(SW1) Data Independent Acquisition in Practice: Foundations and Resources for Implementing DIA

Date: March 23rd 2019 Location: Henry B. Gonzalez Convention Center (Room 212A)
San Antonio, TX

Proteomics researchers are realizing the promise of Data-Independent Acquisition (DIA). In its current study, the ABRF Proteomics Research Group (PRG) have conducted a worldwide study to offer a go-to resource for sample processing, data acquisition and data analysis. Using the data acquired during this PRG study, the workshop will focus on demonstration of DIA data analysis and features from commercially available software. The workshop will also facilitate an in-depth discussion on best practices in DIA research; and provide practical tips from experts. We expect participants to be ready to carry out DIA studies after the workshop.

Workshop Goals:

- Educate and provide resources for DIA that aid in the areas of sample preparation, data acquisition, data analysis and interpretation.
- Enable academic and core facilities to use DIA technology by providing expert insights and possible improvements to existing workflows.
- Share experience with attendees on some common lessons learnt during the PRG study.
- Lay the foundation for attendees to implement DIA at their own institution.

Agenda

8:00 AM Welcome & Introduction (Pratik Jagtap)

8:15 AM The PRG DIA Study: Goals, study design and participation (Ben Neely)

8:45 AM Practical considerations for acquiring DIA MS data (Mukul Midha)

9:30 AM Interactive discussion about methods/settings (Joanna Kirkpatrick and Ben Neely)

10:00 AM Refreshment Break

10:30 AM Data Analysis of PRG Study Data using commercial software (Joanna Kirkpatrick)

12:00 PM Lunch Break

1:00 PM Highlights and Features from PRG Data Analysis using Spectronaut Software (Sira Echevarría-Zomeño from Biognosys)

1:40 PM Highlights and Features from PRG Data Analysis using Scaffold DIA Software (Susan Weintraub from Proteome Software)

2:20 PM Highlights and Features from PRG Data Analysis using PEAKS-DIA Software (Baozhen Shan from Bioinformatics Solutions, Inc.)

3:00 PM Break

3:30 PM – 4:00 PM Panel Discussion, Summary and Future Plans