

WCHR 2013 Programme

Saturday 4 May 2013

0800	Registration	Strathblane Hall
1015	Tea, Coffee & Pre-Congress Exhibition	Strathblane Hall
1100	Science Education Session 1: Genetics and Epigenetics: All you wanted to know but were afraid to ask! <i>Chairs: Vladimir Botchkarev, Regina Betz</i>	Sidlaw Auditorium (Level 3)
1100	How to identify a gene for a monogenic disorder? Regina Betz, Germany	
1140	Regulation of gene expression by chromatin folding Wendy Bickmore, UK	
1200	What are microRNAs (miRNA) and what roles do they play in hair follicles? Natalia Botchkareva, UK	
1220	Genetic tests to study dermal papilla function during hair follicle formation and growth Michael Rendl, USA	
1245	Lunch & Pre-Congress Exhibition	Strathblane Hall
1350	Changes in the nuclear lamina with age interfere with cell function Eric Schirmer, UK	
1420	Reprogramming hair follicle cells to a pluripotent state: an exciting new tool for medicine Claire Higgins, USA	
1450	Summary Discussion Vladimir Botchkarev, UK Regina Betz, Germany	

1520	Tea, Coffee & Pre-Congress Exhibition	Strathblane Hall
1100	Science Education Session 2: What's new in hair follicle model systems? Sponsored by Merz  <i>Chairs: Kurt Stenn, Ralf Paus</i>	Pentland Auditorium
1105	Mouse models for hair diseases: from rare spontaneous mutations to new large scale, high throughput operations, repositories, and distribution centers worldwide which offer powerful, rapid results John Sundberg, USA	
1135	Delivering molecules via the hair follicle Annika Vogt, Germany	
1200	Update on dermal papilla culture systems Young Wang Sung, Republic of Korea	
1220	Fully functional hair follicle regeneration through the rearrangement of stem cells and their niches Koh-ei Toyoshima, Japan	
1245	Lunch & Pre-Congress Exhibition	Strathblane Hall
1350	Classic perspectives on human hair follicle organ culture Michael Philpott, UK	
1420	Intermediate hair follicles: a more clinically relevant hair follicle model Ben Miranda, UK	
1450	Summary Discussion: Limitations, significance and what else is needed Ralf Paus, Germany	
1520	Tea, Coffee & Pre-Congress Exhibition	Strathblane Hall

1100	Science Education Session 3: Hair Fibre Science with a focus on curly hair <i>Chairs: Gill Westgate, John Gray</i>	Kilsyth / Moorfoot
1105	Curly hair follicles give rise to curly hair fibres Bruno Bernard, France	
1140	Genetics of human hair curl - what do we know? Martin Green, UK	
1215	Curl formation of hair: a result of subtle, biomechanical engineering by the follicle Franz Wortmann, UK	
1245	Lunch & Pre-Congress Exhibition	Strathblane Hall
1350	New insights in protein loss during hair straightening Jennifer Marsh, USA	
1420	The statistical physics of hair fiber assemblies and the shape of a ponytail Patrick Warren, UK (IgNobel prize winner - Physics 2012)	
1450	Summary Discussion Gill Westgate, UK John Gray, South Africa	
1520	Tea, Coffee & Pre-Congress Exhibition	Strathblane Hall
1600	Opening and Welcome Ceremony Welcome by Prof Andrew Messenger (Congress Chair) Welcome on behalf of the EHRS by Dr Gill Westgate (EHRS President) Welcome by Regaine® Viv Tyndall (Platinum Sponsor) Reinventing the Wheel: Selected Highlights of Science and Technology in Scotland - Tayce Phillipson, National Museum of Scotland The Patients' View - Jackie Tomlinson, Alopecia UK Trustee Whistlestop Tour of Whisky	Pentland Auditorium
1715	Whisky Tasting Experience sponsored by Viviscal Viviscal® Hair Growth Programme	Strathblane Hall
1900	Welcome Reception at Edinburgh Castle sponsored by P&G <i>P&G beauty & grooming</i>	

Sunday 5 May 2013

0800 Registration

Strathblane Hall

0830 Concurrent Session 1

Pentland Auditorium

Alopecia Areata I

Chairs: Maria Hordinsky, Xingqi Zhang, Megan Mowbray

P025 The effect of AIRE-207 polymorphism on AIRE transcriptional activity highlights the potential role of AIRE in the pathogenesis of alopecia areata

TRJ Lovewell¹, AJG McDonagh², F Abu-Duhier³, M Azzouz⁴, AG Messenger⁵, R Tazi-Ahnini¹

¹Infection and Immunity, University of Sheffield, Sheffield, United Kingdom,

²University of Sheffield, Sheffield, United Kingdom, ³University of Tabuk, Tabuk,

Saudi Arabia, ⁴Neuroscience, University of Alberta Sheffield, Sheffield, United Kingdom,

⁵University of Sheffield, Sheffield, United Kingdom

P026 Investigation of selected cytokine genes suggests that IL-2RA and the TNF/LTA locus are risk factors for severe alopecia areata

S Redler¹, F Albert¹, F Brockschmidt¹, C Herold², S Hanneken³, S Eigelshoven³, K Giehl⁴, R Kruse⁵, G Lutz⁶, H Wolff⁴, B Blaumeiser⁷, M Böhm⁸, T Becker², M Nöthen^{1,9}, R Betz¹

¹Institute of Human Genetics, University of Bonn, Bonn, Germany, ²German Center

for Neurodegenerative Diseases (DZNE), University of Bonn, Bonn, Germany,

³Department of Dermatology, University of Düsseldorf, Düsseldorf, Germany,

⁴Department of Dermatology, University of Munich, Munich, Germany,

⁵Dermatological Practice, Paderborn, Germany, ⁶Dermatological Practice, Wesseling,

Germany, ⁷Department of Medical Genetics, University of Antwerp, Antwerp, Belgium,

