



The Second Skin@Bath Network Symposium



12th – 13th December 2019
The Old Theatre Royal in Bath, UK
<http://skinatbath.org/>

Main Program

Thursday 12th December 2019

8:25-8:30 – Welcome message (Dr Caoimhe Fahy and Dr Charareh Pourzand, co-Chairs of the Symposium).

8:30-8:40 – Inaugural Speech (Prof Bernie Morley, Deputy Vice-Chancellor and Provost, University of Bath)

Plenary Lecture (8:40-9:05)

Chair: Steve Ward, PhD, FBPhS (Professor of Leukocyte Biology, Department of Pharmacy and Pharmacology & Vice-Chair for Centre for Therapeutic Innovation, University of Bath, UK)

8:40-9:05 - Banafshe Larijani, PhD (25 min) (Professor of Cell Biophysics, Department of Pharmacy and Pharmacology and Department of Physics, University of Bath, Co-founder, Joint Managing Director and CSO of Fastbase solutions, Spain & Director of Centre for Therapeutic Innovation, University of Bath, UK)

'The signalling pathways and the clinical translational work'

Inflammatory Skin Disorders I (9:05-10:10)

Chair: Steve Ward, PhD, FBPhS

9:05 - 9:30 Kieron Leslie, FRCP (25 min) (Prof of Dermatology, University of California San Francisco, USA)

'Autoinflammatory skin diseases'

9:30 - 9:50 - Neil McHugh, MBChB, MD, FRCP, FRCPath (20 min) [Prof of Pharmacoepidemiology, Honorary Rheumatologist in Royal National Hospital for Rheumatic Diseases (RNHRD), Head of Department of Pharmacy and Pharmacology, University of Bath, UK]
'Epidemiology of early psoriatic arthritis (PsA)'

9:50 - 10:10 - Andrew Franklin, BSc (Hons), PhD (Med Sci) (20 min) [Medical Scientific Liaison (Immunology, Hepatology & Dermatology), Novartis Pharmaceuticals UK Limited]
'Immunopathology of psoriatic disease'

*******10:10 - 10:40 Coffee/Tea Break*******

Approaches for Skin Therapy I (10:40 -12:00)

Chairs: Ian M. Eggleston, PhD (Reader in Medicinal Chemistry, Department of Pharmacy and Pharmacology & Centre for Therapeutic Innovation, University of Bath, UK)
& Nikoletta Fotaki, PhD (Reader in Pharmaceutics, Department of Pharmacy & Pharmacology, University of Bath)

10:40 - 11:00 - Paul Winyard, PhD (20 min) (Professor of Experimental Medicine, University of Exeter Medical School, Exeter, UK)
'Using redox-active compounds to enhance photodynamic killing of cultured human squamous carcinoma cells'

11:00 – 11:20 - Alison Curnow, MD, PhD (20 min) [Professor, Director of Medicine (Academic), University of Exeter Medical School, Exeter & Royal Cornwall Hospital, Truro, UK]
'Insights gained from regression analysis of PpIX fluorescence imaging undertaken during routine dermatological PDT?'

11:20 - 11:40 - Ewan Eadie, PhD (20 min) (Honorary Lecturer & Head of Scientific Services for Photobiology and Optical Radiation at NHS Tayside, The Scottish Photodynamic Therapy Centre; The University of Dundee, Dundee, United Kingdom)
'Daylight Photodynamic Therapy in the UK – it works... honest '

11:40 - 12:00 - Ben Novak, PhD (20 min) (Head of Exploratory Development, Drug Development Department, Biofrontera Bioscience GmbH, Leverkusen, Germany)
'Optimisation strategies for ALA-PDT of non-melanoma skin cancer: results of a translational research approach'

*******12:00 – 13:20 Lunch Break & Poster Presentation *******

Developments in the Extraction of Biomarkers from the Skin (13:20-14:35)

Chair: Stuart Jones, PhD (Senior Lecturer in Pharmaceutics, Department of Pharmacy, Faculty of Life Sciences & Medicine, King's College London, UK)

13:20 – 13:40 - Robert Chilcott, PhD, CBiol, FSB, FRSC, ERT (20 min) (Head of Toxicology. University of Hertfordshire, Hatfield, Hertfordshire, UK)

