

# Metabolomics Data Analysis Workshop

Wednesday 7<sup>th</sup> December 2022, CRL, Wolfson Seminar Room, Department of Chemistry

10am: **Welcome to the workshop** and housekeeping. (JM)

10:10: **Introduction to metabolomics** (JM)

10:35: **Lecture 1:** Data Processing and statistical analysis background and principles (JM)

11:20: **Short break** (10mins)

11:30: **Tutorial 1:** Using MetaboAnalyst for data processing and statistical analysis (JM)

12:00: **Exercise 1:** Hands-on data processing and analysis using MetaboAnalyst (JM/JWT)

12:45: **Lunch** (45mins)

1:30: **Q&A discussion 1:** Answers to questions in Exercise-1 (JM/JWT)

1:45: **Lecture 2:** Introduction to functional interpretation of metabolomics data (JM)

2:20: **Tutorial 2:** Using MetaboAnalyst for functional interpretation of results (JM)

2:50: **Exercise 2:** Pathways and Multiomics (JM/JWT)

3:30: **Q&A discussion 2** – answers to questions in Exercise-2 (JM)

3:45: **Lecture 3:** using MetaboAnalyst with R (IH)

4:10: **Lecture 4:** Alternative software and Data analysis approaches (JWT)

4:25: **Workshop Summary**, questions and final remarks

4:30: Close

## Course conveners

IH: Ingvild Hvinden (Final Year DPhil, McCullagh Group, Department of Chemistry)

JWT: John Walsby-Tickle (Mass Spectrometry Services, Manager, Department of Chemistry)

JM: James McCullagh (Professor of Biological Chemistry, Department of Chemistry)