each share of Series D Preferred Stock exercised thereunder) and (ii) 3,342,640 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock (including 2,639,060 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock issuable upon exercise of the Preferred Warrants).

Anson Advisors Inc and Anson Funds Management LP, the Co-Investment Advisers of Anson Investments Master Fund LP (“Anson”), hold voting and dispositive power over the Common Shares held by Anson. Bruce Winson is the managing member of Anson Management GP LLC, which is the general partner of Anson Funds Management LP. Moez Kassam and Amin Nathoo are directors of Anson Advisors Inc. Mr. Winson, Mr. Kassam and Mr. Nathoo each disclaim beneficial ownership of these Common Shares except to the extent of their pecuniary interest therein. The principal business address of Anson is Walkers Corporate Limited, Cayman Corporate Centre, 27 Hospital Road, George Town, Grand Cayman KY1-9008, Cayman Islands.

- (5) The aggregate number of shares beneficially owned prior to the offering, without giving effect to the Maximum Percentage, assuming conversion of the Series D Preferred Stock at the initial conversion price of \$1.00 and exercise of the Common Warrants at the initial exercise price of \$1.00, respectively, and assuming the full exercise of the Preferred Warrants, would equal 2,764,860 shares of common stock as follows: (i) 1,218,000 shares of common stock issuable upon exercise of the Common Warrants (including 962,000 shares of common stock that would only become exercisable following the exercise of the Preferred Warrants at a rate of 1,000 shares of common stock per each share of Series D Preferred Stock exercised thereunder) and (ii) 1,546,860 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock (including 1,221,740 shares of common stock issuable upon conversion of shares of Series D Convertible Preferred Stock issuable upon exercise of the Preferred Warrants).

Shaye Hirsch, as Director of Brio Capital Master Fund Ltd., has the power to vote and dispose of the shares held by Brio Capital Master Fund Ltd. and may be deemed to be the beneficial owner of these shares. The address for Brio Capital Master Fund Ltd. is c/o Brio Capital Management LLC, 100 Merrick Road, Suite 401W, Rockville Centre, New York 11570.

- (6) Includes (i) 23,142,222 shares of our common stock consisting of 200% of common shares issuable upon conversion of the Initial Preferred Shares based on a conversion price equal to the floor price of such Initial Preferred Shares of \$0.18 per share, (ii) 11,694,000 shares of common stock consisting of 150% of the common shares issuable upon the exercise of outstanding Common Warrants, and (iii) 86,868,000 shares of our common stock consisting of 200% of common shares issuable upon conversion of the Additional Preferred Shares based on a conversion price of such additional preferred shares at the floor price of \$0.18 per share. The number of common shares issuable upon conversion of the Initial Preferred Shares and the Additional Preferred Shares includes accrued dividends on such shares through January 28, 2023.

We are registering the shares under the Securities Act of 1933, as amended (the "Securities Act"), to give the selling stockholders the opportunity, if they so desire, to publicly sell the shares for their own accounts in such amounts and at such times and prices as each may choose. The selling stockholders may from time to time offer and sell pursuant to this prospectus any or all of the below listed shares of common stock owned by them. The registration of these shares does not require that any of the shares be offered or sold by the selling stockholders. The selling stockholders may from time to time offer and sell all or a portion of their shares in the over-the-counter market, in negotiated transactions, or otherwise, at prices then prevailing or related to the then current market price or at negotiated prices.

The registered shares may be sold directly or through brokers or dealers, or in a distribution by one or more underwriters on a firm commitment or best efforts basis. To the extent required, the names of any agent or broker-dealer and applicable commissions or discounts and any other required information with respect to any particular offer will be set forth in a prospectus supplement. Please see "Plan of Distribution." The selling stockholders and any agents or broker-dealers that participate with the selling stockholders in the distribution of registered shares may be deemed to be "underwriters" within the meaning of the Securities Act, and any commissions received by them and any profit on the resale of the registered shares may be deemed to be underwriting commissions or discounts under the Securities Act.