'Application of sebomics for the analysis of residual skin surface components to detect potential biomarkers of type-1 diabetes mellitus'

13:40 – 14:00 - Ryan Donnelly, PhD (20 min) (Professor of Pharmaceutical Sciences, Queen's University Belfast, School of Pharmacy, Medical Biology Centre, Belfast, Northern Ireland)

'Microneedles as a means of cutaneous drug monitoring'

14:00 – 14:20 - Faiza Benaouda, PhD (20 min) (Research Fellow, Institute of Pharmaceutical Science, King's College London)

'Hypobaric extraction of molecules out of the skin'

14:20 – 14:35 - Luca Lipani (15 min) (Department of Pharmacy and Pharmacology, University of Bath)

'Non-invasive, transdermal, path-selective and specific glucose monitoring via a graphene-based platform'

******5 min break ******

Inflammatory Skin Disorders II (14:40-15:40)

Chair: Prof John Westwick, PhD, DSc, Hon BPharmS (Imperial College, London)

14:40 - 15:00 - William Tillet, MD, PhD (20 min) (Consultant Rheumatologist at the Royal National Hospital for Rheumatic Diseases & Senior Lecturer in the Department of Pharmacy & Pharmacology, University of Bath, UK)

'The assessment of Psoriatic Arthritis (PsA) – past, present and future'

15:00 – 15:20 - Oliver Fitzgerald, MB BCH BAO, MRCPI, MRCP, FRCPI, MD, FRCP (20 min) (Consultant rheumatologist and Newman Clinical Research Professor at St Vincent's University Hospital and the Conway Institute, University College Dublin (UCD), Ireland.)

'Identifying Psoriatic Arthritis (PsA) in patients with Psoriasis; might prevention of PsA be far away?'

15:20 – 15:40 - John Pauling, MD, PhD (20 min) (Consultant Rheumatologist at the Royal National Hospital for Rheumatic Diseases & Senior Lecturer in the Department of Pharmacy & Pharmacology, University of Bath, UK)

‘The measurement of sclerosing skin disease’

*******15:40 – 16:10 Coffee/Tea Break *******

Approaches for Skin Therapy II (16:10 -17:55)

Chairs: Albert Bolhuis, PhD (Senior Lecturer in Microbiology, Department of Pharmacy & Pharmacology, University of Bath, UK); **Ian S Blagbrough, PhD** (Senior Lecturer in Medicinal Chemistry, Department of Pharmacy & Pharmacology, University of Bath, UK)

16:10-16:35 - Keynote Lecture: Marvin Edeas, MD, PhD (25 min) (Visiting Professor, Cochin Institute-INSERM, University Paris Descartes , Department of Cancer, Development and Reproduction, Founder and Executive Chairman of the International Society of Microbiota, Chairman of the scientific committees of Targeting Mitochondria and Microbiota World Societies)

‘An introduction to Microbiota and skin Microbiota: Recent Advances and Perspectives’

16:35 – 16:45 - Ka Ho Ho (10 min) (PhD student, Department of Pharmacy & Pharmacology, University of Bath, UK)

‘Film-Forming Agents as a Protective Barrier to Fungal Skin Infection’

16:45 – 17:00 - Robert Kelsh, PhD (15 min) (Professor of Developmental Biology, Department of Biology and Biochemistry, University of Bath, UK)

‘Modelling human diseases notably melanoma with Zebrafish and medaka’

17:00 - 17:20 - Martin Malmsten, PhD, Cchem FRSC (20 min) (Professor in Biopharmaceuticals, Biophysics and Drug Delivery, University of Copenhagen, Director, LEO Foundation Centre for Cutaneous Drug Delivery, Guest Professor in Pharmaceutical Physical Chemistry in University of Lund, Norway)

‘Host defence peptides for combatting infection - From mode of action to drug delivery’

17:20 – 17:35 - Gernot Walko, PhD (15 min) (Lecturer in Cell and Developmental Biology, Department of Biology and Biochemistry, University of Bath, UK)

‘Targeting YAP/TAZ as a novel therapeutic strategy in cutaneous squamous cell carcinoma.’

