

# Keeping It All Together: Adhesion, the Cytoskeleton & Signaling in Morphogenesis & Tissue Function

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Salishan Resort, Gleneden Beach, Oregon

**Program Chairs**

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## POSTERS

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**Shreya Bhattacharya**<sup>1</sup>, Xiaobo Liang<sup>2</sup>, Gaurav Bajaj<sup>2</sup>, Gunjan Guha<sup>2</sup>, Zhixing Wang<sup>2</sup>, Hyo-Sang Jang<sup>2</sup>, Mark Leid<sup>1,2</sup>, Arup Indra<sup>1,2,3,4</sup>, and Gitali Ganguli-Indra<sup>1,2</sup>

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**Delayed cutaneous wound healing and aberrant expression of hair follicle stem cell markers in mice selectively lacking transcriptional regulator Ctip2 in epidermis**

**Mei Bigliardi-Qi**<sup>1</sup>, Christine Neumann<sup>1</sup>, Yiling Teo<sup>1</sup>, and Paul Bigliardi<sup>1,2</sup>

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**Opioid receptor involved in cell adhesion and migration**

**Minh H. Dinh**<sup>1</sup>, O. DeLeon<sup>2</sup>, E. A. Okocha<sup>2</sup>, and T. J. Hope<sup>2</sup>

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**Skin barrier function in the adult foreskin—implications for sexually transmitted infections**

Congxing Lin<sup>1</sup>, Anna Hindes<sup>1</sup>, Carole J. Burns<sup>1</sup>, Aaron C. Koppel<sup>1</sup>, Alexi Kiss<sup>1</sup>, Yan Yin<sup>1</sup>, Liang Ma<sup>1</sup>, Miroslav Blumenberg<sup>4</sup>, Denis Khnykin<sup>5</sup>, Frode L. Jahnsen<sup>5</sup>, Seth D. Crosby<sup>2</sup>, Narendrakumar Ramanan<sup>3</sup>, and **Tatiana Efimova**<sup>1</sup>

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**Serum response factor controls transcriptional network regulating epidermal function and hair follicle morphogenesis.**

**Abhilasha Gupta**<sup>1</sup>, Donna Brennan<sup>1</sup>, Kathryn E. Scott<sup>1</sup>, Sankar Addya<sup>1</sup>, James K. Wahl III<sup>2</sup>, Natalia A. Riobo<sup>1</sup>, and Mÿ G. Mahoney<sup>1</sup>

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**Identification of cell cycle- and cancer-associated gene networks activated by Dsg2 using cDNA microarray: evidence of cystatin A deregulation**

Christine Cao and **Agnieszka Kobiela**k

Department of Otolaryngology, Department of Biochemistry and Molecular Biology, Norris Cancer Center, University of Southern California, Keck School of Medicine, Los Angeles, CA, USA

**Role of  $\alpha$ -catulin in actomyosin dynamics during early mouse development**

Christine Cao<sup>1</sup>, Yibu Chen<sup>2</sup>, Rizwan Masood<sup>3</sup>, Uttam K. Sinha<sup>3</sup>, and **Agnieszka Kobiela**k<sup>1</sup>

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**$\alpha$ -catulin—new marker of invasion in squamous cell carcinoma**

**Lishi Li** and David D. Ginty

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**Wiring hairs for touch—the functional organization of cutaneous low-threshold mechanoreceptors**

Cornelia Kröger<sup>1, 2</sup>, **Fanny Loschke**<sup>2</sup>, Nicole Schwarz<sup>3</sup>, Reinhard Windoffer<sup>3</sup>, Rudolf Leube<sup>3</sup>, and Thomas M. Magin<sup>2</sup>

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**Keratins control intercellular adhesion through PKC $\alpha$ -mediated phosphorylation of desmoplakin**

**Takeshi Matsui**<sup>1</sup>, Akiharu Kubo<sup>2,3</sup>, and Masayuki Amagai<sup>2</sup>

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### **Endogenous retroviral-like aspartic protease (SASPase) as a key modulator of skin moisturization**

