



SC10 Liege Mass Spectrometry Imaging

Short Course 10 MSI, Liège

- Presentation of MSLab: Prof. Gauthier Eppe and Pr. Edwin De Pauw
- Presentation of the European FT-ICR MS network
- Program SC10
- Global content of courses
- General organization
- Quick round table: Participants and contributors
- Lectures

The European FT-ICR MS network (EU_FTICR_MS)

INSTRUMENTS & TNA CENTERS

<https://www.eu-fticr-ms.eu/>

https://twitter.com/eu_ft_icr_ms

Grants Horizon H2020 agreement number H2020 INFRAIA-02-2017

- What is the European FT-ICR MS network ?
- 11 centers in EU
 - BE, CZ, DE, FI, FR, IT, PT, RU, UK
 - SolariX xR 7T (1), 9.4T (2), 12T (2), 15T (2)
 - Customized Apex Ultra 7T
 - customized Apex II 4.7T
 - customized ApeX-Q 7T
 - customized Apex Qe 7T
- CASC4DE
- Absiskey
- EU FT-ICR MS services :
 - Trans National Access
 - Joint Research Actions
 - **Short courses**
 - Advanced user courses
 - End-user school

20/11/2022



7 T Bruker Solarix XR FT-ICR
with ParaCell
F. Ciências - Universidade de Lisboa
- PORTUGAL -



15T SolariX XR equipped with
ParaCell ESI/MALDI dual
source, ETD and ECD
Institute of Microbiology
- CZECH REPUBLIC -



LIEGE BRUKER Solarix 9.4T
Advion ESI source
Mass Spectrometry Laboratory
- BELGIUM -



Bruker Apex II, 4.7 T - ESI and
nano-ESI sources
Sapienza Università di Roma
- ITALY -



Dual source Bruker Apex Ultra
7T with ParaCell
Skolkovo Institute of Science and Technology
- RUSSIA -



Tesla Bruker hybrid SolariX XR
FT-ICR mass spectrometer
Université Lille
- FRANCE -



Bruker Apex-Q 7T FT-ICR with
IR lasers
Université Paris Sud
- FRANCE -



12-T Bruker Solarix XR
University of Eastern Finland
- FINLAND -



Bruker Solarix 7T, Bruker APEX
Qe 7T
University of Rostock
- GERMANY -



Bruker Solarix 12T
University of Warwick
- UNITED KINGDOM -



The European FT-ICR MS network (EU_FTICR_MS)

<https://www.eu-fticr-ms.eu/>
https://twitter.com/eu_ft_icr_ms

Grants Horizon H2020 agreement number
H2020 INFRAIA-02-2017

**Remember that almost all your
travel and accommodation costs
are at the charge of Europe and the
EU_FT-ICR_MS project**



Program - Short Course 10 MSI, Liège

Short Course 10

21-23th of November 2022

EU FT-ICR Network

MSLab Liège

	Monday 21 Nov	Tuesday 22 Nov	Tuesday 22 Nov parallel session	Wednesday 23 Nov
8h00-8h30	departure from the hotel	departure from the hotel		departure from the hotel
8h30-9h00	bus travel to the MSLab	bus travel to the MSLab		bus travel to the MSLab
9h00-9h30	Round table and quick introduction	TLC & HPTLC preparation	interview, meeting room at the library	SCILS lab TLC
9h30-10h00	lectures MS, MSI	sample deposition	interview, meeting room at the library	SCILS lab HPTLC
10h00-10h30	coffee break	coffee break	interview, meeting room at the library	Flex/MSKF/python
10h30-11h00	lectures MS, MSI, SALDI	TLC / HPTLC	interview, meeting room at the library	coffee break
11h30-12h00	lectures / program of SC10	separation	interview, meeting room at the library	Python
12h00-12h30	Lunch	depot matrice / Lunch	interview, meeting room at the library	Python
12h30-13h00	Lunch	Lunch	interview, meeting room at the library	Lunch
13h30-14h00	tissue section / histology	Matrix deposition	interview, meeting room at the library	Lunch
14h00-14h30			interview, meeting room at the library	
14h30-15h00		rapifleX MALDI TOF MSI TLC deep coating	interview, meeting room at the library	Transfer to Lille for the SC11 participants
15h00-15h30	coffee break	coffee break	interview, meeting room at the library	
15h30-16h00		Bacteria Co-culture cutting		
16h00-16h30				
16h30-17h00	Milk lipid extraction (O/N)	Matrix deposition		
17h00-17h30				
17h30-18h00	MSI brain settings	MSI setting		
18h00-18h30	MSI O/N	MSI O/N		
18h30-19h00		MSI O/N		
		social events: Brasserie « Qu'on se le dise »		

Dynamic adaptation of the program depending on unexpected event, if we are on schedule...