17:35 – 17:55 - Jun Lu, PhD (20 min) (Professor of Pharmaceutical Sciences, Key laboratory of Luminescent and Real-Time Analytical Chemistry, Ministry of Education, College of Pharmaceutical Sciences, Southwest University, Chongqing, China)

‘Topical therapeutic efficacy of ebselen against multidrug-resistant *Staphylococcus aureus* targeting thioredoxin reductase’

******5 min break ******

18:00-18:15 – Welcome Speech (**Prof Ian H. White**, Vice-Chancellor and President, University of Bath)

******18:15 - 20:00 Drink, Music & Dance Show ******

******20:00- 22:00 – Dinner Buffet Reception ******

Friday 13th December 2019

Inflammatory Skin Disorders III (8:30-9:50)

Chair: Prof John Westwick

8:30-8:55 - Alan Irvine, MD, DSc, FRCPL, FRCPI, FAAD (25 min) (Prof of Dermatology, St James Hospital, Trinity College Dublin)

‘Emerging treatments in Atopic Dermatitis’

08:55-9:10 – Li Jian (15 min) MD, PhD (*The First Affiliated Hospital of the Army Medical University, Chongqing, China*)

‘Introducing a new concept for the treatment of Rosacea’

9:10-9:35 - Padraic Fallon, MRIA, FTCD (25 min) (Professor of Translational Immunology, Clinical Medicine, Interim IMM Director, Molecular Medicine Ireland, School of Medicine, Trinity College Dublin)

‘Atopic dermatitis and filaggrin: of mice and men’

9:35 - 9:50 - Expert Patient talk- Huo Yan MD (15 min) (Dermatologist, BiShan People’s Hospital, Chongqing , China)

‘Psoriasis in China’

*****5 min break*****

Iron, Mitochondria, Ferroptosis & Skin I (9:55-10:40)

Chairs: Prof Robert C. Hider & Prof Fudi Wang (MD, PhD, Qiushi Chair Professor, Director of Institute of Nutrition and Food Safety, Director of Nutrition Discovery Innovation Centre, School of Public Health, Zhejiang University School of Medicine, Hangzhou, China)

9:55-10:20 - Keynote Lecture: loav Cabantchik, PhD (25 min) (Professor Emeritus of Biochemistry and Biophysics, President, IBIS: International Bioiron Society (2017-19), International Society for the Study of Iron in Biology and Medicine, Institute of Life Sciences, Hebrew University of Jerusalem, Israel)

'The labile side of iron and of iron sulphur clusters in health, evolution and disease'

10:20–10:40 - Xi Huang, PhD (20 min) (Professor of Environmental Medicine, New York University & CEO of Fe I Beauty Tech Inc, Montvale, NJ, USA)

'Removing iron for skin protection'

*****10:40 - 11:10 Coffee/Tea break *****

Iron, Mitochondria, Ferroptosis & Skin II (11:10-12.40)

Chairs: Prof loav Cabantchik & Prof Robert Evans (Brunel University, School of Engineering and Design, London, UK)

11:10-11:35 - Keynote Lecture: Carsten Culmsee, PhD (25 min) (Professor of Clinical Pharmacy, Vice Dean of the Department of Pharmacy, Center for Mind, Brain and Behavior – CMBB; Institute of Pharmacology and Clinical Pharmacy, Department of Pharmacy, Philipps University Marburg, Germany)

'Mitochondrial regulation of ferroptosis in health and Disease'

11:35-11:55 - Rachel Nechushtai, PhD (20 min) (Professor and co-director of The Alexander Silberman Institute of Life Sciences, Faculty of Science, The Hebrew University of Jerusalem, Israel)

'Wolfram Syndrome, mitochondrial iron overload & skin'

11:55-12:05 – Claudio Raimondi, PhD (10 min) (Lecturer, Queen Mary University of London, United Kingdom)

‘The role of Neuropilin-1 in adult vasculature homeostasis and regulation of mitochondrial function’

12:05 – 12:30 - *Keynote Lecture*: Robert C. Hider, PhD, FRSC (25 min) (Emeritus Professor in Medicinal Chemistry, King’s College London & Honorary Professor, Department of Pharmacy and Pharmacology, University of Bath, UK)

‘Therapeutic iron chelation’

12:30-12:40 - Agostino Cilibrizzi, PhD (10 min) (Lecturer, Institute of Pharmaceutical Sciences, King’s College London, UK)

‘Mitochondrial iron overload and skin photosensitivity’

