# iMetaLab Suite: A One-stop Toolset for Metaproteomics

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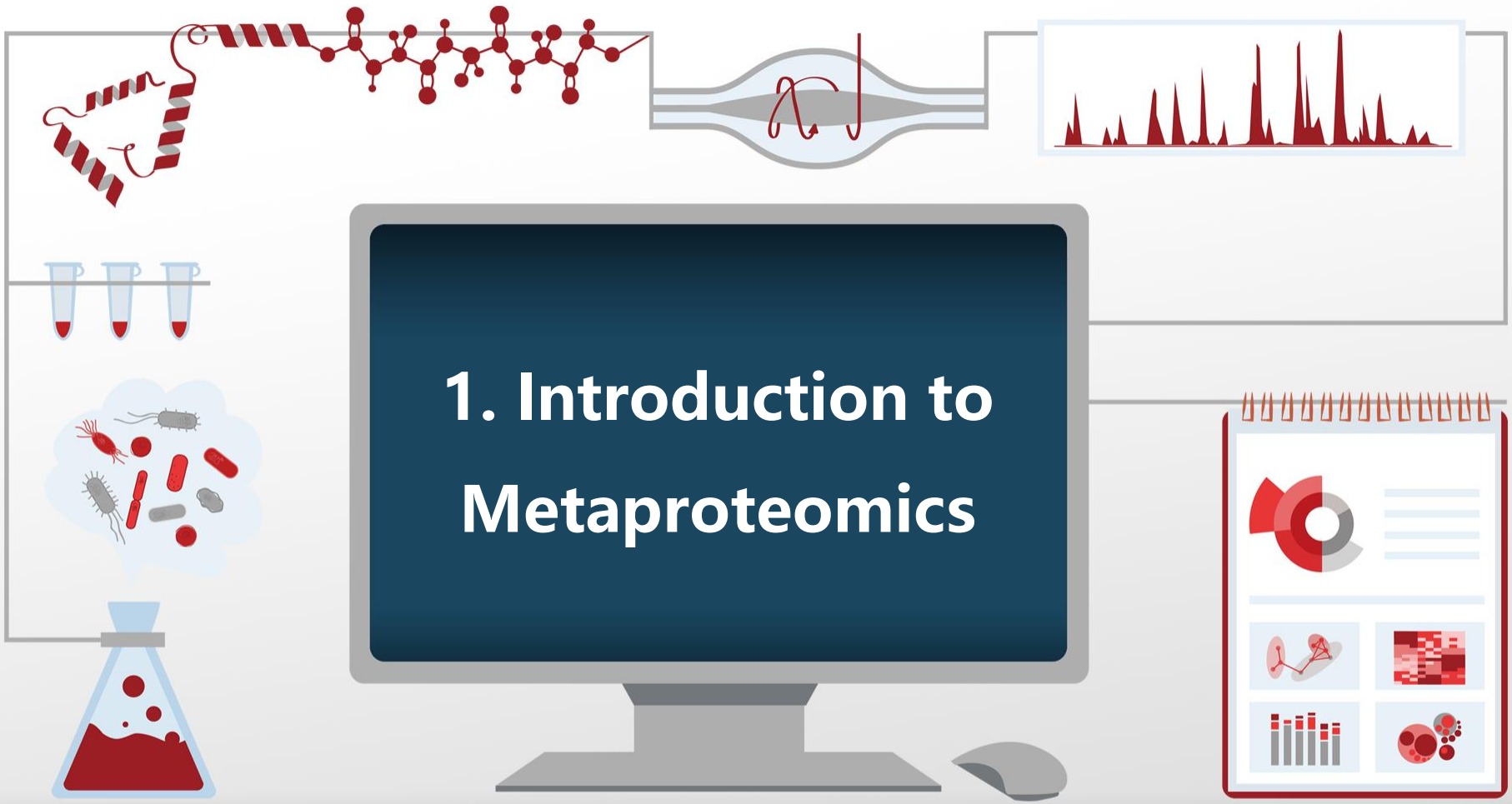
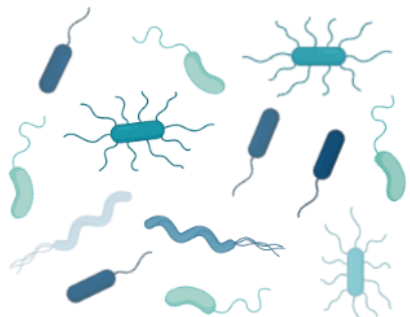
Li, Leyuan, Zhibin Ning, Kai Cheng, Xu Zhang, Caitlin M. A. Simopoulos, and Daniel Figeys. 2022. iMetaLab Suite: A one-stop toolset for metaproteomics. iMeta e25. https://doi.org/10.1002/imt2.25

