

¹³C-FLUXOMICS IN BIOTECHNOLOGY

The objective is to acquire theoretical and practical knowledge for the analysis of metabolic systems in microorganisms 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 networks

Maud Heuillet

Research Engineer, INSA

MetaboHUB-MetaToul

Mass spectrometry and isotopic analysis

PROGRAM

Day 1

- General Introduction
- Biotechnology & Metabolism
- 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 « metabolic 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

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

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 networks

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**