

Programme

16th Meeting of the European Society for Pigment Cell Research

Wellcome Trust Conference Centre, Hinxton, UK
4-7 September 2010

Oral Presentations

If you are an invited speaker, or your abstract has been selected for an oral presentation, please give an electronic version of your talk to an AV technician in the Auditorium, the morning of your talk.

Poster Presentations

Posters will be displayed throughout the conference in the Cloisters. Your abstract page number indicates your poster boards number.

Saturday 4 September 2010

10.00-12.00 ESPCR Council Meeting (Council Members Only)
Library

12.00-18.00 Registration (with lunch from 12.00-13.50)
Conference Centre Foyer

12.00-13.50 Lunch
Conference Centre Foyer

13.50, **Conference Opening** (Robert Kelsh)
Francis Crick Auditorium, Wellcome Trust Conference Centre

14.00-15.00 **Fritz Anders Memorial Lecture**
Development and function of retinal pigment epithelium cells
Heinz Arnheiter, *Mammalian Development Section, NIH, USA*
Introduced by *Lionel Larue*
The ESPCR Lecture



Session 1 Development biology of pigment cells and MSCs

Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Veronique Delmas and Takahiro Kunisada

15.00-15.25 The chromatoblast concept – evidence from zebrafish genetics
Robert Kelsh, *University of Bath, UK*

15.25-15.50 Biological and mathematical modeling of melanocyte development
Lionel Larue, *Institut Curie, France*

15.50-16.15 Regulation of the zebrafish melanocyte stem cell
Stephen Johnson, *Washington University Medical School, USA*

16.15-16.30 Raf signalling is dispensable for early melanocyte lineage development but required for melanocyte stem cell self-maintenance
Agathe Valluet, *Institut Curie, France*

16.30-16.45 An integrated approach to melanoblast behaviour during embryonic development
Richard Mort, *Medical Research Council, UK*

17.00-18.00 Pre Dinner Drinks
Conference Centre Foyer and Cloisters

18.00-19.00 Dinner
Hall Restaurant

Session 2 **Genetics of pigment cell transcription**
Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Vittoria Schiaffino and Eirikur Steingrímsson

19.00-19.25 Complex regulation of the MC1R underscores its central role in controlling human pigmentation and the UV response
Zalfa Abdel-Malek, *University of Cincinnati, USA*

19.25-19.50 Regulation of Mitf by acetylation and novel insights from the crystal structure
Eirikur Steingrímsson, *University of Iceland, Faculty of Medicine, Iceland*

19.50-20.15 Analysis of Mitf in Drosophila
Francesca Pignoni, *SUNY Upstate Medical University, USA*

20.15-20.30 A melanoma specific function of beta-catenin
Claudia Wellbrock, *University of Manchester, UK*

20.30-20.45 Overexpression of the *Strawberry Notch homolog 2* gene in the melanocyte lineage triggers a fate switch in melanocyte stem cells
Genevieve Aubin-Houzelstein, *INRA, France*

20.45-21.00 Notch targets in melanocytes
Bhushan Sarode, *EPFL, Lausanne, Switzerland*

21.00 Bar open
Hall Bar

21.30 Shuttle Service to Homerton College

Sunday 5 September 2010

07.30 Breakfast
Hall Restaurant

07.30 Breakfast
Homerton College

08.00 Shuttle service from Homerton College to Conference Centre

Session 3 Pigmentary Disorders

*Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Prasad Kumarasinghe and Lluís Montoliu*

- 08.45-09.10 Towards a universal genetic diagnosis of all types of albinism
Lluís Montoliu, *Centro Nacional de Biotecnología (CNB-CSIC), Spain*
- 09.10-09.35 Pigmentary mosaicism: patterns and mechanisms
Rudolf Happle, *Philipp University of Marburg, Germany*
- 09.35-10.00 Hsp70i as the sole requirement for activating depigmentation in vitiligo-prone mice
Caroline Le Poole, *Loyola University Chicago, USA*
- 10.00-10.15 Long-term follow up on Scenesse® (Afamelanotide, an alpha-MSH analogue) in patients with erythropoietic protoporphyria (EPP)
Elisabeth Minder, *Stadtspital Triemli, Switzerland*
- 10.15-11.00 Morning Coffee
Conference Centre Foyer and Cloisters

