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Sigma Labs to Implement In-Process Quality Assurance (IPQA) at Northwestern University

SANTA FE, NM / ACCESSWIRE / March 3, 2020/ [Sigma Labs, Inc.](#) (NASDAQ:SGLB) ("Sigma Labs"), a leading developer of quality assurance software for the commercial 3D printing industry, has been awarded a contract to implement its PrintRite3D Real-Time Melt Pool Analytics technology at Northwestern University.

In collaboration with two university research centers at Northwestern University, Northwestern Initiative on Manufacturing Science and Innovation (NIMSI) and Center for Hierarchical Materials Design (CHiMaD), Sigma Labs will integrate the PrintRite3D system to a DMG Mori LASERTEC12 Selective Laser Melting machine. Researchers at NIMSI have developed computer-integrated systems for innovative manufacturing processes, including subtractive, deformation-based and additive processes.

Sigma Labs and Northwestern will collaborate to further validate the performance and capabilities Sigma's technology to identify real-time defect formations during the printing process. The DMG MORI LASERTEC 12 SLM machine, is yet another new platform for Sigma Labs, further proving out PrintRite3D's position as the agnostic in process quality system that can be deployed on all major laser powderbed brands and is setting the standard for third party independent quality assurance monitoring of metal additive manufacturing systems.

"We are honored to have the opportunity to work with Northwestern University," said Mark Ruport, Executive Chairman of Sigma Labs. "This type of collaboration is critical if additive manufacturing is to realize its potential and reach full industrialization."

At Northwestern, faculty associated with NIMSI and CHiMaD have collaboratively worked on predictive ICME (Integrated Computational Materials Engineering) tools for additive manufacturing to innovate manufacturing processes and to develop new alloys. "Sigma Labs provides us with one critical element in our ICME framework for model validation and for process control. We look forward to our collaboration to bring the science and technology of additive manufacturing to the next level," said Jian Cao, Cardiss Collins Professor of Mechanical Engineering and Director of NIMSI.

[PrintRite3D](#) is Sigma Labs' patented in-process quality assurance software for the commercial 3D metal printing industry, providing real-time melt pool analytics. The software uniquely leverages thermal signatures to monitor the quality of each product part in the production process, layer by layer and in real-time, allowing operators to correct or stop production of a defective part - resulting in reduced error rates and higher yields. The software is currently being evaluated by tier-1 aerospace and OEM partners worldwide.

About Northwestern University

Northwestern, founded in 1851 and located in Evanston, Chicago, and Qatar, is a comprehensive research university that is deeply interdisciplinary across multiple schools and units. Its 40+ university research centers, such as NIMSI and CHiMaD, cultivate talent, collaboration, and innovation at the intersections of traditional disciplines. Specifically, NIMSI seeks new solutions to meet the ever-increasing demand on rapid manufacturing and hyper-individualized needs. We address the complexity and scalability of manufacturing systems using predictive digital tools across length and time scales. We consider issues related to supply chains, energy use, sustainability, cybersecurity, and economic and employment policy. CHiMaD is a NIST-sponsored center of excellence for advanced materials research focusing on developing the next generation of computational tools, databases, and experimental techniques in order to enable the accelerated design of novel materials and their integration to industry, one of the primary goals of the U.S. Government's Materials Genome Initiative (MGI). For more information, please visit [Northwestern at a glance](https://northwestern.edu), nimsi.northwestern.edu, and chimed.northwestern.edu.

About Sigma Labs

Sigma Labs, Inc. (NASDAQ: SGLB) is a leading provider of quality assurance software to the commercial 3D printing industry under the PrintRite3D® brand. Founded in 2010, Sigma is a software company that specializes in the development and commercialization of real-time computer-aided inspection (CAI) solutions known as PrintRite3D® for 3D advanced manufacturing technologies. Sigma Labs' advanced computer-aided software product revolutionizes commercial additive manufacturing, enabling non-destructive quality assurance mid-production, uniquely allowing errors to be corrected in real-time. For more information, please visit www.sigmalabsinc.com.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (which Sections were adopted as part of the Private Securities Litigation Reform Act of 1995). Statements preceded by, followed by or that otherwise include the words "believe," "anticipate," "estimate," "expect," "intend," "plan," "project," "prospects," "outlook," and similar words or expressions, or future or conditional verbs such as "will," "should," "would," "may," and "could" are generally forward-looking in nature and not historical facts. These forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the Company's actual results, performance or achievements to be materially different from any anticipated results, performance or achievements. The Company disclaims any intention to and undertakes no obligation to, revise any forward-looking statements, whether as a result of new information, a future event, or otherwise. For additional risks and uncertainties that could impact the Company's forward-looking statements, please see the Company's Annual Report on Form 10-K (including but not limited to the discussion under "Risk Factors" therein) filed with the SEC on April 1, 2019 and which may be viewed at www.sec.gov.

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