

Seville Molecular Medicine Workshops

Hypoxia,
molecular mechanisms
and clinical translation

SEVILLE, DECEMBER 1-2, 2014

ITRIBiS

IMPROVING TRANSLATIONAL RESEARCH POTENTIAL
AT THE INSTITUTE OF BIOMEDICINE OF SEVILLE



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Program



MONDAY, DECEMBER 1, 2014

08:30-08:55 Registration and poster installation

08:55-09:00 Welcome address

Session 1. Chairman: Gregg Semenza

09:00-09:40 Peter Ratcliffe *"Pan-genomic analyses of the hypoxia response"*

09:40-10:20 Roland Wenger *"With a little help from friends - HIF-mediated gene expression"*

10:20-11:00 Randall Johnson *"The role of hypoxic response in vascular homeostasis"*

11:00-11:30 Coffee break

11:30-12:10 Max Gassmann *"Non-erythropoietic functions of erythropoietin (Epo)"*

12:10-12:25 **Oral communication 1.** Edurne Berra *"SUMO to fine-tune the oxygen sensors"*

12:25-12:40 **Oral communication 2.** Thorsten Cramer *"Application of mathematical modelling to assess the functional importance of HIF-1 α for hepatoma biology"*

12:40-14:10 Lunch, coffee & poster viewing

Session 2. Chairman: Peter Ratcliffe

14:10-14:50 José López-Barneo *"Molecular mechanisms of acute oxygen sensing"*

14:50-15:30 Paul Schumacker *"Mitochondrial ROS signals trigger stress responses"*

15:30-16:10 Chris Peers *"Regulation of ion channels by gasotransmitters"*

16:10-16:40 Coffee break

16:40-17:20 Malcolm Kohler *"The role of intermittent hypoxia in the pathogenesis of cardiovascular disease"*

17:20-17:35 **Oral communication 1.** Ricardo Pardal *"The carotid body: a hypoxia-sensitive germinal niche in the adult peripheral nervous system"*

17:35-17:50 **Oral communication 2.** Pablo Hernansanz-Agustín *"Acute hypoxia produces a superoxide burst in cells"*

17:50-18:05 **Oral communication 3.** Joana Sacramento *"Unraveling the molecular mechanisms involved in chronic intermittent hypoxia-induced insulin resistance"*

18:05-18:45 Poster viewing

19:15 Dinner

TUESDAY, DECEMBER 2, 2014

Session 3. Chairman: José López-Barneo

- 09:00-09:40** Peter Carmeliet *"PHDs: novel targets, novel roles"*
- 09:40-10:20** Jacques Pouyssegur *"Targeting pHi control and bioenergetics in rapidly growing hypoxic tumours"*
- 10:20-11:00** Celeste Simon *"Metabolic adaptations and renal cancer"*
- 11:00-11:30** Coffee break
- 11:30-12:10** Gregg Semenza *"Role of hypoxia-inducible factor 1 in breast cancer stem cells"*
- 12:10-12:25** Oral communication 1 María dM. Vivanco *"Hypoxia induces dedifferentiation of breast cancer cells"*
- 12:25-12:40** Oral communication 2 Isabel M. Pires *"Hypoxia-upregulated WSB-1 is associated with increased cellular migration and metastatic proneness in breast cancer"*
- 12:40-13:20** Ian Stratford *"Modulation of hypoxia-regulated metabolic targets for therapeutic benefit"*
- 13:20-14:50** Lunch, coffee & poster viewing

Session 4. Chairman: Celeste Simon

- 14:50-15:30** Joachim Fandrey *"Fine tuning of cellular oxygen sensors"*
- 15:30-16:10** Cormac Taylor *"Regulation of inflammatory pathways by hypoxia"*
- 16:10-16:50** Julián Aragonés *"The HIF oxygen sensing pathway in cell metabolism"*
- 16:50-17:20** Coffee break
- 17:20-17:35** **Oral communication 1.** Concepción Vicenta Llorente *"Effect of hypoxia on LRP1 expression in cardiovascular cells. Consequences on cardiovascular function"*
- 17:35-17:50** **Oral communication 2.** Miguel Cavadas *"Crosstalk between REST and HIF-1 α reveals the basic mechanisms for gene repression in hypoxia"*
- 17:50-18:05** **Oral communication 3.** Ben Wielockx *"Erythropoietin controls bone homeostasis in conditional PHD2 deficient mice"*
- 18:05-18:20** **Oral communication 4.** Andrew Stephen Cowburn *"HIF isoforms in the skin differentially regulate systemic arterial pressure"*
- 18:20-18:30** Closing remarks
- 19:00** Visit to Real Alcázar



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