



UNIVERSITAT DE
BARCELONA

Facultat de Biologia

Facultat de Farmàcia
i Ciències de l'Alimentació

ciber | FES



UNIVERSITY
OF ALBERTA



TARGETED METABOLOMICS DATA ANALYSIS: UNLOCKING INSIGHTS WITH MACHINE LEARNING, AI AND STATISTICS. Barcelona, June 11-14, 2024



Speakers

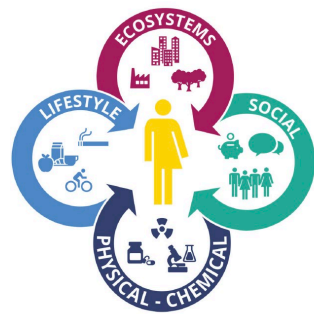
- David Wishart. TMIC, University of Alberta
- Alex Sanchez-Pla. Universitat de Barcelona
- Xavier Nogués. Hospital del Mar. Barcelona

Objectives

- Learn to correctly design metabolome-focused experiments.
- Understand advantages and limitations of metabolomic data analysis.
- Present bioinformatics workflows for metabolomics.
- Learn how to select and apply statistics and Machine Learning to undertake rigorous data analysis.
- Visualize datasets to gain intuitive insights into the composition and/or activity of their metabolome

Contents

1. Fundamentals of metabolomics
2. Targeted metabolomics with MEGA and LC-Autofit
3. Statistics for metabolomics: From tests to projections.
4. Metabolomics data analysis with MetaboAnalyst
5. Machine learning & AI applied to metabolomics
6. Pathway Analysis and Biological Significance



VENUE AT UB. DIAGONAL

CAMPUS: Facultat de Biologia. Facultat de Farmàcia i Ciències de l'Alimentació

<http://www.ub.edu/estbioinfo/courses/mda/>

EI3 GRUP DE RECERCA EN ESTADÍSTICA I BIOINFORMÀTICA

Wishart Node
TMIC
The Metabolomics Innovation Centre
Making Metabolomics Matter

BIOMARKERS & NUTRIMETABOLOMICS



Generalitat de Catalunya
Departament de Recerca i Universitats