No estimate can be given as to the amount or percentage of common stock that will be held by the selling stockholders after any sales made pursuant to this prospectus because the selling stockholders are not required to sell any of the shares being registered under this prospectus. The following table assumes that the selling stockholders will sell all of the shares included in this prospectus.

Transferees, successors and donees of identified selling stockholders will not be able to use this prospectus for resales until they are named in the table below by prospectus supplement or post-effective amendment. If required, we will add transferees, successors and donees by prospectus supplement in instances where the transferee, successor or donee has acquired its shares from holders named in this prospectus after the effective date of this prospectus.

Relationships with Selling Stockholders

The selling stockholders are investors who have had no position, office, or other material relationship (other than as purchasers of securities) with us or any of our affiliates within the past three years.

The information in the above table is as of the date of this prospectus. Information concerning the selling stockholders may change from time to time and any such changed information will be described in supplements to this prospectus if and when necessary.

PLAN OF DISTRIBUTION

We are registering the shares of common stock issuable upon conversion of the Preferred Shares and exercise of the Common Warrants to permit the resale of these shares of common stock by the holders thereof, from time to time after the date of this prospectus. We will receive proceeds from the cash exercise of any Common Warrants and Preferred Warrants. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders may sell all or a portion of the shares of common stock held by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales made after the date the Registration Statement is declared effective by the SEC;
- broker-dealers may agree with a selling security holder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares of common stock under Rule 144 promulgated under the Securities Act of 1933, as amended, if available, rather than under this prospectus. In addition, the selling stockholders may transfer the shares of common stock by other means not described in this prospectus. If the selling stockholders effect such transactions by selling shares of preferred stock or common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock in the course of hedging in positions they assume. If the Company elects to waive, in whole or in part, the restrictions on short sales by one or more selling stockholders in the Securities Purchase Agreement, the selling stockholders would be permitted to also sell shares of common stock short and deliver shares of common stock, as applicable, covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares.

The selling stockholders may pledge or grant a security interest in some or all of the preferred stock, preferred warrants, or shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the selling stockholders and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock is made, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of preferred stock and common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of preferred stock or common stock by the selling stockholders and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We will pay all expenses of the registration of the shares of preferred stock and common stock pursuant to the registration rights agreement, estimated to be \$[] in total, including, without limitation, Securities and Exchange Commission filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, a selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act in accordance with the registration rights agreements or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, in accordance with the related registration rights agreements or we may be entitled to contribution.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

DESCRIPTION OF SECURITIES

The following is a summary of all material characteristics of our capital stock as set forth in our amended and restated articles of incorporation and bylaws, as amended. Copies of these documents are filed or incorporated by reference as exhibits to the registration statement, of which this prospectus forms a part.

We are presently authorized to issue 22,500,000 shares of common stock, \$0.001 par value per share, of which 14,037,590 shares were outstanding as the date of this prospectus. We are presently authorized to issue 10,000,000 shares of \$0.001 par value preferred stock, of which 1,610,000 shares have been designated "Series A Preferred Stock," 1,000 shares have been designated "Series B Convertible Preferred Stock," 1,500 shares have been designated "Series C Convertible Preferred Stock," 7,796 shares have been designated as "Series D Convertible Stock" and 500 shares have been designated as "Series E Convertible Stock." As of the date of this prospectus, we had no shares of Series A Preferred Stock, Series B Convertible Preferred Stock and Series C Convertible Stock issued and outstanding, 1,640 shares of Series D Convertible Preferred Stock issued and outstanding and 333.33 shares of Series E Convertible Preferred Stock issued and outstanding.