⁸Department of Dermatology, University of Münster, Münster, Germany,

⁹Department of Genomics Life & Brain Center, University of Bonn, Bonn, Germany

P027 Functional genomics and targeted next generation sequencing points to ULBP6 as a critical node in the NKG2D axis in alopecia areata

L Petukhova¹, E Drill², M Duvic³, M Hordinsky⁴, D Norris⁵, V Price⁶, R Clynes⁷, AM Christiano⁸

¹Dermatology and Epidemiology, Columbia University, New York, United States,

²Dermatology and Biostatistics, Columbia University, New York, United States,

³Dermatology, MD Anderson, Houston, United States, ⁴Dermatology, University of

Minnesota, Minneapolis, United States, ⁵Dermatology, University of Colorado, Denver,

United States, ⁶Dermatology, University of California, San Francisco, San Francisco,

United States, ⁷Medicine and Dermatology, Columbia University, New York,

United States, ⁸Dermatology and Genetics & Development, Columbia University,

New York, United States

P028 Next generation T cell receptor sequencing for the identification and monitoring of pathogenic T cells in Alopecia Areata

A de Jong¹, A Jabbari¹, Z Dai¹, L Xing², M Kurban¹, B Thompson¹, M Furniss¹, J Mackay-Wiggan¹, AM Christiano¹, R Clynes²

¹Dermatology, Columbia University, New York, United States, ²Pathology,

Columbia University, New York, United States

P029 Reversal of longstanding alopecia areata in C3H/HeJ mice using topical JAK inhibitors

A Jabbari¹, Z Dai¹, L Xing², A de Jong¹, AM Christiano^{1,3}, R Clynes^{1,2,4}

¹Dermatology, Columbia University, New York, United States, ²Pathology, Columbia University, New York, United States, ³Genetics & Development, Columbia University, New York, United States, ⁴Medicine, Columbia University, New York, United States

P030 Endogenous retinoids in the pathogenesis of alopecia areata

HB Everts¹, KA Silva², C Johnson¹, B King², JP Szatkiewicz², S Kamdar², DE Ong³, JL Napoli⁴, J Wang⁴, LE King Jr⁵, DA Whiting⁶, KJ McElwee⁷, JP Sundberg^{2,5}, FJ Duncan¹

¹Human Nutrition, The Ohio State University, Columbus, United States, ²The Jackson Laboratory, Bar Harbor, United States, ³Biochemistry, Vanderbilt University Medical Center, Nashville, United States, ⁴University of California, Berkeley, Berkeley, United States, ⁵Medicine (Dermatology), Vanderbilt University Medical Center, Nashville, United States, ⁶Baylor Hair Research and Treatment Center, Dallas, United States, ⁷University of British Columbia, Vancouver, Canada

P077 Review of the use of diphencyprone in the treatment of alopecia areata: the last 20 years in Glasgow

RC Lamb, S Holmes

The Alan Lyell Centre for Dermatology, Southern General Hospital, Glasgow, United Kingdom

**0830 Concurrent Session 2:
Tissue Engineering and Regeneration**

Fintry Auditorium

Chairs: Mike Philpott, Bruno Bernard, Kurt Stenn

P216 Involvement of the immune response in regeneration of experimentally amputated whisker follicles in vivo and in a novel culture model of regeneration using newborn follicles

S-W Li^{1,2}, C Higgins³, K Sorensen², AM Christiano³, CA Jahoda²

¹College of Life Science, Tarim University, Alar, China, ²School of Biological and Biomedical Sciences, Durham University, Durham, United Kingdom, ³Department of Dermatology, Columbia University, New York, United States

P217 Full-thickness skin with mature and cycling hair follicles using tissue culture expanded human cells

X Wu, L Scott, K Stenn

Aderans Research Institute, Inc., Marietta, United States

P218 Enhancing hair follicle neogenesis in bioengineered human skin substitutes

R Thangapazham¹, P Klover¹, S Li¹, J-A Wang¹, Y Zheng², L Sperling¹, G Cotsarelis², T Darling¹

¹Uniformed Services University of the Health Sciences, Bethesda, United States, ²University of Pennsylvania, Philadelphia, United States

- P220 Human hair follicle neogenesis using microenvironmentally reprogrammed dermal papilla cells**
 CA Higgins¹, CA Jahoda², AM Christiano^{1,3}
¹Dermatology, Columbia University, New York, United States, ²Biological and Biomedical Sciences, Durham University, Durham, United Kingdom, ³Genetics and Development, Columbia University, New York, United States
- P221 Calcium microcapsule: a possible scaffold for building artificial dermal papillae**
 C-M Lin¹, K Huang², Y Li³
¹Shantou University Medical College, Shantou, China, ²S. Gallicano Dermatologic Institute (IRCCS) Second Affiliated Hospital, Shantou University Medical College, Shantou, China, ³First Affiliated Hospital, Shantou University Medical College, Shantou, China
- P222 Human scalp derived fibroblasts are multipotent and trichogenic**
 X Wu, K Watkins, K Stenn
 Aderans Research Institute, Marietta, United States
- P044 The therapeutic potential of naturally immune privileged hair follicle cells**
 X Wang, J Hao, G Leung, T Breitkopf, Z Ao, G Warnock, J Shapiro, K McElwee
 University of British Columbia, Vancouver, Canada

0830 Concurrent Session 3: Stem Cells and Epigenetics **Sidlaw Auditorium**

Chairs: George Cotsarelis, Vladimir Botchkarev, Denis Headon

- P183 microRNAs are important players controlling hair follicle development and regeneration**
 M Ahmed¹, M Alam¹, V Emelianov², A Sharov², A Mardariyev¹, N Botchkareva¹
¹University of Bradford, Bradford, United Kingdom, ²Boston University Medical Center, Boston, United States
- P184 Roles of MED1 in quiescence of hair follicle stem cells and maintenance of normal hair cycling**
 T Nakajima¹, S Inui¹, T Fushimi¹, F Noguchi¹, Y Kitagawa¹, JK Reddy², S Itami¹
¹Osaka University, Suita, Japan, ²Northwestern University, Chicago, United States
- P185 The role of nestin-expressing stem cells in formation of the hair follicle sensory nerve**
 S Mii¹, J Duong¹, Y Tome¹, A Uchugonova², F Liu³, Y Amoh⁴, N Saito⁴, K Katsuoka⁴, RM Hoffman^{1,5}
¹AntiCancer Inc., San Diego, United States, ²Department of Biophotonics and Laser Technology, Saarland University, Saarbruecken, Germany, ³Department of Anatomy, Second Military Medical University, Shanghai, China, ⁴Department of Dermatology, Kitasato University School of Medicine, Kanagawa, Japan, ⁵Department of Surgery, University of California San Diego, San Diego, United States

