CENTRE FOR SKIN SCIENCES

UNIVERSITY OF BRADFORD MAKING KNOWLEDGE WORK™

"Epigenetic Regulation of Skin Regeneration, Ageing and Disease"

March 17th-19th 2016

Great Victoria Hotel & University of Bradford City Campus

Thursday March 17th

Great Victoria Hotel

11.00-17.00 Registration

12.00-13.:00 Buffet Lunch available for all delegates

13.00-13.15 **Opening remarks**:
Prof. Richard Greene - Dean of the Faculty of Life Sciences, University of Bradford
Prof. Vladimir Botchkarev -Symposium Chair, Deputy Director Centre for Skin Sciences

Chairs: Terumi Kohwi-Shigematsu and Michael Fessing

Opening Keynote Lecture 1

13.15-13.45 **Cheng-Ming Chuong** (University of Southern California, Los-Angeles, USA)
"Skin as a model for epigenetic research"

Session 1: DNA modifications and control of transcription in 3D nuclear space

13.45-14.15 Keynote Lecture: **Wolf Reik** (Babraham Institute, Cambridge, UK)
"Epigenetic reprogramming in mammalian development"

14.15- 14.45 Keynote Lecture: **Peter Fraser** (Babraham Institute, Cambridge, UK)
"Higher-order folding of the genome and gene expression control"

Coffee Break/Poster Viewing/Exhibition (14.45-15.15)

Chairs: Fiona Watt and Andrei Mardaryev

Session 2: Histone modifications, skin development and regeneration

15.15-15.45 Keynote Lecture: **Sarah Millar** (University of Pennsylvania, Philadelphia, USA)
"Histone deacetylases coordinate skin development, differentiation and regeneration"

15.45-16.05 **Yuri Schwarz** (University of Umea, Sweden)
"Targeting Polycomb repression to the genome"

16.05-16.25 **Elena Ezhkova** (Mount Sinai School Medicine, New York, USA)
"The role of the Polycomb complex in the control of skin development"

16.25-16.45 **Jonathan Higgins** (University of Newcastle, UK)
"Mitotic histone modifications and gene expression"

16.45-17.05 **Bogi Andersen** (University of California, Irvine, USA)
"GRHL3-epigenetic interactions in the control of epidermal keratinocyte differentiation and migration"

17.05-17.15 Industry platform presentation: **Emilia Danilowicz-Luebert** (Diagenode)

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Thursday 17th March Evening Programme

17.45 **Coach transfer from the Hotel to the Richmond Building, University of Bradford**

18.30-19.30 **John M. Wood Lectureship Award (John Stanley Bell Lecture Theatre)**

Welcome address: University of Bradford Vice-Chancellor; Prof. Brian Cantor
John Wood Lectureship Award Introduction: CSS Director Prof. Des Tobin

Elaine Fuchs (Rockefeller University, New York, USA)
"Epigenetic Regulation of Skin Stem Cells"

Award presentation: Prof. Karin Schallreuter

19.30-21.30 **Welcome Reception, Buffet supper with drinks, Richmond Building Atrium (19.30-21.30)**

21.45 **Coach transfer to the Great Victoria Hotel**

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Friday, March 18th, 2016

Great Victoria Hotel

08.00-17.00 Registration Great Victoria Hotel

Chairs: Cheng-Ming Chuong and Desmond Tobin

Opening Keynote Lecture 2

8.45-9.15 **Fiona Watt** (King's College London, UK)
"Regulation of epidermal stem cell fate"

Session 3: Higher-order chromatin remodeling and promoter-enhancer interactions

09.15-9.35 **Michael Fessing** (University of Bradford, UK)
"Role of Tet enzymes in the control of skin development and regeneration"

09.35-09.55 **Andrei Mardaryev** (University of Bradford, UK)
"Spatial interactomes of lineage-specific gene loci control keratinocyte differentiation"

09.55-10.10 Short talk selected from the Abstracts:
Lorenzo Rinaldi & Salvador Aznar Benitah (CRG, Barcelona, Spain)
"Dnmt3a and Dnmt3b associate with enhancers to regulate human epidermal stem cell homeostasis"

10.10-10.30 **Christina de Guzman-Strong** (Washington University, St.Louis, USA)
"Enhancer-promoter interactions and control of gene expression in keratinocytes"

10.30-10.50 **Jo Huiqing Zhou** (University of Nijmegen, Netherlands)
"A 'place-holder' role of p63 in gene regulation during epidermal commitment and differentiation"

