The Duke Department of Dermatology presents the 2010 Society for Investigative Dermatology Annual Meeting. Jointly sponsored by Duke School of Medicine and Society for Investigative Dermatology.
Mission
To advance and promote the sciences relevant to skin health and disease through education, advocacy and scholarly exchange of scientific information.

Vision
The SID will be the pre-eminent organization for the science of skin health and diseases. It will be a leading purveyor of educational programming. It will promote a culture of discovery and serve as the premier forum for the exchange of scientific information relating to dermatologic research. It will build cross-disciplinary bridges to provide catalytic leadership in attaining intellectual, political, and financial support for skin-related scientific investigation. The SID will be—and be viewed as—a significant force in shaping public policy. As a result of recruiting, nurturing, and mentoring the next generation of scientists, it will be a financially robust and self-sustaining organization.

Core Values
• Integrity
• Collegiality
• Shared beliefs
• Innovation
• Leadership

Commercial Support
(Confirmed as of April 8, 2010)

Officers
Richard Clark, MD  
President
George Stricklin, MD/PhD  
Vice President
Kathleen Green, PhD  
President-elect
Victoria Werth, MD  
Vice President-elect
Thomas Lawley, MD  
Immediate Past President
Robert Swerlick, MD  
Secretary-Treasurer
Russell P. Hall, III, MD  
Assistant Secretary-Treasurer
Paul Bergstresser, MD  
JID Editor
Lowell Goldsmith, MD/MPH  
SID Senior Medical and Scientific Advisor

2010 Annual Meeting
Exhibitors
Bridge PTS
Canfield Imaging Systems
CellnTec
Elsevier
Invitrogen, Part of Life Technology
Nature Publishing Group
WCD 2011
Zen-Bio, Inc.

Future Annual Meetings
May 4 – 7, 2011
JW Marriott Desert Ridge Resort and Spa
Phoenix, AZ

May 9 – 12, 2012
Raleigh Convention Center
Raleigh, NC

Board of Directors
Angela Christiano, PhD
Lisa Beck, MD
Richard Eckert, PhD
Richard Gallo, MD/PhD
Sewon Kang, MD
Alexa Kimball, MD/MPH
Brian Nickoloff, MD/PhD
David Rubenstein, MD/PhD
Anton Stuetz, PhD
Mark Udey, MD/PhD
Keith Choate, MD/PhD
Todd Becker, MD/PhD
Welcome to the 70th SID Annual Meeting

On behalf of the Society for Investigative Dermatology (SID), we welcome you to the SID 70th Annual Meeting. The Society strives to offer programming that reaches all members of the dermatology and cutaneous biology research communities—from basic science researchers and clinicians to students and residents; attendees hail from academia, government and industry. We are dedicated to the presentation of new research findings, exchange of information and ideas, education of the clinical, scientific, and commercial communities. We are a diverse community of discovery.

Our host city—Atlanta (originally referred to as Marthasville)—was established in 1837 as a hub connecting the US railway system. A hundred years later, the SID was founded. Our attendees represent over 30 countries from around the world and conduct research in dermatology, cutaneous biology, and a variety of other specialties and disciplines. For the next four days these entities will overlap to serve as a modern knowledge hub, connecting over 1,500 attendees from around the globe.

The scientific program has been developed to inform and engage members of many other communities in order to establish new venues for exchange and collaboration. We thank the 2009-2010 Committee on Scientific Programs for their dedication in developing this program.

Committee on Scientific Programs

Co-Chairs
Philip Fleckman, MD
Xiao-Jing Wang, MD/PhD

Committee Members
Jack Arbiser, MD/PhD
James T. Elder, MD/PhD
Michael Girardi, MD
Christina Herrick, MD/PhD
Tom Hornyak, MD/PhD
David Margolis, MD/PhD
Anthony Oro, MD/PhD
Julie Segre, PhD

Welcome to Atlanta. We encourage you to return your meeting evaluation forms so we can incorporate your feedback into the development of future educational offerings.

Richard A. Clark, MD
President

Robert Swerlick, MD
Secretary-Treasurer

Russell Hall, MD
Asst. Secretary-Treasurer
CME Statement & Objectives

The Duke Department of Dermatology presents the 2010 Society for Investigative Dermatology Annual Meeting.
Jointly sponsored by:

Duke School of Medicine

Commercial Support Statement
This CME activity is supported by educational grants from Amgen, Centocor, and Merz Pharmaceuticals, LLC.

Purpose
The educational programming of the SID is designed to develop, maintain, and/or increase the abilities, skills, and professional performance of its target audiences. SID CME activities will:

1) Disseminate updated evidence-based knowledge of skin biology/disease and applications for maintaining health and preventing, diagnosing, and treating disease in a manner that fosters scientific excellence, elevates the standard of care, and meets high ethical standards.
2) Provide target audiences with a relevant forum for the exchange of cutting-edge scientific ideas, information, and methodology.
3) Advance the science involved in basic skin biology and clinical care of patients with skin disease.
4) Provide exposure to novel science (both concepts and methods) which may be relevant in the future to understanding and treatment skin disease.

Target Audience
The primary target audiences for SID CME activities include all of the sectors of the dermatology community, consisting of research investigators, clinicians, research and clinical trainees, members of industry, and community advocates for skin health/disease.

Expected Results
Activities are primarily designed to improve competence, defined as the skills, abilities and strategies a physician would put into practice in the evaluation, diagnosis and management of patients with skin diseases. These activities will bring clinicians to the cutting edge of new diagnostic techniques, provide increased understanding of the pathogenesis of disease and in the long term improve patient outcome using evidence based data. For researchers, education is designed to improve research skills, abilities and strategies.

Results of SID education are expected to include a change in knowledge and competence as measured by post meeting evaluations, an ability to describe how new knowledge may be applied to research; a reported intent to apply new knowledge by making changes in research strategies; and a description of how new knowledge has been applied.

Faculty Listing

Activity Medical Director:
Russell P. Hall, III, MD
Chairman, Department of Dermatology
Duke University Medical Center

Activity Co-Director:
Robert Swerlick, MD
Associate Professor and Chair
Emory University

Summary of Faculty Disclosure/Conflict Resolution

Staff and Content Validation Reviewer Disclosure
The staff involved with this activity and any content validations reviewers of this activity have reported no relevant financial relationships with commercial interests.

Resolution of Conflicts of Interest
In accordance with the ACCME Standards for Commercial Support of CME, the Duke University School of Medicine implemented mechanisms, prior to the planning and implementation of this CME activity, to identify and resolve conflicts of interest for all individuals in a position to control content of this CME activity.

Planning Committee/Faculty Disclosure
The following speakers and/or planning committee members have indicated they have no relationship(s) with industry relative to the content of this CME activity:

• Rafi Ahmed, PhD
• Masayuki Amagai, MD/PhD
• Wilma Bergfeld, MD
• Paul Bergstresser, MD
• Richard Clark, MD
• Oscar Colegio, MD/PhD
• Edward Cowen, MD/MPH
• Ponciano Cruz, MD
• Michael Detmar, MD
• Paolo G. Dotto, MD/PhD
• James T. Elder, MD/PhD
• Jamison Feramisco, MD/PhD
• Richard Gallo, MD/PhD
• Sam Hwang, MD/PhD
• Heidi Jacobe, MD
• Stephen Katz, MD/PhD
• Alexa Kimball, MD/MPH
• Heidi Kong, MD
• Maranke Koster, PhD
• Robert Lavker, PhD
• Lu Q. Le, MD/PhD
• My Mahoney, PhD
• Arlo Miller, MD/PhD
• Paul Nghiern, MD/PhD
• Susan Schayes, MD
• Helen Selser, MD
• Robert A. Swerlick, MD
• Jouni Uitto, MD/PhD
• Robert Vandre, DDS/MS
• Xiao-Jing Wang, MD/PhD

The following speakers/planning committee members have indicated they have a relationship(s) with industry to disclose. Presenters for minisymposium sessions will verbally disclose any relevant conflicts of interest prior to their presentations.

Marcus Bosenberg, MD/PhD, fulfills the role of Consultant for AVEO Pharmaceuticals.

Steven T Boyce, PhD, fulfills the role of Stockholder - Consultant for Lonza Walkersville Inc.

Rachael Clark, MD/PhD, fulfills the role of Consultant for Graceway Pharmaceuticals. Advisory Board Member for Therakos.

Andrzej Dlugosz, MD, fulfills the role of Consultant for Enzon Pharmaceuticals.

Kristina Callis Duffin, MD, fulfills the role of Speaker for Abbott Laboratories. Speaker - advisory board member for Amgen. Speaker for Johnson & Johnson.
Ervin Epstein, MD, fulfills the role of Advisory Board Member for Genentech. Consultant for Novartis.

Philip Fleckman, MD, fulfills the role of Advisory Board Member for Schering-Plough.

Markus Frank, MD, fulfills the role of Advisory Board Member for Ticeba GmbH Heidelberger Germany.


Michael Girardi, MD, fulfills the role of Advisory Board Member for Pfizer.

Doug Grossman, MD/PhD, fulfills the role of Consultant for GlaxoSmithKline.

Russell P. Hall, MD, fulfills the role of Principal Investigator for Centocor. Principal Investigator for Genentech. Principal Investigator for OSI Pharmaceuticals Inc.

Adam J. Katz, MD, fulfills the role of Consultant for LifeNet Health. Stockholder for PluroGen Therapeutics Inc. Inventor Founder for The GID Group. Inventor for Artecel Inc..

Sancy Leachman, MD/PhD, fulfills the role of Principal Investigator for Myriad Genetics.

Raphael Lehrer, PhD, fulfills the role of Employment for CollabRx. Founder for CollabRx.

Wilson Liao, MD, fulfills the role of Consultant for Kinemed Inc. Advisory Board Member for PsoriasisOx. Speaker for GlaxoSmithKline.

Douglas Lowy, MD, fulfills the role of Inventor for NIH.


Alain Rook, MD, fulfills the role of Consultant - Consultant for Johnson & Johnson - Hy Biopharma.

Raymond F Schinazi, PhD/DSc, receives royalties from GlaxoSmithKline.

Thomas Schwarz, MD, fulfills the role of Advisory Board Member for Abbott Laboratories. Principal Investigator for Johnson & Johnson. Advisory Board Member for Novartis. Expert Reviewer for Proctor & Gamble.

John T Seykora, MD/PhD, fulfills the role of Consultant for Merck. Advisory Board Member for Sanofi-Aventis – Signum Pharmaceuticals.

John R. Stanley, MD, is affiliated with Life Sciences. Stockholder for GE.

Hensin Tsao, MD, fulfills the role of Consultant for SciBASE.

Victoria Patricia Werth, MD, fulfills the role of Consultant for Medimmune. Principal Investigator for Orphan.

Unapproved Use Disclosure Statement

Duke School of Medicine requires CME faculty (speakers) to disclose to attendees when products or procedures being discussed are off-label, unlabeled, experimental, and/or investigational (not FDA approved); and any limitations on the information that is presented, such as data that are preliminary or that represent ongoing research, interim analyses, and/or unsupported opinion. This information is intended solely for continuing medical education and is not intended to promote off-label use of these medications. If you have questions, contact the medical affairs department of the manufacturer for the most recent prescribing information. Faculty will be discussing information about pharmaceutical agents that is outside of U.S. Food and Drug Administration approved labeling. Disclosure of off-label uses will be noted by presenters during sessions, if applicable.

Disclaimer

The information provided at this CME activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient’s medical condition.

Instructions on How to Receive Credit

In order to receive CME credit, participants must sign-in, review the CME information (accreditation, learning objectives, faculty disclosures, etc.) and attend the CME activity. Participants should also complete the activity evaluation form and return it to the Society for Investigative Dermatology via fax to 216.579.9333 or mail to:

Society for Investigative Dermatology
CME
526 Superior Avenue E, Suite 540
Cleveland, OH 44114

Accreditation

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the Duke University School of Medicine and the Society for Investigative Dermatology. The Duke University School of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

Designation

The Duke University School of Medicine designates this educational activity for a maximum of 37.75 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.
### Meeting-at-a-Glance

#### Wednesday, May 5, 2010

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident Retreat for Future Academicians</td>
<td>7:30 am - 3:00 pm</td>
<td>Room 309-311, Hilton Atlanta</td>
</tr>
<tr>
<td>SID Board of Directors Meeting</td>
<td>8:00 am - 2:00 pm</td>
<td>Room 206, Hilton Atlanta</td>
</tr>
<tr>
<td>Registration</td>
<td>8:00 am - 8:00 pm</td>
<td>Lobby Registration Desk, Hilton Atlanta</td>
</tr>
<tr>
<td>International PC Consortium (PC Project)</td>
<td>9:00 am - 12:00 pm</td>
<td>Salon C, Hilton Atlanta</td>
</tr>
<tr>
<td>Translational Research Symposium</td>
<td>12:00 pm - 3:00 pm</td>
<td>Personalized Genetics in Medicine: Are We There Yet? Salons A/B, Hilton Atlanta</td>
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<tr>
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<tr>
<td>Albert M. Kligman Tribute</td>
<td>5:00 pm - 5:30 pm</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>Albert M. Kligman/Phillip Frost Leadership Lecture</td>
<td>5:30 pm - 6:00 pm</td>
<td>Personal and Scientific Lessons from My Studies of Pemphigus John Stanley, MD Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture 1</td>
<td>6:00 pm - 6:30 pm</td>
<td>Mechanisms of Organogenesis Through the Study of Hedgehog Signaling Anthony Oro, MD/PhD Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture 2</td>
<td>6:30 pm - 7:00 pm</td>
<td>Microbial Diversity of Human Skin Heidi Kong, MD Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture 3</td>
<td>7:00 pm - 7:30 pm</td>
<td>Skin Development and Disease: The p63 Story Maranke Koster, PhD Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>Welcome Reception</td>
<td>7:30 pm - 9:30 pm</td>
<td>FREE TO ALL MEETING ATTENDEES Salon West Corridor, Hilton Atlanta</td>
</tr>
</tbody>
</table>

#### Thursday, May 6, 2010

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>7:30 am - 4:00 pm</td>
<td>Lobby Registration Desk, Hilton Atlanta</td>
</tr>
<tr>
<td>Plenary Session I</td>
<td>8:00 am - 9:00 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>Herman Beerman Lecture</td>
<td>9:00 am - 9:30 am</td>
<td>Towards Curative Therapies for HIV and HCV Raymond Schinazi, PhD Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>Naomi M. Kanof Lecture</td>
<td>9:30 am - 10:00 am</td>
<td>Current and Future Preventive HPV Vaccines: Implications from the Virus Life Cycle Douglas Lowy, MD Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>American Skin Association Achievement Award</td>
<td>10:00 am - 10:10 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>David Martin Carter Mentor Award</td>
<td>10:10 am - 10:15 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>Poster Session I/Technical Exhibits Open w/Coffee Break</td>
<td>10:00 am - 12:00 pm</td>
<td>Odd 001-297/Even 298-596 Galleria Exhibit Hall, Hilton Atlanta</td>
</tr>
<tr>
<td>Clinical Scholars Plenary Session</td>
<td>10:00 am - 12:00 pm</td>
<td>TICKETED EVENT; PRE-REGISTRATION REQUIRED Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td>Post Doctoral Luncheon</td>
<td>12:00 pm - 2:00 pm</td>
<td>TICKETED EVENT; PRE-REGISTRATION REQUIRED Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td>Satellite Symposium I</td>
<td>12:00 pm - 2:00 pm</td>
<td>Regenerative Medicine Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td>Resident Symposium</td>
<td>2:00 pm - 5:00 pm</td>
<td>Insights into an Academic Career 212-213, Hilton Atlanta</td>
</tr>
<tr>
<td>Cutaneous T Cell Lymphoma Symposium</td>
<td>2:00 pm - 5:30 pm</td>
<td>Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td>Concurrent Minisymposia</td>
<td>2:00 pm - 5:30 pm</td>
<td>Pigmentation and Melanoma Salon C Angiogenesis, Vascular Biology and Wound Healing Room 205 Epidermal Structure and Function Room 206-207 Immunology I: Adaptive Immunity Salon B Genetic Disease, Gene Regulation &amp; Gene Therapy Room 208-209</td>
</tr>
<tr>
<td>Social Event</td>
<td>5:00 pm - 11:00 pm</td>
<td>TICKETED EVENT; TICKETS MUST BE PURCHASED IN ADVANCE See page 32 for additional information; Buses depart from the Hilton Harris Street exit beginning at 5:00 p.m. Georgia Aquarium</td>
</tr>
</tbody>
</table>

Indicates CME Credit Offered
**Friday, May 7, 2010**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Registration</strong></td>
<td>7:30 am - 4:00 pm</td>
<td>Lobby Registration Desk, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Business Meeting for Members</strong></td>
<td>7:45 am - 8:30 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Plenary Session II</strong></td>
<td>8:30 am - 9:30 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Stephen Rothman Award</strong></td>
<td>9:30 am - 9:40 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Eugene M. Farber Lecture</strong></td>
<td>9:40 am - 10:10 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>State-of-the-Art Plenary Lecture 4</strong></td>
<td>10:15 am - 10:45 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>State-of-the-Art Plenary Lecture 5</strong></td>
<td>10:45 am - 11:15 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Poster Session II/Technical Exhibits Open</strong></td>
<td>11:15 am - 1:15 pm</td>
<td>Galleria Exhibit Hall, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Clinical Scholars Program</strong></td>
<td>11:30 am - 1:30 pm</td>
<td>Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Satellite Symposium II</strong></td>
<td>12:00 pm - 2:00 pm</td>
<td>Salon C, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Research in Cutaneous Surgery Symposium</strong></td>
<td>1:30 pm - 4:30 pm</td>
<td>Salon B, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Concurrent Minisymposia</strong></td>
<td>2:00 pm - 5:30 pm</td>
<td>Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>SID-AAD Co-Morbidity Conference</strong></td>
<td>2:00 pm - 5:30 pm</td>
<td>Salon E, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>North American Hair Research Society Scientific Meeting</strong></td>
<td>6:00 pm - 9:30 pm</td>
<td>Salon B, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Trainee Dinner Session</strong></td>
<td>7:30 pm - 9:30 pm</td>
<td>Crystal Executive Ballroom, Hilton Atlanta</td>
</tr>
</tbody>
</table>