- P186** **Topology-dependent plucking leads to more regenerating hairs than plucked via extra-follicular macro-environment modulation**
 C-C Chen^{1,2,3}, L Wang⁴, TX Jiang¹, S Shi⁴, CM Chuong¹
¹Pathology, University of Southern California, Los Angeles, United States,
²Department of Dermatology, Taipei Veterans General Hospital, Taipei, Taiwan, Republic of China, ³Department of Dermatology, Yang ming University, Taipei, Taiwan, Republic of China, ⁴Center for Craniofacial Molecular Biology, University of Southern California, Los Angeles, United States
- P187** **Competitive balance of Intra-bulge BMP/WNT signaling reveals a robust gene network governing stem cell homeostasis and cyclic activation**
 E Kandyba¹, Y Leung¹, Y-B Chen², R Wideltz³, C-M Chuong³, K Kobiela¹
¹Eli and Edythe Broad Center for Regenerative Medicine & Stem Cell Research, Department of Pathology, University of Southern California, Los Angeles, United States,
²Norris Medical Library, University of Southern California, Los Angeles, United States,
³Department of Pathology, University of Southern California, Los Angeles, United States
- P188** **Global genome analysis of Lhx2 target genes in hair follicle stem cells and their progenies reveals the non-random distribution and topological associations with functionally related gene loci**
K Poterlowicz¹, A Mardaryev¹, M Fessing¹, A Sharov², Y Peng³, V Botchkarev¹
¹Centre for Skin Sciences, University of Bradford, Bradford, United Kingdom,
²Dermatology, Boston University Medical Center, Boston, United States,
³School of Computing, Informatics and Media, University of Bradford, Bradford, United Kingdom
- P189** **Direct differentiation of hair follicle stem cells into dopaminergic neurons without reprogramming**
M Tauchi^{1,2}, A Kellenberger¹, MM Tejada Bonilla^{1,2}, D Amato³, E Meyer-Blazejewska⁴, S Havlicek⁵, U Schlötzer-Schrehardt⁴, B Winner⁵, CP Müller³, J Winkler¹
¹Division of Molecular Neurology, University Hospital Erlangen, Erlangen, Germany,
²Department of Neurology, University Hospital Erlangen, Erlangen, Germany,
³Department of Psychiatry and Psychotherapy, University Hospital Erlangen, Erlangen, Germany, ⁴Department of Ophthalmology, University Hospital Erlangen, Erlangen, Germany, ⁵Junior Research Group III of Interdisciplinary Center for Clinical Research, University Hospital Erlangen, Erlangen, Germany

0830 Concurrent Session 4:
Clinical Cases

Tinto

Chairs: Patrick Yesudian, Antonella Tosti, Elise Olsen

- P078** **Analysis of quantitative changes in hair growth during treatment with chemotherapy or tamoxifen in breast cancer patients: a cohort study**
 N Garcia Bartels, K Hillmann, J Lindner, R Nuwayhid, A Stroux, J Lademann, U Blume-Peytavi
 Klinik für Dermatologie, Venerologie und Allergologie, Charité-Universitätsmedizin Berlin, Berlin, Germany

- P079 Adalimumab to treat recalcitrant dissecting cellulitis of the scalp**
Y Mansouri, MR Kaur
Dermatology, Heart of England NHS Trust, Solihull Hospital, Solihull, United Kingdom
- P080 Clinical characteristics and prevalence of chemotherapy-induced alopecia in childhood**
M Choi¹, SY Park¹, DL Jin¹, MS Kim², KH Cho¹, HJ Kang², OS Kwon^{1,3}
¹*Department of Dermatology, Seoul National University College of Medicine, Seoul, Korea, Republic of*, ²*Division of Hematology/Oncology, Department of Pediatrics, Seoul National University College of Medicine, Seoul, Korea, Republic of*, ³*Institute of Human-Environment Interface Biology, Seoul National University College of Medicine, Seoul, Korea, Republic of*
- P088 Appearance of mycosis fungoides (MF) localized on the scalp with clinical signs of alopecia areata**
A Miesel¹, M Fleischer¹, C Rose¹, TW Fischer¹, D Zillikens¹
¹*Department of Dermatology, Allergology and Venerology, University Hospital of Luebeck, Luebeck, Germany*
- P082 A pilot clinical study of hair grafting in chronic leg ulcers**
E Jimenez¹, C Garde², E Poblet³, B Jimeno², J Ortiz², M Martínez⁴, A Gutierrez-Rivera⁵, V Perez-Lopez⁵, U Etxaniz⁵, C Naveda², JL Higuera⁶, N Egües⁷, E Escario⁴, A Izeta⁵
¹*Clínica Dr. Jimenez-Acosta, Las Palmas, Gran Canaria, Spain*, ²*Outpatient Care Unit, Hospital Donostia, San Sebastian, Spain*, ³*Anatomía Patológica, Universidad de Murcia, Murcia, Spain*, ⁴*Dermatology, Hospital General Universitario de Albacete, Albacete, Spain*, ⁵*Department of Bioengineering, Instituto Biodonostia, San Sebastian, Spain*, ⁶*Department of Vascular Surgery, Hospital Donostia, San Sebastian, Spain*, ⁷*Research Unit, Instituto Biodonostia, San Sebastian, Spain*
- P085 Sebaceous gland atrophy: a potential pitfall in the histopathologic evaluation of non-scarring alopecia associated with psoriasiform dermatitis of the scalp**
NL Clayton, DA Fenton, CM Stefanato
St John's Institute of Dermatology, St Thomas' Hospital, London, United Kingdom
- P087 Invisible bleeding from clean-shave haircuts**
 NP Khumalo^{1,2}, K Mkentane^{3,4}, C Muthukarapan⁵, D Hardy⁶, S Korsman⁶, P Berman⁷, T Mthebe⁸, LM Davids⁴, J Rousseau⁵
¹*Division of Dermatology, University of Cape Town, Cape Town, South Africa*, ²*Division of Dermatology, Groote Schuur Hospital, Cape Town, South Africa*, ³*Dermatology, University of Cape Town, Cape Town, South Africa*, ⁴*Human Biology, University of Cape Town, Cape Town, South Africa*, ⁵*Genetics, University of Cape Town, Cape Town, South Africa*, ⁶*Divisions of Medical Virology, University of Cape Town, Cape Town, South Africa*, ⁷*Chemical Pathology, University of Cape Town, Cape Town, South Africa*, ⁸*Department of Clinical Laboratory Sciences, Groote Schuur Hospital, Cape Town, South Africa*

