



Course in Cancer Metabolism

*November 29-30, 2018
CEUB - Bertinoro di Romagna (Italy)*

Course Directors

- **Anna Maria Porcelli** (University of Bologna, Italy)
- **Giuseppe Gasparre** (University of Bologna, Italy)
- **Barbara Kofler** (Paracelsus Medical University, Salzburg, Austria)
- **Rodrigue Rossignol** (University of Bordeaux, France)

Faculty Members

- **Ralph J. DeBerardinis** (Children's Medical Center Research Institute, University of Texas Southwestern Medical Center, USA)
- **Fátima Baltazar** (Life and Health Sciences Research Institute, School of Health Sciences, University of Minho, Portugal; ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Portugal)
- **Bernhard Radlwimmer** (Cancer Research Center - DKFZ, Germany)
- **Almut Schulze** (Department of Biochemistry and Molecular Biology, Theodor-Boveri-Institute, Biocenter, Würzburg, Germany)
- **Ana Mateus** (Senior Editor at Nature Metabolism, London, UK)
- **Luigi Ombrato** (The Francis Crick Institute, London, UK)
- **Gyorgy Szabadkai** (Department of Cell and Developmental Biology, Consortium for Mitochondrial Research, University College London, London; Department of Biomedical Sciences, University of Padova, Padova, Italy; The Francis Crick Institute, London, UK)
- **Fatima Mehta-Grigoriou** (Stress and Cancer Laboratory, Institut Curie, Inserm U830, Paris, France)
- **Laurent Le Cam** (Institut de Recherche en Cancérologie de Montpellier, INSERM, University of Montpellier, France)
- **Cristina Muñoz Pinedo** (Cell Death Regulation Group, Bellvitge Biomedical Research Institute, Barcelona, Spain)



TRANSMIT Marie Curie Fellows

ESR1	Saharnaz Sarlak	(University of Bordeaux, France)
ESR2	Ana Carolina B. Sant'Anna-Silva	(OROBOROS Instruments GmbH, Austria)
ESR3	Floriana Jessica Di Paola	(Justus-Liebig University of Giessen, Germany)
ESR4	Christina Schmidt	(University of Cambridge, UK)
ESR5	Nikkitha Umesh Ganesh	(University of Bologna, Italy)
ESR6	Nicole Bezuidenhout	(Karolinska Institute, Sweden)
ESR7	Maheshwor Thapa	(BIOCRATES Life Sciences AG, Austria)
ESR8	Catarina Silva-Almeida	(AvantiCell Science Ltd, Scotland, UK)
ESR9	Houda Abla	(University of Bologna, Italy)
ESR10	Luca Zampieri	(Université catholique de Louvain, Belgium)
ESR11	Daniela Weber	(Paracelsus Medical University, Austria)



Course Programme

Arrival day: November 28 afternoon / evening

Thursday, November 29

Morning Session

Chairperson: **Sybille Mazurek** (Justus-Liebig University of Giessen, Germany)
Colin Wilde (AvantiCell Science Ltd, Scotland, UK)

08.00 – 09.00	Registration to the course
09.00 – 09.10	Coordinator welcome speech
09.10 – 10.00	Keynote Lecture: Metabolic complexity in cancer cells and tumors Ralph J. DeBerardinis (Advisory board member) <i>Children's Medical Center Research Institute, University of Texas Southwestern Medical Center, USA</i>
10.00 – 10.50	Lactate transporters and pH regulation: potential targets in cancer therapy Fátima Baltazar <i>Life and Health Sciences Research Institute, School of Health Sciences, University of Minho, Portugal; ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Portugal</i>
10.50 – 11.20	Coffee break
11.20 – 12.10	Branched-chain amino acid catabolism in cancer Bernhard Radlwimmer <i>German Cancer Research Center (DKFZ), Germany</i>
12.10 – 13.00	Targeting cancer metabolism Almut Schulze <i>Department of Biochemistry and Molecular Biology, Theodor-Boveri-Institute, Biocenter, Würzburg, Germany</i>
13.00 – 14.30	Lunch break



