30 years of challenging the limits of science and technology, opening doors for the future

ABRF 2019 | ANNUAL MEETING
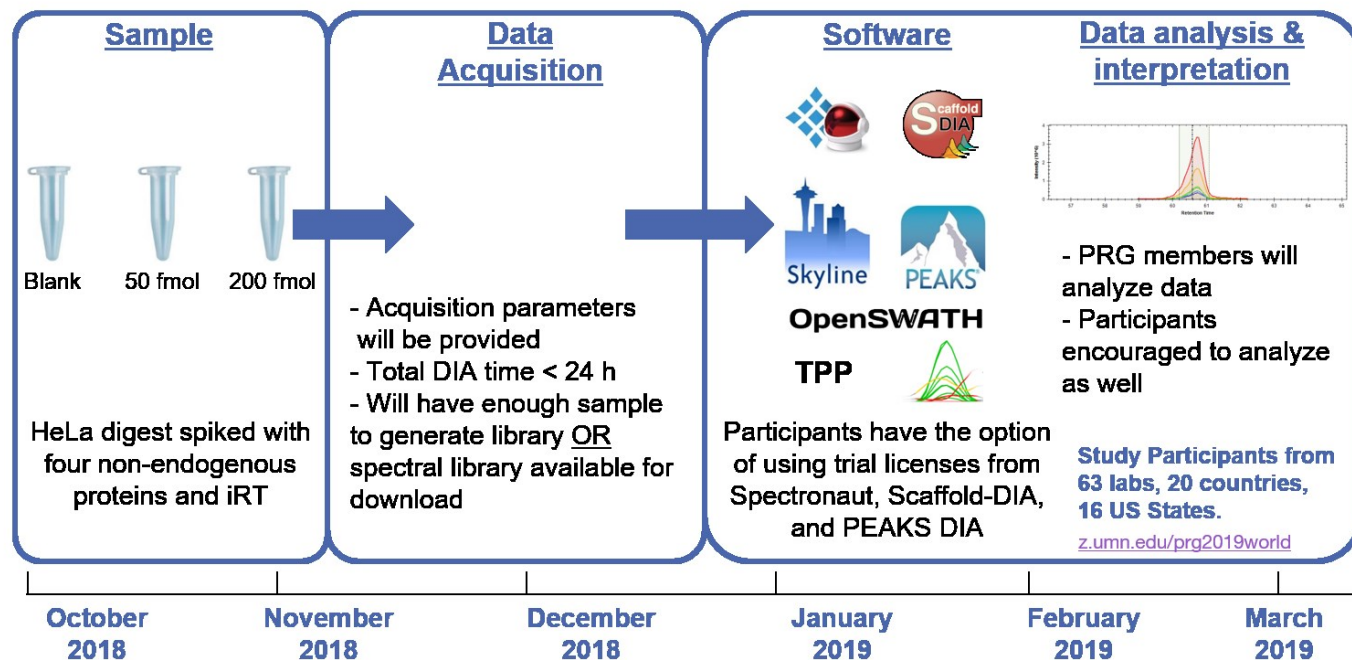
Satellite Workshop 1:
Data Independent Acquisition in Practice: Foundations and Resources for Implementing DIA

Organized by PRG
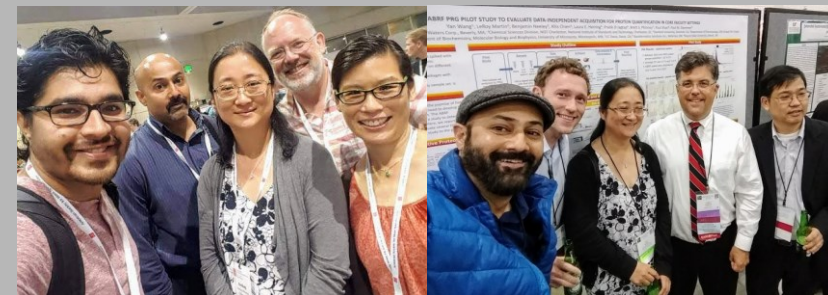*March 23, 2019*

Proteomics Research Group (PRG)

Through the promotion of broad participation and scientific excellence, the PRG aims to raise awareness, knowledge and education about modern methods of protein analysis : **https://abrf.org/research-group/proteomics-research-group-prg**

PRG 2018 Study: Evaluation of Data-Independent Acquisition (DIA) for Protein Quantification in Academic and Core Facility Settings.

Sample	Data Acquisition	Software	Data analysis & interpretation

Blank 50 fmol 200 fmol

HeLa digest spiked with four non-endogenous proteins and iRT

- Acquisition parameters will be provided
- Total DIA time < 24 h
- Will have enough sample to generate library OR spectral library available for download

Skyline PEAKS OpenSWATH TPP

Participants have the option of using trial licenses from Spectronaut, Scaffold-DIA, and PEAKS DIA

- PRG members will analyze data
- Participants encouraged to analyze as well

Study Participants from 63 labs, 20 countries, 16 US States.
z.umn.edu/prg2019world

October 2018 November 2018 December 2018 January 2019 February 2019 March 2019

PRG @ ABRF 2019:

- **SW1 Workshop on Saturday 3/23 @ 8 AM:** *Data Independent Acquisition in Practice*
- **PRG Presentation on Sunday 3/24 @ 2:30 PM:** *Evaluation of Data-Independent Acquisition (DIA) for Protein Quantification in Academic and Core Facility Settings.*
- **PRG Poster:** *Data Independent Acquisition in Practice: Foundations and Resources for Implementing DIA*

Email: prg.abrf@gmail.com

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

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, Ben Neely and Mukul Midha)

10:00 AM Refreshment Break

10:30 AM Data Analysis of PRG Study Data using commercial software (Joanna Kirkpatrick, Ben Neely and Mukul Midha)

12:00 PM Lunch Break

1:00 PM Highlights and Features from PRG Data Analysis using Spectronaut Software (Kara West & Sira Echevarría-Zomeño from Biognosys)
1:40 PM Highlights and Features from PRG Data Analysis using Scaffold DIA Software (Jacob Lippincott & 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 Refreshment Break

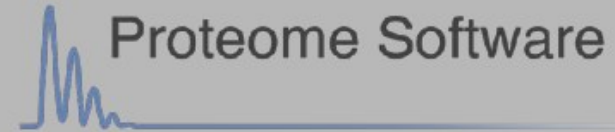3:30 PM – 4:30 PM Panel Discussion, Summary and Future Plans (PRG Members, audience and sponsors)

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