0830	Kao Hair Science Symposium: Recent topics in Hair Care and Hair Research	Kilsyth / Moorfoot
1000	Tea, Coffee & Congress Exhibition	Cromdale Hall
1030	Plenary Symposium 1: An Update on Hair Follicle Stem Cells <i>Chairs: Satoshi Itami, Rod Sinclair</i>	Pentland Auditorium
PS1.1	Hair follicle stem cells in alopecia George Cotsarelis, USA	
PS1.4	Cellular and signaling mechanisms that regulate hair follicle stem cells by live imaging Valentina Greco, USA	
PS1.2	Mechanisms of hair follicle aging and stem cell regulation Emi Nishimura, Japan	
PS1.3	Biological and translational potential of hair follicle mesenchymal cells Colin Jahoda, UK	
1200	Keynote Lecture <i>Chair: Valerie Randall</i>	Pentland Auditorium
K1	Skin Stem Cells: In Silence and in Action Elaine Fuchs, USA	
1245	Lunch Break (collect lunches from Cromdale Hall)	Cromdale Hall
1300	Regaine® Sponsored Symposia: A Look into the future of AGA management and product innovation with Minoxidil	Pentland Auditorium
1400	Poster Session 1: Even Numbered Posters	Cromdale Hall
1515	Tea, Coffee & Congress Exhibition	Cromdale Hall

- 1600 Concurrent Session 5: Pentland Auditorium**
Androgenetic Alopecia and Hair Restoration
Chairs: Ramon Grimalt, Nilofer Farjo, Venkataram Mysore
- P038 Differential gene expression patterns in frontal and vertex scalp in men with androgenetic alopecia- before and after the use of minoxidil topical foam**
P Karnik¹, M Consolo¹, P Oyetakin-White¹, E Baron¹, P Mirmirani²
¹Case Western Reserve University, Cleveland, United States, ²The Permanente Medical Group, Vallejo, United States
- P039 What is the meaning of the “visible pigmented non-vellus hair count” in FDA-approved clinical trial reports?**
DJJ Van Neste^{1,2}, HD Rushton³
¹Skinterface, Tournai, Belgium, ²Brussels' Hair Clinic, Brussels, Belgium, ³School of Pharmacy & Biomedical Sciences, University of Portsmouth, Portsmouth, United Kingdom
- P040 Pharmacodynamic of P-3074 (finasteride 0.25% topical solution) in subjects with androgenetic alopecia**
M Caserini¹, R Palmieri¹, M Radicioni², E Terragni²
¹Polichem S.A., Lugano, Switzerland, ²Cross Research S.A., Arzo, Switzerland
- P041 Genetic variations associated with efficacy of dutasteride, the dual 5α-reductase inhibitor in the treatment of male pattern hair loss**
SJ Jo^{1,2}, A Rhie^{3,4}, S Lee^{3,4}, B-L Lew⁵, W-Y Sim⁵, KH Cho^{1,2}, JH Chung^{1,2}, J-I Kim^{3,4}, OS Kwon^{1,2}
¹Department of Dermatology, Seoul National University College of Medicine, Seoul, Korea, Republic of, ²Institute of Human-Environment Interface Biology, Seoul National University College of Medicine, Seoul, Korea, Republic of, ³Genomic Medicine Institute, Medical Research Center, Seoul National University, Seoul, Korea, Republic of, ⁴Department of Biomedical Sciences, Seoul National University Graduate School, Seoul, Korea, Republic of, ⁵Department of Dermatology, Kyunghee University College of Medicine, Seoul, Korea, Republic of
- P042 Analysis of androgenetic alopecia in Amerindian people (Mapuche) from southern Chile**
FA Mardones, Y Valenzuela, V Zemelman
Dermatology Department, University of Chile Clinical Hospital, Santiago, Chile
- P043 Oxidative stress and cell senescence in androgenetic alopecia (AGA)**
JH Upton¹, A Bahta¹, N Farjo², B Farjo², R Bhogal³, MP Philpott¹
¹Centre for Cutaneous Research, Queen Mary's University of London, Whitechapel, United Kingdom, ²Farjo Medical Centre, Manchester, United Kingdom, ³Unilever R&D, Colworth, United Kingdom
- P227 New development in unlimited hair follicle transplant**
C-M Lin¹, K Huang², Y Li³
¹Shantou University Medical College, Shantou, China, ²Second Affiliated Hospital, Shantou University Medical College, Shantou, China, ³First Affiliated Hospital, Shantou University Medical College, Shantou, China