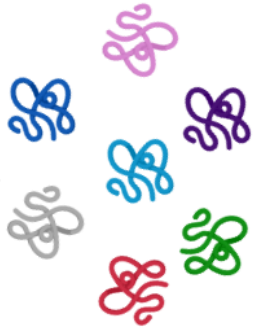

1. Introduction to
Metaproteomics

# A typical workflow of metaproteomic analysis



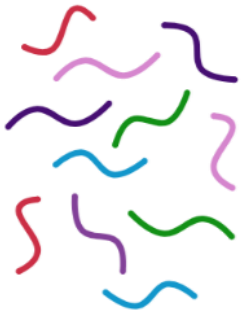
Microbiome sample

Protein extraction



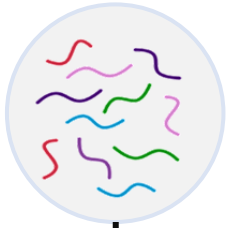
Protein

Digestion

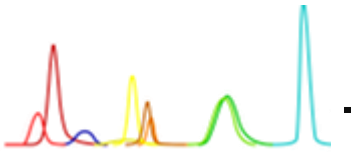


Peptides

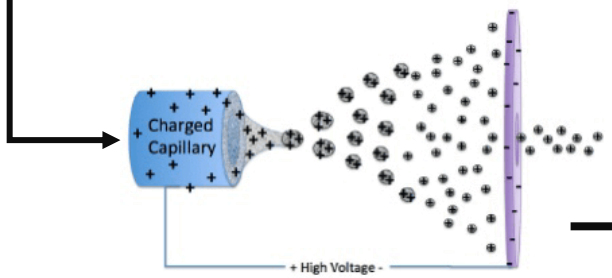
LC-MS/MS analysis



