WRITTEN REPORT OF THE CONFERENCE WORKSHOP

- **TITLE OF WORKSHOP: Surfing the Next Wave of Metaproteomics: Quantification, Multi-omics, and PUFs.**

- **DATE OF WORKSHOP:** June 3, 2026
- **ORGANIZERS/PRESIDERS LIST:** Robert Hettich, Tim Griffin and Pratik Jagtap.
- **DESCRIPTION OR GOALS OF WORKSHOP:**
  Mass spectrometry–based metaproteomics is rapidly emerging as a cornerstone for deciphering the functional dynamics of complex microbiomes, yet the field continues to face analytical and computational challenges that extend beyond traditional proteomics. This evening workshop featured leading experts and active contributors to discuss the current state of the field, identify unmet needs, and chart a coordinated path forward.

- **WORKSHOP AGENDA: (See Slides HERE)**
  - 5:45: Introduction to the Workshop Pratik Jagtap
  - 5:50-6:15: Panel Discussion:
  - Introduction to Grand Challenges Bob Hettich
  - Update on Metaproteomics Quantification Study (CAMPI4) Tim van den Bossche
  - Update on Microbiome Multi-omics Study (CAMPI6) Pratik Jagtap
  - Update on Proteins of Unknown Functions Study (CAMPI5) Bob Hettich
  - 6:15-7:00: Discussion with the attendees: Tim Griffin & Mary Lipton
  - *Expanding the presence of metaproteomics at ASMS*
  - *Establishing a metaproteomics interest group: vision, structure, organization*
  - *Dedicated oral and poster sessions: structure and organization*
  - *Announcements and Conclusions*

SUMMARY OF DISCUSSION: It is important to note that this workshop was the first one to be organized under the newly formed Metaproteomics Interest Group. Thirty-five in-person attendees were welcomed by Pratik Jagtap, who highlighted the importance and impact of metaproteomics research. This introduction was followed by an update on the Grand Challenges by Bob Hettich and an update on the upcoming quantitation CAMPI4 Study by Tim van den Bossche; on CAMPI5 study on proteins of unknown functions by Robert Hettich and on the CAMPI6 study on multiomics in microbiome research. These updates were followed by a discussion on expanding the presence of metaproteomics at ASMS. The Metaproteomics Interest Group discussed the plan to promote metaproteomics research, standardization, and education; connect newcomers and experts; and support community-driven initiatives. Moreover, the question-and-answer session also involved a lively discussion about how to support and fund the next generation of CAMPIs; the expanding role of multi-omics in microbiome science; building metaproteomics databases from metatranscriptomics and new grand challenge ideas for the community. Moreover, the role of *De novo* (such as Casanovo, Cascadia, FragNovo) were discussed and it was suggested to keep the discussion alive via a #metaproteomics Slack channel by joining the CompMS Slack (compms.slack.com). The Evening Workshop concluded with what is now becoming a tradition: the Wednesday evening “Metaproteomics Dinner,” where attendees continued their discussions on ongoing projects and potential collaborations.



Metaproteomics researchers at the Wednesday ‘Metaproteomics Dinner” after the Evening Workshop.