*******12:40 – 13:50 Lunch Break & Poster Presentation *******

Skin Photoaging, Photodamage & Photoprotection I (13:50-14:50)

Chair: Prof Rex Tyrrell (*Honorary Professor, Department of Pharmacy and Pharmacology, University of Bath, Bath UK; Formerly President of the European Society of Photobiology*)

13:50 - 14:10 Hugo Corstjens, PhD (20 min) (R&D and Innovation independent consultant, founder of Novigo +, Formerly executive manager of basic science research and advanced technologies in Estee Lauder Laboratories, Belgium)

‘Circadian rhythm in the skin in relation to skin ageing and disorders’

14:10-14:25 - Bethany Ferris, MD, PhD (15 min) (The University of Edinburgh)

‘Ultraviolet radiation lowers blood pressure in a large haemodialysis cohort’

14:25-14:40 - Karl Lawrence, PhD (15 min) (St John’s Institute of Dermatology, King’s College London, UK)

‘Wavelengths longer than 380nm cause photodamage to skin cells that is not adequately protected by application of conventional sunscreens’.

14:40-14:50 – Shida Chen (10 min) (*Department of Bioengineering Department, Chongqing University, Chongqing, China*)

‘Ultraviolet A-induced endoplasmic reticulum stress mediated heme oxygenase 1 expression in skin epidermal cells’

**** 5 min break ****

Topical Drug Delivery (14:55-16:00)

Chairs: Prof Richard Guy (Professor of Pharmaceutical Sciences, Department of Pharmacy and Pharmacology, University of Bath, UK) & **Dr Begona Delgado-Charro** (Reader in Pharmaceutics, Department of Pharmacy & Pharmacology, University of Bath)

14:55-15:10 - Andrea Pensado, PhD (15 min) (Department of Pharmacy and Pharmacology, University of Bath, UK)

'The skin pharmacokinetics of topical drug delivery'

15:10-15:30 - James Clarke, PhD (20 min) (Certara UK Limited, Simcyp Division, Sheffield, UK)

'Predicting dermal absorption in diseased or damaged skin using PBPK modelling'

15:30-15:45 - Pauline Vitry, PhD (15 min) (Department of Pharmacy & Pharmacology, University of Bath, Bath, UK)

'Evaluating topical drug bioavailability in the skin using Raman spectroscopy'

15:45 – 16:00 - Alice Maciel Tabosa, PhD (15 min) (Department of Pharmacy & Pharmacology, University of Bath, UK)

'Tracking excipients from a topical drug product through the stratum corneum in vivo'

***** 16:00 – 16:25 Coffee/Tea Break *****

Ethnopharmacology & other Skin-related approaches (16:25-17:30)

Chairs: Dr Matthew Lloyd (Senior Lecturer in Medicinal Chemistry, Department of Pharmacy & Pharmacology, University of Bath, UK) & **Prof Julia Li Zhong** (Professor of Skin Photobiology and Dermatology, Department of Bioengineering Department, Chongqing University, Chongqing, China).

16:25-16:40 Lori Bystrom, PhD (15 min) (Lecturer in Food Enterprise, Bath Spa University, UK)

'Ethnopharmacology and skincare'

16:40-17:00 Mojgan Moddaresi, PharmS, PhD, FRSB, CBIOL (20 min) [Director of Personal Care Regulatory (Dublin, Cambridge)]

'EU and UK Cosmetic regulations for synthetic and Natural-based products '

17:00-17:10 Mustafa Varcin, PhD MPharm ARPharmS (10 min) (Honorary treasurer, Society of Cosmetics Scientists, UK)

'Society of Cosmetic Scientists '

17:10 – 17:20 - Chunli Wang, PhD (10 min) (Bioengineering College, University of Chongqing, Chongqing, China)

'Single-Cell Map of Patellar Tendon Reveal Diverse Participator Involving in the Injured Microenvironment'

17:20 – 17:30 – Davide Califano (10 min) (Department of Chemistry, University of Bath, Claverton Down, Bath, BA2 7AY, UK; Centre for Sustainable Chemical Technologies, University of Bath, Claverton Down, Bath, BA2 7AY, UK)

'Continuous production of hydrogen peroxide by a self-activated multienzyme cellulose composite: a promising material for wound dressing'

17:30 - 17:40

Final Acknowledgments/

Best Poster & Oral Presentation Prize Draw