**Saturday, May 8, 2010**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SID Board of Directors Meeting</strong></td>
<td>7:00 am - 8:00 am</td>
<td>Room 203, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Registration</strong></td>
<td>7:30 am - 12:00 pm</td>
<td>Lobby Registration Desk, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Plenary Session III</strong></td>
<td>8:00 am - 9:00 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>William Montagna Lecture</strong></td>
<td>9:00 am - 9:30 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>American DermatoEpidemiology Network Business/Scientific Session</strong></td>
<td>9:00 am - 1:30 pm</td>
<td>Room 204-205, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Julius Stone Lecture</strong></td>
<td>9:30 am - 10:00 am</td>
<td>Grand Ballroom, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Clinical Scholars Program</strong></td>
<td>10:00 am - 12:00 pm</td>
<td>Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Poster Session III/Technical Exhibits Open</strong></td>
<td>10:00 am - 12:00 pm</td>
<td>Galleria Exhibit Hall, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Concurrent Minisymposia</strong></td>
<td>2:00 pm - 5:30 pm</td>
<td>Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Immuno</strong></td>
<td>2:00 pm - 4:00 pm</td>
<td>Salon C, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Cell Adhesion/Matrix Biology</strong></td>
<td>2:00 pm - 4:00 pm</td>
<td>Salon B, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Clinical Research and Therapeutics</strong></td>
<td>2:00 pm - 4:00 pm</td>
<td>Salon E, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Photobiology</strong></td>
<td>2:00 pm - 4:00 pm</td>
<td>Salon A, Hilton Atlanta</td>
</tr>
<tr>
<td><strong>Hair and Cutaneous Development II: Hair Differentiation &amp; Cycling</strong></td>
<td>2:00 pm - 4:00 pm</td>
<td>Salon D, Hilton Atlanta</td>
</tr>
</tbody>
</table>

**TICKETED EVENT; TICKETS MUST BE PURCHASED IN ADVANCE**
Full Schedule

Wednesday, May 5, 2010

Resident Retreat for Future Academicians  7:30 am - 3:00 pm
Room 309-311, Hilton Atlanta

SID Board of Directors Meeting  8:00 am - 2:00 pm
Room 206, Hilton Atlanta

Registration  8:00 am - 8:00 pm
Lobby Registration Desk, Hilton Atlanta

International PC Consortium (PC Project)  9:00 am - 12:00 pm
Salon C, Hilton Atlanta

Translational Research Symposium  12:00 pm - 3:00 pm
Personalized Genetics in Medicine: Are We There Yet?
Salons A/B, Hilton Atlanta

Irvin H. Blank Forum  3:00 pm - 5:00 pm
What’s New in Skin Cancer: How Good Cells Go Bad
Salon A/B, Hilton Atlanta

Albert M. Kligman Tribute  5:00 pm - 5:30 pm
Grand Ballroom, Hilton Atlanta

Kligman/Frost Leadership Lecture  5:30 pm - 6:00 pm
Personal and Scientific Lessons from My Studies of Pemphigus
John Stanley, MD
Salon A/B, Hilton Atlanta

State-of-the-Art Plenary Lecture 1  6:00 pm - 6:30 pm
Mechanisms of Organogenesis Through the Study of Hedgehog Signaling
Anthony Oro, MD/PhD
Grand Ballroom, Hilton Atlanta
Presiders: Philip Fleckman, MD and Xiao-Jing Wang, MD/PhD

State-of-the-Art Plenary Lecture 2  6:30 pm - 7:00 pm
Microbial Diversity of Human Skin
Heidi Kong, MD
Grand Ballroom, Hilton Atlanta
Presiders: Philip Fleckman, MD and Xiao-Jing Wang, MD/PhD

Welcome Reception  7:30 pm - 9:30 pm
Salon West Corridor, Hilton Atlanta

Thursday, May 6, 2010

Registration  7:30 am - 4:00 pm
Lobby Registration Desk, Hilton Atlanta

Plenary Session I  8:00 am - 9:00 am
Grand Ballroom, Hilton Atlanta
Presiders: Richard Clark, MD and Kathleen Green, PhD

1. Genomic approaches to the investigation of wound microbiology and pathogenesis. A Han, J Zenilman, J Melendez, E Mongodin, A Agostinho, G James, M Shirtliff, A Rickard and G Lazarus. Baltimore, MD; Bozeman, MT and Binghamton, NY. 8:00 a.m. Poster #001

2. p38 alpha MAPK is not required for the loss of intercellular adhesion in pemphigus vulgaris. X Mao, Y Sano, JM Park and AS Payne. Philadelphia, PA and Boston, MA. 8:12 a.m. Poster #212

3. Micronized sunscreen particles were not shown to penetrate beyond the stratum corneum in adults and children. M Mack, GN Stamatas and P Horowitz. Skillman, NJ; Issy-les-Moulineaux, France and Valencia, CA. 8:24 a.m. Poster #259

4. Genome organiser and special AT-rich binding protein Satb1 controls the establishing tissue-specific chromatin organization during development of the epidermis. MY Fessing, MR Gdula, AN Mardaryev, AA Sharov, TY Sharova, KB Gordon, T Kohwi-Shigematsu and VA Botchkarev. Bradford, United Kingdom; Boston, MA and Berkeley, CA. 8:36 a.m. Poster #634

5. Langerhans cell dendrites penetrate through epidermal tight junction barrier during foreign antigen uptake. A Kubo, K Nagao, M Yokouchi, K Yoshida, H Sasaki and M Amagai. Tokyo, Japan and Osaka, Japan. 8:48 a.m. Poster #747

Herman Beerman Lecture  9:00 am - 9:30 am
Towards Curative Therapies for HIV and HCV
Raymond Schinazi, PhD
Grand Ballroom, Hilton Atlanta

Naomi M. Kanof Lecture  9:30 am - 10:00 am
Current and Future Preventive HPV Vaccines: Implications from the Virus Life Cycle
Douglas Lowy, MD
Grand Ballroom, Hilton Atlanta

American Skin Association Achievement Award  10:00 am - 10:10 am
Grand Ballroom, Hilton Atlanta

David Martin Carter Mentor Award  10:10 am - 10:15 am
Grand Ballroom, Hilton Atlanta

Poster Session I/Technical Exhibits Open w/coffee break  10:00 am - 12:00 pm
Odd 001-297/Even 298-596
Galleria Exhibit Hall, Hilton Atlanta
Clinical Scholars Plenary Session
Salon A, Hilton Atlanta
10:00 am - 12:00 pm

Post Doctoral Luncheon
TICKETED EVENT; PRE-REGISTRATION REQUIRED
Salon D, Hilton Atlanta
12:00 pm - 2:00 pm

Satellite Symposium I
Regenerative Medicine
Grand Ballroom, Hilton Atlanta
12:00 pm - 2:00 pm

Resident Symposium
Insights into an Academic Career
212-213, Hilton Atlanta
2:00 pm - 5:00 pm

Cutaneous T Cell Lymphoma Symposium
Salon A, Hilton Atlanta
2:00 pm - 5:30 pm

Concurrent Minisymposium 1
Pigmentation and Melanoma
Salon C
2:00 pm - 5:30 pm

Presiders: Anand Ganesan, MD and Maria Wei, MD/PhD

1. A mechanism of acquired resistance to B-RAF (V600E) inhibition in melanoma. RS Lo, R Nazarian, Q Wang, X Kong, RC Koya, N Attar, H Szegarz, Z Chen, S Nelson, G McArthur, J Josman, JS Economou and A Ribas. Los Angeles, CA; Melbourne, Australia and Nashville, TN. 2:00 p.m. Poster #831

2. The p16^{INK4A} tumor suppressor regulates cellular oxidative stress. NC Jenkins, T Liu, AG Goodson, G Samadashwily and D Grossman. Salt Lake City, UT. 2:12 p.m. Poster #827

3. Regulation of human skin pigmentation in situ by repetitive UV exposure - molecular characterization of responses to UVA and/or UVB. W Choi, Y Miyamura, R Wolber, C Smuda, W Reinhold, H Liu, L Kolbe and VJ Hearing. Bethesda, MD; Hamburg, Germany and New York, NY. 2:24 p.m. Poster #843


5. Targeting altered glucose metabolism in melanoma. J Qin, H Xin and BJ Nickoloff. Chicago, IL. 2:48 p.m. Poster #863

6. Human Numb is required for proper mitotic entry and progression in melanoma cells. TL Schmit, V Setaluri, VS Spiegelman and N Ahmad. Madison, WI. 3:00 p.m. Poster #862


9. Thryotropin-releasing hormone (TRH) is a novel pigmentary hormone in situ and in vitro. KT Nguyen-Thi, E Gaspar, C Hardenbicker, D Pattwell, S Tiede and R Paus. Luebeck, Germany and Manchester, United Kingdom. 3:36 p.m. Poster #880

10. Investigation of melanosome-based mechanisms underlying melanoma treatment resistance. ML Wei, M Chinen, DC Bennett, EV Sviderskaya, PJ Chang and Z Huang. San Francisco, CA and London, United Kingdom. 3:48 p.m. Poster #893

11. The melanocyte-specific glycoprotein, Pmel17/gp100, is released by ectodomain shedding. T Hoashi, N Kanda, S Watanabe, S Sato and VJ Hearing. Tokyo, Japan and Bethesda, MD. 4:00 p.m. Poster #830


13. Prognostic significance of BRMS1 expression in human melanoma. Y Cheng, J Li, M Martinka and G Li. Vancouver, Canada. 4:24 p.m. Poster #852

14. The BH3-mimetic ABT-737 induces strong synergistic killing of melanoma cells when combined with the alkylating agent temozolomide. SN Reuland, NB Goldstein, KA Partyka, YG Shellman and DA Norris. Aurora, CO. 4:36 p.m. Poster #884

15. Novel S,7-unsaturated steroidal and secosteroidal products of cytochrome P450scc show antimelanoma activity. A Slominski, Z Janjetovic, T Kim, MA Zmijewski, RC Tuckey, T Sweatman, W Li, J Zjawiony, J Chen, D Miller, R Bieniek, MN Nguyen, T Chen and M Holick. Memphis, TN; Gdansk, Poland; Crawley, Australia; University, MS and Boston, MA. 4:48 p.m. Poster #848

Concurrent Minisymposium 2
Angiogenesis, Vascular Biology and Wound Healing
Room 205
Presiders: Erwin Tschachler, MD and Nicole Ward, PhD

1. Lhx2 regulates Sox9 and Tcf4 to supply hair follicle-derived progenitor cells to the wound epithelium. AN Mardaryev, AA Sharov, TY Sharova, MY Fessing, S Werner and VA Botchkarev. Bradford, United Kingdom; Boston, MA and Zurich, Switzerland. 2:00 pm. Poster #007

2. Pericyte-derived MFG-E8 regulates angiogenesis. S Motegi, M Lu, M Heneghan, C Wu, T Chavakis and MC Udey. Bethesda, MD. 2:12 pm. Poster #004

3. Wilms Tumor 1 (WT-1) overexpression causes malignant transformation of endothelial cells. R Chua, L Souza, McMlemore, MY Bonner, C Cohen and JI Arbiser. Atlanta, GA. 2:24 pm. Poster #007

4. Epidermal growth factor receptor-mediated reepithelialization in an in vitro diabetes model. KK Quan and LG Hudson. Albuquerque, NM. 2:36 pm. Poster #010

5. The neuropeptide pituitary adenylate cyclase activating Polypeptide regulates neuro-vascular responses in human skin in vivo. J Buddenkotte, S Seeliger, V Shpakovitch, A Schmidt-Choudhury, C Rosignoli, R Rukwied, M Schmelz, J Voegel and M Steinhoff. Muenster, Germany; Goettingen, Germany; Bochum, Germany; Sophia Antipolis, France; Mannheim, Germany and San Francisco, CA. 2:48 pm. Poster #018
6. A 124-amino acid peptide from secreted heat shock protein-90 (HSP90) is a novel wound repair agent. W Li, C Cheng, Z Zhao, J Dai, J Fan, M Chen and D Woodley. Los Angeles, CA. 3:00 p.m. Poster #021

7. Transgenic overexpression of keratinocyte-specific VEGF and Ang1 in combination promotes wound healing under non-diabetic but not diabetic conditions: A mechanistic role for Ang1-mediated delay in re-epithelialization. C Matheny, D Diaconu, G Adams, W Fu, D Knutsen and NL Ward. Cleveland, OH. 3:12 p.m. Poster #019


9. TGFβ dependent differentiation of dermal fibroblasts to myofibroblasts is regulated by CLIC4. A Shukla, Y Yang, PV Chellamal, S Madanikia and SH Yuspa. Bethesda, MD. 3:36 p.m. Poster #023

10. Curcumin at nM concentrations limits burn injury progression and causes β-adrenergic receptor-mediated vasodilation. A Dewar, B Taira, AJ Singer, RA Clark and MD Frame. Stony Brook, NY. 3:48 p.m. Poster #014

11. Rapamycin blocks lymphangiogenesis induced by TSC2-null hamartoma cells. S Rajesh, S Li, J Wang, R Thangapazham, J Moss and TN Darling. Bethesda, MD. 4:00 p.m. Poster #016

12. Transgenic activation of lymphatic vessel function specifically reduces edema formation during acute skin inflammation. R Huggenberger, D Brander, K Alitalo and M Dettmar. Zurich, Switzerland and Helsinki, Finland. 4:12 p.m. Poster #006

13. Calpain activity is essential for cell recruitment, myofibroblast differentiation and angiogenesis in early stages of skin wound. D Nassar, E Letavernier, L Baud, S Aractingi and K Khosrotehrani. Paris, France and Brisbane, Australia. 4:24 p.m. Poster #005


15. Effect of superoxide dismutase (SOD) /catalase mimetic EUK-207 on the radiation-induced skin injury. MM Jourdan, A Lopez, EB Olasz, JE Moulder, BL Fish, M Mader, A Schock, B Althouse, SD Doctrow and Z Lazarova. Milwaukkee, WI and Boston, MA. 4:48 p.m. Poster #012

Concurrent Minisymposium 3 2:00 pm - 5:30 pm

Epidermal Structure and Function

Room 206-207

Presidens: Spiro Getsios, MD and Matthias Schmuth, MD

1. Differentiation of human induced pluripotent stem (iPS) cells into keratinocytes. M Itoh and AM Christiano. New York, NY. 2:00 p.m. Poster #493

2. Essential roles of the calcium-sensing receptor in epidermal differentiation and barrier function. C Tu, D Crumrine, M Man, W Chang, H Elalieh, PM Elias and DD Bikle. San Francisco, CA. 2:12 p.m. Poster #408

3. Loricrin deficient mice as a model for atopic dermatitis. AJ Huebner, Y Refaeli and DR Roop. Aurora, CO. 2:24 p.m. Poster #491

4. PKCδ and η, MEKK1, MEK6, MEK3 and p38δ are essential mediators of normal keratinocyte differentiation. G Adhikary, Y Chew, EA Reece and RL Eckert. Baltimore, MD. 2:36 p.m. Poster #420

5. TIG3, a retinoid-regulated suppressor of psoriatic phenotype, suppresses keratinocyte cell division by inhibiting daughter centrosome separation in mitosis. H Jiang, CA Kraft, T Scharadin, X Wen, EA Roeke and RL Eckert. Baltimore, MD. 2:48 p.m. Poster #422

6. AP1 factor inactivation in suprabasal epidermis causes increased epidermal hyperproliferation and hyperkeratosis but reduced carcinogen-dependent tumor formation. EA Roeke, R Jans, G Adhikary, JF Crish, Q Li, D Berman and RL Eckert. Baltimore, MD. 3:00 p.m. Poster #424


8. Plakophilin-1 protects keratinocytes from pemphigus vulgaris IgG by promoting desmosome assembly. DK Tucker, M Saito and AP Kowalczyk. Atlanta, GA. 3:24 p.m. Poster #478

9. IGFBP7 plays a key role in the pathogenesis of psoriasis. J Nousbeck, M Bidder, D Fuchs, A Gat, M Gini, H Matz, B Meilik, I Goldberg, C Enk, O Sarig, A Giliar and E Sprecher. Tel Aviv, Israel; Haifa, Israel and Jerusalem, Israel. 3:36 p.m. Poster #435

10. Role of podoplanin in human epidermis. M Honma and H Iizuka. Asahikawa, Japan. 3:48 p.m. Poster #457

11. Inactivation of autophagy in murine epidermal keratinocytes is associated with hair loss and sebaceous gland abnormalities. H Rossiter, C Barresi, M Buchberger, M Ghannadan, C Stremritzer, R Gmeiner, M Komatsu, S Zwick, B Eckhart and E Tschachler. Vienna, Austria; Tokyo, Japan and Neuilly, France. 4:00 p.m. Poster #477