Peptides

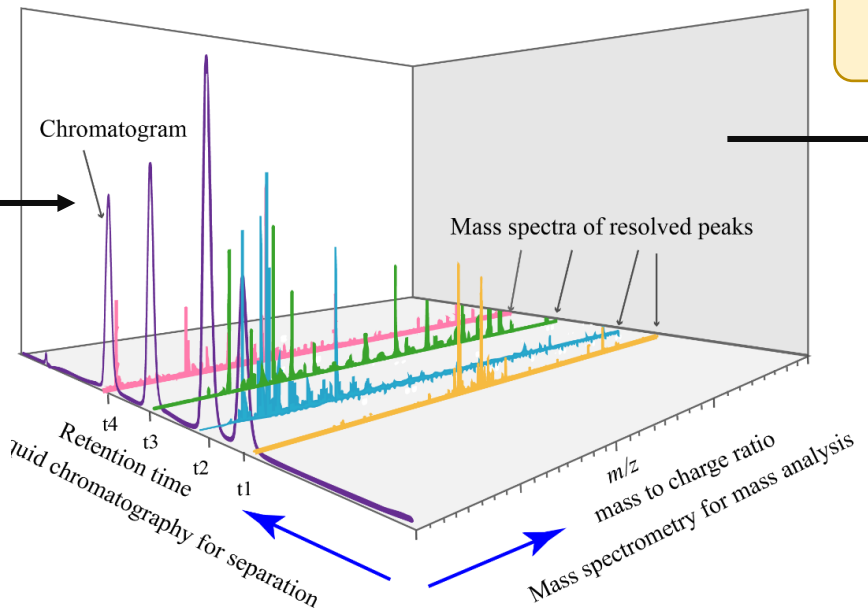


LC separation



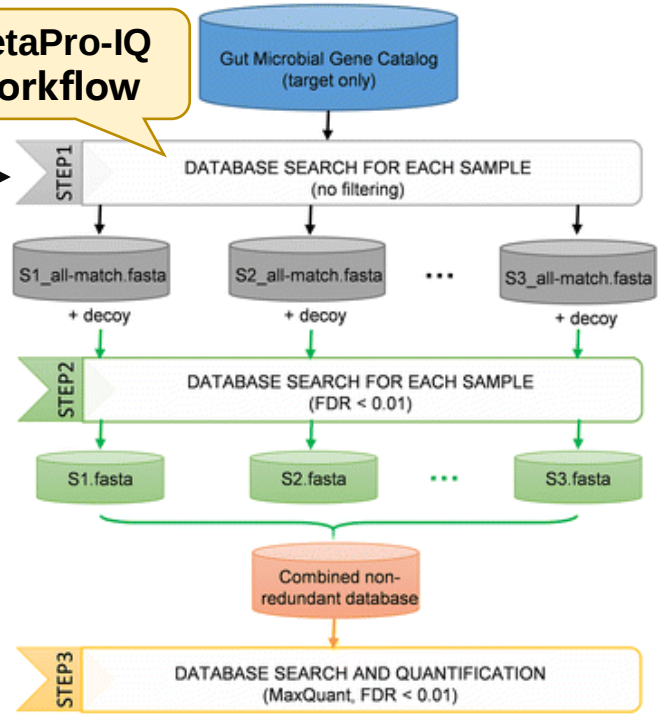

Electrospray ionization

MS analysis

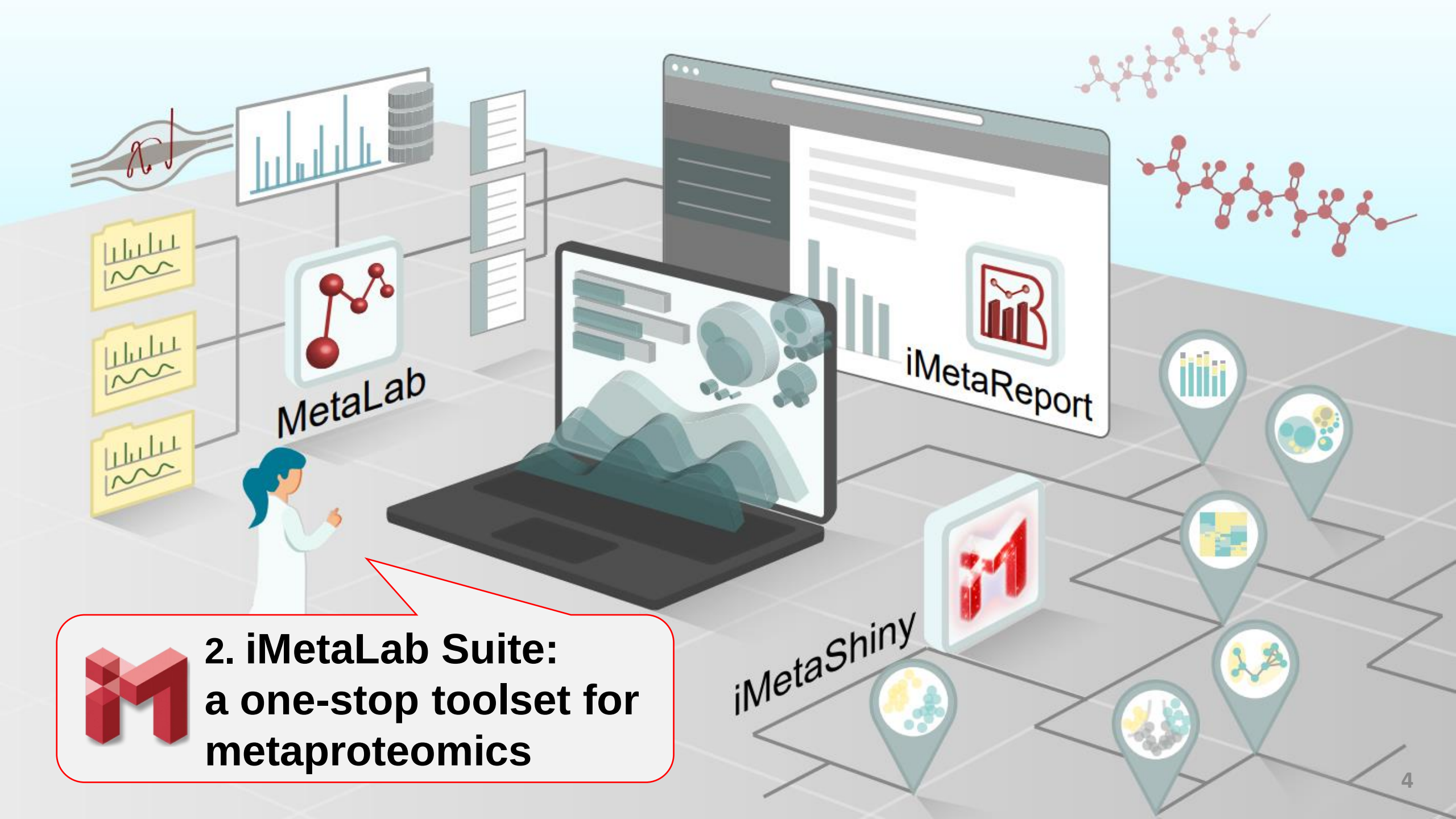



Database search

MetaPro-IQ workflow

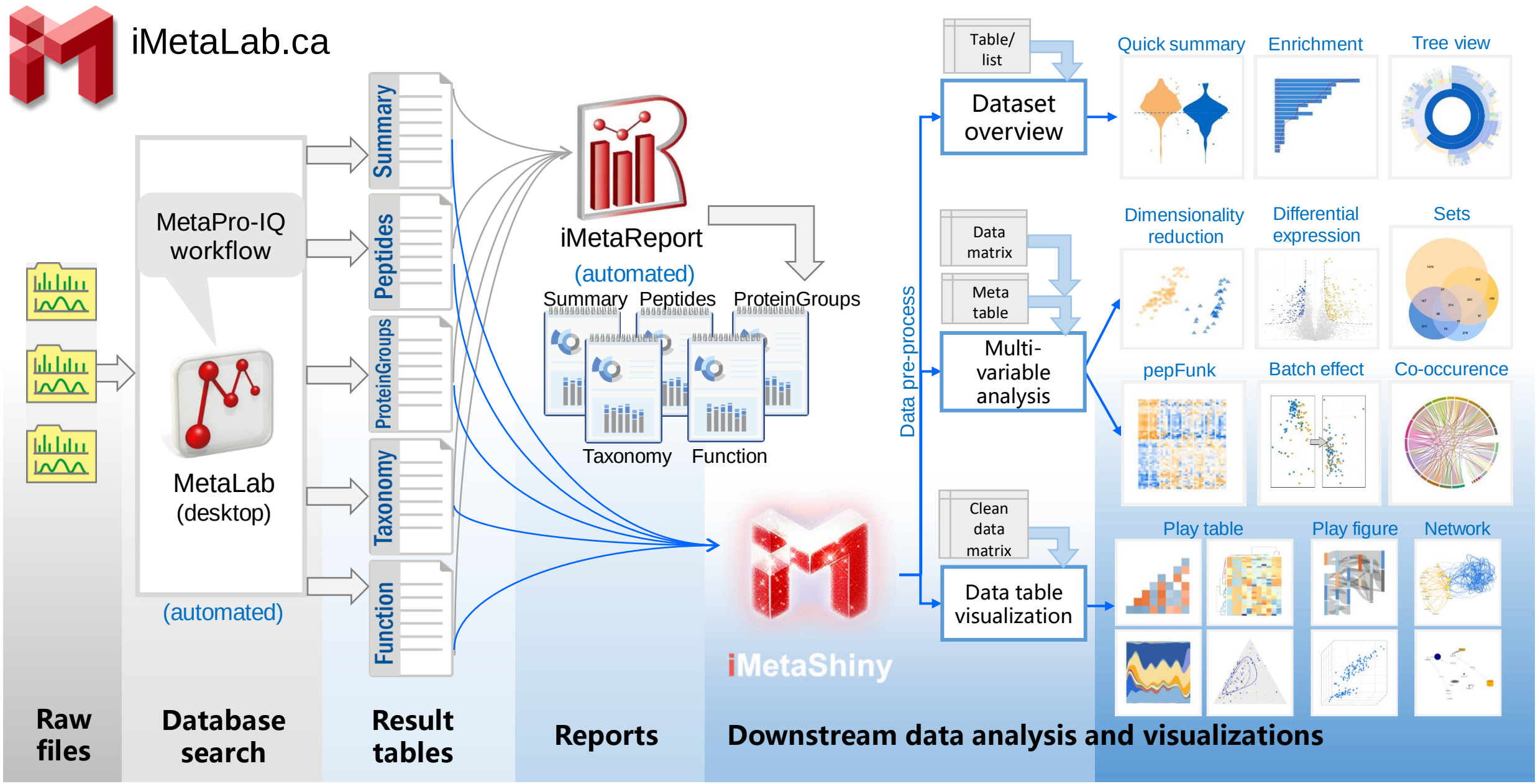


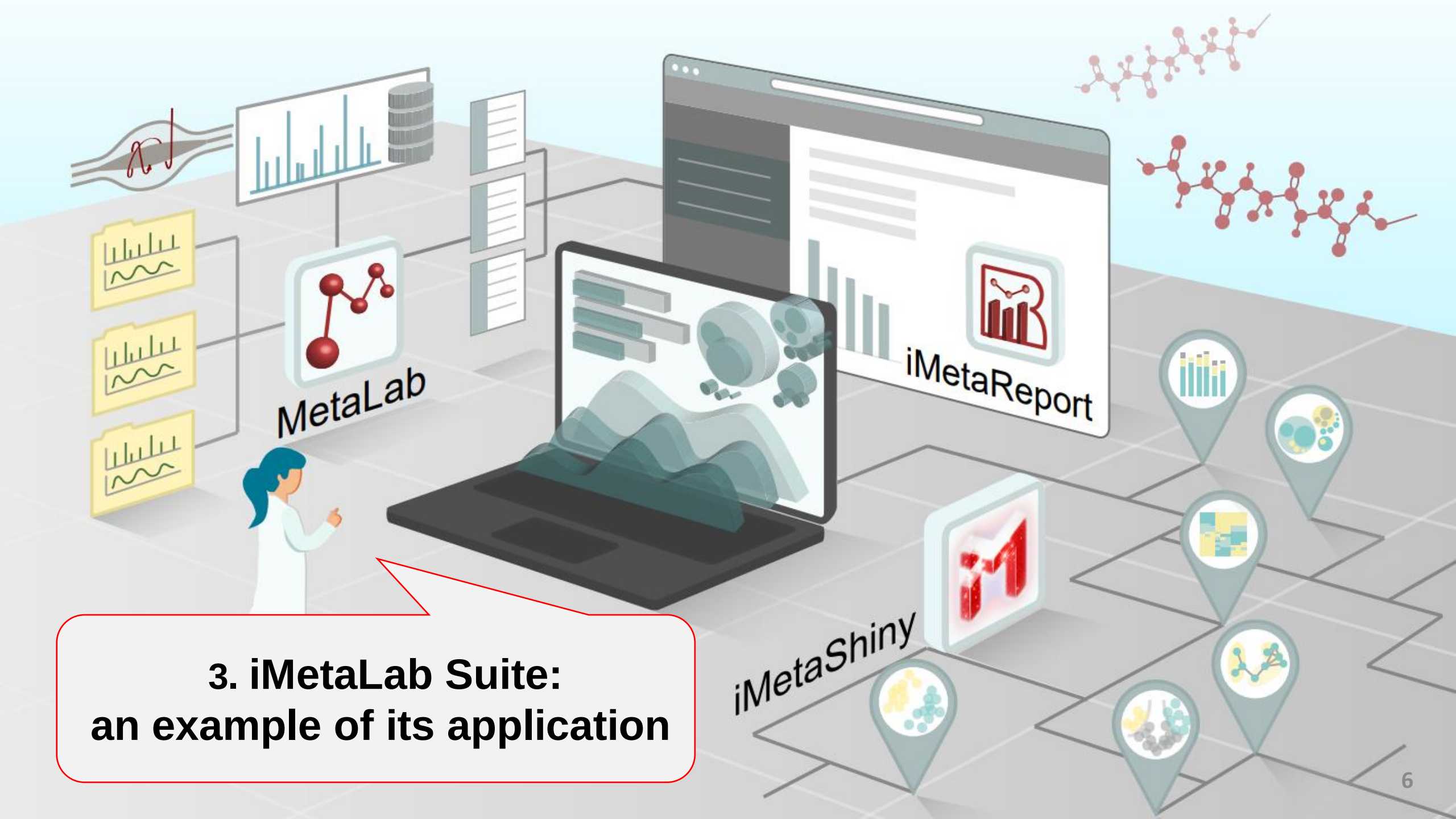

Zhang et al. *Microbiome*, 2016, 4:31