Session 4 Melanocyte cell biology

*Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Graça Raposo and Miguel Seabra*

- 11.00-11.25 The biogenesis of melanosomes: Cellular and molecular mechanisms.
Graça Raposo, *Institut Curie, France*
- 11.25-11.50 Mechanisms of Melanosome transfer in human skin
Miguel Seabra, *Imperial College London, UK*
- 11.50-12.15 Skin as a living coloring book: epithelial cell roles in the patterning of pigmentation
Janice Brissette, *SUNY Downstate Medical Center, USA*
- 12.15-12.30 A new spectrophotometric method for simple quantitation of melanosomal transfer from melanocytes to keratinocytes: The trans-membrane melanosomal transfer method
Behrooz Kasraee, *Geneva University Hospital, Switzerland*
- 12.30-12.45 Development of a 3D pigmented skin model to evaluate RNAi-induced pigmentation
Mireille van Gele, *Ghent University Hospital, Belgium*
- 13.00-14.00 Lunch
Hall Restaurant
- 13.00-14.00 *Vitiligo European Task Force (members only)*
Pompeiiian Room

Session 5 **Melanoma biology and therapeutics**

Francis Crick Auditorium, Wellcome Trust Conference Centre

Chair: Richard Marais and Kyoung Chan Park

Session sponsored by Cancer Research UK



- 14.00-14.25 BRAF and RAS signalling in human melanoma
Richard Marais, *The Institute of Cancer Research, UK*
- 14.25- 14.50 The signalling and transcription network regulating cell fate switching in melanocytes and melanoma
Colin Goding, *Ludwig Institute for Cancer Research, UK*
- 14.50-15.15 β -catenin LEF/TCF co-factors are expressed according to the rhythm of melanoma progression
Keith Hoek, *University Hospital of Zurich, Switzerland*
- 15.15-15.30 MITF is the key molecular switch between melanoma initiating cells and their differentiated progeny
Robert Ballotti, *INSERM U895, France*
- 15.30-15.45 Loss of E-cadherin increases metastatic potential of melanoma
Veronique Delmas, *Institut Curie, France*
- 16.00-16.30 Afternoon Tea
Conference Centre Foyer and Cloisters

Session 6 **Melanocytes, migration and melanoma**

Francis Crick Auditorium, Wellcome Trust Conference Centre

Chair: Lionel Larue and Elizabeth Patton

- 16.30-16.55 Imaging melanoma dissemination
Erik Sahai, *Cancer Research UK London Research Institute, UK*
- 16.55-17.20 MITF controls the DNA Damage Response and a lineage specific senescence program in melanomas
Corine Bertolotto, *INSERM U895, France*
- 17.20-17.45 A small molecule screen for enhancers of melanocyte regeneration: a novel role for the Prl-3 phosphatase
Elizabeth Patton, *MRC Human Genetics Unit, UK*
- 17.45-18.00 Early onset and highly penetrant melanoma in zebrafish derives from transformation of larval melanocytes
Marina Mione, *IFOM, Italy*
- 18.00-18.15 Functional characterization of STX17 in Gray horse melanoma
Anna Golovko, *Uppsala University, Sweden*
- 18.30-19.30 Drinks Reception
Conference Centre Foyer and Cloisters

- 19.30-20.30 Dinner
Hall Restaurant
- 19.00-21.00 IFPCS Council Meeting (Council Members only)
Library
- 21.00-23.00 IFPCS Council dinner (Council Members only)
Pompeiiian Room
- 20.30 Posters Session I & Cash Bar
Conference Centre Cloisters
- 21.30 Shuttle Service to Homerton College

Monday 6 September 2010

- 07.30 Breakfast
Hall Restaurant
- 07.15 Breakfast
Homerton College
- 07.45 Shuttle service from Homerton College to Conference Centre

Session 7 Senescence

Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Robert Ballotti and Dorothy Bennett