12. Multiple mechanisms regulate expression of the p21Cip21 cyclin-dependent kinase inhibitor leading to cessation of proliferation during keratinocyte differentiation. Y Chew and RL Eckert. Baltimore, MD. 4:12 p.m. Poster #421

13. Zebrafish type XVII collagen/the 180-kDa bullous pemphigoid antigen: Gene structures, expression profiles, and morpholino “knock-down” phenotypes. S Kim, H Choi, J So, C Kim, S Ho, M Frank, Q Li and J Litto. Koyang, South Korea; Seoul, South Korea; Daejeon, South Korea and Philadelphia, PA. 4:24 p.m. Poster #449

14. CD133 enriches for murine epidermal stem cell in vivo. A Charruyer, LR Strachan, A5 Toth, L Yue, ML Mancianti and R Ghadially. San Francisco, CA and Berkeley, CA. 4:36 p.m. Poster #479
15. Outside-in signaling through non-junctional Dsg3: A key switch in keratinocyte proliferation and differentiation. K Berard, A Galichet, D Howald, MM Suter and EJ Müller. Bern, Switzerland. 4:48 p.m. Poster #494

Concurrent Minisymposium 4
2:00 pm - 5:30 pm
Immunology I: Adaptive Immunity
Salon B
Presiders: Rachael Clark, MD/PhD and Daniel Kaplan, MD/PhD

1. PD-1 expression is a marker of a tumor-reactive but functionally impaired lymphocyte population infiltrating human melanoma. T Inozume, K Hanada, J Wunderlich, S Rosenberg, S Shimada and Y James. Bethesda, MD and Chuo, Japan. 2:00 p.m. Poster #679

2. The spatio-temporal analysis of T cell behavior in contact hypersensitivity response. G Egawa, T Honda, H Tanizaki, Y Miyachi and K Kabashima. Kyoto, Japan. 2:12 p.m. Poster #705

3. Psoriasis lesions are enriched in IL-22+ and IL-17+ T cells with an associated increase in the IL-17+/IL-13+ T cell ratio. CJ Rubin, M Riblett, A Lin, RJ Nair, JT Elder and AT Bruce. Ann Arbor, MI. 2:24 p.m. Poster #717

4. Sustained skin specific inflammation elicits increases in circulating Ly-6C monocytes and spontaneous atherosclerotic plaque formation in a murine model of psoriasis. Y Wang, H Gao, C Matheny, W Fu, D Diaconu, S Liu, KD Cooper, DI Simon, TS McCormick and NL Ward. Cleveland, OH. 2:36 p.m. Poster #701

5. In vivo immunomodulatory functions of Abcb5+ dermal mesenchymal stem cells. T Schatton, J Yang, M Grimm, M Gasser, AM Waaga-Gasser, MH Sayegh and MH Frank. Boston, MA and Würzburg, Germany. 2:48 p.m. Poster #687

6. Langerhans cells induce expansion of skin resident tregs in the absence of exogenous antigen, but activate T effector memory cells in the presence of microbial antigen. J Seneschal, RA Clark and TS Kupper. Boston, MA. 3:00 p.m. Poster #693

7. Desmoglein 3-specific TCR transgenic CD4+ T cells that escape from central tolerance induce autoreactive dermatitis. H Takahashi, S Koyasu, M Kuwana and M Amagai. Tokyo, Japan. 3:12 p.m. Poster #681

8. Vaccination through epidermis with Vaccinia Virus (VACV) generates skin resident T cells, central memory T cells and lung resident T cells which protect the host independent of antibody. LLisa, T Tian and TS Kupper. Boston, MA. 3:24 p.m. Poster #713


10. Discovery of a new dendritic cell subset, termed “gr-DC”, derived from a granulocyte precursor. S Geng, H Matsushima and A Takashima. Toledo, OH. 3:48 p.m. Poster #686

11. Intratumoral injection of a novel STAT3 inhibitor elicited strong antitumor effects by provoking innate and acquired immunity. T Okamoto, N Shibagaki, K Harada and S Shimada. Chuo, Japan. 4:00 p.m. Poster #684


14. Retinoid Orphan Receptor-gamma (ROR-γ) deficient mice generate potent Th9 responses, but not Th17 responses, under Th17 polarizing conditions. R Purwar, AM Jetten and TS Kupper. Boston, MA and Research Triangle, NC. 4:36 p.m. Poster #710

15. Galectin-1 is a potent inducer of a regulatory phenotype on skin-resident memory T cells. F Cedeno-Laurent, SR Barthel, RA Clark and CJ Dimitroff. Boston, MA. 4:48 p.m. Poster #675

Concurrent Minisymposium 5
2:00 pm - 5:30 pm
Genetic Disease, Gene Regulation & Gene Therapy
Room 208-209
Presiders: Peter Koch, MD/PhD and Eli Sprecher, MD/PhD

1. Differentiation of induced pluripotent stem cells into a multipotent keratinocyte lineage. G Bilousova, J Chen and DR Roop. Aurora, CO. 2:00 p.m. Poster #563

2. DNMT1 maintains epidermal progenitor function. GL Sen, JA Reuter, DE Webster, L Zhu and P Khavari. Palo Alto, CA and Stanford, CA. 2:12 p.m. Poster #519


5. Promoter elements and protein function of TNIP1 indicate a regulatory feedback loop. C Zhang, P Encarnacao, I Gurevich and B Aneskiyevich. Storrs, CT. 2:48 p.m. Poster #557

6. Aminoglycosides restore type VII collagen function by overcoming premature stop mutations: Implications for DEB therapy. J Weinstein, J Cogan, Y Hou, S Martin, X Wang, P Ghasri, A South, D Woodley and M Chen. Los Angeles, CA and Dundee, United Kingdom. 3:00 p.m. Poster #548


10. Topical application of type VII collagen for wound healing and treatment of DEB. P Ghasri, X Wang, A Ng, D Woodley and M Chen. Los Angeles, CA. 3:48 p.m. Poster #537

11. Delineation of the mode of action of SAMD9, a protein deficient in the normophosphatemic subtype of familial tumoral calcinosis. D Hershkovitz, A Aronheim, Y Gross, O Sarig, A Salzberg, N Avidan, J Uitto and E Sprecher. Haifa, Israel; Tel Aviv, Israel and Philadelphia, PA. 4:00 p.m. Poster #540

12. The abca12 gene is required for normal zebrafish skin development - a model system for harlequin ichthyosis. M Frank, Q Li, M Akiyama, H Shimizu, S Ho and J Uitto. Philadelphia, PA and Sapporo, Japan. 4:12 p.m. Poster #516


14. Neuraminidase 3 (Neu3) is critically involved in the initiation of the UVA stress response. S Grether-Beck, R Walli, Z Kohne, H Brenden, I Felsner, M Majora, J Füllekrug, T Kurzchalia and J Krutmann. Düsseldorf, Germany; Heidelberg, Germany and Dresden, Germany. 4:24 p.m. Poster #525

15. A large mutational study in pachyonychia congenita. NJ Wilson, SA Leachman, PR Hull, LM Milstone, ME Schwartz, CD Hansen and FJ Smith. Dundee, United Kingdom; Salt Lake City, UT; Saskatoon, Canada and New Haven, CT. 4:42 p.m. Poster #544

Social Event
5:00 pm - 11:00 pm
TICKETED EVENT; TICKETS MUST BE PURCHASED IN ADVANCE
See page 32 for additional information; Buses depart from the Hilton Harris Street exit beginning at 5:00 p.m.
Georgia Aquarium

Friday, May 7, 2010

Registration
Lobby Registration Desk, Hilton Atlanta
7:30 am - 4:00 pm

Business Meeting for Members
Grand Ballroom, Hilton Atlanta
7:45 am - 8:30 am

Plenary Session II
Grand Ballroom, Hilton Atlanta
8:30 am - 9:30 am
Presidents: James T. Elder, MD/PhD and Michael Girardi, MD
1. Generation of a hyper iNOS-expressing macrophage leads to a severe delay in wound healing. BW Doreian, J Rosenjack, KD Cooper and KQ Lu. Cleveland, OH. 8:30 a.m. Poster #120

2. A milieu of regulatory elements in the epidermal differentiation complex (EDC) syntenic block: Implications for atopic dermatitis and psoriasis. C de Guzman Strong, S Conlan, CB Deming, J Cheng, K Sears and JA Segre. Bethesda, MD and Urbana, IL. 8:42 a.m. Poster #543

3. p63 and IRF6 are components of a common molecular pathway disrupted in ectodermal dysplasias. F Moretti, G Spallone, E Botti, A Giunta, N Lo Iacono, G Merlo, A Mills, S Alemà, S Chimenti, L Guerrini and A Costanzo. Rome, Italy; Milan, Italy; Turin, Italy; Cold Spring Harbor, NY and Monterotondo, Italy. 8:54 a.m. Poster #626

4. Neuraminidase 3 (Neu3) is critically involved in the initiation of the UVA stress response. S Grether-Beck, R Walli, Z Kohne, H Brenden, I Felsner, M Majora, J Füllekrug, T Kurzchalia and J Krutmann. Düsseldorf, Germany; Heidelberg, Germany and Dresden, Germany. 9:06 a.m. Poster #792

5. Regulation of asymmetric cell divisions in developing epidermis. N Poulson and T Lechler. Durham, NC. 9:18 a.m. Poster #410

Stephen Rothman Award
Presented to Dennis Roop, PhD
Grand Ballroom, Hilton Atlanta
9:30 am - 9:40 am

Eugene M. Farber Lecture
Psoriasis: The Path of Translational Medicine
James G. Krueger, MD/PhD
Grand Ballroom, Hilton Atlanta
9:40 am - 10:10 am

State-of-the-Art Plenary Lecture 4
Pemphigus Vulgaris as a Paradigm of Autoimmune Disease
Masayuki Amagai, MD/PhD
Grand Ballroom, Hilton Atlanta
10:15 am - 10:45 am

State-of-the-Art Plenary Lecture 5
The Role of Cadherins in Normal and Diseased Skin
Carien Niessen, PhD
Grand Ballroom, Hilton Atlanta
10:45 am - 11:15 am

Poster Session II/Technical Exhibits Open w/coffee break
Even 002-296/Odd 597-893
Galleria Exhibit Hall, Hilton Atlanta
11:15 am - 1:15 pm

Clinical Scholars Program
Salon A, Hilton Atlanta
11:30 am - 1:30 pm

Satellite Symposium II
Emerging Mechanism-based Therapies for Skin Cancer
Grand Ballroom, Hilton Atlanta
12:00 pm - 2:00 pm

Research in Cutaneous Surgery Symposium
1:30 pm - 4:30 pm
Salon B, Hilton Atlanta
Concurrent Minisymposium 6
2:00 pm - 5:30 pm
Autoimmunity and Inflammation
Salon C
Presiders: Andrew Blauvelt, MD and Tom McCormick, PhD

1. The psoriasis associated IL12B risk haplotype influences IL-12 and IL-23 expression and secretion. JE Gudjonsson, X Xing, RP Nair, JJ Voorhees, A Johnston and JT Elder. Ann Arbor, MI. 2:00 p.m. Poster #119

2. Targeted depletion of IL-23 by IL-4 in vivo impairs T cell mediated DTHR. E Guenova, W Hoetzeenecker, N Hamdi, T Volz, Y Boettcher, M Schaller, M Röcken and T Biedermann. Tuebingen, Germany. 2:12 p.m. Poster #065

3. Syndecan-4 is an important negative regulator of T cell immunity and a potentially useful target for treating diseases resulting from such immunity. J Chung, M Tomihari, T Kojima, P Cruz and K Arizumi. Dallas, TX and Nagoya, Japan. 2:24 p.m. Poster #047

4. Plasmin is involved in the pathogenesis of psoriasis by inducing CCL20 expression in macrophages. Q Li, F Ke and H Wang. Shanghai, China. 2:36 p.m. Poster #071

5. Distinct roles of IL-23 and IL-17 in the development of psoriasis-like lesion in a mouse model. K Nakajima, T Kanda, M Takaishi, K Miyoshi, JM Benson, MM Elloso, Y Iwakura, J DiGiovanni and S Sano. Kochi, Japan; Radnor, PA; Tokyo, Japan and Smithville, TX. 2:48 p.m. Poster #075

6. A xenograft model of human skin to study the role of dendritic cells in inflammatory skin disease. J Wegner-Kops, J Hemmerling, D Wolff, S Grabbe, E von Stebut, RG Meyer and RE Schopf. Mainz, Germany. 3:00 p.m. Poster #055

7. Effects of defensamide, a newly synthesized epidermal AMP stimulating molecule, on oxazolone-induced atopic dermatitis animal model. S Jeong, J Bae, M Kwon, H Kim, T Mauro, A Celli and S Lee. Daejeon, South Korea; Seoul, South Korea and San Francisco, CA. 3:12 p.m. Poster #073

8. Ketoconazole activates nuclear factor-erythroid 2-related factor-2 (Nrf2) via aryl hydrocarbon receptor signaling pathway: A possible mechanism of anti-inflammatory effect. G Tsuji, M Takahara, H Uchi, S Takeuchi, C Mitoma, Y Moroi and M Furue. Fukuoka, Japan. 3:24 p.m. Poster #074

9. The TLR4 ligands Mrp8/14 play a critical role in the development of autoreactive CD8+ T cells. K Loser, T Vogl, TA Luger, J Roth and S Beissert. Muenster, Germany. 3:36 p.m. Poster #057

10. IgG4 and IgE anti-Dsg1 auto-antibodies recognize Lutzomyia longipalpis salivary gland antigens. Y Qian, JG Valenzuela, G Flores, EA Rivitti, V Aoki, G Hans-Filhoi and LA Diaz. Chapel Hill, NC; Rockville, MD; Sao Paulo, Brazil and Campo Grande, Brazil. 3:48 p.m. Poster #117

11. Human IgG1 mAb against human COL17 NC16A developed from BP patients induces blisters in experimental bullous pemphigoid model. A Shibaki, Q Li, H Ujiie, G Wang, R Moriuchi, H Qiao, H Morioka, S Shinkuma, K Natsuga, HA Long, W Nishie and H Shimizu. Sapporo, Japan and Kumamoto, Japan. 4:00 p.m. Poster #063

12. Passive transfer of dermatitis herpetiformis serum high in IgA anti-TG3 produces granular IgA deposition in the papillary dermis of human skin engrafted on SCID mice. JJ Zone, LA Schmidt, T Taylor, C Hull, M Sotiriou, T Jaskowski, H Hill and LJ Meyer. Salt Lake City, UT. 4:12 p.m. Poster #054

13. Systems level high-throughput and multiparametric analyses to elucidate cell death associated molecules involved in pemphigus vulgaris. N Cirillo, A Lanza and SS Prime. Bristol, United Kingdom and Napoli, Italy. 4:24 p.m. Poster #062

14. Modifying the heavy chain third complementarity determining region (H-CDR3) of pemphigus antibody to prevent pathogenicity but not binding suggests a novel approach to targeted therapy. J Yamagami, AS Payne, S Kacir, K Ishii, DL Siegel and JR Stanley. Philadelphia, PA and Tokyo, Japan. 4:36 p.m. Poster #102

15. The genetics of actively induced murine epidermolysis bullosa acquisita. RJ Ludwig, K Bieker, S Müller, A de Castro Marques, D Banczyk, M Hirose, K Kasperkiewicz, N Ishii, A Recke, E Schmidt, J Westermann, D Zillikens and SM Ibrahim. Lübeck, Germany and Fukuoka, Japan. 4:48 p.m. Poster #037

Concurrent Minisymposium 7
2:00 pm - 5:30 pm
Hair and Cutaneous Development I: Embryonic Skin Development / Stem Cell Functions
Salon D
Presiders: Maranke Koster, PhD and Satrajit Sinha, PhD

1. Dlx3 expression in neural crest-derived cells is required for normal hair and tooth development. O Duverger, NB Gentile, AK Bartels, KM Maddox, AD Lee, J Okano and MI Morasso. Bethesda, MD. 2:00 p.m. Poster #644

2. Regulation of Shh and Sox9 by Trps1 in the developing murine hair follicle. KA Fantauzzo and AM Christiano. New York, NY. 2:12 p.m. Poster #643

3. The ΔNp63 isofrom is an essential regulator of epithelial development and stem cell renewal. R Romano and S Sinha. Buffalo, NY. 2:24 p.m. Poster #650

4. Important role of hair follicle stem cells for continuous sebaceous gland renewal. M Peterssson, H Brylka, A Kraus, D Fehrenschid and C Niemann. Cologne, Germany. 2:36 p.m. Poster #651


6. Dicer is required in adult skin for maintenance of rapidly proliferating hair follicle matrix cells, hair shaft formation, and catagen. M Teta, Y Choi, T Andl, EP Murchison, A Nagy, GJ Hannon and SE Millar. Philadelphia, PA; Cold Spring Harbor, NY and Toronto, Canada. 3:00 p.m. Poster #636

7. Role of Sostdc1 in hair follicle and mammary gland development. K Närhi, M Tummers, I Thesleff and ML Mikkola. Helsinki, Finland. 3:12 p.m. Poster #640
8. Dkk4 and Eda regulate distinctive developmental mechanisms for subtypes of mouse hair. C Cui, M Kunisada, Y Piao, Y Childress, M Ko and D Schlessinger. Baltimore, MD and Kobe, Japan. 3:24 p.m. Poster #612

9. Identification of human ABCBS’ dermal progenitor cells with multipotent differentiation plasticity. S Kim, B Meier, T Schatton, B Wilson, Q Zhan, YH Loh, GQ Daley, MH Sayegh, Y Zlouta, C Ganss, K Scharffetter-Kochanek, GF Murphy, MH Frank and NY Frank. Boston, MA; Ulm, Germany and Heidelberg, Germany. 3:36 p.m. Poster #642