## 2. iMetaLab Suite: a one-stop toolset for metaproteomics

# MetaLab software, iMetaReport and iMetaShiny apps






# 3. iMetaLab Suite: an example of its application

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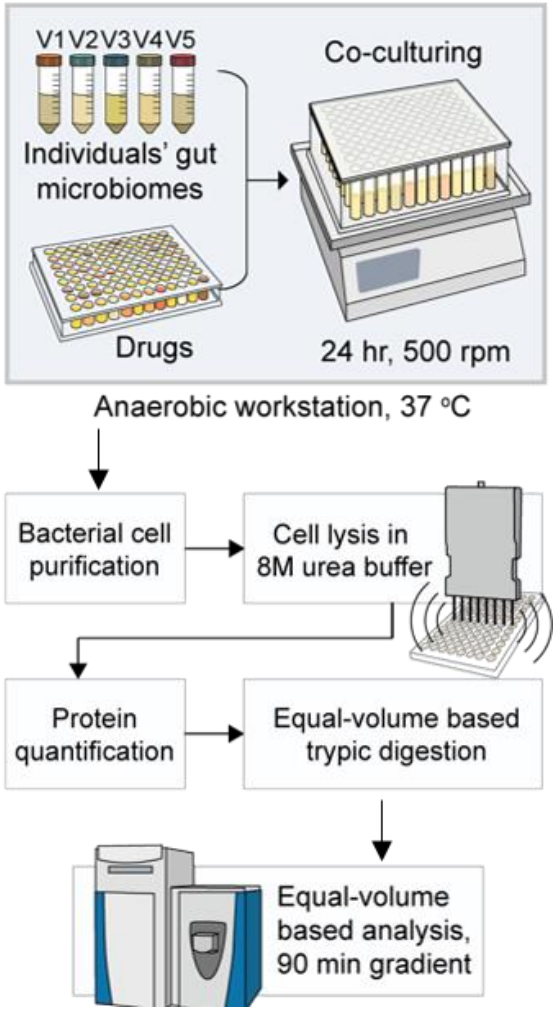
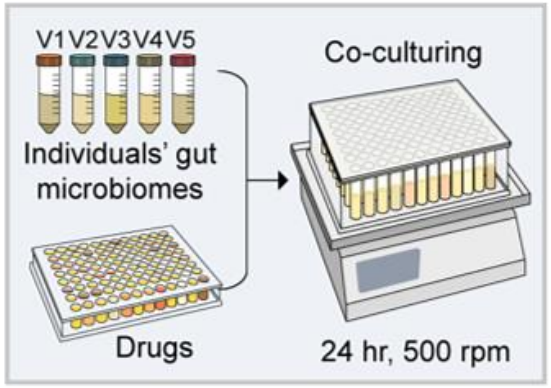


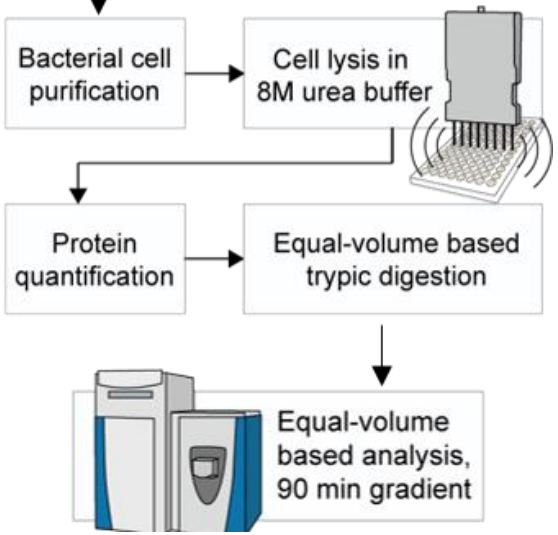

**Diclofenac vs DMSO**

Li et al., *Microbiome* 8:33 (2020)