- 08.30-08.45 IFPCS and the IPCC, **Shigeki Shibahara**; IPCC 2011, **Alain Taïeb**
- 08.45-09.10 Oncogene-induced cell senescence and its relevance for melanoma
Daniel Peeper, *Netherlands Cancer Institute, The Netherlands*
The EMBO Lecture
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- 09.10-09.35 Regulation and therapeutic impact of intracellular degradation pathways in melanoma
Maria Soengas, *Spanish National Cancer Research Centre, Spain*
- 09.35-10.00 Treating the untreatable? Cell-based screening for senescence-based cancer drug discovery
Dorothy Bennett, *St George's, University of London, UK*
- 10.00-10.15 Melanoma inhibitory activity (MIA) acts as a mediator of oncogene-induced senescence in human melanocytes
Susanne Schiffner, *University of Regensburg, Germany*
- 10.15-10.45 Morning Coffee
Conference Centre Foyer and Cloisters

Session 8 **Signalling pathways in melanocytes and melanoma cells**
Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Anja Bosserhoff and Colin Goding

10.45-11.10 GLI2, not just a Hedgehog mediator – Its role in melanoma metastasis
Alain Mauviel, *Institut Curie, France*

11.10-11.35 Multiplicity and complexity of the OA1 signaling pathway(s)
Vittoria Schiaffino, *San Raffaele Scientific Institute, Italy*

11.35-12.00 Non-canonical signaling from wild type and mutant human melanocortin 1
receptor (MC1R)
José Carlos García-Borrón, *University of Murcia, Spain*
The Clinuvel Lecture



12.00-12.15 Identification of novel mutations affecting MC1R signalling
Ian Jackson, *MRC Human Genetics Unit, UK*

12.15-12.30 Signals involved in oncogenic activities of metabotropic glutamate receptor 1
Yoko Funasaka, *Nippon Medical School, Japan*

12.30-14.00 Lunch
Hall Restaurant

13.00-14.00 ESPCR General Assembly
Francis Crick Auditorium

Session 9 **Genetics of melanocyte and melanoma development**
Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Keith Hoek and Julia Newton Bishop

14.00-14.25 Migratory pathways and cellular mechanisms of melanocyte development
Patrik Ernfors, *TBC*

14.25-14.50 A role for ATF2 in regulating MITF and melanoma development
Ze'ev Ronai, *Sanford-Burnham, USA*

14.50-15.15 Human pigmentation genes and novel genetic susceptibilities to melanoma: a
candidate gene approach using the Illumina platform
Gloria Ribas, *Fundacion Investigacion Hospital Clinico Valencia, Spain*

15.15-15.30 TYRP1 function in melanoma progression
Marie-Dominique Galibert, *CNRS UR6061 – IGDR, France*

15.30-15.45 NR4A nuclear receptors mediate normal and oncogenic signalling in
melanocytic cells.
Aaron Smith, *University of Queensland, Australia*

15.45-17.45 Afternoon Tea and Poster Session II
Conference Centre Cloisters

- 17.45-18.45 **Plenary Lecture 1:** Gene expression in cellular senescence
Masashi Narita, Cancer Research UK Cambridge Research Institute, UK
introduced by *Dorothy Bennett*
- 19.00 Buses to Conference Dinner in Cambridge
- 19.30-23.00 Drinks Reception and Conference Dinner at Queens College in Cambridge
- 23.00 Coaches return to Homerton College and Conference Centre

Tuesday 7 September 2010

- 07.30 Breakfast
Hall Restaurant
- 07.30 Breakfast
Homerton College
- 08.00 Shuttle service from Homerton College to Conference Centre
- Session 10 The sun, DNA damage and epidermal biology**
Francis Crick Auditorium, Wellcome Trust Conference Centre
Chair: Markus Böhm and Yoko Funasaka
- 08.45-09.10 Chk1 is essential for skin tumorigenesis
David Gillespie, Beatson Institute for Cancer Research, UK
- 09.10-09.35 Truncated alpha-MSH tripeptides and derivatives –novel tools for the prevention of UVB-induced stress and inflammation
Markus Böhm, University of Münster, Germany
- 09.35-10.00 The sun, vitamin D and melanoma
Julia Newton-Bishop, University of Leeds, UK
- 10.00-10.15 *In vivo* identification of solar radiation-responsive gene network: role of the p38 stress-dependent kinase
Nicolas Mouchet, CNRS UMR6061, France
- 10.15-10.45 Morning Coffee
Conference Centre Foyer and Cloisters
- 10.45-11.45 **Plenary Lecture 2:** Stem cells in mammalian epidermis
Fiona Watt, Cancer Research UK Cambridge Research Institute, UK
introduced by *Robert Kelsh*
- 12.00-13.00 Lunch
Hall Restaurant
- 13.00-16.00 Three parallel Workshops