11. Deletion of dermal integrin beta-1 leads to adhesion, but not hair follicle morphogenesis, defects. MC DeRouen, MP Marinkovich and AE Oro. Stanford, CA. 4:00 p.m. Poster #665

12. Defining BMP functions in hair follicle stem cells homeostasis by conditional ablation or activation of BMP receptor 1A. F Kandyba, Y Leung, Y Chen and K Kobiela. Los Angeles, CA. 4:12 p.m. Poster #666

13. Generation of induced pluripotent stem cells by reprogramming human dermal papilla cells. CA Higgins, MIto, K Inoue, GD Richardson, CA Jahoda and AM Christiano. New York, NY and Durham, United Kingdom. 4:24 p.m. Poster #663


Concurrent Minisymposium 8

Growth Factors & Signal Transduction
Room 208-209
Presidens: Dan Bikle, MD/PhD and John Seykora, MD/PhD

1. Galectin-12 deficiency enhances lipolysis and reduces adiposity in mice. R Yang, L Yu, J Graham, DK Hsu, K Lloyd, PJ Havel and F Liu. Sacramento, CA and Davis, CA. 2:00 p.m. Poster #599

2. Role of Smad-interacting protein 1 (SIP1) in collagen synthesis of dermal fibroblasts. M Teraishi, M Takaishi, MIkeda, T Furukawa, T Fukuda, S Shimoda, Y Asada and S Sano. Nankoku, Japan; Suita, Japan and Yokohama, Japan. 2:12 p.m. Poster #572


4. The TβRII Expression Levels determine whether TGFβ activates or inhibits ERK without participation of TβRI. A Han, B Bandyopadhy, J Dai, J Fan, Y Li, M Chen, D Woodley and W Li. Los Angeles, CA. 2:36 p.m. Poster #588

5. ErbB2 interacting protein (Erbin) binds unique domains of the desmoglein 1 C-terminus to form a complex that cooperatively promotes epidermal differentiation. CL Simpson, R Harmon, S Getsios and KJ Green. Chicago, IL. 2:48 p.m. Poster #573

6. Amphiregulin carboxy-terminal domain regulates autocrine keratinocyte growth and differentiation. SW Stoll, L Rittie and JT Elder. Ann Arbor, MI. 3:00 p.m. Poster #606


8. Targeted inducible expression of wnts5a in adult mouse epidermis. LR Reilly, M Romanowska and J Foerster. Dundee, United Kingdom. 3:24 p.m. Poster #575

9. STA-21, a stat3 inhibitor, induces differentiation of normal human epidermal keratinocytes and human keratinocyte derived cell lines. M Takaishi, M Yokogawa, K Miyoshi, K Nakajima, J DiGiovanni and S Sano. Nankoku, Japan and Austin, TX. 3:36 p.m. Poster #578


11. Molecular regulation of neuropeptide receptors by peptidase endothelin-converting enzyme-1: Impact on inflammation and pruritus. DR Roosterman, GS Cottrell, M Feld, NW Bunnett and M Steinhoff. San Francisco, CA and Muenster, Germany. 4:00 p.m. Poster #585

12. The role of the PLD2/AQP3/PG signaling module in keratinocyte proliferation and differentiation. H Qin and WB Bollag. Augusta, GA. 4:12 p.m. Poster #594

13. Deacetylated ganglioside GM3 activates uPAR/p38 MAP kinase signaling in caveolar domains. X Wang, P Sun, J Liu, Q Yan and AS Paller. Chicago, IL. 4:24 p.m. Poster #591

14. Th2 cytokines-induced dual oxidase 1 in human epidermal keratinocytes makes a positive feedback loop for IL-4/IL-13 signaling by augmenting STAT6 phosphorylation via oxidative inactivation of protein tyrosine phosphatase 1B. S Hirakawa, R Saito, H Ohara, R Okuyama and S Otaka. Sendai, Japan and Yokahama, Japan. 4:36 p.m. Poster #581

15. Tissue inhibitor of metalloproteinase 1 is induced in th1 and th17 helper cell subsets in a stat-dependent manner. AS Adamson, A Laurence, K Ghoreschi, M Rittler, Y Kanno, L Wei, W Stetler-Stevenson and J O’Shea. Cambridge, MA and Bethesda, MD. 4:48 p.m. Poster #595

Concurrent Minisymposium 9

Carcinogenesis & Cancer Genetics
Room 206-207
Presidens: Mitchell Denning, PhD and Peter Marinkovich, MD

1. Deregulated hedgehog signaling in the pathogenesis of Barrett’s disease and gastric adenocarcinoma. AN Ermilov, J Ferris, J Pero, D Hong and AA Dlugosz. Ann Arbor, MI. 2:00 p.m. Poster #175
2. The tumour suppressor gene BRM is downregulated in human skin cancer. GM Halliday, JG Lyons, VL Bock, FJ Moloney, PW Sou, Y Zhou, AM Jones, LA McDonald, XX Huang and RA Scolyer. Sydney, Australia. 2:12 p.m. Poster #133

3. XPC silencing in normal human keratinocytes induces AKT activation and triggers metabolic alterations that drive the formation of squamous cell carcinomas. HR Rezvani, F Mazurier, AL Kim, N Ali, M Daly, H de Verneuil, A Taieb and DR Bickers. Bordeaux, France and New York, NY. 2:24 p.m. Poster #162

4. Dysregulated ΔNp63α modulates p16 expression, blocks senescence, and promotes malignant conversion of keratinocytes. WC Weinberg, RM Ponnampumperuma, S Jay, S Ricci and L Ha. Bethesda, MD and Frederick, MD. 2:36 p.m. Poster #171


6. Negative regulation of Shh expression in a model of the RAS/MAPK syndromes. A Mukhopadhyay, S Kumar and BD Yu. San Diego, CA. 3:00 p.m. Poster #657

7. Inflammation blocks carcinogenesis in skin with severe barrier defect. S Demehri, M Turkoz, A Turkoz and R Kopan. St. Louis, MO. 3:12 p.m. Poster #136


9. Akt inhibition suppresses the growth of basal cell carcinomas (BCCs) in Ptc1−/-/SHH-1 mice by blocking Akt and sonic hedgehog (Shh)-dependent pathways. Y Zhu, JH Back, X Tang, M Athar, AL Kim and DR Bickers. New York, NY and Birmingham, AL. 3:36 p.m. Poster #159

10. PAF receptor knockout mice exhibit increased chemical carcinogenesis and an increase in chronic PMA-induced inflammation. RL Koniger, A Kozman, RP Sahu, S DaSilva and JB Travers. Indianapolis, IN. 3:48 p.m. Poster #182

11. ERB-041, an estrogen receptor beta agonist inhibits skin photocarcinogenesis in SKH-1 hairless mice. T Singh, P Kapur, SC Chaudhary, CA Elemts, L Kopelovich and M Athar. Birmingham, AL and Bethesda, MD. 4:00 p.m. Poster #159

12. mtDNA changes in fibroblasts alter intracellular ROS levels resulting in enhanced cellular proliferation, migration and invasion. J Jandova, SP Gottesman and J Sligh. Tucson, AZ. 4:12 p.m. Poster #144

13. Identification of rare skin cancer stem cells using a syngeneic mouse model. BJ Kubick, K Murao and DR Roop. Aurora, CO. 4:24 p.m. Poster #181


15. Aberrant cell proliferation by enhanced mitochondrial biogenesis through mtTFA in arsenical skin cancers. C Lee, S Wu, C Hong, W Liao, G Chen, Y Wei and H Yu. Kaohsiung, Taiwan and Taipei, Taiwan. 4:48 p.m. Poster #145

Concurrent Minisymposium 10
Epidemiology/Health Services Research
Room 204
Presiders: Suephy Chen, MD and Abrar Qureshi, MD/MPH

1. Effect of sun protective behaviors on vitamin D levels in the US population: NHANES 2003-2006. E Linos, E Keiser, M Kanzler, K Sainani, W Lee and JY Tang. Stanford, CA and San Jose, CA. 2:00 p.m. Poster #370

2. Vitamin D and nonmelanoma skin cancer in a cohort of Caucasian health maintenance organization osteoporosis patients. MJ Eide, D Johnson, R Krajenta, G Jacobsen, DS Rao, HW Lim and CC Johnson. Detroit, MI. 2:12 p.m. Poster #372

3. How do sun protective habits (SPH) relate to vitamin D? A cross-sectional study using NHANES. SC Chen, E Veledar, A Soman and M Saraiya. Atlanta, GA. 2:24 p.m. Poster #368

4. Association of prediagnostic serum Vitamin D levels with the development of basal cell carcinoma. M Asgari, J Tang, M Warton, M Chen, C Quesenberry, D Bikle, R Horst, N Orentreich, J Vogelman and G Friedman. Oakland, CA; San Francisco, CA; Stanford, CA; Ames, IA and Cold Spring-Hudson, NY. 2:36 p.m. Poster #348


6. Obesity and the risk of skin cancer. SZ Pothiawala, AA Qureshi, Y Li and J Han. Boston, MA. 3:00 p.m. Poster #367

7. Second primary melanomas have similar characteristics to the initial primary melanoma on the same patient. ME Ming and DB Shin. Philadelphia, PA. 3:12 p.m. Poster #369

8. Methods to account for actinic keratoses (AK) burden. SC Chen, N Hill, E Veledar, M Weinstock and CVA AK Raters Group. Atlanta, GA; Providence, RI and Washington DC. 3:24 p.m. Poster #385

9. High-dose topical tretinoin for reducing multiplicity of actinic keratoses. MA Weinstock, SF Bingham and VATT Trial Group. Providence, RI and Perry Point, MD. 3:36 p.m. Poster #373

10. The compact SF-12 can detect both physical and mental impacts of psoriasis severity. J Grozdev, D Kast, L Cao, D Carlson, K Kavlick, R Feig, P Pujari, B Schmotzer, D Babineau, E Kern, T McCormick, K Cooper and N Korman. Cleveland, OH. 3:48 p.m. Poster #375


12. Depression and risk of incident psoriasis in US women: A prospective study. PL Dominguez, J Han, G Curhan, HK Choi and AA Qureshi. Boston, MA. 4:12 p.m. Poster #388


15. Evidence of reliability, reproducibility, and validity of the ItchyQol in the veteran population.  SP Kini, S Coleman King, E Veledar, LK DeLong, Z Rice, J Kamalpour and SC Chen.  Atlanta, GA.  4:48 p.m.  Poster #387

**SID-AAD Co-Morbidity Conference**
Salon E, Hilton Atlanta  
2:00 pm - 5:30 pm

**North American Hair Research Society**
Scientific Meeting  
Salon B, Hilton Atlanta  
6:00 pm - 9:30 pm

**Trainee Dinner Session**
TICKETED EVENT; TICKETS MUST BE PURCHASED IN ADVANCE  
Crystal Executive Ballroom, Hilton Atlanta  
7:30 pm - 9:30 pm

Saturday, May 8, 2010

**SID Board of Directors Meeting**
Room 203, Hilton Atlanta  
7:00 am - 8:00 am

**Registration**
Lobby Registration Desk, Hilton Atlanta  
7:30 am - 12:00 pm

**Plenary Session III**
Grand Ballroom, Hilton Atlanta  
8:00 am - 9:00 am

Presiders: Andrzej Dlugosz, MD and Richard Gallo, MD/PhD

1. Follicle stem cell compartments differ in responsiveness to oncogenic Hedgehog signaling.  M Grachtchouk, J Pero, M Verhaegen, AN Ermilov, J Diener, J Ferris, LE Michael and AA Dlugosz.  Ann Arbor, MI.  8:00 a.m.  Poster #661

2. Lifetime UV exposure and risk for lentigo maligna melanoma.  E Linos, J Han and A Qureshi.  Stanford, CA and Boston, MA.  8:12 a.m.  Poster #371

3. Effector memory T cells persist long term in the skin, and their recirculation into blood is limited.  X Jiang, A Wagers, R Clark, L Liu, R Fuhlbrigge and T Kupper.  Boston, MA.  8:24 a.m.  Poster #712

4. In vivo regeneration of the follicular pigmented unit with melanocyte progenitors from adult skin.  H Hwang, G Diwakar, MR Zaidi, GT Merlino and TJ Hornykay.  Bethesda, MD.  8:36 a.m.  Poster #874

5. Adipocytes and adiponectin secretion plays a major role in skin physiology and in diabetes wound healing pathology.  L Braiman-Wiksman, R Mandil-Levin, M Ben-Hamo and T Tennenbaum.  Rehovot, Israel.  8:48 a.m.  Poster #593

**William Montagna Lecture**
Inherited Skin Disease:  Causes and Cures  
W.H. Irwin McLean, PhD  
9:00 am - 9:30 am

**American DermatoEpidemiology Network**
Business/Scientific Session  
Room 204-205, Hilton Atlanta  
9:00 am - 1:30 pm

**Julius Stone Lecture**
Immune Strategies for Treating Chronic Viral Infections  
Rafi Ahmed, PhD  
9:30 am - 10:00 am

**Clinical Scholars Program**
Salon A, Hilton Atlanta  
10:00 am - 12:00 pm

**Poster Session III/Technical Exhibits Open w/coffee break**
Odd 299-595/Even 598-894  
2:00 pm - 5:30 pm

**Concurrent Minisymposium 11**
Immuno II:  Innate Immunity & Microbiology  
Salon C  
2:00 pm - 5:30 pm

1. TLR2-activation turn mast cells in skin sentinels against viruses.  Z Wang, Y Lai, DT McLeod, AL Cogen and A Di Nardo.  La Jolla, CA.  2:00 p.m.  Poster #740

2. Orchestration of atopic dermatitis inflammation by Staphylococcus aureus:  Toll-like receptor 2 ligands exaggerate dermatitis and Th1 responses.  S KAESLER, Y BÖTCHER, K CHEN, E GUENOVA, U HEIN, T VOLZ and T BIEDERMANN.  Tuebingen, Germany.  2:12 p.m.  Poster #730

3. Staphylococcus aureus derived monomeric peptidoglycan is a NOD2 ligand and aggravates TLR mediated inflammation by amplifying Th1 and Th17 responses.  T VOLZ, M Nega, J BUSCHMANN, S KAESLER, E GUENOVA, M RÖCKEN, F GÖTZ and T BIEDERMANN.  Tübingen, Germany.  2:24 p.m.  Poster #728


5. Development of a Staphylococcus aureus superficial skin infection model in mice that uses advanced in vivo imaging to evaluate topical antimicrobial therapy and immune responses in real-time.  J ZUSSMAN, JS CHOI, RI RAMOS, NC GARCIA, RL MODLIN, J KIM and LS MILLER.  Los Angeles, CA.  2:48 p.m.  Poster #748


7. IL-23 and Th17 cytokines control cutaneous infection with Candida albicans as well as C. albicans-induced epidermal hyperplasia.  S KAGAMI, H RIZZO, S KURTZ and A BLAUVELT.  Portland, OR.  3:12 p.m.  Poster #729

8. Leukotriene A4 Hydrolase (LTA4H) is expressed in leprous lesions and variants are associated with susceptibility to mycobacterial diseases.  JC VARY, DM TOBIN, SJ DUNSTAN, ND BANG, DA HAGGE, S KHADGE, M KING, L RAMAKRISHNAN and TR HAWN.  Seattle, WA; Ho Chi Minh City, Viet Nam; Oxford, United Kingdom and Kathmandu, Nepal.  3:24 p.m.  Poster #755
9. **IL-22 contributes to disease progression in Leishmania major-infected mice.** S Broch, S Haak, B Lorenz, B Becher and E von Stebut. Mainz, Germany and Zürich, Switzerland. 3:36 p.m. Poster #756

10. **Epidermal Langerhans cells act as negative regulators of a protective anti-Leishmania response, whereas dermal CD11chigh dendritic cells promote healing.** K Kautz-Neu, D John, S Dingès, M Noordegraaf, BE Clausen and E von Stebut. Mainz, Germany; Rotterdam, Netherlands and Amsterdam, Netherlands. 3:48 p.m. Poster #754

11. **Investigating the influence of Langerhans cells on keratinocyte proliferative response to chemical and ultraviolet B (UVB) exposure.** K Golubets, R Filler, J Lewis, DA Smith, W Zhang, DE Brash, MW Bosenberg, WE Damsky and M Girardi. New Haven, CT. 4:00 p.m. Poster #760

12. **The Activating Transcription Factor 3 (ATF3) determines the state of postseptic immune suppression in humans.** W Hoetzenecker, B Echtenacher, E Guenova, J Brueck, K Hoetzenecker, T Biedermann, K Ghoreschi and M Roecken. Tuebingen, Germany; Regensburg, Germany and Vienna, Austria. 4:12 p.m. Poster #743

13. **Dietary vitamin D3 protects against bacterial skin infection.** B Muehleisen, T Jaleel, K Radek and R Gallo. San Diego, CA; Birmingham, AL and Maywood, IL. 4:24 p.m. Poster #726

14. **Production of LL-37 during herpes simplex virus types 2 infection in human keratinocytes enhances HIV susceptibility in Langerhans cells.** Y Opawa, T Kawamura, A Blauvelt and S Shimada. Yamanashi, Japan and Portland, OR. 4:36 p.m. Poster #738

15. **TNFα, a critical cytokine for cutaneous immunity to vaccinia virus.** T Tian, K Dubin, A Qureshi, L Liu, X Jiang, T Kupper and R Fuhlbrigge. Boston, MA. 4:48 p.m. Poster #762

