# A travel guide to metaproteomics with tips for the study of the most complex samples

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Invited Keynote

Abstract: Understanding the functioning of microbial communities requires identifying the diversity of microorganisms present and quantifying the numerous molecular players in action. Proteins are the workhorses of biological systems and metaproteomics is a key technology for such studies. The different facets of metaproteomics, including sample preparation, data acquisition, database construction, search strategy, and data interpretation, will be presented and commented. Several examples including soil, one of the most complex samples, will illustrate these facets.