



Northeastern

THE DEPARTMENT OF BIOLOGY INVITES YOU TO
A SPECIAL PRESENTATION:



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12:15PM

412 MUGAR HALL

Let the Data Drive: From MOPED to DELSA Global

Abstract: Large volumes of high-throughput mass spectrometry proteomics studies are being routinely conducted. They are ultimately aimed at better understanding biological processes by studying proteomes' profiles. However, the size and complexity of proteomics data hinders efforts to easily share, integrate, query, and compare such profiles. I will overview our recent developments addressing these challenges, including the creation of MOPED (Model Organism Protein Expression Database, moped.proteinspire.org). MOPED focuses on answering four fundamental questions:

1. What proteins are identified and where (organisms, tissues, localizations, pathways)?
2. How much of each protein is identified (relative and absolute expression)?
3. How does the knowledge of your current experiment compare to existing information?
4. How does this knowledge guide your next (experimental or computational) study?

Proteomics is certainly not the only field with data challenges. The Data-Enabled Life Sciences Alliance (DELSA Global, delsaglobal.org) grew out of a need for solutions that was recognized by many; its mission is to "Accelerate the impact of Data-Enabled Life Sciences on the pressing needs of the global society". DELSA's purpose is to build and advance a sustainable ecosystem of professional societies, funding agencies, foundations, companies, and citizens together with life science researchers and innovators in computing, infrastructure, and analysis. Key priorities for DELSA include enabling collaborative work, promoting reproducible research, and translating new discoveries into tools, resources, and products. I will introduce DELSA Global and its Endorsed Projects and Working Groups.

For questions or more information, please contact Sarah Balal at s.balal@neu.edu.