# iMetaLab Suite: an example of its application

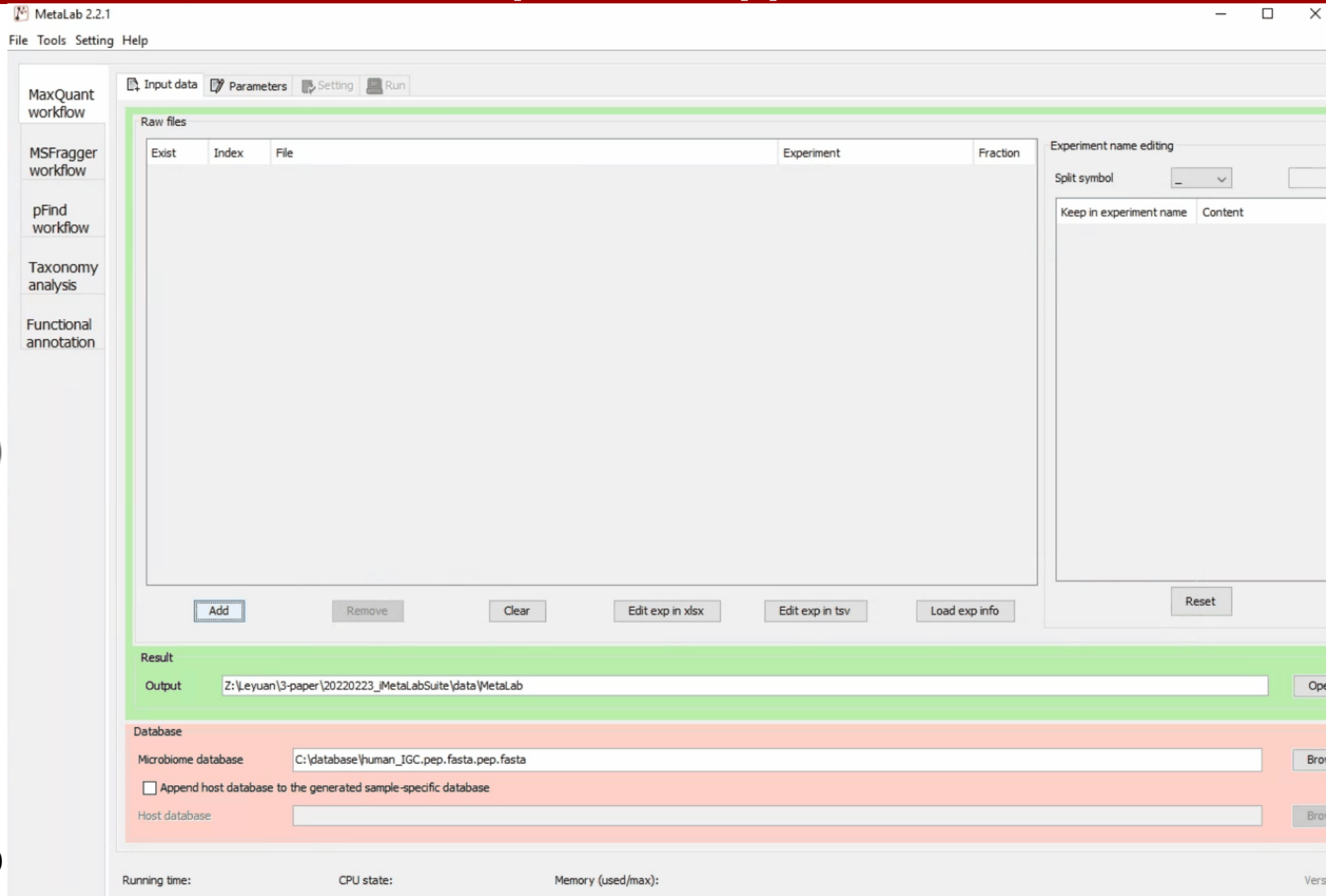



Anaerobic workstation, 37 °C