- P045 Follicular unit extraction using robot system (ARTASTM) in Asia**
 J-W Shin¹, J-Y Kim², CH Huh¹
¹Dermatology, Seoul National University Bundang Hospital, Seongnam, Korea, Republic of, ²Mojelim Hair Clinic, Seoul, Korea, Republic of
- P046 Platelet-rich plasma promoting hair growth in human hair follicle dermal papilla cells associated VEGF and VEGFR-2**
 BJ Kim^{1,2}, SY Kim^{1,2}, TR Kwon^{1,2}, YH Lee¹, YS Song^{1,2}, K Li¹, YW Lee³, CH Huh⁴, CK Hong¹
¹Department of Dermatology, Chung-Ang University College of Medicine, Seoul, Korea, Republic of, ²Department of Convergence Medicine and Pharmaceutical Biosciences, Graduate School, Chung-Ang University, Seoul, Korea, Republic of, ³Department of Dermatology, Konkuk University, College of Medicine, Seoul, Korea, Republic of, ⁴Department of Dermatology, Seoul National University Bundang hospital, Seongnam, Korea, Republic of

1600 Concurrent Session 6: Factors Influencing Hair Growth **Finty Auditorium**
 Chairs: Ryoji Tsuboi, Julie Thornton, Natalia Botchkareva

- P126 A novel PPAR γ modulator (GMG-43AC) inhibits human hair growth and inflammatory response in keratinocytes, and up-regulates expression of epithelial stem-cell associated keratins, K15 and K19**
 Y Ramot^{1,2}, A Mastrofrancesco³, E Herczeg-Lisztes⁴, T Biro⁴, M Picardo³, JE Kloepper², R Paus^{2,5}
¹Department of Dermatology, Hadassah - Hebrew University Medical Center, Jerusalem, Israel, ²Department of Dermatology, University of Luebeck, Luebeck, Germany, ³Laboratory of Cutaneous Physiopathology and Integrated Center of Metabolomics Research, S. Gallicano Dermatologic Institute (IRCCS), Rome, Italy, ⁴Department of Physiology, University of Debrecen, Debrecen, Hungary, ⁵Institute of Inflammation and Repair, University of Manchester, Manchester, United Kingdom
- P127 Influence of oxygen tension on hair growth and cycle and therapeutic potential of systemic normobaric oxygenation**
 H Kato¹, K Kinoshita¹, N Aoi¹, K Inoue¹, S Itami², K Yoshimura¹
¹Department of Plastic Surgery, University of Tokyo Hospital, Tokyo, Japan, ²Department of Regenerative Dermatology Osaka University Graduate School of Medicine, Osaka, Japan
- P128 Eplerenone stimulates human hair growth ex vivo**
 JE Kloepper¹, S Klominek¹, T Biró², N Farman³, R Paus^{1,4}
¹Department of Dermatology, University of Luebeck, Luebeck, Germany, ²DE-MTA 'Lendulet' Cellular Physiology Group, Department of Physiology, University of Debrecen, Debrecen, Hungary, ³INSERM U 872, University Pierre et Marie Curie, Paris, France, ⁴Institute of Inflammation and Repair, University of Manchester, Manchester, United Kingdom

- P129 Age related expression changes of WNT signaling associated genes in human hair follicle**
 SN Kim¹, AR Kim¹, SY Lee², WS Park¹
¹Advanced Hair Research Laboratory, AMOREPACIFIC Corp. R&D Center, Gyeonggi-do, Korea, Republic of, ²Skin Research Center, Dermapro, Seoul, Korea, Republic of
- P130 Human scalp hair follicles possess the enzymes to synthesise prostaglandins and prostamides from phospholipids and contain PGF α in vivo**
 KG Khidhir^{1,2}, M Shalbuf¹, NP Farjo³, BK Farjo³, JW Wang⁴, DF Woodward⁴, SM Picksley¹, VA Randall¹
¹Centre for Skin Sciences, University of Bradford, Bradford, United Kingdom, ²Department of Biology, University of Sulaimani, Al-Sulaimanyiah, Iraq, ³Farjo Medical Centre, Manchester, United Kingdom, ⁴Department of Biological Sciences, Allergan Inc., Irvine, United States
- P131 Closing KATP^{ATP} channels in human hair follicles inhibits hair growth, promotes catagen-like changes and alters paracrine signalling; could this be a new therapeutic approach for excessive hair disorders?**
 H Rahman¹, N Farjo², B Farjo², V Randall¹
¹Centre for Skin Sciences, University of Bradford, Bradford, United Kingdom, ²Farjo Medical Centre, Manchester, United Kingdom
- P132 Effect of hair follicle environment on nanocarriers stability and drug release properties**
 F Rancan¹, S Hadam¹, Z Afraz¹, B Bellier², R Wagner³, C Graf⁴, J Lademann⁵, E Ruehl⁴, B Verrier⁶, U Blume-Peytavi¹, A Vogt¹
¹Clinical Research Center for Hair and Skin Science, Department of Dermatology and Allergy, Charité-Universitätsmedizin Berlin, Berlin, Germany, ²Laboratory of Immunity and Infection, Université Pierre et Marie Curie, Paris, France, ³Institute of Medical Microbiology, University of Regensburg, Regensburg, Germany, ⁴Physikalische Chemie, Institut für Chemie und Biochemie, Freie Universität Berlin, Berlin, Germany, ⁵Center of Experimental and Applied Cutaneous Physiology, Department of Dermatology and Allergy, Charité-Universitätsmedizin Berlin, Berlin, Germany, ⁶Institut de Biologie et Chimie des Protéines, UMR 5086 CNRS/UCBL, Lyon, France
- P133 Thyrotropin-releasing hormone (TRH) modulates keratin expression in human skin**
 Y Ramot^{1,2}, G Zhang², J Hardman³, IS Haslam³, T Biro⁴, L Langbein⁵, R Paus^{2,3}
¹Department of Dermatology, Hadassah - Hebrew University Medical Center, Jerusalem, Israel, ²Department of Dermatology, University of Luebeck, Luebeck, Germany, ³Institute of Inflammation and Repair, University of Manchester, Manchester, United Kingdom, ⁴Department of Physiology, University of Debrecen, Debrecen, Hungary, ⁵Division of Skin Carcinogenesis, German Cancer Research Center, Heidelberg, Germany
- P134 Systemic angiotensinergic stimulation modulates Epithelial-Mesenchymal Transition and collagen deposition in skin and hair follicle**
 ZP Jara¹, M Consolo², SP Panicker², K Honda², P Karnik², S Karnik¹
¹Cleveland Clinic, Cleveland, United States, ²Dermatology, CWRU, Cleveland, United States