Common Stock

We have one class of common stock. Holders of our common stock are entitled to one vote per share on all matters to be voted upon by stockholders and do not have cumulative voting rights in the election of directors. Holders of shares of common stock are entitled to receive on a pro rata basis such dividends, if any, as may be declared from time to time by our board of directors in its discretion from funds legally available for that use, subject to any preferential dividend rights of outstanding preferred stock. They are also entitled to share on a pro rata basis in any distribution to our common stockholders upon our liquidation, dissolution or winding up, subject to the prior rights of any outstanding preferred stock. Common stockholders do not have preemptive rights to subscribe to any additional stock issuances by us, and they do not have the right to require the redemption of their shares or the conversion of their shares into any other class of our stock. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

Under our articles of incorporation, our board of directors has the authority, without further action by stockholders, to designate one or more series of preferred stock and to fix the voting powers, designations, preferences, limitations, restrictions and relative rights granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be preferential to or greater than the rights of the common stock.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock.

In connection with our underwritten public offering of equity securities on February 21, 2017, we created a series of Preferred Stock called "Series A Preferred Stock." None of such shares were issued in such offering. In our April 6, 2018 private placement, we issued 1,000 shares of Series B Preferred Stock ("Series B Preferred"), which were convertible into 1,000,000 shares of common stock. All shares of our Series B Preferred have been converted and 500,000 shares of common stock issued upon conversion of such shares are currently beneficially owned by an affiliate of a selling stockholder. In our June 26, 2018 public offering of equity securities, we issued 350 shares of Series C Preferred Stock which were initially convertible into 350,000 shares of common stock. Accordingly, as of the date of this prospectus, all shares of such preferred stock have been fully converted. In connection with the private placements occurring on January 28, 2020, we created two new series of Preferred Stock: the Series D Preferred Stock and the Series E Preferred Stock. As of the date of this prospectus, 1,640 shares of Series D Preferred Stock and 333.33 shares of Series E Preferred Stock are issued and outstanding.

Under the Certificate of Designations for the Series D Preferred Stock, the Series D Preferred Stock has an initial stated value of \$1,000 per share (the "Stated Value") and the following provisions:

Dividends

Dividends accrue at a dividend rate of 9% per annum (subject to increase upon the occurrence (and during the continuance) of certain triggering events described therein) will accrue and, on a monthly basis, shall be payable in kind by the increase of the Stated Value of the Series D Preferred Shares by said amount.

Conversion

The holders of the Series D Preferred Shares will have the right at any time to convert all or a portion of the Series D Preferred Shares (including, without limitation, accrued and unpaid dividends and make-whole dividends through the third anniversary of the closing date) into shares of the Company's Common Stock at the conversion price then in effect, which initially is \$1.00 (subject to adjustment for stock splits, dividends, recapitalizations and similar events and full ratchet price protection). In addition, a holder may at any time, alternatively, convert all, or any part, of its Series D Preferred Shares at an alternative conversion price, which equals the lower of the applicable conversion price then in effect, and the greater of (x) \$0.18 and (y) 85% of the average volume weighted average price ("VWAP") of the Common Stock for a five (5) trading day period prior to such conversion.

Triggering Events

Upon the occurrence of certain triggering events, described in the Certificate of Designations, including, but not limited to payment defaults, breaches of transaction documents, failure to maintain listing on the Nasdaq Capital Market, and other defaults set forth therein, the Series D Preferred Shares would become subject to redemption, at the option of a holder, at a 125% premium to the underlying value of the Series D Preferred Shares being redeemed.

Limitation on Issuance

The Certificate of Designations contains a prohibition on the issuance of any shares of Common Stock upon conversion of the Series D Preferred Shares in excess of the amount set forth in NASDAQ Listing Rule 5635(d) (20% or more of the outstanding shares of common stock) until the Company obtains shareholder approval for issuance of shares of Common Stock in excess of such amount. In the Institutional SPA, the Company has agreed to promptly obtain such shareholder approval and amend its articles of incorporation and/or effect a reverse split in order to have sufficient shares of Common Stock available to allow the holders of the Series D Preferred Shares to convert in full the Series D Preferred Shares and exercise in full the Institutional Common Warrants. The Certificate of Designations prohibits a conversion of Series D Preferred Shares if and to the extent that, after the conversion, the holder would beneficially own more than 4.99% of the shares of Common Stock outstanding immediately after giving effect to the conversion.