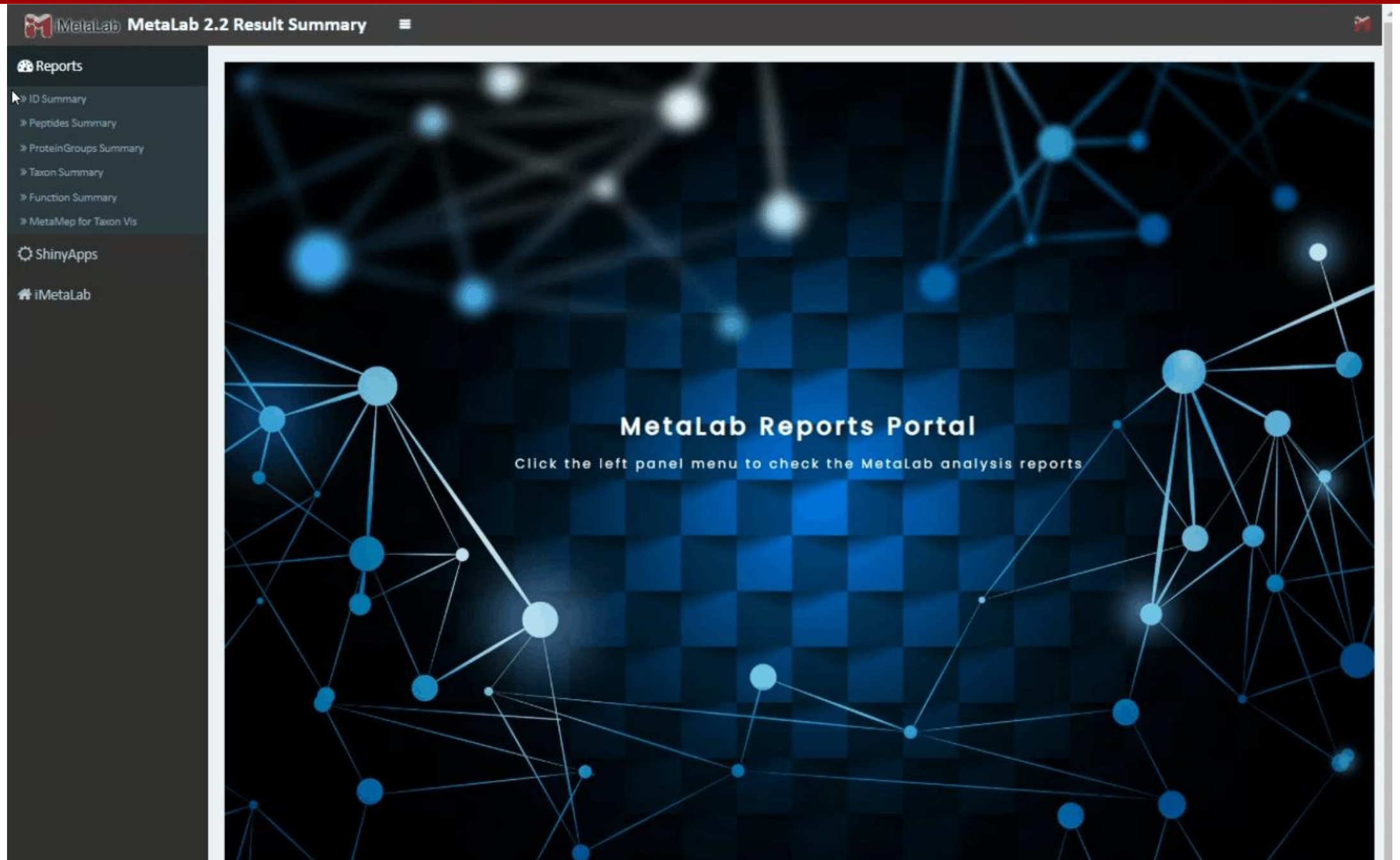



**Diclofenac vs DMSO**

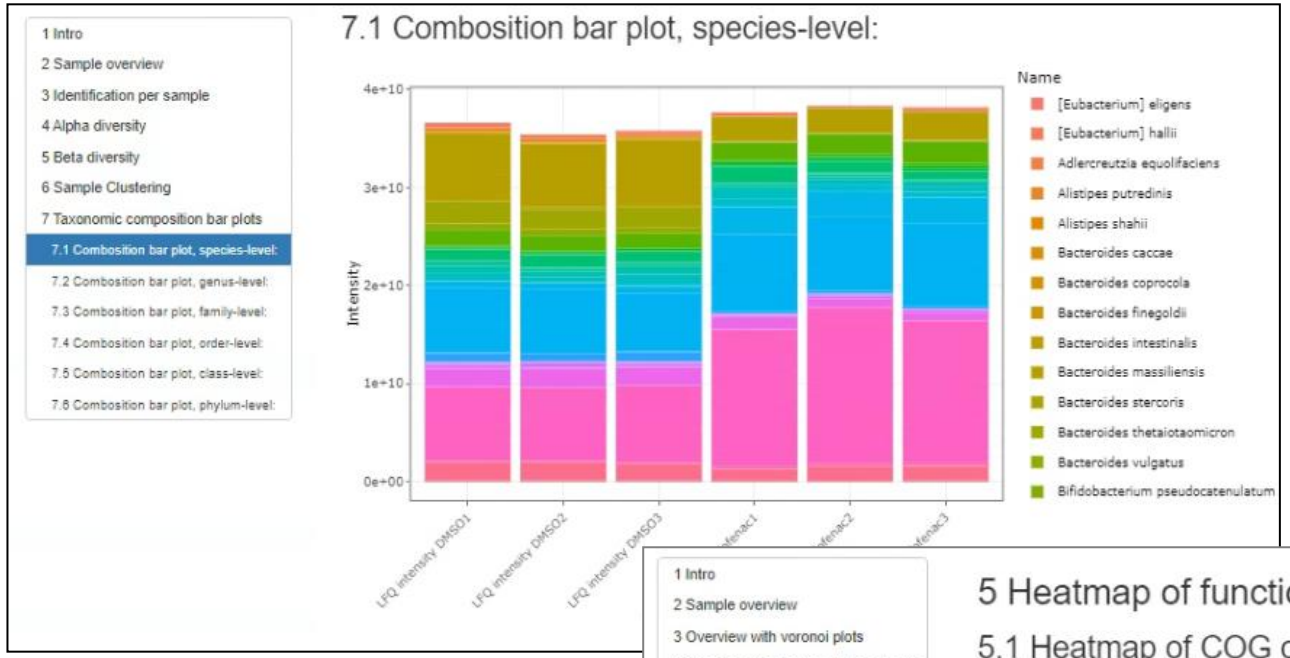
Li et al., *Microbiome* 8:33 (2020)