**Concurrent Minisymposium 12**

**Cell Adhesion/Matrix Biology**

Salon B

Presiders: Jonathan Jones, PhD and Peter Marinkovich, MD

1. **Plakoglobin rescues adhesive defects induced by desmoglein 1 truncation: Implications for exfoliative toxic-mediated blistering.** CL Simpson, S Kojima, S Getsios and KJ Green. Chicago, IL. 2:00 p.m. Poster #208

2. **Therapeutic implications of EGFR transactivation in pemphigus acantholysis.** P Jolly, M Bektas and DS Rubenstein. Chapel Hill, NC. 2:12 p.m. Poster #210

3. **DSC3 in skin tumor development and progression.** J Chen, C O'Shea, JE Fitzpatrick and PJ Koch. Aurora, CO. 2:24 p.m. Poster #235

4. **The p65 subunit of NF-kB inhibits COL1A1 gene transcription in human dermal fibroblasts through protein interaction with hC-KROX, SP1 and SP3.** G Beauchef, N Bigot, M Kyriiotou, E Renard, B Porée, R Widom, A Dompmartin-Blanchere, T Oddos, F Maquart, M Demoor, K Boumediene and P Galera. Caen, France; Boston, MA; Val de Reuil, France and Reims, France. 2:36 Poster #207

5. **Polyclonal nature of pemphigus vulgaris IgG contributes to desmosomal disassembly by causing clustering and endocytosis of Dsg3.** M Saito, M Kaufman, DK Tucker and AP Kowalczyk. Atlanta, GA. 2:48 Poster #216

6. **Role of protease-activated receptors-1 and -2 in murine skin fibrosis and human scleroderma.** F Cevikbas, S Seeliger, M Fastrich, H Robenek, B Homey and M Steinhoff. San Francisco, CA; Goettingen, Germany; Muenster, Germany and Duesseldorf, Germany. 3:00 p.m. Poster #220

7. **The desmosomal armadillo protein plakoglobin regulates keratinocyte motility through extracellular matrix modification.** V Todorovic, BV Desai, MJ Schroeder Patterson, E Amargo, AD Dubash, JC Jones and KJ Green. Chicago, IL. 3:12 p.m. Poster #197

8. **Keratinocyte cell surface heparan sulfate proteoglycans are required for uptake of double-stranded RNA prior to toll-like receptor 3 activation.** DT MacLeod and RL Gallo. La Jolla, CA. 3:24 p.m. Poster #190

9. **Novel role for human desmoglein 3 in regulating E-cadherin mediated adherens junctions through Src family kinase activation.** S Tsang, L Liu, M Teh, A Wheeler, K Piper, R Grose, I Hart, D Garrod, F Fortune and H Wan. London, United Kingdom and Manchester, United Kingdom. 3:36 p.m. Poster #195

10. **Elucidation of the structural and functional abnormalities of type VII collagen RDEB mutants created by site-directed mutagenesis.** Y Hou, J Cogan, E Ahhood, A Ng, E Cua, D Woodley and M Chen. Los Angeles, CA. 3:48 p.m. Poster #221

11. **Down-regulation of desmocollin-2 induces epithelial cell proliferation through activation of Akt/beta-catenin signaling.** K Kolegraff, P Nava and A Nusrat. Atlanta, GA. 4:00 p.m. Poster #222

12. **The role of the receptor tyrosine kinase Axl in cell-cell adhesion and signaling in cancer.** MA Cichon, IC Mackenzie and EA O’Toole. London, United Kingdom. 4:12 p.m. Poster #200

13. **Caveolin-1 interacts with desmogleins and modulates desmosome homeostasis.** D Brennan, S Peltonen, W Medhat, KJ Green, F Del Galdo and MG Mahoney. Philadelphia, PA; Turku, Finland and Chicago, IL. 4:24 p.m. Poster #234

14. **Desmosome assembly and dynamics in migrating epithelial cells.** JK Wahl, B Roberts and A Pashaj. Lincoln, NE. 4:36 p.m. Poster #236

15. **Non-muscle myosin II isoform roles and regulation during in vivo wound closure in the mouse epidermis.** JF Crish and T Egelhoff. Cleveland, OH. 4:48 p.m. Poster #215

**Concurrent Minisymposium 13**

**Clinical Research and Therapeutics**

Salon E

Presiders: Maryam Asgari, MD/MPH and Stuart Lessin, MD

1. **A phase I/II trial of photoactivated tissue bonding (“nanosuturing”) for excisional wound closure.** S Tsao, M Yao, FP Henry, H Tsao, Y Zhao, J Kochevar, R Redmond and I Kochevar. Boston, MA. 2:00 p.m. Poster #252
2. Results of a phase 2b clinical trial of valaciclovir versus valacyclovir for treating herpes zoster. L Morrison and S Tyring. Houston, TX. 2:12 p.m. Poster #248

3. Molecular tumor characteristics and pharmacodynamic (PD) responses of patients (pts) with advanced basal cell carcinoma (BCC) in a phase I trial of the hedgehog (Hh) pathway inhibitor GDC-0449. IL Caro, RL Yauch, W Darbonne, CA Callahan, HM Mackey, CM Rudin, PM LoRusso, JC Reddy, JA Low and DD Von Hoff. San Francisco, CA; Baltimore, MD; Detroit, MI and Scottsdale, AZ. 2:24 p.m. Poster #301


5. The intrinsic type of atopic dermatitis shows normal barrier function, lack of filagrin mutations, high percentage of Th1 cells, and high frequency of metal allergy. R Kabashima, M Nakamura, M Kobayashi, T Bito, K Kabashima, Y Nomura, M Akiyama, H Shimizu and Y Tokura. Kitakyushu, Japan and Sapporo, Japan. 2:48 p.m. Poster #286


7. Novel mechanism for topical treatment of plaque psoriasis—Results of a randomized, double blind, concentration ranging, vehicle controlled 12 week study with JAK 1/2 inhibitor INCB018424 cream. K Callis Duffin, M Luchi, R Fidelus-Gort, R Newton, J Fridman, T Burn, P Haley, P Scherle, R Flores, N Punwani, R Levy, W Williams and A Gottlieb. Wilmington, DE; Salt Lake City, UT and Boston, MA. 3:12 p.m. Poster #261

8. Determining the extent to which clinically effective treatment, ustekinumab or etanercept, reverses the molecular disease profile of psoriatic skin: Comparisons of lesional, non-lesional and normal skin. J Krueger, K Li, F Baribaud, M Suarez-Farinas and C Brodmerkel. New York, NY and Malvern, PA. 3:24 p.m. Poster #298

9. A long-term study of safety and allergic comorbidity development in a randomized trial of pimecrolimus cream in infants with atopic dermatitis. JM Hanifin, M Boguniewicz, LF Eichenfield, LC Schneider, AS Paller, JA Preston, F Kianifard, J Nyirady, RK Zeldin, M Figliomeni and JM Spiegel. Portland, OR; Denver, CO; San Diego, CA; Boston, MA; Chicago, IL; East Hanover, NJ and Philadelphia, PA. 3:36 p.m. Poster #328

10. In vitro release of interferon-gamma from peripheral blood lymphocytes in cutaneous adverse drug reactions. J Goldberg, M Hanson, E Sprecher, G Chodick, I Shirazi and S Brenner. Tel Aviv, Israel. 3:48 p.m. Poster #283

11. Gadolinium deposition in disease affected versus unaffected skin of nephrogenic systemic fibrosis. KN Christensen, CU Lee, MM Hanley, N Leung, TP Moyer and MR Pettlekow. Rochester, MN. 4:00 p.m. Poster #320


13. NVP-LDE225 inhibits the formation and induces the regression of murine basaloid tumor nests in embryonic and newborn murine skin organ cultures derived from Ptcp(−−) LacZ heterozygous mice. X Wu, Y Wang, R Javed, S Pan, A Stuetz and FS Kalthoff. Vienna, Austria and San Diego, CA. 4:24 p.m. Poster #260

14. Epidermal growth factor receptor inhibitors do not suppress the expression of the antimicrobial peptide human β-defensin 3 in the skin of treated patients. TV Cartee, K White, B Pollack, M Newton-West and RA Swerlick. Atlanta, GA. 4:36 p.m. Poster #329


Concurrent Minisymposium 14

2:00 pm - 5:30 pm

Photobiology

Salon A

Presiders: Dennis Oh, MD/PhD and Laura Timares, PhD

1. Preventive effects of ultraviolet radiation on autochthonous murine mammary tumor carcinogenesis - Is sun avoidance killing patients? P Davari, F Gorouhi and EH Epstein. Oakland, CA. 2:00 p.m. Poster #764

2. Alteration of the migratory behavior of UV-induced regulatory T cells in vivo. A Schwarz, BE Clausen and T Schwarz. Kiel, Germany and Rotterdam, Netherlands. 2:12 p.m. Poster #767

3. Obesity exacerbates UBV radiation-induced inflammation and cell survival signals in UBV-irradiated mouse skin. SD Sharma and SK Katiyar. Birmingham, AL. 2:24 p.m. Poster #768

4. Visualization of in vivo behavioral responses of Langerhans cells to UBV irradiation. R Lu and A Takashima. Toledo, OH. 2:36 p.m. Poster #778

5. Deficiency of xeroderma pigmentosum A results in an augmentation of UBV mediated oxidative stress and platelet-activating factor activity. Y Yao, RL Konger and JB Travers. Indianapolis, IN. 2:48 p.m. Poster #783

6. Photosensitive and non-photosensitive trichothiodystrophy: Specific XPD protein regions play a major role in human photosensitivity. SG Khan, X Zhou, KS Oh, J Boyle, T Ueda, D Tamura, C Nadem, A Mattia, JJ DiGiovanna and KH Kraemer. Bethesda, MD and Providence, RI. 3:00 p.m. Poster #780

7. Enhancement of protoporphyrin IX and suppression of ferrochelatase levels by Vitamin D in tumor models of nonmelanoma skin cancer: Implications for tumor response to photodynamic therapy. S Anand, N
Atanaska, C Wilson, T Hasan and EV Maytin. Cleveland, OH and Boston, MA. 3:12 p.m. Poster #817

8. Loss of epidermal PPARγ in SKH-1 mice results in absent sebaceous glands, a defect in permeability barrier function, and augmented UVB-induced apoptosis and inflammatory responses. RP Sahu, S DaSilva and RL Konger. Indianapolis, IN. 3:24 p.m. Poster #818

9. Ultraviolet A radiation causes loss of subcutaneous fat. MAJora, S Franke, S Grether-Beck, P Schroeder and J Krummann. Duesseldorf, Germany. 3:36 p.m. Poster #791

10. Proteomics-based analysis of the effects of in vivo ultraviolet radiation on human skin. CMalbasa, MLam, PKarnik, CYuan, HZhao, MChance, MMatsui, DYarosh, KDCoop and EDBaron. Cleveland, OH and Melville, NY. 3:48 p.m. Poster #812

11. Ultraviolet B radiation of human skin generates platelet-activating factor receptor agonists. JTravers, YYao, RKL Konger and JBJTravers. Indianapolis, IN. 4:00 p.m. Poster #782

12. Endogenous and exogenous urocanic acid protects against ultraviolet B-induced DNA damage. CSremmitzer, CBarresi, VMLitza, SKeziza, AKammeyer, M Ghannadan, KPosa-Markaryan, CSelden, E Tschachler and LEckhart. Vienna, Austria; Amsterdam, Netherlands; London, United Kingdom and Neuilly, France. 4:12 p.m. Poster #816


14. Photodynamic therapy with the phthalocyanine Pc 4 for T cell mediated diseases: Activated T cells exhibit increased uptake of Pc 4 and increased susceptibility to PDT-mediated cell death. JLohtola, HSugiyama, MERodriguez, NLOleinick, MLAm, TSMcCormick, KDCooper and EDBaron. Cleveland, OH. 4:36 p.m. Poster #771

Concurrent Minisymposium 15 2:00 pm - 5:30 pm
Hair and Cutaneous Development II:
Hair Differentiation & Cycling
Salon D
Presiders: Valerie Horsley, PhD and Sarah Millar, PhD

1. Dermal Sonic Hedgehog signaling is required for hair follicle morphogenesis and regeneration. WWoo, HHZhen and AE Oro. Palo Alto, CA. 2:00 p.m. Poster #618

2. Fuz is a PCP effector gene that controls the morphogenesis and differentiation of hair follicles. DDai, HZhu, BWlodarczyk, LZhang, AGLi, RHFinnett, DRRoop and JChen. Aurora, CO; Houston, TX and Portland, OR. 2:12 p.m. Poster #617

3. Inductive signaling from the dermal papilla of the hair follicle. DEnshell-Sejffers, MKashiwagi and BAMBog. Boston, MA. 2:24 p.m. Poster #647

4. Inducible deletion of β-Catenin reveals essential roles in adult hair follicle proliferation and maintenance, and epidermal homeostasis. YZhang, XXwu, ANagy, TAndl and SEMillar. Philadelphia, PA and Toronto, Canada. 2:36 p.m. Poster #654

5. A two-step mechanism for stem cell activation during hair regeneration. VGreco, TChen, MRendl, MSchober, APasolli, NS Stokes, J D dela Cruz-Racelis and EFuchs. New Haven, CT and New York, NY. 2:48 p.m. Poster #611

6. Extrinsic regulation of hair follicle cycling. E Festa, MRodeheffer, MHorowitz and VHorsley. New Haven, CT. 3:00 p.m. Poster #655

7. The living wave: Self-organizing regenerative behavior of stem cells revealed in the cycling of large hair follicle populations. MV Plikus, RE Baker, CChen, Fare, D de la Cruz, PKMaini, S Millar, RB Widelitz and CMChuang. Los Angeles, CA; Oxford, United Kingdom and Philadelphia, PA. 3:12 p.m. Poster #662

8. A novel, complex enzymatic control of mammalian pigmentation: UDP-N-GlcNAc 1-phosphotransferase regulates POMC gene expression, tyrosinase sorting and subsequent melanin synthesis in situ and in vitro. STiede, JELKloeppe, KKKollmann, TBraulike and RPaus. Lübeck, Germany; Hamburg, Germany and Manchester, United Kingdom. 3:24 p.m. Poster #652

9. Keratin 74 is a novel determinant of human hair texture and is mutated in autosomal dominant woolly hair. YShimomura, MWajid, LPetukhova, MKurban and AMChristian. New York, NY. 3:36 p.m. Poster #668

10. The miRNA-processing enzyme Drosha is required for hair follicle regression, hair shaft differentiation, long-term maintenance of hair follicle stem cells, and epidermal homeostasis. YChoi, ANagy, OTam, GJHannon and SEMillar. Philadelphia, PA; Toronto, Canada and Cold Spring Harbor, NY. 3:48 p.m. Poster #645

11. Overexpression of microRNA miR-31 in mouse skin alters hair growth. L Luan, LNanning, LKing and TAndl. Nashville, TN. 4:00 p.m. Poster #656

12. c-myb ablation affects hair follicle homeostasis. JMurphy, ELustiger, JCStrange, JFrampton and AEEngelhard. New York, NY and Edgbaston, United Kingdom. 4:12 p.m. Poster #667

13. Patterning dissociated heterotypic adult cells into functional folliculoid organ germs by substratum-facilitated self-assembly. IHong, CChan, CYen and SLin. Taipei, Taiwan. 4:24 p.m. Poster #620

14. Adult human epithelial stem cells are a novel target for thyroid hormone regulation in situ and in vitro. KSBohm, STiede, NMMeier and RPaus. Lübeck, Germany and Manchester, United Kingdom. 4:36 p.m. Poster #648

15. The nude mutant gene Foxn1 is a HOXC13 regulatory target during hair follicle and nail differentiation. CSPotter, NDPrueitt, MJKern, AR Godwin, JP Sundberg and AAwgulewitsch. Charleston, SC; Kansas City, KS and Bar Harbor, ME. 4:48 p.m. Poster #649
Hilton Atlanta Maps

Hilton Atlanta, First Floor

Hilton Atlanta, Second Floor
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On-site Registration
On-site registration will take place at the Registration Counter at the Atlanta Hilton during the following hours:

- Wednesday, May 5, 2010 • 8:00 am - 8:00 pm
- Thursday, May 6, 2010 • 7:30 am - 4:00 pm
- Friday, May 7, 2010 • 7:30 am - 4:00 pm
- Saturday, May 8, 2010 • 7:30 am - 12:00 pm

Badges
Badges are issued at the Registration Counter. Meeting attendees are required to wear their badges at all times for admission to all sessions and other Meeting activities.

Special Services for the Physically Challenged
This year’s facilities are fully accessible to the physically challenged. If you have any special needs, please stop at the Registration Counter upon arrival or call the SID office at 216-579-9300.

Placement Services
The SID is pleased to offer a placement service to its members. A placement/job postings page is available to members on the SID website at www.sidnet.org. In addition, prospective employers and candidates may conduct interviews or post additional announcements at the Meeting. A board will be available in the registration area.

Technical Exhibits
Exhibits will be on display during the following times in the Galleria Exhibit Hall of the Hilton Atlanta:

- Thursday, May 6, 2010 • 10:00 a.m.-12:00 p.m.
- Friday, May 7, 2010 • 11:15 a.m.-1:15 p.m.
- Saturday, May 8, 2010 • 10:00 a.m.-12:00 p.m.

The SID welcomes representatives from the following companies.