Other Information

Each selling shareholder has advised us that it may enter into short sales in the ordinary course of its business of investing and trading securities. Each selling shareholder has advised us, and represented to us in the purchase agreement for the shares of Series D Preferred Stock and warrants, that no short sales were entered into during the period beginning when such selling shareholder obtained knowledge that we were contemplating a private placement and ending upon the public announcement of any such private placement.

We have not had any material relationships or arrangements with any of the selling stockholders, their affiliates, or any person with whom any selling shareholder has a contractual relationship regarding this private placement (or any predecessors of those persons).

No assurances can be given that we will be successful in complying with certain of the terms and conditions in the issuance of the shares of Series D Preferred Stock or in arranging further funding, if needed, to continue the execution of its business plan including the development and commercialization of new products, or if successful, on what terms. Failure to obtain such funding will require management to substantially curtail, if not cease operations, which will result in a material adverse effect on the financial position and our results of operations.

Transfer Agent

The transfer agent and registrar of our common stock is Issuer Direct Corporation. The address of our transfer agent and registrar is 1981 Murray Holladay Road, Suite 100 Salt Lake City, Utah 84117, and its telephone number is (801) 272-9294.

Anti-Takeover Effects of Certain Provisions of Our Charter Documents

Our articles of incorporation and bylaws contain provisions that could delay or prevent changes in control or changes in our management without the consent of our board of directors. These provisions include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the ability of our board of directors to authorize the issuance of additional shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could adversely affect the rights of our common stockholders or be used to deter a possible acquisition of our company;
- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;
- the required approval of the holders of at least two-thirds of the shares entitled to vote at an election of directors to adopt, amend or repeal our bylaws or repeal the provisions of our articles of incorporation and bylaws regarding the election and removal of directors;

- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of the board of directors, the chief executive officer, the president or the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

These provisions could inhibit or prevent possible transactions that some stockholders may consider attractive.

LEGAL MATTERS

The validity of the common stock offered hereby has been passed upon for us by TroyGould PC, Los Angeles, California. Certain attorneys employed by TroyGould PC beneficially own shares of our common stock constituting in the aggregate less than 1% of our outstanding shares of common stock.

EXPERTS

The financial statements of Sigma Labs, Inc. as of December 31, 2018 and December 31, 2017, included in the Annual Report on Form 10-K for the year ended December 31, 2018 have been audited by Haynie & Company, an independent registered public accounting firm, as stated in its report, which is incorporated herein by reference. We have incorporated these financial statements by reference in reliance upon the report of Haynie & Company, given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 with respect to this offering of our common stock. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some items of which are contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. Statements contained in this prospectus as to the contents of any contract, agreement or other document are summaries of the material terms of that contract, agreement or other document. With respect to each of these contracts, agreements or other documents filed or incorporated by reference as an exhibit to the registration statement, reference is made to the exhibits for a more complete description of the matter involved. The SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the SEC's website is <http://www.sec.gov>.

We file periodic reports and other information with the SEC. Such periodic reports and other information are available for inspection at the website of the SEC referred to above. We maintain a website at <http://www.sigmalabsinc.com>. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained on, or that may be obtained from, our website is not, and shall not be deemed to be, a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- our annual report on Form 10-K for the fiscal year ended December 31, 2018 filed with the SEC on April 1, 2019;
- our quarterly report on Form 10-Q for the quarterly period ended March 31, 2019 filed with the SEC on May 15, 2019;
- our quarterly report on Form 10-Q for the quarterly period ended June 30, 2019 filed with the SEC on August 14, 2019;
- our quarterly report on Form 10-Q for the quarterly period ended September 30, 2019 filed with the SEC on November 14, 2019;
- our Current Reports on Form 8-K filed with the SEC on March 14, 2019, April 12, 2019, May 8, 2019, June 4, 2019, June 21, 2019, July 23, 2019, August 1, 2019, August 14, 2019, September 4, 2019, September 13, 2019, September 16, 2019, November 14, 2019, December 4, 2019, January 13, 2020, January 21, 2020, January 27, 2020, and January 30, 2020 and February 4, 2020; and
- the description of our Common Stock contained in our Registration Statement on Form 8-A (File No. 001-37969) filed with the SEC on December 16, 2016, including any amendment or reports filed for the purpose of updating such description.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made on or after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to Sigma Labs, Inc., 3900 Paseo del Sol, Santa Fe, New Mexico 87507; Telephone (505) 438-2576. Copies of the above reports may also be accessed from our website at <http://www.sigmalabsinc.com>. We have authorized no one to provide you with any information that differs from that contained in this prospectus. Accordingly, you should not rely on any information that is not contained in this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of the front cover of this prospectus.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