Global content of courses - Short Course 10 MSI, Liège

This Monday morning : Pr. E. De Pauw, W. H. Müller, Pr. G. Eppe, Dr J. Far

- Lectures : Some practical aspects of Mass Spectrometry in Imaging, MALDI, SALDI
- Pratical works :
Monday afternoon : Dr. V. Bertrand, N. Rosière, Dr. J Far
 - Histology,
 - Tissue sectionning
 - tissue staining
 - Sprayed matrix deposition
 - MALDI Mass Spectrometry Imaging

Tuesday morning: S. Rappe, J. Far

- Thin layer chromatography
 - Lipid extraction (milks)
 - TLC and HPTLC preparation, sample deposition, separation
 - Sprayed matrix deposition and deep coating
 - TLC lipid imaging



Global content of courses - Short Course 10 MSI, Liège

Tuesday morning / afternoon : Parallel session

- Some speakers/contributors
- Some participants
- Valorization team representatives
- University hospital scientists

- Where : Meeting room Library BST
- Marked trail for orientation + some guidance

- Promotional video production for the EU FT-ICR MS network website
Organized by : Absiskey, Radek Gradarek
 - Couple of questions
 - Couple of shootings
 - Return to the short courses

Global content of courses - Short Course 10 MSI, Liège

Tuesday Afternoon : P. Burguet, Dr. J. Far

- Bacterial co-culture
 - Agarose slicing
 - Agarose deposition on copper tape covered glass slide
 - MALDI Mass Spectrometry Imaging

Tuesday evening : Participants & speakers / contributors

- Social event
 - Brasserie Restaurant « Qu'on se le dise »
 - Typical Belgium food, Liege specialities
 - And beers

<http://www.quonseledise.be/>

Wednesday morning : Dr C. Kune, T. Tilman, Dr. J. Far

- Initiation to MSI data exploration (FlexImaging, SCILS lab, imzML conversion)
- Short demo of MSKF (Mass Spectrometry Kendrick Filter)
- Initiation to Python for data processing

Meeting point : R42

Wednesday afternoon: Participants

- Closing SC10
- Transfer from Liège to Lille for SC11 participants
- Or participants traveling back



Lunches

Lunch :

- Monday, Tuesday, Wednesday lunch included
- At the student restaurant of the University
- 5 min by foot
- Your lunch included :
 - Main course
 - Dessert (« small sized »)
 - Drink 50cl (soda, water)

Coffee brakes

Monday, Tuesday, Wednesday Morning & afternoon included

- Morning around 10am - 10h30am:
 - Coffee , tea, biscuits, cakes
- Afternoon around 3h30pm :
 - Coffee , tea, biscuits

Toilets, floors

- Toilets (Male and Female separated)
 - Available in each floor
 - From each side of the corridors
-
- 3rd floor (histology)
 - Ground is blue coded
-
- Main floor (lectures, TLC, co-cultures)
 - Ground is Green color coded
-
- Underground (FT-MS and TOF MS labs)
 - Brick ground
-
- Central stairs are recommended
 - Elevator possible for injured people

Social Event « Qu'on se le dise »

Social event Tuesday evening:

- Brasserie Restaurant « Qu'on se le dise » at Bonnelles
<http://www.quonseledise.be/la-carte.html>
- 10 min by car
- Participants and contributors / lecturers transferred by car (2-3 travels)
 - Main course (« Boulets » is our recommendation, very typical local food)
 - Dessert
 - Drink (soft or Belgian beer)
 - Menu will be around 35€ per person
 -
 - Additional dishes or beers is at your cost
 -
 - Vaudrée IV is a big pub
 - Waiting beer costs at your charge
- Transfer back to the University, and back to the hotel by bus
 - **Last bus : 23H14** at « église » bus stop !

Transfer to SC11 (Wednesday after lunch)

For participants to the SC11 :

Transfer to Lille

- Dr. Christian Rolando and Dr. Fabrice Bray
 - Participants transferred by van (probably 2 cars)
 - 3h-3,5h travel duration by van
 - Departure from Liège : University of Liège, MSLab
 - Get your baggage with you Wednesday
-
- ### Non-participants to the SC11 :
- Use the bus to go back at your hotel
 - This ticket is at your charge
 - Bus ticket can be purchased on-board (2.10€ + 0.50€ supplement)
 - Bus ticket can be purchased at the TEC desk inside **Gare des Guillemins** (near to the main entrance) at normal price
 - You already have your tickets travel (train and/or flight) or additional night if required



Quick round Table - Short Course 10

MSI, Liège

- Davide Corinti, Roma IT
- Diego Armando Badillo Sanchez, Leicester UK
- Joao Luz, Lisbon PT
- Monica Soeiro, Lisbon PT
- Mariana Louro, Lisbon PT
- Marek Zakopcnik, Prague CZ
- Zednek Kukacka, Prague CZ
- Momina Aftab, Prague CZ
- Touqeer Gill, Vilnius LT
- Alina Morosan, Bucharest RO
- Bodgan Purcareanu, Bucharest RO
- Florea Mihai-Alexandru, Bucharest RO



Sex ratio : 4F / 8M

- Scientific landscape : academics, biotechnology, archeometry/cultural heritage, food tech
- SC10 were scheduled to received 6 participants, 8 MAXIMUM
- Due to very high amount of received participation forms :
 - You are **12 invited participants**