Bridge PTS
Canfield Imaging Systems
CellnTec
Elsevier
Invitrogen, Part of Life Technology
Nature Publishing Group
WCD 2011
Zen-Bio, Inc.
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Special Lectures

Albert M. Kligman / Phillip Frost
Leadership Lecture
Personal and Scientific Lessons from My Studies of Pemphigus
John R. Stanley, MD
Milton B. Hartzell Professor and Chairman, Dept. of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania

Herman Beerman Lecture
Towards Curative Therapies for HIV and HCV
Raymond Schinazi, PhD
Professor and Division Director, Emory University, Atlanta, Georgia

Naomi M. Kanof Lecture
Current and Future Preventive HPV Vaccines: Implications from the Virus Life Cycle
Douglas Lowy, MD
Head, Signaling and Oncogenesis Section Laboratory Chief, Laboratory of Cellular Oncology, National Insitutes of Health, Bethesda, Maryland

Eugene M. Farber Lecture
Psoriasis: The Path of Translational Medicine
James G. Krueger, MD/PhD
Director, Milstein Medical Research Program, The Rockefeller University, New York, New York

William Montagna Lecture
Inherited Skin Disease: Causes and Cures
W. H. Irwin McLean, PhD
Professor of Human Genetics, Division of Molecular Medicine, University of Dundee, Dundee, United Kingdom

Julius Stone Lecture
Immune Strategies for Treating Chronic Viral Infections
Rafi Ahmed, PhD
Director, Emory Vaccine Center, Emory University, Atlanta, Georgia

State-of-the-Art Lectures

State-of-the-Art Plenary Lecture 1
Mechanisms of Organogenesis Through the Study of Hedgehog Signaling
Anthony Oro, MD/PhD
Associate Professor, Dept. of Dermatology, Stanford University, Stanford, California

State-of-the-Art Plenary Lecture 2
Microbial Diversity of Human Skin
Heidi Kong, MD
Assistant Clinical Investigator, Dermatology Branch, National Institutes of Health, Bethesda, Maryland

State-of-the-Art Plenary Lecture 3
Skin Development and Disease: The p63 Story
Maranke Koster, PhD
Assistant Professor, Dept. of Dermatology, University of Colorado, Denver, Colorado

State-of-the-Art Plenary Lecture 4
Pemphigus Vulgaris as a Paradigm of Autoimmune Disease
Masayuki Amagai, MD/PhD
Professor and Chairman, Dept. of Dermatology, Keio University, Tokyo, Japan

State-of-the-Art Plenary Lecture 5
The Role of Cadherins in Normal and Diseased Skin
Carien Niessen, PhD
Professor, University of Cologne, Cologne, Germany
Irvin H. Blank Forum

Held annually, the Irvin H. Blank Forum is designed especially for residents, post doctoral fellows and students. This year’s forum, *What’s New in Skin Cancer: How Good Cells Go Bad*, will be held on Wednesday, May 5, 2010 from 3:00-5:00 pm. The forum is open to all attendees and is an integral part of the Resident Track, Clinical Scholars Track and Translational Research Track.

**Introduction**

**John Seykora, MD/PhD**
Assistant Professor of Dermatology
University of Pennsylvania
Philadelphia, Pennsylvania

**Characterization of Individual Cells Capable of Melanoma Formation**

**Marcus Bosenberg, MD/PhD**
Associate Professor of Dermatology and Pathology
Yale School of Medicine
New Haven, Connecticut

**The Importance of Host Immunity in Cutaneous T-Cell Lymphoma**

**Alain Rook, MD**
Professor of Dermatology
University of Pennsylvania
Philadelphia, Pennsylvania

**Notch and Calcineurin Signaling in Integrated Control of Skin Homeostasis and Carcinogenesis**

**G. Paolo Dotto, MD/PhD**
Professor
Massachusetts General Hospital/Harvard Medical School
Charlestown, Massachusetts

**From Bench to Clinic with a Hedgehog: Targeted Therapeutics for Basal Cell Carcinoma**

**Andrzej Dlugosz, MD**
Professor of Cutaneous Oncology
University of Michigan
Ann Arbor, Michigan

American Skin Association Achievement Awards

Thursday, May 6, 2010 • 10:00 - 10:10 am • Grand Ballroom

The American Skin Association presents its Achievement Awards to Diane R. Baker, MD/FAAD; Gregory S. Barsh, MD; Kevin D. Cooper, MD/FAAD; Malcolm W. Greaves, MD/PhD; Martin A. Weinstock, MD/PhD.

David Martin Carter Mentor Award

Thursday, May 6, 2010 • 10:10 - 10:15 am • Grand Ballroom

The American Skin Association presents the 2010 David Martin Carter Mentor Award to Robert A. Briggaman, MD/FAAD.

Stephen Rothman Memorial Award

Friday, May 7, 2010 • 9:30-9:40 am • Grand Ballroom

The SID’s highest award presented for distinguished service to cutaneous medicine

**Dennis Roop, PhD**
Professor of Dermatology
Director, Regenerative Medicine/Stem Cell Biology Program
University of Colorado, Denver Anschutz Medical Campus

Albert M. Kligman Tribute

Wednesday, May 5, 2010 • 5:00 pm - 5:30 pm
Grand Ballroom, Hilton Atlanta

Business Meeting for Members

Friday, May 7, 2010 • 7:45 am - 8:30 am • Grand Ballroom

Members of the SID will meet on Friday, May 7, 2010 from 7:45 am - 8:30 am in the Grand Ballroom. Presentations will be made by the President, Secretary-Treasurer, committee chairpersons of the SID and by the *Journal* editor. Members will elect new members and officers, approve the minutes of the 2009 Business Meeting and discuss SID affairs. New officers and directors will be elected during the Business Meeting. Officials from the ESDR, JSID and SID leadership will also acknowledge travel grant recipients and provide updates on IID2013.
Regenerative Medicine
Thursday, May 6, 2010 • 12:00 pm - 2:00 pm • Grand Ballroom

Chair: Richard Clark, MD, Professor, Department of Biomedical Engineering, State University of New York, Stony Brook, New York

12:00 pm
Welcome
Richard Clark, MD, Chair

12:05 pm – 12:20 pm
Why the DOD is Pursuing Regenerative Medicine Research
Colonel Robert Vandre, DDS/MS, Project Director, Armed Forces Institute of Regenerative Medicine, Fort Detrick, Maryland

12:20 pm – 12:35 pm
Composite Tissue Allografts: Cleveland Clinic’s Experience with the First Large Face Transplant
Wilma Bergfeld, MD, Professor of Dermatology and Pathology, The Cleveland Clinic, Cleveland, Ohio

12:35 pm – 1:00 pm
Engineered Skin Substitutes
Steven Boyce, PhD, Research Associate Professor, University of Cincinnati, Cincinnati, Ohio

1:00 pm – 1:25 pm
Adipose-Derived Stem Cells
Adam Katz, MD, Associate Professor, Departments of Plastic Surgery and Biomedical Engineering, University of Virginia, Charlottesville, Virginia

1:25 pm - 1:45 pm
Fibronectin in Wound Healing: Lessons from Normal Healing Processes Applied to Therapies for Progressive Injury and Nonhealing States
Richard Clark, MD, Professor, Department of Biomedical Engineering, State University of New York, Stony Brook, New York

1:45 pm – 2:00 pm
Panel Discussion / Q & A

Emerging Mechanism-based Therapies for Skin Cancers
Friday, May 7, 2010 • 12:00 pm - 2:00 pm • Grand Ballroom

Chairs: Anthony Oro, MD/PhD, Associate Professor, Department of Dermatology, Stanford University, Stanford, California
Paul Nghiem, MD/PhD, Associate Professor, Dermatology/Medicine, University of Washington, Seattle, Washington

12:00 pm – 12:10 pm
Welcome and Overview
Anthony Oro, MD/PhD and Paul Nghiem, MD/PhD, Chairs

12:10 pm – 12:30 pm
Personalized Medicine: A Case for Multiplex Mutational Analysis Directing the Treatment of Melanoma
Jeffrey Sosman, MD, Professor of Medicine, Departments of Hematology/Oncology, Vanderbilt University, Nashville, Tennessee

12:30 pm – 12:35 pm
Questions

12:35 pm – 12:55 pm
Cutaneous T-cell Lymphoma: New and Rational Treatments Based on a Better Understanding of CTCL Biology
Rachael Clark, MD/PhD, Assistant Professor, Department of Dermatology, Harvard Medical School, Boston, Massachusetts

12:55 pm – 1:00 pm
Questions

1:00 pm - 1:20 pm
Merkel Cell Carcinoma: Identifying and Overcoming Cellular Immune Evasion Mechanisms in a Polyomavirus-associated Skin Cancer
Paul Nghiem, MD/PhD, Chair

1:20 pm – 1:25 pm
Questions

1:25 pm – 1:45 pm
The Fall of the House of Mohs
Ervin Epstein, MD, Scientist, Children’s Hospital Oakland Research Institute, San Francisco, California

1:45 pm – 1:50 pm
Questions

1:55 – 2:00
Panel Discussion, Final Comments
Anthony Oro, MD/PhD and Paul Nghiem, MD/PhD, Chairs
SID-AAD Co-Morbidity Conference

Applying Epidemiology Research to Individual Patients
Friday, May 7, 2010 • 2:00 pm - 5:30 pm • Salon E

2:00 pm - 2:10 pm
**Introductions and Setting the Stage**
Robert Swerlick, MD, Associate Professor and Chair, Dept. of Dermatology, Emory University, Atlanta, Georgia
William James, MD, Professor and Vice Chair, Dept. of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania

**Session I: Epidemiologic and Genetic Bases for Complete Patient Care (CPC)**
Co-Chairs: Abrar Qureshi, MD/MPH, Assistant Professor, Dept. of Dermatology, Brigham and Women’s Hospital, Boston, Massachusetts
Jiali Han, PhD, Assistant Professor of Medicine, Harvard University, Boston, Massachusetts

2:10 pm - 2:30 pm
**More Than a CPT Code: The Systemic Nature of Many Skin Diseases**
Alexa Kimball, MD/MPH, Vice Chair, Dept. of Dermatology, Massachusetts General Hospital, Boston, Massachusetts

2:30 pm - 2:50 pm
**Epidemiological Approaches to Understanding Co-morbidity Risk: The Psoriasis Model**
Joel Gelfand, MD/MSCE, Assistant Professor, Dept. of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania

2:50 pm - 3:10 pm
**Applying Gene Wide Association Studies to Individual Patients**
James T. Elder, MD/PhD, Professor, Dept. of Dermatology, University of Michigan, Ann Arbor, Michigan

3:15 pm - 3:30 pm
**Delegating Patient Data Collection to Patients: Are We ready for Outsourcing and Crowdsourcing?**
Robert Swerlick, MD, Associate Professor and Chair, Dept. of Dermatology, Emory University, Atlanta, Georgia

3:30-3:45 pm
**Break**

Session II: Incorporating Patient Perspective in Developing a Research Agenda
Chairman & Moderator: Robert Swerlick, MD, Associate Professor and Chair, Dept. of Dermatology, Emory University, Atlanta, Georgia

3:45 pm - 5:00 pm
**Panel**
Panelists: Jamie Weisman, MD, Dermatologist, Atlanta, Georgia
Helen Selser, MD, Dermatologist, Kaiser Permanente, Atlanta, Georgia
Victoria Werth, MD, Professor of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania
Susan Schayes, MD, Division Chief, Family Medicine, Emory University, Atlanta, Georgia

5:00 pm - 5:25 pm
**Open Discussion and Real Time Feedback/Voting**

5:25 pm - 5:30 pm
**AAD and SID Next Steps**
Robert Swerlick, MD, Associate Professor and Chair, Dept. of Dermatology, Emory University, Atlanta, Georgia
William James, MD, Professor and Vice Chair, Dept. of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania
Associate Meetings

International Pachyonychia Congenita Consortium
Hosted by Pachyonychia Congenita Project
Tuesday, May 4, 2010 • 9:00 am - 5:00 pm • Salon C

OPEN TO ALL MEETING REGISTRANTS

Update on Delivery
Section Chair: Dennis Roop, PhD, University of Colorado, Denver, Colorado
W.H. Irwin McLean, DSc, FRSE, College of Life Sciences, University of Dundee, Dundee, United Kingdom
Roger L. Kaspar, PhD, TransDerm, Inc., Santa Cruz, California
Chris Contag, PhD, Stanford University, Palo Alto, California
Emilio Gonzalez, PhD, Stanford University, Palo Alto, California
Robyn Hickerson, PhD, TransDerm, Inc., Santa Cruz, California

Discussion: Delivery of Nucleic Acids to Skin

PC Research Studies
Section Chair: E. Birgit Lane, PhD
Leonard Milstone, MD and Hector Zambrano, MD, Yale University, New Haven, Connecticut
Diana Gaitini, PhD and Eli Sprecher, MD, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel
Fernando Larcher, PhD and Marcela Del Rio, PhD, Epithelial Biomedicine Division, CIEMAT, Madrid, Spain
W. H. Irwin McLean, DSc, FRSE, College of Life Science, University of Dundee, Dundee, United Kingdom and Peter Hull, MD, PhD, Royal University Hospital - Division of Dermatology, Saskatoon, Saskatchewan, Canada

Discussion: Future Research Projects

HOSTED DINNER—6:30 pm for participants

International Pachyonychia Congenita Consortium
Hosted by Pachyonychia Congenita Project
Wednesday, May 5, 2010 • 9:00 am - 12:00 pm • Salon C

OPEN TO ALL MEETING REGISTRANTS

New Data from the Int’l PC Research Registry
Section Chair: Sancy Leachman, MD/PhD
C. David Hansen, MD and Mark Eliason, MD University of Utah, Salt Lake City, Utah
Frances J.D. Smith, PhD College of Life Science, University of Dundee, Dundee, United Kingdom
Robert Gruber, MD and Matthias Schmuth, MD Innsbruck Medical University, Innsbruck, Austria
Jean Tang, MD, PhD and Teresa Fu, MD Stanford University, Palo Alto, California
Edel O’Toole, MB, PhD, FRCPI, FRCP Queen Mary’s School of Medicine and Dentistry, London, United Kingdom
Amy S. Paller, MD Northwestern University, Chicago, Illinois
Adam I. Rubin, MD Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

Best Practices Discussion

Following the session, the IPCC will join the SID Translational Research Symposium 12:00 pm - 3:00 pm

Contact for additional information:
Mary Schwartz, Director
PC Project
Tel: 877-628-7300 (toll free)
Fax: 877-628-7399
Email: Mary.Schwartz@pachyonychia.org
Cutaneous T Cell Lymphoma Symposium
Thursday, May 6, 2010 • 2:00 pm - 5:30 pm • Salon A

OPEN TO ALL MEETING REGISTRANTS

Presiders: Stuart Lessin, MD and Gary Wood, MD

Cutaneous Lymphoma Foundation Young Investigator Award
Makoto Sugaya, MD, University of Tokyo, Tokyo, Japan

Eotaxin-CCR3 interaction promotes survival of anaplastic large cell lymphoma cells via ERK1/2 activation. T Miyagaki, M Sugaya, T Kadono, T Murakami, H Okochi, K Tamaki and S Sato. Tokyo, Japan and Tochigi, Japan. 2:00 p.m. Poster #583

1. Increased twist expression in advanced stage Mycosis Fungoides (MF)/Sézary Syndrome (SS). X Ni, M Goswami, L Shiu, A Dougherty and M Duvic. Houston, TX. 2:12 p.m. Poster #137

2. Cutaneous T cell lymphoma utilizes distinct syndecan-4 moieties to bind DC-HIL avidly and to trap TGF-β: Novel mechanisms that may blunt host anti-tumor responses. J Chang, P Cruz and K Ariizumi. Dallas, TX. 2:24 p.m. Poster #251

3. Upregulation of inflammatory cytokines and STAT3 characterizes the tumor microenvironment leading to tumor formation in a murine model of cutaneous lymphoma. X Wu, R Sells and ST Hwang. Milwaukee, WI. 2:36 p.m. Poster #268

4. The clonal malignant T cells in leukemic CTCL have diverse functionalities and cytokine production profiles. R Watanabe, J Teague, M Lichtman, Y Jiang, TS Kupper, J Campbell, M Tawa, E Martin, N Adams and R Clark. Boston, MA. 2:48 p.m. Poster #279

5. Chemokine requirements for epidermal T cell trafficking. JJ Campbell and NJ Tubo. Boston, MA. 3:00 p.m. Poster #691

6. Epigenetic mechanisms regulate the T-Plastin (PLS3) gene, a gene highly expressed in Sezary T cells. H Gibson, H Wong and P Porcu. Detroit, MI and Columbus, OH. 3:12 p.m. Poster #178


11. Low dose alemtuzumab (LDA) depletes malignant central memory T cells but spares normal skin resident effector memory T cells in leukemic CTCL. R Clark, R Watanabe, DC Fisher, M Walsh, M Tawa, J Campbell, E Martin, N Adams and TS Kupper. Boston, MA. 4:12 p.m. Poster #278

12. Mapping toll-like receptor activity in different stages of cutaneous T-cell lymphoma. JA Kado and DR Mehregan. Detroit, MI and Monroe, MI. 4:24 p.m. Poster #151


15. Effect of extracorporeal photopheresis on dendritic cell populations in patients with Sézary syndrome and graft versus host disease. LH Shiue, M Goswami, A Alousi, M Duvic and X Ni. Houston, TX. 5:00 p.m. Poster #709


