

Montagna Symposium on the Biology of Skin

Harnessing Stem Cells to Reveal Novel Skin Biology and Disease Treatment

October 15 – 19, 2015
Salishan Resort, Gleneden Beach, Oregon, USA

Program Chairs

Xiao-Jing Wang, MD, PhD
Valerie Horsley, PhD

Symposium Director

Molly Kulesz-Martin, PhD

POSTERS

Moyassar B. H. Al-Shaibani, Xiao N. Wang, Penny E. Lovat, and Anne M. Dickinson
Newcastle University, Institute of Cellular Medicine, Newcastle upon Tyne, United Kingdom
Mesenchymal stem cells accelerate wound healing by promoting migration of skin cells into the injury site

Hitomi Aoki and Takahiro Kunisada
Tissue and Organ Development, Gifu University, Gifu, Japan
Conditional deletion of *Kit* in melanocyte induces the white spotting phenotype

Alexandra Charruyer^{1,4}, Stephen Fong^{1,4}, Giselle Vitcov^{1,4}, Lili Yue^{1,4}, Lea Tabernik^{1,4}, Jeff North^{1,2}, Sarah Arron^{1,3,4}, and Ruby Ghadially^{1,4}
Departments of ¹Dermatology, ²Pathology, and ³Dermatologic Surgery, University of California, San Francisco, California, USA; ⁴VAMC, San Francisco, California, USA
Imiquimod-induced murine psoriasis: Increased asymmetric stem cell divisions and the role of IL17A

Chih-Chiang Chen^{1,2,3}, Maksim V. Plikus⁴, Ting Xin Jiang¹, Song Tao Shi⁵, Arthur D. Lander⁶, and Cheng Ming Chuong¹
¹Department of Pathology, University of Southern California, Los Angeles, California, USA; ²Department of Dermatology, Taipei Veterans General Hospital, Taipei, Taiwan; ³Institute of Clinical Medicine and Department of Dermatology, National Yang-Ming University, Taipei, Taiwan; ⁴Department of Developmental and Cell Biology, Sue and Bill Gross Stem Cell Research Center, Center for Complex Biological Systems and ⁶Department of Developmental and Cell Biology, Department of Biomedical Engineering, and Center for Complex Biological Systems, University of California, Irvine, California, USA; ⁵Department of Anatomy and Cell Biology, University of Pennsylvania, School of Dental Medicine, Philadelphia, Pennsylvania, USA
Organ-level quorum sensing directs regeneration in hair stem cell populations

Shreya Bhattacharya^{1,2}, Xiaobo Liang¹, Mark Leid^{1,2,3}, Arup Kumar Indra^{1,2,3,4}, and Gitali Ganguli-Indra^{1,2}

¹Department of Pharmaceutical Sciences, College of Pharmacy, ²Molecular and Cell Biology Program, ³Environmental Health Science Center, Oregon State University, Corvallis, Oregon, USA; ⁴Department of Dermatology, Oregon Health & Science University, Portland, Oregon, USA

COUP-TF interacting protein 2 (Ctip2) plays an important role in maintaining hair follicle stem cells during hair cycling and in wound repair

Andrew Hagner¹, S. Sinha¹, W. Rahmani¹, M. Workentine¹, E. Raharjo¹, W. Scott², T. Underhill², and J. Biernaskie¹

¹University of Calgary, Calgary, Alberta, Canada; ²University of British Columbia, Vancouver, British Columbia, Canada

Gene expression profiling within the dermal stem cell lineage

Lingjie Li, Jessica L. Torkelson, Yong Wang, Eric E. Liaw, Gautam Shankar, Sandra Melo, Hanson H. Zhen, Jiang Li, Howard Y. Chang, and Anthony E. Oro
Program in Epithelial Biology, Stanford University School of Medicine, Stanford, California, USA

Transcription and chromatin landscape in epidermal lineage commitment

Kif Liakath-Ali^{1,2,3}, Valerie E. Vancollie⁴, Emma Heath¹, Damian P. Smedley⁴, Jeanne Estabel⁴, David Sunter⁴, Tia DiTommaso⁵, Jacqueline K. White⁴, Ramiro Ramirez-Solis⁴, Ian Smyth⁵, Karen P. Steel^{4,6}, and Fiona M. Watt¹