Workshop A – Pigment patterns – their formation and evolution

Francis Crick Auditorium, Wellcome Trust Conference Centre

Chairs: Greg Barsh and Nick Mundy

- 13.00-13.25 Evolutionary genetics of melanin-based plumage polymorphisms in buzzards and skuas
Nick Mundy, *University of Cambridge, UK*
- 13.25-13.50 Mammalian pigmentation patterns
Greg Barsh, *HudsonAlpha Institute, USA*
- 13.50-14.15 Interactions between zebrafish pigment cells responsible for the generation of Turing patterns
Shigeru Kondo, *Osaka University, Japan*
- 14.15-14.30 Chemico-genetic analysis of the parade mutant; insights into embryonic pigment pattern formation in zebrafish
Sarah Colanesi, *University of Bath, UK*
- 14.30-14.45 Analysis of coat colour loci in *Vicugna Pacos* (Alpaca) and association with coat colour variation
Natasha Feeley, *Curtin University, Australia*
- 14.45-15.00 SLC24A5 and cholesterol homeostasis – a route to human skin colour variation?
Rebecca Ginger, *Unilever R&D, USA*
- 15.00-15.15 *Solute Carrier Family 45 Member 2 (Slc45a2)* of the Guppy: Molecular cloning, polymorphisms and fine mapping of genomic region
Verena Kottler, *Max Planck Institute for Developmental Biology, Germany*

Workshop B – Function and formation of the melanosome

James Watson Pavilion, Wellcome Trust Conference Centre

Chairs: Marco d'Ischia and José Carlos García-Borrón

- 13.00-13.25 The dark side of pigment cells: from DHICA to eumelanin, key issues and clues from chemistry
Marco d'Ischia, *University of Naples Federico II, Italy*
- 13.25-13.50 Activation of 3-*O*-(3,4,5-trimethoxybenzoyl)-(-)-epicatechin in melanoma to a potent irreversible inhibitor of dihydrofolate reductase
Jose Neptuno Rodriguez-Lopez, *University of Murcia, Spain*
- 13.50-14.05 Rab GTPases, the recycling endosome and regulation of melanosome trafficking and release
Kimberley Beaumont, *University of Queensland, Australia*
- 14.05-14.20 Intracellular sorting of the melanosomal G protein-coupled receptor OA1 involves ubiquitination and ESCRT function
Francesca Giordano, *Institut Curie, France*
- 14.20-14.35 Isoquinoline building blocks in red hair pheomelanin uncovered
Alessandra Napolitano, *University of Naples Federico II, Italy*

Workshop C – Vitiligo

Rosalind Franklin Pavilion, Wellcome Trust Conference Centre

Chairs: Mauro Picardo and Alain Taïeb

- 13.00-13.25 Vitiligo: emerging targets to limit the subclinical inflammatory phase
Alain Taïeb, *CHU Bordeaux, France*
- 13.25-13.50 Lipid modification in vitiligo melanocytes: a possible role in the alteration of signal transduction pathways.
Mauro Picardo, *San Gallicano Dermatologic Institute - IRCCS Rome, Italy*
- 13.50-14.15 Role of apoptosis and melanocytorrhagy: A comparative study of melanocytes adhesion in stable and unstable vitiligo
Davinder Parsad, *Postgraduate Institute of Medical Education & Research, India*
- 14.15-14.30 The topical improvement of the marginal repigmentation pattern of vitiligo
Yvon Gauthier, *Dermatologie, France*
- 14.30-14.45 What are the priorities for clinical research in vitiligo?
Viktoría Eleftheriadou, *University of Nottingham, UK*
- 14.45-15.00 Presence versus absence of autoimmunity in non segmental vitiligo patients
Silvia Moretti, *University of Florence, Italy*
- 15.00-15.15 Prognostic value of halo nevi in vitiligo
Nanja van Geel, *Ghent University Hospital, Belgium*
- 16.00 Conference Closure
- 16.30 Coaches to Cambridge, Stansted and Heathrow depart.