

TUTORIALS ON BIOINFORMATICS | 14.30-17.30

**FABIEN JOURDAN**

FRENCH NATIONAL INSTITUTE FOR AGRICULTURAL RESEARCH, FR

*Bioinformatics methods to study genome-scale metabolic networks*

STUDENTS ACTIVITIES

**SOCIAL DINNER 20.00**

SEPTEMBER 13TH

DAY 5

LECTURES | 9.00-13.00 **FREE**

**GEORGIOS THEODORIDIS**

ARISTOTLE UNIVERSITY, GR

*LC-MS method development for the analysis of biological fluids*

**FLORENCE RAYNAUD**

THE INSTITUTE OF CANCER RESEARCH, UK

*Metabolomics in cancer drug discovery*

**LUIGI ATZORI**

UNIVERSITY OF CAGLIARI, IT

*Metabolic dependencies in thyroid carcinoma cell lines*

**COFFEE BREAK**

STUDENTS PRESENTATIONS

CONCLUSIONS

**ATZORI & GRIFFIN**

**LIGHT LUNCH 13.15-14.15**

**LECTURE'S ATTENDANCE FREE**

The future frontiers of cancer metabolomics research offer great promise, albeit with significant challenges. The objective of the **SCHOOL**

will be to provide students with the tools to make the best use of metabolomics in the oncological area, and more. In particular, the most updated and appropriate analytical and statistical techniques in the metabolomics field will be presented, and the role of **METABOLISM AND METABOLIC** reprogramming in the tumor cell as a possible therapeutic target will be discussed.

This **5TH SCIENTIFIC SCHOOL ON METABOLOMICS** in Sardinia is targeted to researchers and graduates from Biological Sciences, Health Sciences and other different background who are interested in learning about both technical and cheminformatics tools to integrate metabolomics data. During the Scientific School, teachers and students can reside in a single structure near the **SCIENCE PARK**, in order to favor the interaction and future national and international collaborations.

**ORGANIZING COMMITTEE**

**LUIGI ATZORI**

UNIVERSITY OF CAGLIARI, ITALY

**PIERLUIGI CABONI**

UNIVERSITY OF CAGLIARI, ITALY

**PIETRO FRANCESCHI**

FONDAZIONE EDMUND MACH, ITALY

**JULES GRIFFIN**

IMPERIAL COLLEGE LONDON  
UNIVERSITY OF CAMBRIDGE, UK

**ROBERTA PASTORELLI**

ISTITUTO DI RICERCHE FARMACOLOGICHE MARIO NEGRI, ITALY

**INFO**

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**CLINICAL METABOLOMICS**

University of Cagliari

5th Metabolomics Sardinian Scientific School

# METABOLOMICS IN CANCER BIOMARKERS AND THERAPY:

promise and future

9th | 13th September 2019

Sardegna Ricerche, Building 2, Sardinia Technology Park, Pula, Italy



**SARDEGNA  
RICERCHE**

**PROGRAM**

## SEPTEMBER 9TH

DAY 1

**OPEN DAY | 14.30-17.30**

Registration and welcome coffee

SCHOOL PRESENTATION

**PLENARY LECTURE**

**FLORENCE RAYNAUD**

THE INSTITUTE OF CANCER RESEARCH, UK

*Metabolites as biomarkers*

## SEPTEMBER 10TH

DAY 2

**LECTURES | 9.00-13.00** **FREE**

**DAVID WISHART**

UNIVERSITY OF ALBERTA, CA

*Cancer as a metabolic disease – what metabolomics tells us*

**JULES GRIFFIN**

IMPERIAL COLLEGE LONDON

UNIVERSITY OF CAMBRIDGE, UK

*Metabolomics and imaging metabolism in tissues*

**SAVERIO TARDITO**

BEATSON INSTITUTE FOR CANCER RESEARCH, UK

*Improving the metabolic fidelity of cancer cell models I*

**COFFEE BREAK**

**PIETRO FRANCESCHI**

FONDAZIONE EDMUND MACH, IT

*Data analysis & metabolomics two sides of the same coin*

**ANDRÈS MÉNDEZ LUCAS**

THE FRANCIS CRICK INSTITUTE, UK

*Identifying strategies to target the metabolic flexibility of tumors*

**DIEGO CALVISI**

UNIVERSITY OF REGENSBURG, DE

UNIVERSITY OF SASSARI, IT

*Prognostic and therapeutic relevance of de novo fatty acid in liver carcinogenesis*

**DISCUSSION**

**LIGHT LUNCH 13.15-14.15**

**PRATICAL SESSION | 14.30-17.30**

**PIETRO FRANCESCHI**

FONDAZIONE EDMUND MACH, IT

*Metabolomics meet statistics*

**STUDENTS ACTIVITIES**

## SEPTEMBER 11TH

DAY 3

**LECTURES | 9.00-13.00** **FREE**

**JULES GRIFFIN**

IMPERIAL COLLEGE LONDON

UNIVERSITY OF CAMBRIDGE, UK

*Metabolomics and lipidomics at the population scale*

**DIEGO CALVISI**

UNIVERSITY OF REGENSBURG, DE

UNIVERSITY OF SASSARI, IT

*Mechanisms of resistance to fatty acid inhibition in liver cancer: role of cholesterol and fatty acid transporters*

**SAVERIO TARDITO**

BEATSON INSTITUTE FOR CANCER RESEARCH, UK

*Improving the metabolic fidelity of cancer cell models II*

**COFFEE BREAK**

**FABIEN JOURDAN**

FRENCH NATIONAL INSTITUTE FOR AGRICULTURAL RESEARCH, FR

*Using genome scale metabolic network modelling to identify cancer related metabolic modulations*

**ROBERTA PASTORELLI**

ISTITUTO MARIO NEGRI, IT

*Defining metabolic targets in tumors with metabolomics*

**PIERLUIGI CABONI**

UNIVERSITY OF CAGLIARI, IT

*Experimental design in MS spectrometry – Low and high resolution approaches*

**DISCUSSION**

**LIGHT LUNCH 13.15-14.15**

**TUTORIALS ON NMR | 14.30-17.30**

**CRISTINA PIRAS**

UNIVERSITY OF CAGLIARI, IT

*NMR in metabolomics*

**STUDENTS ACTIVITIES**

## SEPTEMBER 12TH

DAY 4

**LECTURES | 9.00-13.00** **FREE**

**DAVID WISHART**

UNIVERSITY OF ALBERTA, CA

*Moving metabolomics into the clinic: Case studies with cancer*

**ROBERTA PASTORELLI**

ISTITUTO MARIO NEGRI, IT

*Applications of metabolomics to study cancer metabolic rewiring*

**ANDRÈS MÉNDEZ LUCAS**

THE FRANCIS CRICK INSTITUTE, UK

*In vivo metabolomics uncovers acetate as a fuel for tumor mitochondria*

**COFFEE BREAK**

**REZA SALEK**

INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, FR

*Metabolomics and the exposome: Application to cancer epidemiology*

**GEORGIOS THEODORIDIS**

ARISTOTLE UNIVERSITY, GR

*LC-MS method validation. QC and QA*

**DISCUSSION**

**LIGHT LUNCH 13.15-14.15**