

## Cases of metabolomics studies, Part II

Chairs: Johan Normark (Norlands University Hospital/  
Umeå University) & Fleming Kretschmer (Friedrich Schiller  
University Jena)

16.30h

Myeloid cell training in TB infection

Christopher Sundling (Karolinska Institute)

16.50h

From challenges in annotation of *M. tuberculosis* metabolites to a bacterial metabolite library

Oleksandr Ilchenko (Umeå University)

## Keynote lecture

Chairs: Alicia Lacoma (Research Institute Germans Trias i Pujol, ADVANCE-TB) & Sven Hoffner (EMPE Diagnostics, ADVANCE-TB)

17.10h

Biomarkers in TB and TB-DM

Simone Joosten (Leiden University Medical Center)

17.50h

A walk through the Campus to the town –  
river sights

19.00h

Dinner

Dinner can be booked but the participants pay for the dinner themselves



region  
västerbotten

TB  
CENTER  
ARCTIC

Swedish  
Metabolomics  
Centre

ATB  
INNOVA  
4TB

# METABOLOMICS IN TB & OTHER INFECTIONS WORKSHOP

August 31st 2023  
Umeå, Sweden



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Funded by  
the European Union



COST Action's Full Title: Towards an improvement in diagnostics and treatment strategies for TB control. Grant Agreement Number: CA21164. The INNOVA4TB project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 823854.

Umeå University, KBC building, lecture room  
KBG501, Umeå, Sweden  
Includes laboratory visit & lunch for on-site participants  
Online access through the QR code on the back.  
Local time in Umeå CEST.

**09.00h**

Registration

**09.30h**

Welcome

Annika Jonsson (Swedish Metabolomics Centre) & Henrik Antti (Umeå University)

### *Experimental, part I*

Chairs: Annika Jonsson (Swedish Metabolomics Centre) & Anna Kauppi (Smittskydd Region Västerbotten/ Umeå University)

**09.40h**

Considerations for metabolomics experiment design for research on bacteria and infections

Olena Rzhepishevska (Umeå University)

**10.00h**

Mass spectrometry-based metabolomics – methodology

Hans Stenlund (Swedish Metabolomics Centre)

**10.20h**

Visit to the mass lab

### *Experimental, part II*

Gerhard Gröbner (Umeå University/SciLifeLab)

**11.00h**

NMR-based metabolomics methodology

Ilona Dudka (Umeå University/Swedish NMR Centre)

**11.20h**

Visit to the NMR lab

**12.00h**

Lunch at Universum - free of charge

### *Data analysis*

Chair: Benny Björkblom (Umeå University)

**13.00h**

PCA and OPLS-DA – data analysis

Johan Trygg (Umeå University)

**13.20h**

OPLS-EP approach to metabolite data analysis

Henrik Antti (Umeå University)

**13.40h**

SIRIUS and beyond: Turning tandem mass spectra into metabolite structure information

Sebastian Böcker & Fleming Kretschmer (Friedrich Schiller University Jena)

**14.50h**

*Coffee break*

### *Cases of metabolomics studies, Part I*

Chairs: Hans Stenlund (Swedish Metabolomics Centre) & Sara Westman (Umeå University)

**15.10h**

The plasmatic acute phase response in paediatric *Plasmodium falciparum* malaria

Johan Normark (Norlands University Hospital)

**15.30h**

Exploring polar metabolome by liquid chromatography-mass spectrometry

Ondřej Hodek (Swedish Metabolomics Centre)

**15.50h**

Metabolic cooperation in dual species biofilms related to catheter associated infections

Dmytro Sokol (Umeå University)

**16.10h**

*Coffee break*