Afternoon Session I: TRANSMIT ESRs Lectures	
Chairperson: Christian Frezza (University of Cambridge, UK) Maria Shoshan (Karolinska Institute, Sweden)	
14.30 – 14.50	Nitrosamine signalling crosstalk with energy metabolism in lung cancer Saharnaz Sarlak (ESR1) <i>University of Bordeaux, France</i>
14.50 – 15.10	Cellular succinate transport and mitochondrial respiratory function in prostate cancer Ana Carolina B. Sant’Anna-Silva (ESR2) <i>OROBOROS Instruments GmbH, Austria</i>
15.10 – 15.30	Coordination of glutaminolysis and glycolysis in PC3 prostate cancer cells Floriana Jessica Di Paola (ESR3) <i>Justus-Liebig University of Giessen, Germany</i>
15.30 – 15.50	Oncometabolic impact of fumarate on tumorigenesis Christina Schmidt (ESR4) <i>University of Cambridge, UK</i>
15.50 – 16.20	Coffee break
16.20 – 16.40	Cancer cell models to test metabolic intervention strategies Catarina Silva-Almeida (ESR8) <i>AvantiCell Science Ltd, Scotland, UK</i>
16.40 – 17.00	Mitochondrial complex I-driven regulation of the hypoxic response in cancer cells Nikkitha Umesh (ESR5) <i>University of Bologna, Italy</i>
17.00 – 17.20	PGC1 in chemoresistance and stemness in ovarian cancer Nicole Bezuidenhout (ESR6) <i>Karolinska Institute, Sweden</i>
17.20 – 18.10	Publishing your work: what you need to know Ana Mateus (Advisory board member) <i>Senior Editor at Nature Metabolism, London, UK</i>
18.10 – 19.10	Poster viewing session
19.10 - 20.30	Regeneration
20.30	Dinner



Friday, November 30

Morning Session

Chairperson: **Pierre Sonveaux** (Université catholique de Louvain, Belgium)

Rodrigue Rossignol (University of Bordeaux, France)

09.10 – 10.00	Cancer and its host, a story of corruption Luigi Ombrato <i>The Francis Crick Institute, London, UK</i>
10.00 – 10.50	Understanding mitochondrial adaptation in cancer by gene expression data Gyorgy Szabadkai <i>Department of Cell and Developmental Biology, Consortium for Mitochondrial Research, University College London, London, UK; Department of Biomedical Sciences, University of Padova, Padova, Italy; The Francis Crick Institute, London, UK</i>
10.50 – 11.20	Coffee break
11.20 – 12.10	Oxidative stress and metabolic heterogeneity in cancer Fatima Mehta-Grigoriou <i>Stress and Cancer Laboratory, Institut Curie, Inserm U830, Paris, France</i>
12.10 – 13.00	Roles of the p53 pathway in metabolism: implications in aging, tissue homeostasis and carcinogenesis Laurent Le Cam <i>Institut de Recherche en Cancérologie de Montpellier, INSERM, University of Montpellier, France</i>
13.00 – 14.30	Lunch break



Afternoon Session II: TRANSMIT ESRs Lectures

Chairperson: **Guido Dallman** (BIOCRATES Life Sciences AG, Austria)

Barbara Kofler (Paracelsus Medical University, Salzburg, Austria)

- 14.30 – 14.50 **Quantitative analysis of coenzymes and acyl-carnitines in cancer cells**
Maheshwor Thapa (ESR7)
BIOCRATES Life Sciences AG, Austria
- 14.50 – 15.10 **Investigating α KG derivatives in preventing metabolic adaptation in tumorigenesis: a proof of concept in cancer models**
Houda Abla (ESR9)
University of Bologna, Italy
- 15.10 – 15.30 **Towards the identification of metabolic changes associated to cisplatin resistance in ovarian cancer**
Luca Zampieri (ESR10)
Université catholique de Louvain, Belgium
- 15.30 – 15.50 **Ketogenic diet as an adjuvant therapy for melanoma**
Daniela Weber (ESR11)
Paracelsus Medical University, Austria
- 15.50 – 16.10 **Discussion and conclusions**
- 16.10 – 16.40 Coffee break**
- 16.40 – 17.30 **Closing Lecture: Different forms of cell death induced by inhibition of cancer metabolism**
Cristina Muñoz Pinedo
Cell Death Regulation Group, Bellvitge Biomedical Research Institute (IDIBELL), Barcelona, Spain

17.30 – 18.00 Best Poster Ceremony

18.30 Departure of participants