Dr. Nikolai Slavov, Professor at Northeastern University, Joins ProtiFi's Scientific Advisory Board

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Dr. Nikolai Slavov

LOS ANGELES, CA, UNITED STATES, December 8, 2020 /EINPresswire.com/ -- Dr. Nikolai Slavov, Professor at Northeastern University and an Allen Distinguished Investigator, officially joined the Scientific Advisory Board of ProtiFi, LLC

Thursday December 3rd, 2020. Prof. Dr. Slavov has pioneered high- throughput mass-spectrometry methods for quantifying proteins in single cells and develops new computational methods for analyzing and understanding single-cell proteomics and multimodal data.

“Prof. Dr. Slavov’s single-cell, analytical, bioinformatic and mathematics expertise is invaluable as ProtiFi makes metabolomics, proteomics, lipidomics, glycomics, transcriptomics and genomics accessible to the broadest possible medical and scientific audiences” explains ProtiFi’s Founder and CEO Dr. John P. Wilson, PhD. “We are honored to have him join and anticipate his knowledge and skills will help omics reach the next level to make real and tangible impacts on people’s health and wellness.”

ProtiFi, LLC was launched in 2015 by Founder and CEO Dr. John P. Wilson, PhD to understand life beyond genes. In contrast to static DNA, which is the same in every organ, the structures and machinery of life are dynamic and change with age or in conditions of health and disease. From sample preparation to data analysis, ProtiFi solutions address the issues of reproducibility, sensitivity, speed, translation of data to meaning, and multiomics analysis of a single sample.

Dr. Nikolai Slavov, Ph.D., is a professor at Northeastern University and an Allen Distinguished Investigator. His group seeks principles in the coordination among protein synthesis, metabolism, cell growth and differentiation. The Slavov group has pioneered high-throughput mass-spectrometry methods for quantifying proteins in single cells and develops new computational methods to analyze and understand single-cell proteomics and multimodal data. The group obtained direct evidence for a new regulatory mechanism of protein synthesis (ribosome specialization) and continues to drive research in this emerging field supported by the NIH Director's New Innovator Award.

Dr. John Wilson

Dr. Slavov received his undergraduate education from the Massachusetts Institute of Technology (MIT) in 2004. He pursued doctoral research in the Botstein laboratory at Princeton University, aiming to understand how cells coordinate their growth, gene expression, and metabolism. He discovered a simple mechanism that can account for the growth-rate dependent transcriptional responses across a wide range of growth conditions. After defending his dissertation in 2010, Dr. Slavov began a postdoctoral project in the van Oudenaarden laboratory at MIT, aiming to understand the Warburg effect, a hallmark of cancer cells characterized by the fermentation of glucose in the presence of enough oxygen to support respiration. This work demonstrated that aerobic glycolysis can reduce the energy demands associated with respiratory metabolism and stress survival and that, contrary to expectations and decades-long assumptions, exponential growth at a constant rate can represent not a single metabolic/physiological state but a continuum of changing states characterized by different metabolic fluxes. Following a lead from these experiments, Dr. Slavov obtained direct evidence for differential stoichiometry among core ribosomal proteins in unperturbed wild-type cells. His findings support the existence of ribosomes with distinct protein composition and physiological function that represent an explored layer of regulating gene expression. Most recently, the Slavov Laboratory developed methods for high-throughput Single Cell ProtEomics by Mass Spectrometry (SCoPE-MS and SCoPE2) and used them to quantify proteome heterogeneity

during cell differentiation.

Prof. Dr. Slavov has received many honors and awards including the Allen Distinguished Investigator Award, the NIH Director's New Innovator Award, the SPARC Award from the Broad Institute of MIT and Harvard, the Princeton University Dean's Award, the IRCSET Postgraduate Research Fellowship, he was a Finalist in the Young European Entrepreneur Competition, the Princeton Graduate Fellowship, the MIT Undergraduate Fellowship, the Eureka Fellowship for Academic Excellence, the Bronze Medal in the 31st International Chemistry Olympiad and a National Diploma for Exceptional Achievements in Chemistry.

In alignment with the education aspect of ProtiFi's mission, Prof. Dr. Slavov actively organizes community initiatives, such as the annual single-cell proteomics conference (single-cell.net/), which is a highly interactive and interdisciplinary meeting. He also participates and contributes to organizing other leading conferences, including NeurIPS and HUPO.

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