17. Long-term outcomes in a cohort of 1263 Mycosis Fungoides (MF) and Sézary Syndrome (SS) patients. R Talpur, S Daulat, P Liu and M Duvic. Houston, TX. 5:24 p.m. Poster #336
1. A double-blind, randomized, vehicle-controlled proof of concept study to evaluate the safety, local tolerability, pharmacokinetics and pharmacodynamics of multiple topical administrations of LDE225 (a specific smoothened inhibitor) on skin basal cell carcinomas in Gorlin Syndrome patients. MA de Rie, H Skvara, L Mickel, C Schuster, G Stary, A Stuetz, F Kalthoff, AM Costa Antunes, OJ David, K Rose, AP Bertolino and G Stingl. Basel, Switzerland; Vienna, Austria and East Hanover, NJ. 2:00 p.m. Poster #524

2. Engineering of murine Basal Cell Carcinoma (BCC) allograft as hedgehog (HH) inhibitor screening platform. GY Wang, P So, E Libove and EH Epstein. Oakland, CA and Berkeley, CA. 2:12 p.m. Poster #340

3. The role of cancer stem cells in the initiation and propagation of human cutaneous squamous cell carcinoma in an in vivo model. GK Patel, CL Yee, A Montemorano, K Maggio and JC Vogel. Cardiff, United Kingdom; Bethesda, MD and Washington DC. 2:24 p.m. Poster #167


5. Risk for multiple non-melanoma skin cancers among US women and men. AA Qureshi, Y Li and J Han. Boston, MA. 2:48 p.m. Poster #386

6. Development and validation of a high frequency ultrasound-guided fluorescence tomography system to improve targeting of photodynamic therapy of skin tumors. A Paliwal, JD Gruber, JA O’Hara, BW Pogue, T Hasan and EV Maytin. Cleveland, OH; Hanover, NH and Boston, MA. 3:00 p.m. Poster #784


9. Usage of indoor tanning beds and risk of melanoma, squamous cell carcinoma and basal cell carcinoma. Y Li, AA Qureshi and J Han. Boston, MA. 3:36 p.m. Poster #377


11. Rate of positive Sentinel Lymph Node Biopsy (SLNB) in shave vs. punch biopsies of thin (<1mm) melanomas. N Hill, A Page, P Bonaccorsi, K Delman, E Veledar and SC Chen. Boston, MA and Atlanta, GA. 4:00 p.m. Poster #398

12. Diagnostic detection of micrometastasis to sentinel lymph nodes by real-time PCR analysis in malignant melanoma. S Mukumoto, R Hino, T Mori, J Sakabe, M Nakamura and Y Tokura. Kitakyushu, Japan. 4:12 p.m. Poster #873

13. Merkel cell polyomavirus is present in Merkel cell cancer (MCC) but absent in gastrointestinal neuroendocrine carcinomas and trichodysplasia spinulosa. RC Wang, MR Matthews, L Matthews, R Law, JS Susa, G Hosler, J Browning, CJ Cockerell and KB Yancey. Dallas, TX and San Antonio, TX. 4:24 p.m. Poster #141

14. Merkel cell polyomavirus impairs repair of UV radiation-induced DNA damage. SK Demetriou, TK Dong and DH Oh. San Francisco, CA. 4:36 p.m. Poster #161


16. Reducing the pain of lidocaine administration by controlling angle of injection. KJ Martires, CG Malbasa and JS Bordeaux. Cleveland, OH. 5:00 p.m. Poster #341

**North American Hair Research Society**  
**Scientific Meeting**  
Friday, May 7, 2010  •  6:00 pm - 9:30 pm  •  Salon B

**OPEN TO ALL MEETING REGISTRANTS**

Presider: George Cotsarelis, MD

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**Business Meeting**

**Cell Fate Specification of Dermal Papilla Niche Cells**  
Michael Rendl, MD, Black Family Stem Cell Institute, Dept. of Development and Regenerative Biology, Dept. of Dermatology, Mount Sinai School of Medicine

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**Oral Abstract Presentations**

1. **Impact of copy number variations in the human genome on hair patterns.**  
   GK Lefkowitz, A Mukhopadhyay, C Cowing-Zittron and BD Yu. La Jolla, CA.  7:00 p.m.  
   Poster #673

2. **MicroRNA-31 regulates a complex program of gene expression during murine hair cycle and associated tissue remodeling.**  
   M Ahmed, A Mardaryev, N Vlahov, A Sharov and N Botchkareva.  Bradford, United Kingdom and Boston, MA.  
   7:12 p.m.  
   Poster #639

3. **Suppression of DNA degradation by inactivation of DNase1L2 leads to increased fragility of hair.**  
   7:24 p.m.  
   Poster #660

4. **Reconstitution of human hair follicles using fetal epidermal and dermal cells.**  
   C Yang, D Gay and G Cotsarelis.  Tainan, Taiwan and Philadelphia, PA.  
   7:36 p.m.  
   Poster #670

5. **Effect of the Lexington LaserComb on hair regrowth in the C3H/HeJ model of alopecia areata.**  
   JJ Jimenez, T Cao, R Sevel, LM Mauro, K Nouri and LA Schachner.  Miami, FL and Ann Arbor, MI.  
   7:48 p.m.  
   Poster #646

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**Poster Session**

1. **Common mechanism of hair follicle formation from dissociated trichogenic epidermal and dermal cells.**  
   Poster #616

2. **Suppression of DNA degradation by inactivation of DNase1L2 leads to increased fragility of hair.**  
   Poster #660

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3. **Defective metabolic degradation of retinoic acid in mice lacking Cyp26b1 alters skin development.**  
   J Okano, U Lichti, M Aronova, G Zhang, SH Yuspa, Y Sakai and MI Morasso.  Bethesda, MD and Osaka, Japan.  
   Poster #610

4. **VEGF stimulates proliferation of human outer root sheath cells through VEGF receptor-2 mediated ERK signal pathway.**  
   M Zheng, W Li, C Li, X Man, X Yang, S Cai and Z Lv.  Hangzhou, China.  
   Poster #621

5. **Differences in mean current intensity required to evoke sensation in C-fibers in the scalp of alopecia areata subjects and normal controls.**  
   R Farah, R Farah, A Junqueira, H Guo, N Gallus, M Ericson, C Boeck and M Hordinsky.  Minneapolis, MN.  
   Poster #669

6. **A Safe and effective new topical treatment for nail fungus (Onychomycosis).**  
   G Polson, N Skoulis, D Cicognani, K Roberts, K DiNicola, K Lou and J Gruber.  Cheshire, CT.  
   Poster #631

7. **Modulation of hair follicle stem cells markers and hair growth.**  
   Poster #625

8. **Modulation of basement membrane components in the hair follicle of human scalp skin grafts.**  
   Poster #628

9. **Effects of fermented Rhus verniciflua Stokes extract (FRVE) on hair regeneration in cyclophosphamide-induced Alopecia model C57BL/6 mouse.**  
   K Lee, M Kim, H Shin, S Park and T Yi.  Yongin-si, South Korea.  
   Poster #672

10. **Gene expression profiling reveals similarities and distinct differences between lymphocytic and neutrophilic cicatricial alopecias.**  
    S Parameswara Panicker, L Xu, MC Consolo, VH Price, P Mirmirani and P Karnik.  Cleveland, OH; San Francisco, CA and Vallejo, CA.  
    Poster #613

11. **The role of Prostaglandin D2 and its receptor DP-2 in promotion of androgenetic alopecia.**  
    LA Garza, B Alagesan, JA Lawson, SM Norberg, E Loy, T Zhao, DC Stanton, L Carrasco, SM Fischer, GA FitzGerald and G Cotsarelis.  Baltimore, MD; Philadelphia, PA and Smithville, TX.  
    Poster #615

12. **New pointers towards a role of perifollicular mast cells in alopecia areata.**  
    M Bertolini, P Kleiditzsch, VU Emelianov, K Sugawara, KC Meyer and R Paus.  Lübeck, Germany and Manchester, United Kingdom.  
    Poster #630
American DermatoEpidemiology Network (ADEN)  
Business & Scientific Session
Saturday, May 8, 2010 • 9:00 am - 1:30 pm • Room 204-205

OPEN TO ALL MEETING REGISTRANTS

Presiders: Joel Gelfand, MD/MSCE and Michael Ming, MD/MSCE

1. Identifying persons at highest risk of melanoma using self-assessed risk factors: Results from a case-control study in Washington State. LH Williams, WE Barlow, AR Shors, C Solomon and E White. Seattle, WA. 9:00 a.m. Poster #395

2. Rate of positive Sentinel Lymph Node Biopsy (SLNB) in shave vs. punch biopsies of thin (<1mm) melanomas. NHill, A Page, P Bonaccorsi, K Delman, E Veledar and SC Chen. Boston, MA and Atlanta, GA. 9:12 a.m. Poster #398

3. Risk for multiple non-melanoma skin cancers among US women and men. AA Qureshi, Y Li and J Han. Boston, MA. 9:24 a.m. Poster #386


5. Gender in examination and counseling of patients in primary care. A Markova, MA Weinstock, P Risica, U Kirtania and H Ombao. Providence, RI. 9:48 a.m. Poster #358

6. 39-year follow-up of xeroderma pigmentosum: Skin cancer, neurologic degeneration and mortality. PT Bradford, AM Goldstein, JJ DiGiovanna, D Tamura, SG Khan, MA Tucker and KH Kraemer. Bethesda, MD and Providence, RI. 10:00 a.m. Poster #364

7. Screening for psoriatic arthritis and psoriasis phenotypes in the nurses’ health study 2. P Dominguez, H Choi, G Curhan, J Han and A Qureshi. Boston, MA. 10:12 a.m. Poster 396

8. Independent and significant association between severity of hypertension and psoriasis. AW Armstrong, SW Lin, CJ Chambers and DL Chin. Sacramento, CA. 10:24 a.m. Poster #352


ADEN Business Meeting

Discussion: Collaboration Opportunities (Pruritis, Psoriasis, Wound Healing, Melanoma)

Networking and Social Events

Opening Night Welcome Reception
Wednesday, May 5, 2010 • 7:30 pm - 9:30 pm
Salon West Corridor, Hilton Atlanta
Join us for a Welcome Reception to kick off the Meeting. All attendees are invited, free of charge, to gather for drinks and hors d’oeuvres and mingle with colleagues. THIS EVENT IS FREE TO ALL MEETING ATTENDEES.

Post Doctoral Luncheon
Thursday, May 6, 2010 • 12:00 pm - 2:00 pm
Salon D, Hilton Atlanta
Young investigators are invited to attend the luncheon to learn about opportunities available through the SID, to provide input and feedback on programs that add value to the PhD experience (including career development), and to network. TICKETED EVENT; PRE-REGISTRATION REQUIRED.

Trainee Dinner Session
Friday, May 7, 2010 • 7:30 pm - 9:30 pm
Crystal Executive Ballroom, Hilton Atlanta
Over the past several years, the SID has encouraged meetings between residents and post-doctoral fellows. To promote collegiality, the SID annually presents a Trainee Dinner, formerly called the Resident/Fellow Dinner Sessions—small group meetings in which senior and junior scientists and a group of four to six residents and post-doctoral fellows discuss issues over dinner. These sessions provide an opportunity to talk informally about subject matter of interest including research opportunities in dermatology, life in academia or how to combine clinical work with research. THIS IS A TICKETED EVENT. TICKETS MUST BE PURCHASED IN ADVANCE.

Social Event at Georgia Aquarium
Thursday, May 6, 2010 • 5:00 pm - 11:00 pm
With more than eight million gallons of fresh and marine water and more aquatic life than found in any other aquarium, you are sure to see things you’ve never seen before! The five distinct galleries within the Georgia Aquarium depict five different habitats, ranging from arctic waters to tropical oceans. Social Event attendees will have full access to all exhibit spaces at the Georgia Aquarium from 5:00 - 7:00 pm. After 7:00 pm, access to exhibit spaces will be limited. Come early so you can see all the Aquarium has to offer! Buses will depart from the Hilton Atlanta Harris Street exit beginning at 5:00 pm. Buses will begin shuttling guests back to the hotel beginning at 8:15 pm, departing from the Aquarium’s Ballroom Entrance. THIS IS A TICKETED EVENT. TICKETS MUST BE PURCHASED IN ADVANCE.

Ancillary Groups

SID Board of Directors Meeting
Wednesday, May 5, 2010 • 8:00 am - 2:00 pm
Room 206

Journal of Dermatologic Science Editorial Board Meeting
Wednesday, May 5, 2010 • 12:00 pm - 1:30 pm
Room 302-303

BCCNS Life Support Network
Thursday, May 6, 2010 • 10:00 am - 12:00 pm
Room 302-304

Experimental Dermatology Board Meeting
Thursday, May 6, 2010 • 1:00 pm - 2:00 pm
Room 210

CDC Stakeholder Meeting for Psoriasis Registry
Friday, May 7, 2010 • 7:00 am - 12:00 pm
Room 203

National Psoriasis Foundation
Friday, May 7, 2010 • 8:00 am - 11:00 am
Room 204

Women’s Dermatologic Society/SID Luncheon
Friday, May 7, 2010 • 12:00 pm - 2:00 pm
Crystal Executive Ballroom

JID Editorial Board Meeting
Friday, May 7, 2010 • 4:00 pm - 5:30 pm
Room 309-311

Galderma Japan Scientific Forum
Friday, May 7, 2010 • 6:30 pm - 9:30 pm
Room 212-214

SID Board of Directors Meeting
Saturday, May 8, 2010 • 7:00 am - 8:00 am
Room 203
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The SID is pleased to offer three educational program tracks within the 2010 Annual Meeting: Translational Research Track, Clinical Scholars Track and Resident Track.

The SID has been increasing the variety of sessions offered at the Annual Meeting that are geared toward residents, fellows, students and clinicians. The track system is an easy way for attendees to find and select the components of the Meeting that are best suited to their interests. The tracks include portions of the Meeting that are the most inter-related, providing attendees with a cohesive learning experience. By participating in a track, attendees will have the added benefit of attending sessions with their peers, providing significant opportunities for networking. You must be registered to attend an educational track. Spaces are limited, and early registration is recommended. Registration will remain open until all spaces are filled. Track participants are encouraged to attend other portions of the Meeting as well.

**Educational Track Descriptions**

**Translational Research Track**

- Designed for investigators who are considering or are actively involved in translating cutaneous biology research findings into clinical applications

This track combines clinically-oriented elements of the Meeting program with special lectures, including the Translational Research Symposium. This year’s symposium, “Personalized Genetics in Medicine: Are We There Yet?” includes the following:

- Personalizing Melanoma Therapy
- Pharmacogenomics in Angiogenesis and Inflammation
- Personalized Medicine in Psoriasis
- Towards Determining Personal Cancer Therapy: The CollabRx Model
- Direct-to-Consumer Genetic Analyses of Risk and Ancestry Using the 23andMe Model
- Panel Discussions

**Clinical Scholars Track**

- Designed for practicing dermatologists and educators who need overviews of current research topics and insight into the latest developments in skin disease and health research

The Clinical Scholars program focuses on providing the latest findings on cutting-edge research in a way that better reaches dermatologists not directly involved in bench research. This program combines clinically-oriented elements of the Meeting with special lectures.

- Plenary Poster Discussion Session
- Lecture topics include: Interpretation of Microarray Experiments, Molecular Basis of Heritable Skin Disorders, Cancer Stem Cells, The Skin Microbiome and UVB Immunosuppressants

**Resident Track**

- Designed for current dermatology residents who are interested in overviews of current research topics and insight into the latest developments in skin disease and health research

This track combines clinically-oriented elements of the Meeting with elements of the Clinical Scholars program and a special symposium for residents. This year’s symposium, “Insights into an Academic Career” includes the following lecture topics:

- Finding a Mentor/Finding a Niche
- The Academic Ladders
- How I Did It
- Giving a Good Talk
- The JID and Choosing an Appropriate Journal for the Perfect Paper
- Writing the Perfect Paper
- Pearls and Pitfalls for a Career in Academic Dermatology
## Educational Track Schedules

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**Translational Research Symposium: Personalized Genetics in Medicine: Are We There Yet?**

**Wednesday May 5, 2010 • 12:00 pm - 3:00 pm • Salon A/B**

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**Introduction**

**Paul Nghiem, MD/PhD**
Associate Professor of Dermatology
University of Washington, Fred Hutchinson Cancer Research Center, Seattle, Washington

**Personalizing Melanoma Therapy / Q & A**

**Hensin Tsao, MD/PhD**
Associate Professor, Department of Dermatology
Harvard Medical School, Boston, Massachusetts

**Towards Determining Personal Cancer Therapy: The CollabRx Model / Q & A**

**Raphael Lehrer, PhD**
Head of Personalized Oncology Services
CollabRx, Inc., Palo Alto, California

**Personalized Medicine in Psoriasis / Q & A**

**Wilson Liao, MD**
Assistant Professor of Dermatology
University of California, San Francisco, San Francisco, California

**Pharmacogenomics in Angiogenesis and Inflammation / Q & A**

**Michael Detmar, MD**
Professor of Pharmacogenomics
Institute of Pharmaceutical Sciences, Swiss Federal Institute of Technology, Zurich, Switzerland

**Direct-to-Consumer Genetic Analyses of Risk and Ancestry Using the 23andMe Model / Q & A**

**Serge Saxonov, PhD**
Director of R & D
23andMe, Mountainview, California

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**Clinical Scholars Plenary Session**

**Thursday, May 6, 2010 • 10:00 am - 12:00 pm • Salon A**

**PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED**

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**Presider: Ponciano Cruz, MD**

1. **Differentiation of induced pluripotent stem cells into a multipotent keratinocyte lineage.**
   G Bilousova, J Chen and DR Roop. Aurora, CO. Poster #563
   Presented by Dennis R. Roop, PhD, Professor of Dermatology
   University of Colorado Denver Anschutz Medical Campus
   Denver, Colorado

