

¹³C-FLUXOMICS IN BIOTECHNOLOGY

The objective is to acquire theoretical and practical knowledge for the analysis of metabolic systems in microorganism using ¹³C-fluxomics approaches

TARGET AUDIENCE

The course is intended for PhD students, post-docs, researchers, engineers or technical staff from academia or industry with:

- basic/intermediate knowledge in metabolism, microbiology and/or biotechnology

- ongoing/forthcoming project regarding metabolism, microbiology and biotechnology

Organizers :

Lindsay Peyriga

Assistant Engineer, INRAE

Co-Manager of MetaboHUB-MetaToul-
Metabolic network platform

Maud Heuillet

Research Engineer, INSA

MetaboHUB-MetaToul

Mass spectrometry and isotopic analysis

PROGRAM

Day 1

- General Introduction
- Introduction : Biotechnology & Metabolism
- Introduction: Metabolic systems

Day 2

- Module 1 « Experimental design and sampling » [Theoretical and practical courses] :
 - Theoretical course
 - Practical course
 - High Throughput fluxomics using a robotic platform

Day 3

- Module 2 « Analysis and data treatment»
- Module3 « Calculation of metabolic fluxes »
- Module 4 « metabolics networks for metabolome mining»

Day 4

- «Modelling metabolic fluxes in genome-scale metabolic networks»
- Feedback & round table
- Conclusion and Training evaluation

Instructors :

Stéphanie Heux

Research director, INRAE

Metabolic engineering and biotechnology

Jean-Charles Portais

University Professor – biochemistry & metabolism

Scientific director of MetaboHUB-MetaToul platform

Noémie Butin

PhD student MetaboHUB-MetaToul

MS, isotopic analysis and fluxomics

Justine Bertrand-Michel

Research Engineer, INSERM
MetaboHUB-MetaToul

Co-director of MetaboHUB-MetaToul platform and head of MetaboHUB-MetaToul-Lipidomics platform

Nathalie Poupin

Researcher, INRAE

Network analysis and bioinformatics

Pierre Millard

Researcher, INRAE

Metabolic systems biology

Floriant Bellvert

Research Engineer, CNRS

Co-Manager of MetaboHUB-MetaToul-Metabolic network platform

Edern Cahoreau

Research Engineer, CNRS

MetaboHUB-MetaToul

NMR, isotopic analysis and fluxomics

Fabien Jourdan

Research director, INRAE

MetaboHUB-MetaToul

Network analysis and bioinformatics


Cécilia Berges

Engineer INRAE

MetaboHUB-MetaToul

Robotics, isotopic analysis and fluxomics

INFOS

 **From 06 to 09 October 2020**

Duration :

4 days – 30 hours

 **Location: INSA Toulouse**

 **Prices:**

Academic : 900 €

Private Compagny : 1800 €

Information & Registration :

 **05 61 55 92 53**

 **fcq@insa-toulouse.fr**

A certificate of attendance will be delivered at the end of the training