1600

Concurrent Session 7:

Sidlaw Auditorium

Genetic Hair Disorders and Hair Fibre Science

Chairs: Xue Zhang, Rachid Tazi-Ahnini, Gill Westgate

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Visual attention to and perception of undamaged and damaged versions of natural and coloured female hair

B Fink¹, F Neuser², G Deloux², S Röder¹, PJ Matts²

¹University of Goettingen, Goettingen, Germany, ²London Innovation Centre, The Procter & Gamble Company, Egham, United Kingdom

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Follicular neogenesis in Marie-Unna hereditary hypotrichosis

A Jamil¹, R Dover¹, N Tiffin², M Wehner³, RC Betz³, AG Messenger¹

¹Dermatology, Royal Hallamshire Hospital, Sheffield, United Kingdom,
²Histopathology, Royal Hallamshire Hospital, Sheffield, United Kingdom,
³University of Bonn, Institute of Human Genetics, Bonn, Germany

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A position effect on FGF13 underlies X-linked congenital generalized hypertrichosis

GM De Stefano¹, KA Fantauzzo^{1,2}, L Petukhova^{2,3}, M Kurban², M Tadin-Strapps¹, B Levy⁴, D Warburton^{1,4}, ET Cirulli⁵, Y Han⁵, R Cepeda-Valdes⁶, J Cesar Salas-Alanis⁷, AM Christiano^{1,2}

¹Genetics and Development, Columbia University, New York, United States,
²Dermatology, Columbia University, New York, United States, ³Epidemiology, Columbia University, New York, United States, ⁴Pathology and Cell Biology, Columbia University, New York, United States, ⁵Center for Human Genome Variation, Duke University School of Medicine, Raleigh, United States, ⁶Dystrophic Epidermolysis Bullosa Research Association, Mexico, Mexico, ⁷Dermatology Service Hospital Universitario, Uanl, Mexico

P144

Mutations in SNRPE, which encodes a core protein of the spliceosome, cause autosomal dominant hypotrichosis simplex

SM Pasternack¹, M Refke¹, E Paknia², HC Hennies³, T Franz⁴, N Schäfer¹, A Fryer⁵, M van Steensel⁶, E Sweeney⁵, M Just⁷, C Grimm², R Kruse⁸, C Ferrándiz⁷, MM Nöthen¹, U Fischer², RC Betz¹

¹Institute of Human Genetics, University of Bonn, Bonn, Germany, ²Department of Biochemistry, University of Würzburg, Würzburg, Germany, ³Center for Dermatogenetics, Innsbruck Medical University, Innsbruck, Austria, ⁴Department of Anatomy, University of Bonn, Bonn, Germany, ⁵Cheshire and Merseyside Genetics Service, Alder Hey Hospital, Liverpool, United Kingdom, ⁶Department of Dermatology, Maastricht University Medical Centre, Maastricht, Netherlands, ⁷Service of Dermatology, Hospital Universitari Germans Trias i Pujol, Badalona, Spain, ⁸Dermatological Practice, Paderborn, Germany

P145

Trichomegaly, or Hollywood “movie lashes” resulting from mutations in FGF5 and an elongated hair cycle anagen phase

CA Higgins¹, L Petukhova^{1,2}, YY Ho¹, E Drill¹, L Shapiro³, M Wajid⁴, AM Christiano^{1,5}

¹Dermatology, Columbia University, New York, United States, ²Epidemiology, Columbia University, New York, United States, ³Biochemistry, Columbia University, New York, United States, ⁴Zoology, University of Education Lahore, Okara, Pakistan, ⁵Genetics and Development, Columbia University, New York, United States

P146 Detection of chronobiological features on the surface of human hair through the multi-stage analysis of Wilhelmy-force profiles

FJ Wortmann¹, G Wortmann¹, E Schulze zur Wiesche²

¹Materials, University of Manchester, Manchester, United Kingdom, ²Henkel AG & Co. KGaA, Hamburg, Germany

P147 Fractions of cortical cell types correlate with macroscopic bending modulus in human hair

T Itou¹, Y Ezawa¹, S Nagase¹, A Mamada¹, S Inoue², K Koike¹

¹Kao Corporation, Tokyo, Japan, ²Kao Corporation, Wakayama, Japan

P148 In vitro assembly of human hair keratin intermediate filaments: Combination of Keratin proteins and their properties

Y Honda¹, K Koike², S Masuko¹, S Ando³

¹Anatomy & Physiology, Saga University, Saga, Japan, ²Beauty Research Center, Kao Corporation, Tokyo, Japan, ³Applied Microbial Technology, Sojo University, Kumamoto, Japan

P149 ALOX12 inhibitors promote cuticle maturation that affects on hair Texture

K Kizawa¹, T Takahashi², T Fujimori³, R Suzuki², T Kawai³

¹Innovative Beauty Research Laboratory, Kanebo Cosmetics Inc, Odawara, Japan,

²Global R&D-Beauty-Cosmetics, Kao Corporation, Tokyo, Japan, ³Skin-Care Research Laboratory, Kanebo Cosmetics Inc, Odawara, Japan

1600	Psychology and Hair Disorders Workshop <i>Chairs: Ralph Trüeb, Vera Price</i>	Tinto
1600	Welcome Ralph Trüeb, Switzerland Vera Price, USA	
1605	Psychodermatology and psychopharmacology of hair loss John Koo, USA Monica Huynh, USA	
1630	The difficult hair patient: a special challenge Ralph Trüeb, Switzerland	
1655	Psychological impact of hair loss Uwe Gielert, Germany	
1720	Coping with alopecia areata: a patient's perspective Jackie Tomlinson, UK	
1740	Realistic patient expectations: the secret of contented patients Vera Price, USA	

