TeselaGen Secures Contract from BioMADE to Accelerate US Biomanufacturing with Advanced Informatics and Artificial Intelligence

Project will develop novel technologies for advancing data exchange, interoperability, and artificial intelligence for biomanufacturing

SAN FRANCISCO – (February 9, 2022) [TeselaGen Biotechnology](#) announced today a two-year contract with [BioMADE,](#) the Department of Defense-sponsored bioindustrial Manufacturing Innovation Institute, to improve the informatics infrastructure around fermentation-based biomanufacturing. As part of this collaboration, TeselaGen will develop novel technologies that standardize data exchange, connect disparate software systems, and establish secure protocols to facilitate collaboration on AI-enabled projects.

The technologies will be developed and validated in collaboration with [MicroByre,](#) and the [Advanced Biofuels and Bioproducts Process Development Unit](#) (ABPDU) of Lawrence Berkeley National Laboratory in a real-world fermentation process for producing succinic acid from a waste biomass feedstock through commercial scale-up. BioMADE's 100 member organizations will also gain access to TeselaGen's technology.

"Collaboration between organizations is often challenged by data being stored in varied proprietary formats," said BioMADE CEO Douglas Friedman, PhD. "TeselaGen is working to address this challenge for technical data for fermentation processes by cultivating and validating standards for data exchange, and developing tools to make these standards easy to use. The bioindustrial manufacturing industry stands to benefit from this standardization and the shared tools to follow."

Several critical innovations or practices are being developed. An open-source data exchange standard, based on current best practices, will be developed to enable easy exchange of fermentation process data independent of specific software platforms. The project will also demonstrate scalable API-driven interoperability based on an open source tooling foundation, fully in the end-users' control and providing connectivity between fermentations systems' digital backbones and other API-driven systems, such as machine learning-based optimization algorithms. Additionally, the collaborators will explore technologies for secure collaborative data analytics and machine learning that protects contributors' intellectual property. This project builds on a current collaboration between the ABPDU and TeselaGen to improve data coordination in fermentation operations.

"BioMADE is emerging as a leading industry organization for the advancement of innovative biomanufacturing in the U.S.," said TeselaGen CEO Eduardo Abeliuk, PhD. "We are excited to partner with the organization and its rapidly growing membership to accelerate biomanufacturing, and expect this project to be the beginning of a long-term relationship."

BioMADE's mission is to enable domestic bioindustrial manufacturing at all scales, develop technologies to enhance U.S. bioindustrial competitiveness, de-risk investment in relevant

infrastructure, and expand the biomanufacturing workforce to realize the economic promise of industrial biotechnology. The organization is an independent nonprofit, public-private partnership, and a member of the Manufacturing USA network. For more information, visit biomade.org.

About TeselaGen Biotechnology

TeselaGen has developed the first artificial intelligence-enabled operating system for biotechnology, enabling scientific organizations to commercialize high-performance bioproducts - from pharmaceuticals to food to fabrics - faster and easier than ever. The TeselaGen® operating system connects biologists, lab technicians, and bioinformaticians so that they can collaboratively design and build experiments, organize and standardize data and then test and continually learn. TeselaGen has been deployed by Fortune 50 companies and emerging innovators in biopharmaceuticals, agriculture, and specialty chemicals. The company is privately held and based in San Francisco, CA. For more information, visit www.teselagen.com

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