Thermo Fisher Scientific Announces Collaboration to Provide Access to Deep Learning Tools for Discovery and Targeted Proteomics
Agreement with MSAID GmbH to develop and commercialize tools to open new insights in proteomics research

SAN JOSE, Calif., May 26, 2020 /PRNewswire/ -- Thermo Fisher Scientific, the world leader in serving science, and MSAID GmbH, a software company transforming proteomics with deep learning, announce an exclusive license agreement to develop and commercialize deep learning tools for proteomics, making MSAID's Prosit-derived framework widely accessible to proteomics laboratories. The availability of deep learning tools will enable improved confidence in proteomics research results, primarily in the areas of protein profiling using label-free or tandem mass tag (TMT)-based quantification, and a variety of new applications.

The new algorithm allows gains in confidence and reproducibility and will be released as part of Thermo Fisher's newest Thermo Scientific Proteome Discoverer 2.5 software release. Users can now access deep-learning-based prediction of tandem mass spectra, allowing for the formation of entire spectral libraries on demand and facilitating the identification of peptides with up to 10 times higher confidence and the extraction of more identifications from proteomics datasets via intensity-based rescoring. In combination with Thermo Scientific Orbitrap technology, the new algorithm enables emerging applications, such as immunopeptidomics and metaproteomics, for which traditional database search and statistical approaches are often ineffective.

"Increasing the confidence of protein and peptide identifications is a growing need, given that a false discovery rate of even 1% means that 1,000 out of every 100,000 peptides might be incorrectly assigned," said Mark Sanders, director of life science mass spectrometry software, Thermo Fisher Scientific. "Applying deep learning tools enables data-independent analysis of proteomics samples with higher confidence and reproducibility, and, when used with Orbitrap technology, reduces the false discovery rate 10-fold, to merely 100 out of every 100,000 peptides."

Martin Frejno, chief executive officer, MSAID GmbH, said, "At MSAID, we reinvent the way proteomic data is acquired and analyzed by using state-of-the-art deep learning. Through our collaboration with Thermo Fisher Scientific, we can bring this technological revolution to laboratories around the world and empower the scientific community to gain exceptional insight into new and existing data."

Thermo Fisher Scientific will showcase outcomes of the collaboration and its newest products and software solutions in a company-hosted virtual event, vLC-MS.com, from May 26-28, 2020, and at the American Society for Mass Spectrometry (ASMS) Reboot Program, from June 1-12, 2020.

About Thermo Fisher Scientific
Thermo Fisher Scientific Inc. is the world leader in serving science, with annual revenue exceeding $25 billion. Our Mission is to enable our customers to make the world healthier, cleaner and safer. Whether our customers are accelerating life sciences research, solving complex analytical challenges, improving patient diagnostics and therapies or increasing productivity in their laboratories, we are here to support them. Our global team of more than 75,000 colleagues delivers an unrivaled combination of innovative technologies, purchasing convenience and pharmaceutical services through our industry-leading brands, including Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, Unity Lab Services and Patheon. For more information, please visit www.thermofisher.com.

Media Contact Information:
Laura Bright
Thermo Fisher Scientific
+1 562-335-8318
laura.bright@thermofisher.com

Janice Foley
BioStrata
+1 617-823-5555
jfoley@biostratamarketing.com

SOURCE Thermo Fisher Scientific

https://thermofisher.mediaroom.com/2020-05-26-Thermo-Fisher-Scientific-Announces-Collaboration-to-Provide-Access-to-Deep-Learning-Tools-for-Discovery-and-Targeted-Proteomics