

Where is the HPP headed? B/D-HPP perspective

Ileana Cristea and Fernando Corrales

on behalf of all members and liaisons of
the B/D-HPP Executive committee

Identity & Value

Overview



translating
the code of life

- **Role**

- To support the use of state-of-the-art proteomic methods to characterize and quantify proteins for in-depth understanding of the molecular mechanisms of biological processes and disease across life sciences.

- **Goals**

- **B**roaden the impact of proteomics in the broader community based on organ and disease areas.
- **P**rioritize protein targets that are highly relevant to a particular field, deliver relevant quantitative assays for these selected targets and to disseminate and make publicly accessible the information and tools.
- **C**ontribute to the development of scientific sessions of International HUPO

- **Organization**

- Fernando Corrales (chair) and Ileana Cristea (co-chair and incoming chair)
- Jennifer Van Eyk (past-chair), Gil Omenn (Ex officio), Hui Zhang, Eric Deutsch, Pengyuan Yang, Tadashi Yamamoto, Sanjeeva Srivastava, Vera Ignjatovich, Ferdinando Cerciello (ECR representative), Paola Roncada.
- 19 B/D-HPP initiatives with 4 closely related HPP resource pillars.

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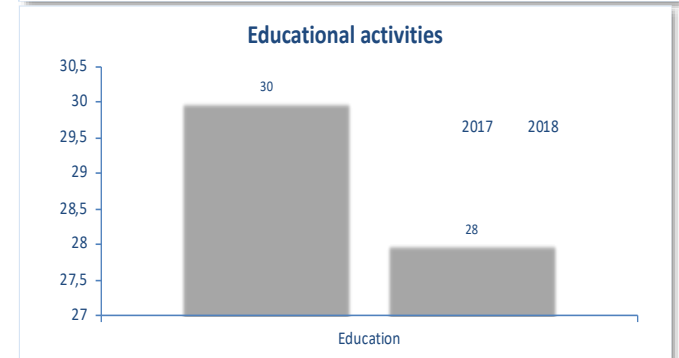
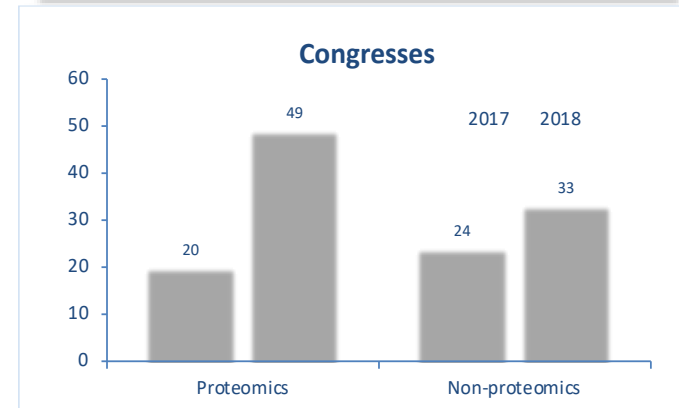
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Visibility
Scientific Deliverables
Participation