Sigma Labs, Inc.

Prospectus

121,704,222 Shares of Common Stock Offered by the Selling Stockholders

_____, 2020

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Set forth below is an estimate (except for registration fee, which is actual) of the approximate amount of the fees and expenses payable by us in connection with the issuance and distribution of the shares of our common stock described in this registration statement.

SEC registration fee	\$ 14,533.43
Accounting fee and expenses	5,000.00
Legal fees and expenses	15,000.00
Printing and related expenses	2,000.00
Transfer agent and registrar fees	1,000.00
Miscellaneous expenses	3,000.00
Total	<u>\$ 40,533.43</u>

Item 15. Indemnification of Directors and Officers.

Pursuant to our amended and restated articles of incorporation, none of our directors or officers will have any personal liability to us or our stockholders for damages for breach of fiduciary duty as a director or officer, except for damages for breach of fiduciary duty resulting from (1) acts or omissions which involve intentional misconduct, fraud or a knowing violation of law or (2) the payment of dividends in violation of the applicable statutes of Nevada.

Section 78.7502 of the Nevada Revised Statutes permits a corporation to indemnify a present or former director, officer, employee or agent of the corporation, or of another entity or enterprise for which such person is or was serving in such capacity at the request of the corporation, who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, except an action by or in the right of the corporation, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection therewith, arising by reason of such person's service in such capacity if such person (1) is not liable pursuant to Section 78.138 of the Nevada Revised Statutes, which sets forth standards for the conduct of directors and officers, or (2) acted in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to a criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. In the case of actions brought by or in the right of the corporation, however, no indemnification may be made for any claim, issue or matter as to which such person has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals therefrom, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court in which the action or suit was brought or other court of competent jurisdiction determines upon application that in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper.

Section 78.751 of the Nevada Revised Statutes permits any discretionary indemnification under Section 78.7502 of the Nevada Revised Statutes, unless ordered by a court or advanced to a director or officer by the corporation in accordance with the Nevada Revised Statutes, to be made by a corporation only as authorized in each specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances. Such determination must be made (1) by the stockholders, (2) by the board of directors by majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding, (3) if a majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding so orders, by independent legal counsel in a written opinion, or (4) if a quorum consisting of directors who were not parties to the action, suit or proceeding cannot be obtained, by independent legal counsel in a written opinion.

Our amended and restated bylaws require us to indemnify our directors and officers in a manner that is consistent with the provisions of Nevada law described in the preceding two paragraphs.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers. Furthermore, we have entered into indemnification agreements with each of our directors and officers. These agreements, among other things, require us to indemnify each director and executive officer to the fullest extent permitted by Nevada law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director or officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or officer.

Item 16. Exhibits and Financial Statement Schedules.

