



# FEBS Advanced Lecture Course on Oncometabolism From Conceptual Knowledge to Clinical Applications

18–24 June 2017 | Figueira da Foz, Portugal | Hotel Mercure

## PROGRAMME

### Sunday, 18 June 2017

16.00 Arrival & Registration

18:00 Welcome Mixer (Sponsored by the Figueira da Foz City Council)

18.45 Welcome Addresses

Figueira da Foz Mayor & Course Organizers

19.15 **OPENING LECTURE/FLAD SPONSORED LECTURE** **The role of metabolism in supporting cancer cell growth and proliferation**

Matthew G. VANDER HEIDEN, Massachusetts Institute of Technology (MIT), USA

20.00 Dinner

### Monday, 19 June 2017

#### Session I – The Metabolic Phenotype of Tumour Cells

*Chairs: Luis Fajas, Jorge Lima*

08.00 Breakfast

09.00 **TUTORIAL 1** **Cancer and metabolism – How it all began**

Ana M. URBANO, University of Coimbra, Portugal

09.45 **LECTURE 1** **Reprogramming oxidative phosphorylation in cancer**

José M. CUEZVA, Autonomous University of Madrid, Spain

10.30 Coffee Break

11.00 **LECTURE 2** **The reverse Warburg effect: “fueling” the amplification of mitochondrial metabolism in cancer cells**

Michael P. LISANTI, University of Salford, UK

11.45 **LECTURE 3** **Mutant metabolic enzymes and tumourigenesis**

Jorge LIMA, University of Porto, Portugal

12.30 Lunch & Poster Setup

14.00 Poster Session I: P1 – P16

15.30 Beach Discussions

17.30 Light Snacks and Refreshments

17.45 Short Talk Session I: ST1 – ST5 (selected from abstracts)

*Chairs: Paulo J. Oliveira, Vilma Sardão*

20.00 Dinner

21.00 **SPONSORED TECH SESSION** **Advanced technologies for metabolic profiling**

- Measuring metabolic perturbations in cancer using the Agilent Seahorse XF Technology  
Nick HOWE | Agilent Technologies, USA

- Exploring the impact of glucose concentration on the Warburg effect - fluorescence plate reader-based OCR and ECAR assays

Karl MORTEN, University of Oxford, UK | Luxcel Biosciences, Ireland

### Tuesday, 20 June 2017

#### Session II – (Epi)Genetics, Signalling and Tumour Metabolism

*Chairs: Gerald Hoefler, M. Carmen Alpoim*

08.00 Breakfast

09.00 **TUTORIAL 2** **AMP-activated protein kinase – tumour suppressor or oncogene?**

D. Grahame HARDIE, University of Dundee, UK

09.45 **LECTURE 4** **Targeting pH<sub>i</sub> control, bioenergetics and nutrient sensing in hypoxic tumours**

Jacques POUYSSÉGUR, University of Nice, France

10.30 Coffee Break

11.00 **LECTURE 5** **CDK4 signaling in growth and metabolism**

Luis FAJAS, University of Lausanne, Switzerland

11.45 **LECTURE 6** **Hit-and-run epigenetic editing prevents senescence entry in primary breast cells from healthy donors**

Gabriella FICZ, Barts Cancer Institute, University of London, UK

13.00 SOCIAL PROGRAMME | Visit to the Old Campus of the University of Coimbra

20.00 Dinner

Wednesday, 21 June 2017

**Session III – The Proliferative Advantages of Tumour Cell Metabolism**

*Chairs: Jacques Pouysségur, Teresa Cunha-Oliveira*

08.00 Breakfast

09.00 **TUTORIAL 3 / IUBMB SPONSORED LECTURE** Exploiting the biology of exosomes for diagnosis and treatment of cancer

Raghu KALLURI, University of Texas MD Anderson Cancer Center, USA

09.45 **LECTURE 7** Angiogenesis revisited: role and (therapeutic) implications of endothelial metabolism  
Peter CARMELIET, University of Leuven, VIB, Belgium

10.30 Coffee Break

11.00 **LECTURE 8** Tumour lipid metabolism: the role of triglyceride lipases in tumour initiation and progression

Gerald HOEFLER, Medical University of Graz, Austria

11.45 **LECTURE 9** Metabolic regulation of stem cell pluripotency

João RAMALHO-SANTOS, University of Coimbra, Portugal

12.30 Lunch & Poster Setup

14.00 Poster Session II: P17 – P33

15.30 Beach Discussions

17.30 Light Snacks and Refreshments

17.45 Short Talk Session II: ST6 – ST10 (selected from abstracts)

*Chairs: João Ramalho-Santos; M. Carmen Alpoim*

20.00 Dinner

21.00 Meet the Experts over Coffee, Cheese & Port Wine

Thursday, 22 June 2017

**Session IV – Metabolic Cancer Therapies**

*Chairs: Coral Barbas, Fátima Baltazar*

08.00 Breakfast

09.00 **TUTORIAL 4** The development of small-molecule drugs – targeting tumour metabolism

Mark W. J. MUSTERS, Lead Pharma, The Netherlands

09.45 **LECTURE 10** Targeting mitochondria in cancer

Paulo J. OLIVEIRA, University of Coimbra, Portugal

10.30 Coffee Break

11.00 **LECTURE 11** Exploiting the metabolic heterogeneity of lung cancer to improve therapy

Carla P. MARTINS, MRC Cancer Unit, University of Cambridge, UK

11.45 **LECTURE 12** Lactate transporters as therapeutic targets in cancer

Fátima BALTAZAR, University of Minho, Portugal

13.00 SOCIAL PROGRAMME | Visit to Montemor-o-Velho

20.00 Dinner

Friday, 23 June

**Session V – Oncometabolism Technologies**

*Chairs: Michael P. Lisanti, Ronald Boellaard*

08.00 Breakfast

09.00 **TUTORIAL 5** Modelling tumour energy metabolism: methods and applications

Natal A. W. van RIEL, Eindhoven University of Technology, The Netherlands

09.45 **LECTURE 13** Metabolomics, a tool in cancer research

Coral BARBAS, University of San Pablo CEU, Spain

10.30 Coffee Break

10.50 **Address by FEBS Representative**

Damjana ROZMAN, University of Ljubljana, Slovenia

11.10 **LECTURE 14** Metabolic PET imaging in cancer

Ronald BOELLAARD, University Medical Center Groningen, The Netherlands

11.55 **LECTURE 15 / EACR SPONSORED LECTURE** Imaging tumour metabolism *in vivo* with hyperpolarized <sup>13</sup>C-labelled cell substrates – from mouse to man

Kevin M. BRINDLE, University of Cambridge, UK

12.40 Lunch & Poster Setup

14.00 Poster Session III: Posters P34 – P51

15.30 Beach Discussions

17.30 Light Snacks and Refreshments

17.45 Short Talk Session III: ST11 – ST15 (selected from abstracts)

*Chairs: Paulo J. Oliveira, Teresa Cunha-Oliveira*

19.45 Closing Remarks

20.30 Farewell Dinner and Best Poster & Selected Short Talk Prize Awards

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