1600	P&G Sponsored Symposium: Effects of Fibre Damage: From Molecular Structure to the Clinical Situation <i>P&G beauty&grooming</i>	Kilsyth / Moorfoot
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1800	EHRs General Assembly	Kilsyth / Moorfoot
1800	KHRs General Assembly	Tinto
1845	Close	
1930	Gala Dinner with Ceilidh at Our Dynamic Earth sponsored by LEO Pharma	



Monday 6 May 2013

0800 Registration **Strathblane Hall**

0830 Concurrent Session 8: Alopecia Areata II **Pentland Auditorium**

Chairs: Woo Young Sim, Andrew McDonagh, Francisco Camacho

P031 Type I cytokines and chemokines are targetable immune pathways in alopecia areata

Z Dai¹, L Xing², A Jabbari¹, A de Jong¹, AM Christiano^{1,3}, R Clynes^{1,2,4}

¹Dermatology, Columbia University, New York, United States, ²Pathology, Columbia University, New York, United States, ³Genetics & Development, Colub, New York, United States, ⁴Medicine, Columbia University, New York, United States

P032 Identification of autoantigen epitopes in alopecia areata

EH Wang¹, JP Dutz^{1,2}, J Shapiro², KJ McElwee¹

¹Dermatology and Skin Science, University of British Columbia, Vancouver, Canada,

²Dermatology and Skin Science, Vancouver General Hospital, Vancouver, Canada

P033 Remission of longstanding alopecia universalis after HIV infection

Y Ramot¹, T Tetro¹, I Levi², A Zlotogorski¹

¹Department of Dermatology, Hadassah - Hebrew University Medical Center, Jerusalem, Israel, ²Sheva Medical Center, Tel-Hashomer, Israel

P034 Correlation between serum thymus and activation-regulated chemokine (TARC) and severity and activity in alopecia areata without active atopic symptom

S Inui, T Nakajima, F Noguchi, S Itami

Department of Regenerative Dermatology, Osaka University School of Medicine, Suita, Japan

P035 An association study of Alopecia Areata using microsatellite markers within the Major Histocompatibility Complex

S Ikeda¹, A Takagi¹, E Komiyama¹, N Yoshihara¹, T Mabuchi², Y Haida³, A Oka⁴, A Ozawa²

¹Department of Dermatology, Juntendo University Graduate School of Medicine, Tokyo, Japan, ²Department of Dermatology, Tokai University School of Medicine, Kanagawa, Japan, ³Molecular Life Sciences, Division of Basic Medical Science and Molecular Medicine, Tokai University School of Medicine, Kanagawa, Japan, ⁴The Institute of Medical Science, Tokai University School of Medicine, Tokyo, Japan

P036 Identification of gene expression biomarker signatures for use as an Alopecia Areata Disease Activity Index (ALADIN)

JE Cerise¹, A Jabbari¹, M Duvic², M Hordinsky³, D Norris⁴, V Price⁵, J Mackay-Wiggan¹, R Clynes¹, AM Christiano¹

¹Columbia University, New York, United States, ²MD Anderson Cancer Center, Houston, United States, ³University of Minnesota, Minneapolis, United States, ⁴University of Colorado, Denver, United States, ⁵University of California San Francisco, San Francisco, United States

P037 Alopecia areata in mice: is it a family affair?

JP Sundberg^{1,2}, KA Silva¹, VE Kennedy¹, BA Sundberg¹, LE King², A Berndt³

¹Research and Development, The Jackson Laboratory, Bar Harbor, United States,

²Department of Medicine, Division of Dermatology, Vanderbilt University Medical Center, Nashville, United States, ³Department of Medicine, University of Pittsburgh, Pittsburgh, United States

**0830 Concurrent Session 9:
Cicatricial Alopecia**

Fintry Auditorium

Chairs: Wilma Bergfeld, Matt Harries, Bianca-Maria Piraccini

P070 First evidence of bacterial biofilms in the anaerobe part of scalp hair follicles: a pilot comparative study in folliculitis decalvans

B Matar¹, T Meylheuc^{2,3}, R Briandet^{2,3}, I Casin⁴, P Assouly¹, B Cavelier-Balloy⁵, P Reygagne¹

¹Hair Disease Center, Sabouraud Center Saint Louis Hospital, Paris, France, ²INRA, UMR 1319 Micalis, Jouy-en-Josas, France, ³AgroParis Tech, UMR Micalis, Jouy-en-Josas, France, ⁴Microbiology, Saint-Louis Hospital, Paris, France, ⁵Pathology, Saint Louis Hospital, Paris, France

P071 Vulval and oral lichen planus in frontal fibrosing alopecia

A-L Chew, CM Stefanato, I Savarese, SM Neill, D Fenton, FM Lewis

St John's Institute of Dermatology, Guy's and St Thomas' Hospital NHS Foundation Trust, London, United Kingdom

P072 Reassessing the histopathology of primary cicatricial alopecias: an evaluation of 256 biopsies

AB Bormate Jr.¹, VH Price², TH McCalmont³

¹Section of Dermatology, Department of Medicine, University of the Philippines - Philippine General Hospital, Manila, Philippines, ²Department of Dermatology, University of California San Francisco, San Francisco, United States, ³Department of Pathology, University of California San Francisco, San Francisco, United States

P073 Impaired ubiquitin-proteasome system in cicatricial alopecia: implications for inflammatory response

RS Subbaiah, MC Consolo, P Mirmirani, VH Price, P Karnik

Dermatology, Case Western Reserve University, Cleveland, United States

P074 Small fiber neuropathy in symptomatic lichen planopilaris (LPP) and frontal fibrosing alopecia (FFA)

M Hordinsky¹, S Kavand¹, W Kennedy², G Crabb², M Pierre-Louise¹, I Doche³, M Ericson¹