10.50-11.05 Short talk selected form the Abstracts: **Klaas Mulder** (University of Nijmegen, Netherlands)
"Transcriptional regulation of human epidermal stem cell differentiation"

Coffee Break/Poster Viewing/Exhibition (11.05-11.30)
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Chairs: Sarah Millar and Julie Thornton

Session 4: Nuclear architecture, cytoskeleton and skin ageing

11.30-12.00 Keynote Lecture: **Peter Adams** (University of Glasgow, Scotland)
"Senescence in melanocytes – roles in tumor suppression, aging and disease"

12.00-12.20 **Eric Schirmer** (University of Edinburgh, Scotland)
"Genome regulation in development through nuclear envelope-gene tethering"

12.20-12.40 **John Connelly** (Queen Mary University of London, UK)
"Cooperation between keratin and actin networks regulates nuclear mechanotransduction"

12.40-13.00 **Karima Djabali** (Technical University Munich, Germany)
"The Hutchinson-Gilford progeria mutant lamin A: a unique window into premature cellular aging"

13.00-13.15 Short talk selected from the Abstracts:
Oliver Dreesen (Institute of Medical Biology, Singapore)
"Insights from the premature ageing syndrome Hutchison-Gilford progeria"

Lunch/Poster Viewing/Exhibition (13.15-14.00)

Chairs: Bogi Andersen and Natalia Botchkareva

Session 5: Non-coding and microRNAs in skin development and regeneration

14.00-14.30 Keynote Lecture: **Rui Yi** (University of Colorado, Denver, USA)
"Dynamic Control of Skin Stem Cells"

14.30-14.50 **Michaela Frye** (University of Cambridge, UK)
"Post-transcriptional methylation, protein translation rates and cell fate decisions"

14.50-15.10 **Marcus Kretz** (University of Regensburg, Germany)
"Long non-coding RNAs control epidermal homeostasis"

15.10-15.25 Short talk selected from the Abstracts: **Anna Mandinova** (Harvard University/ Massachusetts General Hospital, Charlestown, USA).
"Maintenance of epidermal progenitors by YBX1 mediated posttranscriptional control"

Coffee Break/Poster Viewing/Exhibition (15.25-16.10)

16.10-16.30 **Eleonora Candi** (University of Rome, Italy)
"The ultra-conserved non-coding transcript uc.291 regulates terminal keratinocyte differentiation"

16.30-16.50 **Daniel Aberdam** (University Paris/INSERM, France)
"Exosomal miRNAs in wound healing"

16.50-17.05 Short talk selected from the Abstracts:
Francesco Del Galdo (University of Leeds, UK)
"Palmo-plantar specific non-coding RNA HOTAIR drives myofibroblast specific signature in systemic sclerosis"

17.05-17.15 Industry Platform Presentation: **Carla Simoes** (Illumina)

Gala Dinner, Discotheque (Great Victoria Hotel) 19.00-23.00

Dress: Informal

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Saturday, March 19th, 2016

Great Victoria Hotel

Chairs: Rui Yi and Gillian Westgate

Opening Keynote Lecture 3

9.00 - 9.30 **Terumi Kohwi-Shigematsu** (University of California San-Francisco, USA)
"Dynamic and specific interaction of gene loci mediated by SATB1 in epithelial cancers"

Session 6: Epigenetic control of skin regeneration, inflammation and disease

9.30-9.50 **Malgorzata Wiench** (University of Birmingham, UK)
'Epigenetic modulation of regulatory elements in squamous cell carcinoma'

9.50-10.10 **Andrey Sharov** (Boston University, Boston, USA)
"Chromatin remodeler Lsh in the control of skin development and wound-induced skin regeneration"

10.10-10.30 **Cord Brakebusch** (University of Copenhagen, Denmark)
"N-WASP function in the epigenetic control of skin inflammation"

10.30-10.40 Industry Platform Presentation: **Priya Karan** (Active Motif)

Coffee Break/Poster Viewing (10.40-11.10)

11.10-11.30 **JT Elder** (University of Michigan, Ann-Arbor, USA)
"Genetics and epigenetics of psoriasis: Back to the Future"

11.30-11.50 **Honglin Wang** (Shanghai Institute of Immunology, China)
"MicroRNAs and psoriasis"

11.50-12.05 Short talk selected from the abstract:
Rachel Bell & Tanya Shaw (King's College London, UK)
"Therapeutic targeting of BET proteins in keloids"

Chair: Vladimir Botchkarev

Closing Lecture

12.05 - 12.30 **Oleg Fedorov** (University of Oxford, UK)
"Epigenetic drugs as new paradigm for the disease treatment"

Poster Prizes and Closing Remarks