¹Centre for Stem Cells and Regenerative Medicine and ⁶Wolfson Centre for Age-Related Diseases, King's College London, United Kingdom; ²Department of Biochemistry and ³Wellcome Trust-Medical Research Council Stem Cell Institute, University of Cambridge, United Kingdom; ⁵Department of Anatomy and Developmental Biology, Monash University, Australia

Novel skin phenotypes revealed by a genome-wide mouse reverse genetic screen

Kif Liakath-Ali^{1,2}, Valerie E. Vancollie³, Chris Lelliott³, Anneliese Speak³, Antonella Galli³, Diane Gleeson³, Ed Ryder³, Gema Vizcay-Barrena⁴, Leanne Glover⁴, David Adams³, Fiona M. Watt¹, and Louise Van Der Weyden³

¹Centre for Stem Cells and Regenerative Medicine and ⁴Centre for Ultrastructural Imaging, King's College London, United Kingdom; ²Department of Biochemistry and ³Wellcome Trust Sanger Institute, University of Cambridge, United Kingdom

Alkaline ceramidase 1 (Acer1) is essential for mammalian skin and energy homeostasis

Terry R. Medler, Sushil Kumar, Alexandra M. Forsyth, and Lisa M. Coussens
Cell, Developmental & Cancer Biology and Knight Cancer Institute, Oregon Health & Science University, Oregon, USA

Complement C5a regulates squamous carcinogenesis

Azusa Miyashita¹, Satoshi Fukushima¹, Satoru Senju², Yasuharu Nishimura², Masatoshi Jinnin, and Hironobu Ihn¹

¹Department of Dermatology and ²Department of Immunogenetics, Kumamoto University, Kumamoto, Japan

Immunotherapy with human iPS-cell derived macrophage-like cells producing Type I interferons against metastatic melanoma

Naoki Oshimori, Daniel Oristian, and Elaine Fuchs

Laboratory of Mammalian Cell Biology and Development, The Rockefeller University/HHMI, New York, New York, USA

TGF- β signaling in cancer stem cells: Tumor heterogeneity and drug resistance

Guillermo C. Rivera Gonzalez, Brett A. Shook, Brandon Holtrup, Matthew Rodeheffer, and Valerie Horsley

Yale University, New Haven, Connecticut, USA

Adipocyte stem cells are maintained by Pdgfa signaling in the skin

Brett Shook and Valerie Horsley

Yale University, New Haven, Connecticut, USA

The contribution of pre-existing adipocytes to skin wound healing

Curtis T. Thompson^{1,2}, Arlette Habashi-Daniel³, Janet L. Roberts⁴, and Nisha Desai⁴

¹Department of Biomedical Engineering, ³Dermatology and ³Pathology, Oregon Health & Science University, Portland, Oregon, USA; ⁴Northwest Dermatology & Research Center, Portland, Oregon, USA

Loss of cytokeratin 15+ follicular stem cells in hair follicles of lichen planopilaris

Naoko Tomita Kogata, Efthymios Hadjimichael, Erik Oliemuller, Patty Wei, and Beatrice Howard

Breast Development Group, Division of Breast Cancer Research, Breakthrough Breast Cancer Research Centre, The Institute of Cancer Research, London, United Kingdom

Establishment and characterization of embryonic mammary cells

Gerline C. van de Glind, J.J. Out, H.G. Rebel, C.P. Tensen, and Frank R. de Gruijl

Dermatology, Leiden University Medical Center, Leiden, The Netherlands

Lgr6+ stem cells and their progeny in the skin and skin tumours after UV exposure

Iris Verbinnen¹, Kathelijne Szekér¹, Shannah Boens¹, Monica Ferreira¹, Myriam Baes², Aleyde Van Eynde¹, and Mathieu Bollen¹

¹Laboratory of Biosignaling & Therapeutics, KU Leuven Department of Cellular and Molecular Medicine and ²Laboratory of Cell Metabolism, KU Leuven Department of Pharmaceutical and Pharmacological Sciences, University of Leuven, Belgium

Protein phosphatase PP1-NIPP1 regulates epidermal proliferation and hair-type determination