¹Dermatology, University of Minnesota, Minneapolis, United States,

²Neurology, University of Minnesota, Minneapolis, United States,

³Dermatology, University of Sao Paulo, São Paulo, Brazil

- P075** **Epidemiology of patients with central centrifugal cicatricial alopecia**
A McMichael¹, C Hector², G Binsai³
¹Department of Dermatology, Wake Forest School of Medicine, Winston-Salem, United States, ²Wake Forest School of Medicine, Winston-Salem, United States, ³Department of Dermatology, King Saud University Riyadh, Riyadh, Saudi Arabia

- P076** **Facial papules in women with frontal fibrosing alopecia**
JC Donovan
Dermatology, University of Toronto, Toronto, Canada
-

0830 **Concurrent Session 10:** **Sidlaw Auditorium**
Hair Follicle Development, Control of the Hair Cycle and Pigmentation

Chairs: Cheng-Ming Chuong, Emi Nishimura, Desmond Tobin

- P103** **Functional presence of the endocannabinoid system in human hair follicle derived outer root sheath keratinocytes**
E Herczeg-Lisztes¹, IL Szabó¹, A Oláh¹, AG Szöllösi¹, N Vasas¹, K Sugawara², R Paus², T Bíró¹

¹Department of Physiology, University of Debrecen, Debrecen, Hungary,

²Department of Dermatology, University of Luebeck, Luebeck, Germany

- P151** **Regulatory T cells increased in the area around and above the bulge of mouse vibrissa follicles in catagen**

M Oishi, I Niibe, T Matsuzaki

Biological Science, Shimane University, Matsue, Japan

- P152** **A meeting of two chronobiological systems: Period1 and BMAL1 modulate the human hair cycle**

Y Al-Nuaimi¹, JA Hardman², IS Haslam², T Biro³, BI Toth³, N Farjo⁴, B Farjo⁴, M Philpott⁵, R Watson², B Grimaldi⁶, JE Kloepper⁷, R Paus^{2,7}

¹Salford Royal Foundation Trust, Salford Royal Hospital, Salford, United Kingdom,

²Inflammation and Repair, University of Manchester, Manchester, United Kingdom,

³Hungarian Academy of Sciences, University of Debrecen, Debrecen, Hungary, ⁴Farjo Medical Centre, Manchester, United Kingdom, ⁵Centre for Cutaneous Research, Queen Mary's University of London, London, United Kingdom, ⁶Italian Institute of Technology, Genova, Italy, ⁷Dermatology, University of Luebeck, Luebeck, Germany

- P153** **Reprogramming regular skin fibroblasts into hair inducing dermal papilla cells**

C Clavel^{1,2}, A Rezza^{1,2}, M Rendl^{1,2,3}

¹Developmental & Regeneration Biology, Mount Sinai School of Medicine, New York, United States, ²Black Family Stem Cell Institute, Mount Sinai School of Medicine, New York, United States, ³Dermatology, Mount Sinai School of Medicine, New York, United States

- P154** Development of the mouse dermal fat layer is linked to hair follicle development, occurs independently of subcutaneous fat and is marked by restricted early expression of FABP4
K Wojciechowicz^{1,2}, K Gledhill¹, CA Ambler¹, C Manning¹, CA Jahoda¹
¹School of Biological and Biomedical Sciences, Durham University, Durham, United Kingdom, ²Division of Molecular Biology, Netherlands Cancer Institute, Amsterdam, Netherlands
- P155** ATM expression in hair bulb melanocytes is a marker of oxidative stress in canities-prone scalp
SK Sikkink¹, O Freis², L Danoux², DJ Tobin¹
¹Centre for Skin Sciences, University of Bradford, Bradford, United Kingdom, ²Beauty Care Solutions France, BASF, Pulnoy, France
- P156** Stem cell factor/c-kit signalling in the hair bulb is essential to maintain hair pigmentation in adult human hair follicles in vivo and in organ culture
T Vafaei^{1,2}, TJ Jenner¹, SM Picksley¹, VA Randall¹
¹University of Bradford, Bradford, United Kingdom, ²University of Leeds, Leeds, United Kingdom

0830 **Unilever Dove Sponsored Symposium:** **Kilsyth/Moorfoot**
Hair Fibre Science meets product design:
New technologies for delivering hair care and repair



Breakfast will be provided as part of this symposium

1000 **Tea, Coffee & Congress Exhibition** **Cromdale Hall**

1030 **Plenary Symposium 2:** **Pentland Auditorium**
Progress in Clinical Hair Disorders

Chairs: Murugusundaram Sundaram, Do-Won Kim

- PS2.1** Genetics and immunology of alopecia areata
Angela Christiano, USA
- PS2.2** Xenobiotic receptors in cicatricial alopecia: linking environment to disease pathogenesis
Pratima Karnik, USA
- PS2.3** The latest updates of the management of pattern hair loss
Won Soo Lee, Republic of Korea
- PS2.4** The surgical management of cicatricial alopecias
Russell Knudsen, Australia
-

1200	John Ebling Lecture <i>Chair: Abraham Zlotogorski</i>	Pentland Auditorium
K2	Hair Follicle: The Root of the Future. Clinical Research, Implications and Advances Ulrike Blume-Peytavi, Germany	
1245	Lunch Break (collect lunches from Cromdale Hall)	Cromdale Hall
1300	P&G Sponsored Symposia Scalp and Hair Health – Interrelationships and Molecular Insights <i>P&G beauty&grooming</i>	Pentland Auditorium
1300	Hair Research Society of India Symposium	Fintry Auditorium
1400	Poster Session 2: Odd Numbered Posters	Cromdale Hall
1515	Tea, Coffee & Congress Exhibition	Cromdale Hall
1600	Concluding Plenary <i>Chairs: Won Soo Lee, Gill Westgate</i>	Pentland Auditorium
CP1	What's new in clinical hair research? Abraham Zlotogorski, Israel	
CP2	What's new in basic science aspects of hair research? Sarah Millar, USA	
1700	Prizes and Awards The Board of the European Hair Research Society are delighted to welcome DUCRAY as the sponsor of the EHRS Travel Grants for 2013.	Pentland Auditorium
1800	Close	