Exhibit Number	Description
3.1	<u>Amended and Restated Articles of Incorporation of the Company, as amended (filed as Exhibit 3.1 to the Company's Form 10-K, filed April 1, 2019, for the fiscal year ended December 31, 2018, and incorporated herein by reference).</u>
3.2	<u>Certificate of Correction to Amended and Restated Articles of Incorporation, as filed with the Nevada Secretary of State on May 25, 2011 (filed as Exhibit 3.2 to the Company's Current Report on Form 8-K filed June 1, 2011, and incorporated herein by reference).</u>
3.3	<u>Articles of Merger (filed as Exhibit 3.3 to the Company's Form 10-K, filed on March 16, 2016, for the fiscal year ended December 31, 2015, and incorporated herein by reference).</u>
3.4	<u>Certificate of Change Pursuant to NRS 78.209 (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed March 21, 2016, and incorporated herein by reference).</u>
3.5	<u>Certificate of Change Pursuant to NRS 78.209 (filed as Exhibit 3.2 to the Company's Current Report on Form 8-K filed February 21, 2017, and incorporated herein by reference).</u>
3.6	<u>Certificate of Designation of Rights, Preference and Privileges of Series B Convertible Preferred Stock (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed April 6, 2018, and incorporated herein by reference).</u>
3.7	<u>Amended and Restated Bylaws of the Company, as amended (filed as Exhibit 3.1 to the Company's Form 10-Q filed November 14, 2017, for the period ended September 30, 2017, and incorporated herein by reference).</u>
3.8	<u>Certificate of Designation of Rights Preferences and Privileges of Series C Convertible Preferred Stock (filed as Exhibit 3.8 to the Company's Current Report on Form 8-K filed May 8, 2019, and incorporated herein by reference).</u>
3.9	<u>Certificate of Designations of Rights Preferences and Privileges of Series D Convertible Preferred Stock (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed January 30, 2020 and incorporated herein by reference).</u>
3.10	<u>Certificate of Designations of Rights Preferences and Privileges of Series E Convertible Preferred Stock (filed as Exhibit 10.7 to the Company's Current Report on Form 8-K filed January 30, 2020 and incorporated herein by reference).</u>

Exhibit Number	Description
4.1	Form of Common Stock Purchase Warrant (filed as Exhibit 10.4 to the Company's Current Report on Form 8-K filed January 30, 2020, and incorporated herein by reference).
4.2	Form of Preferred Warrants (filed as Exhibit 10.5 to the Company's Current Report on Form 8-K filed January 30, 2020, and incorporated herein by reference).
5.1	Opinion of TroyGould PC (previously filed).
10.1	Securities Purchase Agreement, dated as of January 27, 2020, between the Company and Purchasers (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed January 27, 2020, and incorporated herein by reference).
23.1	Consent of Haynie & Company (filed herewith)
23.2	Consent of TroyGould PC (included in Exhibit 5.1).
24.1	Powers of Attorney (included on page II-4).

Item 17. Undertakings.

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

- (i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement (notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) under the Securities Act if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement); and
- (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that subparagraphs (i), (ii) and (iii) of this section do not apply if the information required to be included in a post-effective amendment by those subparagraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration, by means of a post-effective amendment, any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

- (i) each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
- (ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(6) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant, pursuant to the provisions described under Item 15 or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Fe, New Mexico, on this 11th day of February 2020.

Sigma Labs, Inc.

/s/ John Rice

John Rice

President and Chief Executive Officer (Principal Executive Officer)

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Dated: February 11, 2020

/s/ John Rice

John Rice

President and Chief Executive Officer (Principal Executive Officer)

Dated: February 11, 2020

/s/ Frank Orzechowski

Frank Orzechowski

Chief Financial Officer, Treasurer and Secretary

(Principal Accounting Officer and Principal Financial Officer)

Dated: February 11, 2020

/s/ *

Frank J. Garofalo, Director

Dated: February 11, 2020

/s/ *

Salvatore Battinelli, Director

Dated: February 11, 2020

/s/ *

Dennis Duitch, Director

Dated: February 11, 2020

/s/ *

Kent Summers, Director

Dated: February 11, 2020

/s/ *

Mark Ruport, Director, Executive Chairman

* by John Rice, attorney-in-fact

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Registration Statement on Form S-3 of Sigma Labs, Inc. of our report dated April 1, 2019, relating to our audits of the December 31, 2018 and 2017 financial statements, incorporated by reference in the Prospectus, which is part of this Registration Statement.

We also consent to the reference to our firm under the caption “Experts” in such Prospectus.

/s/ Haynie & Company

Haynie & Company
Salt Lake City, Utah
February 11, 2020