**Aaron F. Mertz**<sup>1</sup>, Yonglu Che<sup>1,2</sup>, Andrew P. Kowalczyk<sup>3</sup>, Carien Niessen<sup>4</sup>, Eric R. Dufresne<sup>5,6,1,7</sup>, and Valerie Horsley<sup>2</sup>

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### **Intercellular adhesions organize cell-matrix mechanics in keratinocytes**

**Andrew Muroyama**, Nicholas Poulson, Yong-Bae Kim, Samridha Ray, Lindsey Seldin, Kang Zhou, Henry Foote, Julie Underwood, Rebecca Leylek, Scott Soderling, and Terry Lechler  
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### **The Arp2/3 complex regulates YAP/TAZ signaling and tight junction formation in the developing epidermis**

**Shruti Naik**<sup>1,11</sup>, Nicolas Bouladoux<sup>1</sup>, Christoph Wilhelm<sup>1</sup>, Michael J. Molloy<sup>1</sup>, Rosalba Salcedo<sup>2,3</sup>, Wolfgang Kastenmuller<sup>4</sup>, Clayton Deming<sup>5</sup>, Mariam Quinones<sup>6</sup>, Lily Koo<sup>7</sup>, Sean Conlan<sup>5</sup>, Sean Spencer<sup>1,11</sup>, Jason Hall<sup>1</sup>, Amiran Dzutsev<sup>2,3</sup>, Heidi Kong<sup>8</sup>, Daniel J. Campbell<sup>9,10</sup>, Giorgio Trinchieri<sup>2,3</sup>, Julia A. Segre<sup>5</sup>, and Yasmine Belkaid<sup>1</sup>

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### **Compartmentalized control of skin immunity by resident commensals**

**Nicole A. Najor**<sup>1</sup>, Robert M. Harmon<sup>1</sup>, Jennifer L. Koestier<sup>1</sup>, and Kathleen J. Green<sup>1,2</sup>

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### **Novel binding partners of the desmoglein1 cytoplasmic tail promote epidermal differentiation**

**Kimiko Nakajima**<sup>1</sup>, Sayo Kataoka<sup>1</sup>, Naoko Goto-Inoue<sup>2</sup>, Mika Terao<sup>3</sup>, Hiroyuki Murota<sup>3</sup>, Hiroaki Azukizawa<sup>3</sup>, Mitsutoshi Setou<sup>4</sup>, Ichiro Katayama<sup>3</sup>, Junji Takeda<sup>5</sup>, and Shigetoshi Sano<sup>1</sup>

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**Ceramide deficiency in the epidermis leads to development of psoriasis-like lesions associated with IL-23-dependent proliferation of  $\gamma\delta$ -17 cells**

**Anand Reddi**, Ruth White, Jill Neiman, Gangwen Han, Dennis Roop, and Xiao-Jing Wang

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**MicroRNA-9 targets the adherence junction protein  $\alpha$ -catenin resulting in squamous cell carcinoma metastasis**

**Emanuel Rognoni**, Moritz Widmaier, Raphael Ruppert, Julien Polleux, Siegfried Ussar, and Reinhard Fässler

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**Kindlin-1 plays an essential role in skin homeostasis**

**Beyza Savar**, Arnaud Galichet, and Eliane J. Müller

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**Cross-talk between desmoglein 3 (Dsg3) and epidermal growth factor receptor (EGFR) in epidermal homeostasis and pemphigus vulgaris**

**Sara N. Stahley**<sup>1</sup>, Masataka Saito<sup>1</sup>, Victor Faundez<sup>1</sup>, Michael Koval<sup>1,3</sup>, and Andrew P. Kowalczyk<sup>1,2</sup>

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**Membrane raft microdomains are platforms for desmosome regulation**

**Tong San Tan**<sup>1,2</sup>, John E. A. Common<sup>1</sup>, Cedric Badowski<sup>1</sup>, and E. Birgitte Lane<sup>1</sup>

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**Role of EGF in regulating keratin dynamics in an epidermolysis bullosa simplex model**

**Takuo Yuki**, Aya Komiya, and Yoshito Takahashi

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**Epidermal tight junctions regulate outside-in barrier by affecting pro-filaggrin and intercellular lipid processing**