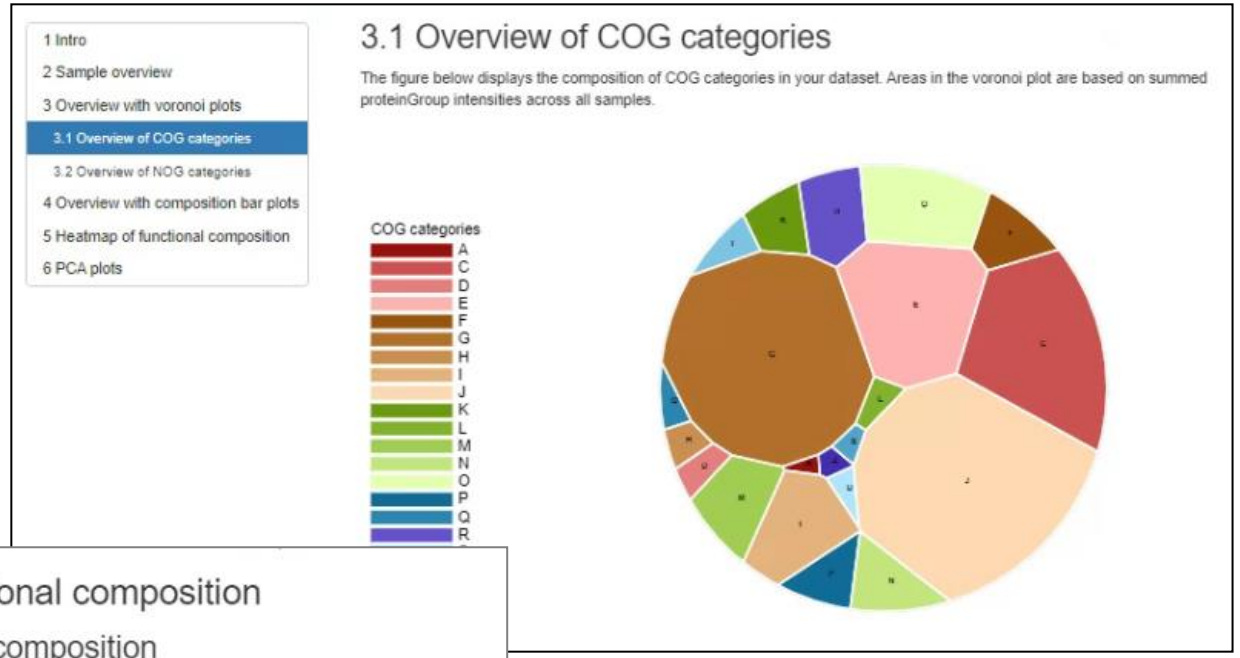


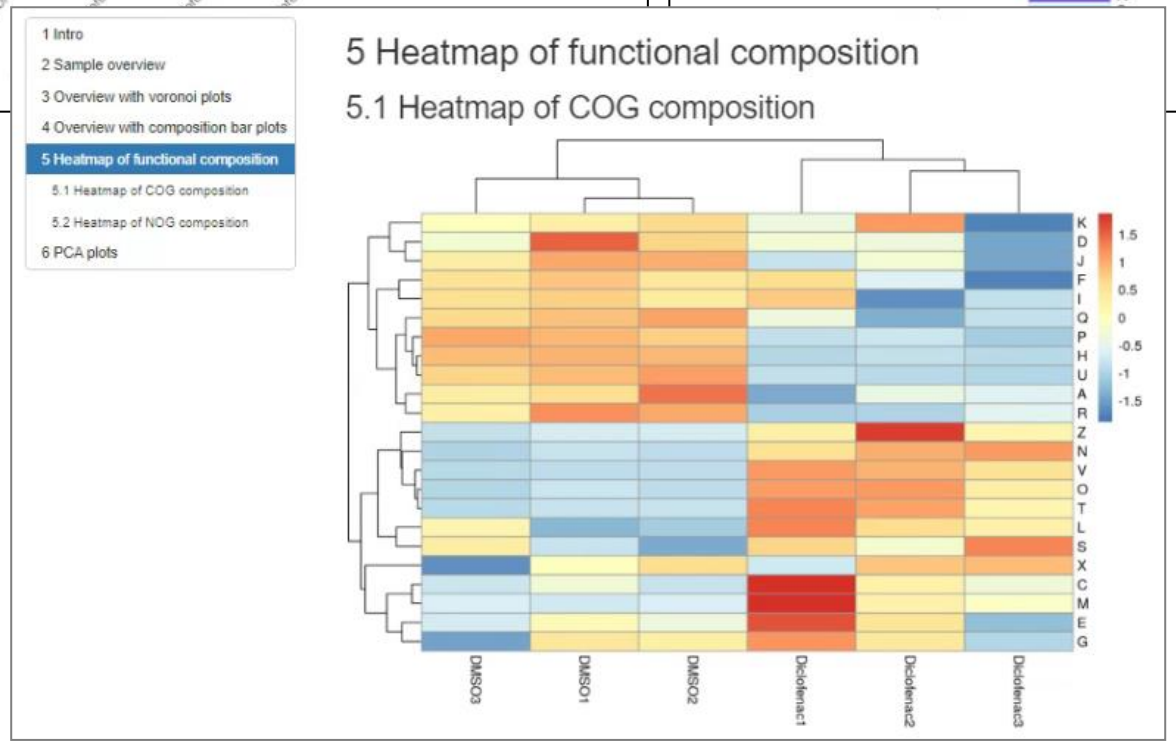
# iMetaReport automated report



# iMetaReport automated report

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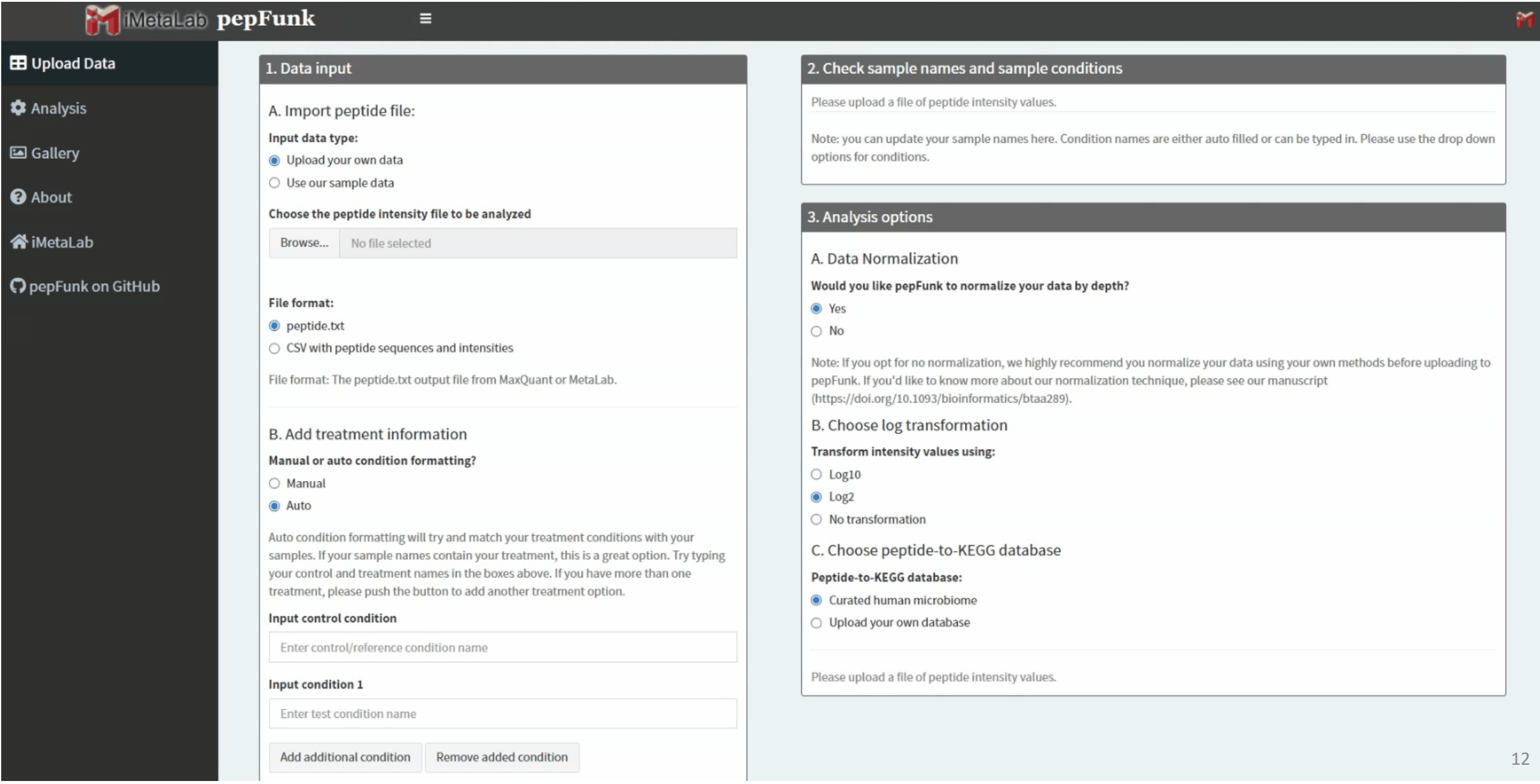
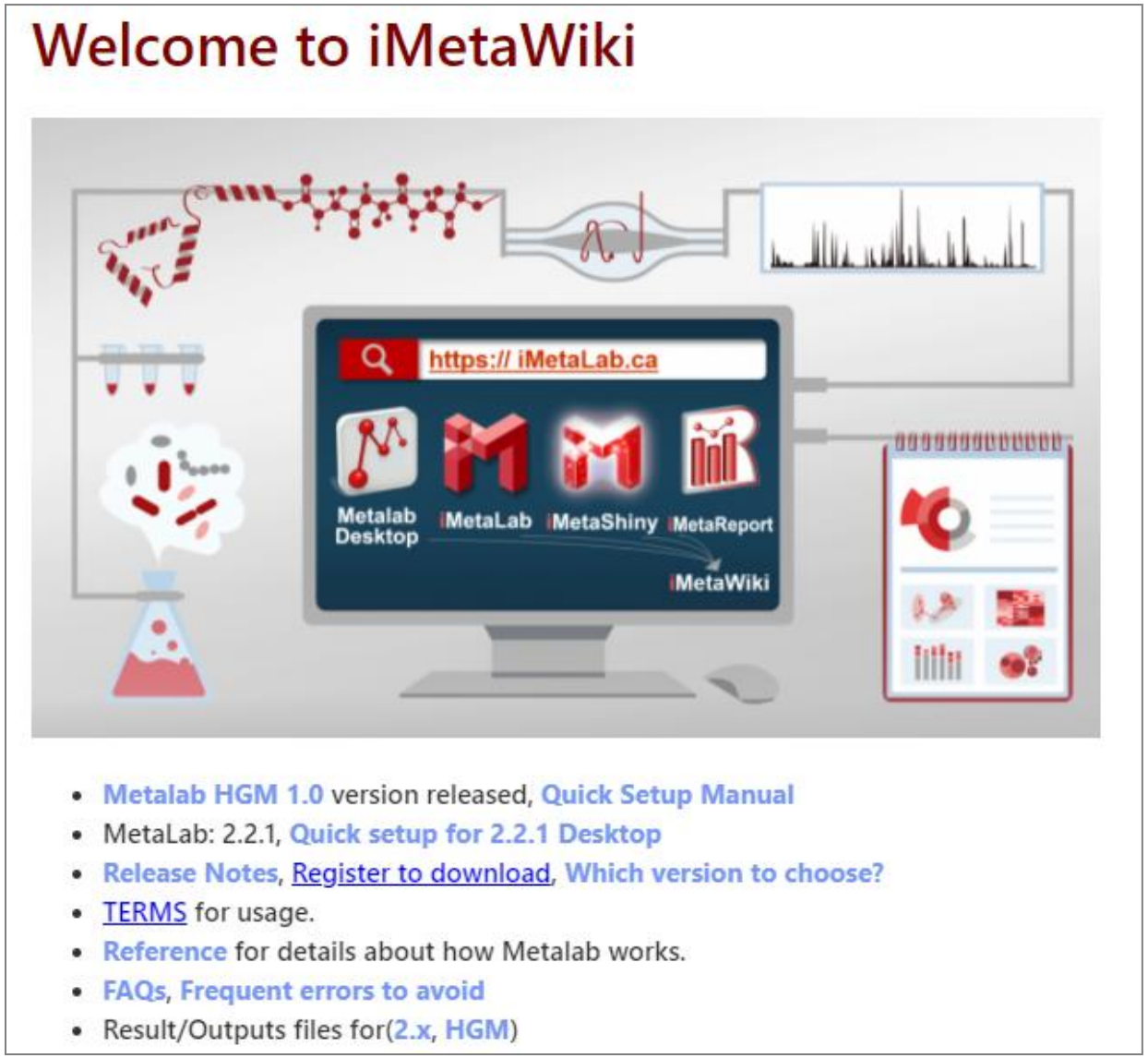
iMetaLab
iMetaShiny Apps
Analyze your metaproteomic data and generate publishable scientific figures
All
Metaproteomics
Statistics
Simply plotting
Special analysis
Quick MQ summary
Enrichment analysis
Phylo explorer

# iMetaShiny for data analysis and visualization: pepFunk as an example



# iMetaWiki and tech support




**Tutorials and FAQ:**

**wiki.imetalab.ca**

**Tech support team:**

**techteam.metalab@gmail.com**

**Your feedbacks and suggestions are welcome!**

# iMeta: Integrated meta-omics to change the understanding of the biology and environment


"***iMeta***" is an open-access Wiley partner journal and launched by scientists of the Chinese Academy of Sciences. iMeta aims to promote metagenomics, microbiome and bioinformatics development by publishing original researches, methods or protocols, and reviews. The goal is to publish highly quality papers (Top 10%, IF > 15) targeting broad audience. Unique features including video submission, reproducible analysis, figure polishing, APC waiver, and promotion by social media with 500,000 followers. The first issue will be released in March 2022.

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