Productive and Visible B/D-HPP Community

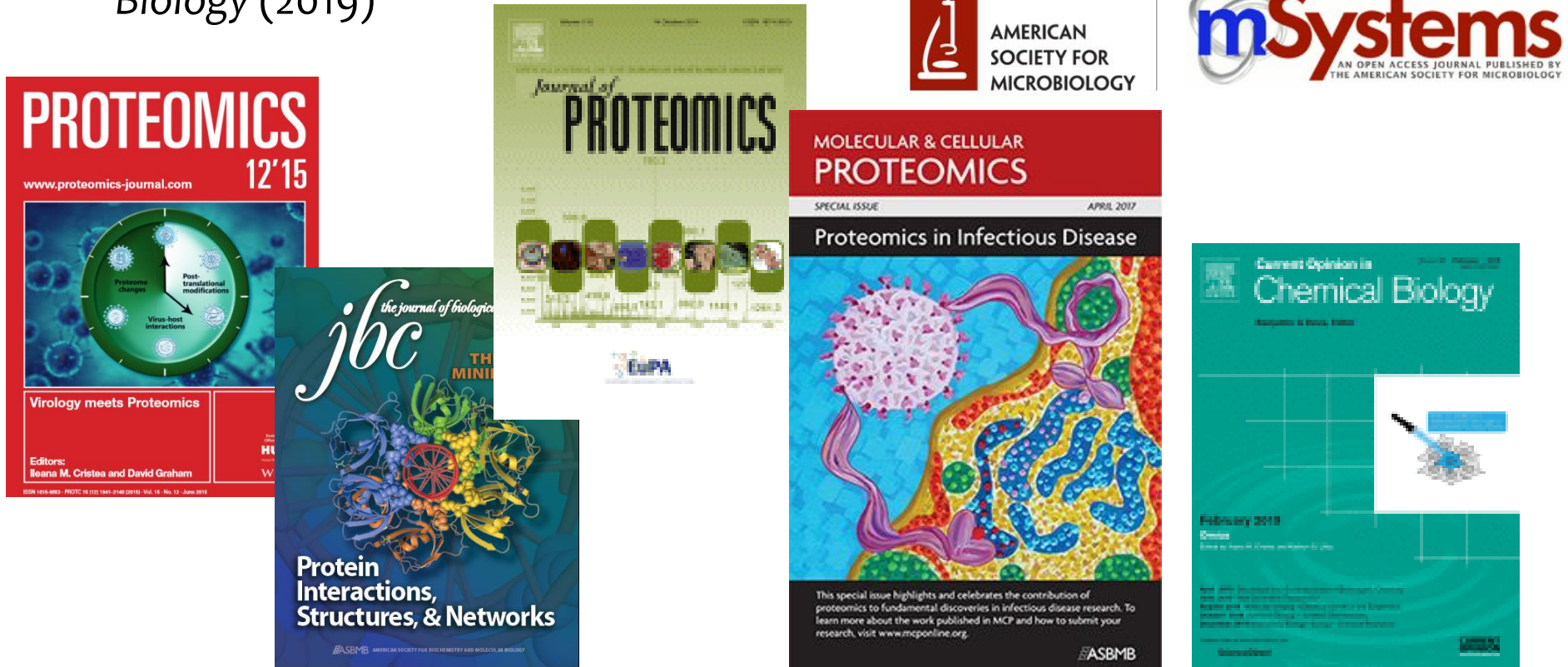
- 10 B/D-HPP initiatives reported **382** published papers (160 authorships) of which 42 were collaborations.
- Participation in **82** international congresses, 49 in proteomics (14 teams) and 33 focused on other biomedical, clinical (11 teams) disciplines.
- Organisation of **28** educational and dissemination related activities (10 initiatives).



Promoting Visibility & Bridging scientific communities

Journal Special Issues

- “Trends in Microbial Proteomics”, *Journal of Proteomics* (2014)
- “Protein Interactions, Structures & Networks”, *JBC* (2015)
- “Virology meets Proteomics”, *Proteomics* (2015)
- “Proteomics in Infectious Disease”, *Molecular & Cellular Proteomics* (2017)
- “Proteomics in Infectious Diseases”, *Journal of Proteomics* (2018)
- “Proteome Organization in Space and Time”, *Current Opinion in Chemical Biology* (2019)



B/D HPP Questionnaire item 11

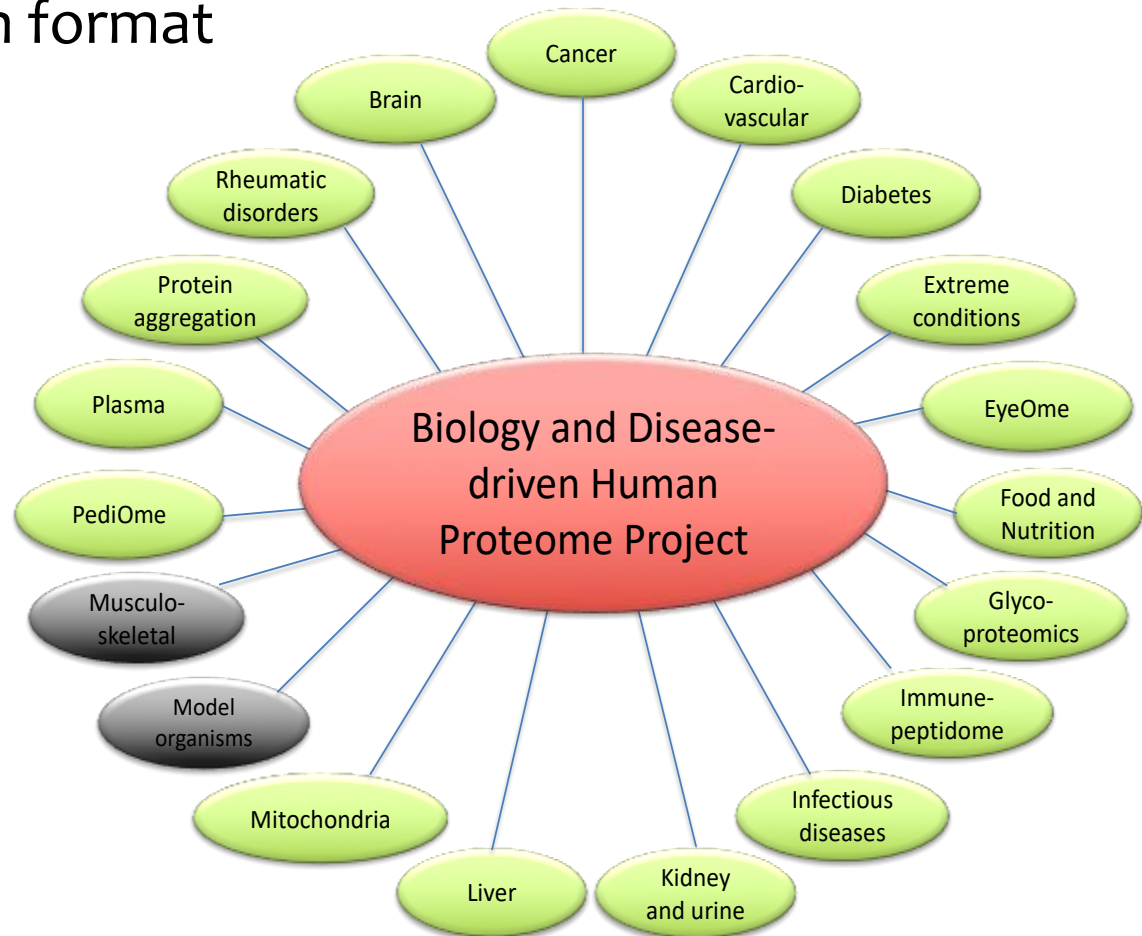
11. Would your initiative participate in the upcoming HUPO Congress to be held in Adelaide (Australia) in 15-19 Sept 2019? If YES, then address these questions:

- The Annual HUPO World Congress includes six sessions dedicated to the HPP. Would your initiative be willing to participate in the coordination of one of these sessions?
- Would your initiative participate in the HPP pre-congress workshop (Sunday HPP workshop)?
- Would your initiative participate in the HPP post-congress workshop (Thursday HPP workshop)?

	HPP 6 session track	Sunday HPP Pis	Thursday HPP
HIPP	1	1	1
CaHPP	1	1	1
RAD	1	1	1
CVD	1	1	1
PAD			
FAN			
HBPP	1	1	1
HID	1	1	1
HLPP	1	1	1
Mitochondria	1	1	
Extreme conditions	1	1	1
PediOme	1	1	
HPPP	1	1	1
Diabetes			
KUHPP	1	1	1
	12	12	10
2018	11	9	10

Active & Interactive Community Represented in congress participation and activities?

- Promote the participation of the existing members of the initiatives
 - Sun & Thu session format
- Is there a need for new initiatives?
- Match the research directions of our community
- Single-cell
- Combine or make bridges between initiatives



Active & Interactive Community Represented in congress participation and activities?

- Grow HPP awareness and membership. Who belongs?
 - Identity and value
 - B/D-HPP and C-HPP represent the HUPO community
 - At time of abstract submission – bullet point selection of interest in scientific topics (B/D & C-HPP)
 - Message: “You are a part of this”; All HUPO members belong and are invited; Not an exclusive club
- Current effect of the “HPP” word in the session titles
- Promoting Visibility: Speakers from our proteomics community members + outside scientists (biologists, clinicians)

Active & Interactive Community Represented in congress participation and activities?

- Increase participation of members of our young community that represents our future
 - Sun/Thu - Lightning talks selected from abstracts
 - Free registration for students and postdocs to Sun/Thu HPP (travel awardees)?
- Increase visibility: Involvement of our young community in HUPOST and other HPP reports
- Every B/D-HPP initiative should have a student/postdoc representative
- Each initiative can also have a duty of education. Provide:
 - Relevant papers (methods) and links to courses

Identity & Value

Value - Deliverables

- Making connections
- Promoting collaborations
- Promoting research directions
- Bringing visibility to proteomics
- **Deliverables:**
 - Biological and clinical findings
 - Reagents
 - Sample sharing
 - Methods
 - Criteria for experimental workflows and data analysis
 - Discovery tools
 - Journal Special Issues

Deliverables

- Prioritize protein targets that are highly relevant to a particular field, deliver relevant quantitative assays for these selected targets and to disseminate and make publicly accessible the information and tools.
- Targeted mass spectrometry assays
- Peptide atlas

Where is the HPP headed? B/D-HPP perspective

- Increased interactions between the B/D-HPP and C-HPP

Thoughts from 2018:

- Vibrant and diverse scientific community
- The maturity of the technology is now seen in fundamental scientific discoveries made with the help of or driven by proteomics
- Informed collaborations between scientists driven by technological development, biological applications, clinical applications, and development of diagnostic tools
- **Science would be significantly poorer without proteomics**
- This is something that our community should be proud of and should promote to other scientific fields