2. **Gene suppression in skin through topical delivery of polyvalent siRNA-gold nanoparticles.**
   AS Paller, D Giljohann, D Zheng, H Iordanov, X Wang and CA Mirkin. Chicago, IL and Evanston, IL. Poster #502
   Presented by Amy Paller, MD, Professor and Chairman of Dermatology, Northwestern University, Chicago, Illinois

3. **Genome-wide association study in alopecia areata implicates both innate and adaptive immunity.**
   New York, NY; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA; Manhasset, NY; Lubeck, Germany; Manchester, United Kingdom and Durham, United Kingdom. Poster #551
   Presented by Angela M.Christiano, PhD, Professor and Vice Chair for Research, Dermatology and Genetics Development, Columbia University, New York, New York

4. **Topical application of type VII collagen for wound healing and treatment of DEB.**
   P Ghasri, X Wang, A Ng, D Woodley and M Chen. Los Angeles, CA. Poster #537
   Presented by Mei Chen, PhD, Professor and Director of Research, Norris Comprehensive Cancer Center, University of Southern California, Los Angeles, California

5. **Visualization of untreated premature atherosclerosis in a US psoriasis cohort.**
   D Kast, I Grozdev, L Cao, D Carlson, R Feig, P Pujari, D Babineau, E Kern, C Orringer, T McCormick, K Cooper and N Korman. Cleveland, OH. Poster #326
   Presented by Neil J. Korman, MD/PhD, Professor of Dermatology, University Hospitals Case Medical Center, Cleveland, Ohio

6. **Effect of tetracycline antibiotics for acne on the development of inflammatory bowel disease.**
   MJ Fanelli, JD Lewis, O Hoffstad and DJ Margolis. Philadelphia, PA. Poster #354
   Presented by David J. Margolis, MD/PhD, Associate Professor of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania
Clinical Scholars Lecture Session
Friday, May 7, 2010 • 11:30 am - 1:30 pm • Salon A

PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED

Presider: Nick Reynolds, MD/FRCP and Edward Cowen, MD

Interpretation of Microarray Experiments
James T. Elder, MD/PhD
Professor
University of Michigan
Ann Arbor, Michigan

MicroRNAs in Skin Biology and Disease
Robert M. Lavker, PhD
Professor of Dermatology
Northwestern University
Chicago, Illinois

Molecular Basis of Heritable Skin Disorders
Jouni J. Uitto, MD/PhD
Professor and Chair
Jefferson Medical College
Philadelphia, Pennsylvania

Clinical Scholars Lecture Session
Saturday, May 8, 2010 • 10:00 am - 12:00 pm • Salon A

PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED

Presider: Nick Reynolds, MD/FRCP and Rachael Clark, MD/PhD

Cancer Stem Cells
Markus H. Frank, MD
Associate Physician, Medicine
Brigham and Women’s Hospital
Boston, Massachusetts

The Skin Microbiome
Heidi Kong, MD
Assistant Clinical Investigator
Dermatology Branch, NIH
Bethesda, Maryland

UVB Immunosuppression
Thomas Schwarz, MD
Professor and Chairman, Department of Dermatology and Allergology
University of Kiel
Kiel, Germany
Resident Symposium:  
Insights into an Academic Career  
Thursday, May 6, 2010 • 2:00 pm - 5:00 pm • Room 212-213  

PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED

Welcome  
Oscar Colegio, MD/PhD  
Clinical Instructor, Yale School of Medicine, New Haven, Connecticut

Giving a Good Talk  
John Stanley, MD  
Chairman, Dept. of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania

Finding a Mentor; Finding a Niche  
Stephen Katz, MD/PhD  
Director, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, Maryland

The JID & Choosing an Appropriate Journal for the Perfect Paper  
Paul Bergstresser, MD  
Professor of Dermatology, University of Texas Southwestern Medical Center, Dallas, Texas

The Academic Ladders  
Amy Paller, MD  
Professor and Chair, Dept. of Dermatology, Northwestern University, Chicago, Illinois

Writing the Perfect Paper  
Richard Gallo, MD/PhD  
Chief of Dermatology, University of California, San Diego, LaJolla, California

How I Did It  
Sam Hwang, MD/PhD  
Professor and Chair, Medical College of Wisconsin, Milwaukee, Wisconsin

Pearls and Pitfalls for a Career in Academic Dermatology  
Sewon Kang, MD  
Noxell Professor and Chairman, Department of Dermatology, Johns Hopkins University, Baltimore, Maryland
## Abstracts

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Abstract Presentation Information

Oral Presentations

Oral presentations and lectures will take place at the Hilton Atlanta. Minisymposium and Plenary oral presentations are scheduled at the rate of five per hour. This allows ten minutes for presentation and two minutes for discussion. In order to coordinate sessions, the time limit will be strictly enforced, and you will be asked to terminate your presentation by the session chairperson.

LCD projectors will be available in each lecture hall. There will be resources to display only with IBM-compatible PowerPoint XP and Windows XP or earlier versions. 35mm projectors will not be available. Computer technicians will be able to download ZIP and CD files. All oral presentations must also be presented in poster format.

All presentations must be uploaded to a common storage device at least six (6) hours prior to your presentation. Uploads may be completed in the Speaker Ready Room (Room 202).

Poster Presentations

All posters will be displayed until Saturday, May 8 at 12:00 p.m. in the Galleria Exhibit Hall. Posters will be viewed in three sessions as outlined below. Presenters should be at their posters for the entire discussion session. Posters must be displayed until 12:00 p.m. on Saturday, May 8. Posters may not be removed early. The SID is not responsible for posters left unclaimed as of 6:00 p.m. on Saturday, May 8. Unclaimed posters will not be returned.

Install All Posters
Wednesday, May 5, 2010  •  8:00 am - 6:00 pm

Poster Session I
Odd poster numbers 001-297 & Even poster numbers 298-596
Thursday, May 6, 2010  •  10:00 am - 12:00 pm

Poster Session II
Even Poster numbers 002-296 & Odd Poster numbers 597-893
Friday, May 7, 2010  •  11:15 am - 1:15 pm

Poster Session III
Odd Poster numbers 299-595 & Even Poster numbers 598-894
Saturday, May 8, 2010  •  10:00 am - 12:00 pm

Dismantle All Posters
Saturday, May 8, 2010  •  12:15 pm - 6:00 pm

Conflict of Interest

If there is a real or perceived conflict of interest pertaining to your work, an announcement must be made prior to your oral presentation or be displayed on your poster. For oral presentations, we suggest using a slide to indicate the conflict.

Speaker Ready Room
Room 202 will be available to all presenters.

Tuesday, May 4, 2010  •  4:00 pm - 7:00 pm
Wednesday, May 5, 2010  •  7:00 am – 7:00 pm
Thursday, May 6, 2010  •  7:00 am – 5:00 pm
Friday, May 7, 2010  •  7:00 am – 5:00 pm
Saturday, May 8, 2010  •  7:00 am – 4:00 pm

Keyword Index

The keyword index is located on pages 62-65 and appears in the April issue of the Journal of Investigative Dermatology (JID).
Poster Presentations / Abstract Titles

Angiogenesis, Vascular Biology and Wound Healing

All orals [designated with an asterisk (*)] listed below are presented in the Angiogenesis, Vascular Biology and Wound Healing Minisymposium on Thursday, May 6, 2010 from 2:00-5:30 p.m. in Room 205, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

**001** Genomic approaches to the investigation of wound microbiology and pathogenesis. A Han, J Zenilman, J Melendez, E Mongodin, A Agostinho, G James, M Shirittif, A Rickard and G Lazarus. Baltimore, MD; Bozeman, MT and Binghamton, NY.

**002** TGF-beta 1-treated conditioned media from adipose tissue-derived stem cells induces increased expressions of type I collagen and MMP-1 in human skin fibroblasts, thereby promoting wound healing process in vivo. JW Cho, MC Kang and KS Lee. Daegu, South Korea.

**003** Novel topical foam shows promise in healing of superficial skin wounds when compared to two current treatments. S Khan and MD Johnson. Newtown, PA and Mattawan, MI.

**004** Pericyte-derived MFG-E8 regulates angiogenesis. S Motegi, M Lu, M Nehenghan, C Wu, T Chavakis and MC Udey. Bethesda, MD.

**005** Calpain activity is essential for cell recruitment, myofibroblast differentiation and angiogenesis in early stages of skin wound. D Nasqass, F Letavernier, L Baud, S Aractingi and K Khorostehrani. Paris, France and Brisbane, Australia.

**006** Transgenic activation of lymphatic vessel function specifically reduces edema formation during acute skin inflammation. R Huggeberger, D Brander, K Alitalo and M Detmar. Zurich, Switzerland and Helsinki, Finland.

**007** Wilms Tumor 1 (WT-1) overexpression causes malignant transformation of endothelial cells. R Chua, L Souza, M McMellon, MY Bonner, C Cohen and JL Arbiser. Atlanta, GA.

**008** Increased expression of secreted frizzled-related protein 2 in patient with Keloid: Crucial role in the pathogenesis of tissue fibrosis. G Zhang and W Gao. Wenzhou, China.

**009** Hypoxia and UV light modulate the level, localisation and activity of Hif1a/Hif1b proteins in epidermal keratinocytes. L Weir, A Wondimu, D Robertson and AA Panteleyev. Dundee, United Kingdom and New York, NY.

**010** Epidermal growth factor receptor-mediated reepithelialization in an in vitro diabetes model. KK Quan and LG Hudson. Albuquerque, NM.

**011** Characterization of biofilm infected wounds in diabetic mice. G Zhao, EA Bauerle, ML Usui, RA Underwood, PK Singh, GA James, PS Stewart, JE Moulder, BL Fish, M Mader, A Schock, B Althouse, SD Doctrow and JA Mardaryev. Milwaukee, WI and Boston, MA.

**012** Effect of superoxide dismutase (SOD)/catalase mimetic EUK-207 on the radiation-induced skin injury. MM Jourdan, A Lopez, EB Olasz, JE Moulder, BL Fish, M Mader, A Schock, B Althouse, SD Doctrow and Z Lazarova. Milwaukee, WI and Boston, MA.

**013** High-fat diet promotes skin inflammation by vascular abnormality and accelerates UVB-induced skin damage. M Takegai, M Sawane and K Kajiyama. Yokohama, Japan.

**014** Curcumin at nM concentrations limits burn injury progression and causes β-adrenergic receptor-mediated vasodilation. A Dewar, B Taira, AJ Singer, RA Clark and MD Frame. Story Brook, NY.

**015** Modulation of VEGF expression enhances epidermal and blood vessel protection against UVB and oxidative stress. L Murr, C Pouzet, C Serre, C Gondran, E Bausa, J Botto, C Dal Farra and N Domloge. Sophia Antipolis, France and Wayne, NJ.

**016** Rapamycin blocks lymphangiogenesis induced by TSC2-null hamartoma cells. S Rajesh, S Li, J Wang, R Thangapazham, J Moss and TN Darling. Bethesda, MD.

**017** Lhx2 regulates Sox9 and Tcf4 to supply hair follicle-derived progenitor cells to the wound epithelium. AN Mardaryev, AA Sharov, TY Sharova, MY Fessing, S Werner and VA Botchkarev. Bradford, United Kingdom; Boston, MA and Zurich, Switzerland.

**018** The neuropeptide pituitary adenylate cyclase activating Polypeptide regulates neurovascular responses in human skin in vivo. L Buddenkotte, S Seeliger, V Shpacovitch, A Schmidt-Choudhury, C Rosignoli, R Rukwied, M Schmelz, J Vogel and M Steinhoff. Muenster, Germany; Goettingen, Germany; Bochum, Germany; Sophia Antipolis, France; Mannheim, Germany and San Francisco, CA.

019* Transgenic overexpression of keratinocyte-specific VEGF and Ang1 in combination promotes wound healing under nondiabetic but not diabetic conditions: A mechanistic role for Ang1-mediated delay in re-epithelialization. C Matheny, D Diaconu, G Adams, W Fu, D Knutsen and NL Ward. Cleveland, OH.


021* A 124-amino acid peptide from secreted heat shock protein-90 (HSP90) is a novel wound repair agent. WJ Li, C Zheng, Z Zhao, J Dai, J Fan, M Chen and D Wodoley. Los Angeles, CA.


023* TGFβ dependent differentiation of dermal fibroblasts to myofibroblasts is regulated by CLIC4. A Shukla, Y Yang, PV Chellamal, S Madanika and SH Yuspa. Bethesda, MD.

024* Cholesterol synthesis mediates inhibition of wound healing via anti-inflammatory signals whereas statins reverse it. E Lebrun, O Stojadinovic, S Vukelic, I Pastar, S Resnik and M Tomic-Canic. Miami, FL.


026 Structural relationships between dermal blood vessels and the epithelium in mouse skin. Y Xiao and JC Vogel. Bethesda, MD.

027 Overexpression of Hoxb13 in the basal layer of the epidermis results in upregulation of TGF-β activity and an enhanced fibrotic response in cutaneous wounds. JA Mack and E Maytin. Cleveland, OH.


030 Comparison study with a honey dressing and collagen powder for healing of deep partial thickness wounds using a porcine model. J Gil, J Valdes and SC Davis. Miami, FL.

031 TGFβ3 decreases myofibroblast recruitment and keratinocyte proliferation during excisional wound repair. M Le, J Morrison and M Dunnwald. Iowa City, IA.

032 Chloride channels in epithelium and their roles in endogenous wound electric currents. L Cao, B Reid and M Zhao. Davis, CA.

Auto-immunity and Inflammation

All orals [designated with an asterisk (*)] listed below are presented in the Auto-immunity and Inflammation Minisymposium on Friday, May 7, 2010 from 2:00-5:30 p.m. in Salon C, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

033 Identification of TRAIL and other molecules that distinguish inflammatory (CD11c+CD11c-) DCs from resident (CD11c+) DCs in human skin. LC Zaba, J Fuentes-Duculan, J Eungdamrong, KE Nogralos, TR White, KC Pierson, M Suarez-Fariñas, MA Lowes and JG Krueger. New York, NY.

034 FcyRIIb promotes, while FcyRIIb protects from autoantibody-induced tissue damage in autoimmunity to type VII collagen. M Kasperkiewicz, S Wende, F Nimmerjahn, M Hroscope, K Kalies, J Westerman, JM Köhl, D Zillikens and RJ Ludwig. Lübeck, Germany; Erlangen, Germany and Cincinnati, OH.


046 In vivo conversion of CD4+FoxP3- to FoxP3+ T cells. EN Huter, DD Glass and EM Shevach. Bethesda, MD and Heidelberg, Germany.

047 Syndecan-4 is an important negative regulator of T cell immunity and a potentially useful target for treating diseases resulting from such immunity. J Chung, M Tomihari, T Kojima, P Cruz and K Arizumi. Dallas, TX and Nagoya, Japan.


049 An IgE monoclonal antibody to BP180-NC16A replicates the effects of anti-inflammatory therapy in a murine model. JN Foerster, AS Büchau, MD Southall, Skillman, NJ.

050 Norepinephrine (NE) and adenosine-5'-triphosphate (ATP) synergize in inducing IL-6 production by human dermal microvascular endothelial cells (HDMECS). UL Stohl, I Zang, M Schierl, W Ding, M Manni, JA Wagner and RD Granstein. New York, NY.


054 Passive transfer of dermatitis herpetiformis serum by IV IgG mAb to patients with cutaneous disease. D Schumacher, M Bollard, S Lobb, M Zillikens and S Lanier. Heidelberg, Germany.


056 Novel secosteroids inhibit collagen and hyaluronan synthesis by human fibroblasts. AE Postlethwaite, W Li, J Chen, D Miller and AT Sloominski. Memphis, TN.

057* Ketoconazole activates nuclear factor-erythroid 2-related factor-2 (Nrf2) via aryl hydrocarbon receptor signaling pathway: A possible mechanism of anti-inflammatory effect. GS Tsuji, M Takahara, H Uchi, S Takeuchi, C Mitoma, Y Moroi and M Furue. Fukuoka, Japan.

058* Distinct roles of IL-23 and IL-17 in the development of psoriasis-like lesions in a mouse model. K Nakajima, T Kanda, M Takaiishi, K Miyoshi, JM Benson, MM Elloso, Y Iwakura, J DiGiovanni and S Sano. Kochi, Japan; Seoul, South Korea and San Francisco, CA.


061 Cutaneous regulatory T cells can produce IL-17: A possible source of autoreactive Th17 cells in human skin. M Lichtman, J Teague, Y Ji, R Watanabe, TS Kupper and R Clark. Boston, MA.

062* Systems level high-throughput and multiparametric analyses to elucidate cell death associated molecules involved in pemphigus vulgaris. N Cirillo, A Lanza and SS Prime. Bristol, United Kingdom and Napoli, Italy.

063* Human IgG1 mAb against human COL17 NC16A developed from BP patients induces blistering in experimental bullous pemphigoid model. A Shibaki, Q Li, H Ujiie, G Wang, R Morichi, H Qiao, H Moroika, S Shinikuma, K Natsuga, HA Long, W Nishie and H Shimizu. Sapporo, Japan and Kumamoto, Japan.


067 Effectors T cells and local innate immunity need to act in concert for development of autoimmune myositis. M Okiyama, S Toguida, H Yokozeki, N Miyasaka and H Koikasa. Tokyo, Japan and Kanagawa, Japan.

068 IL-17-producing dendritic epidermal T cells represent a subset of murine T cells involved in cutaneous immunity and wound healing. AS Buchau, S Hammers, S Von Vittinghoff, K Mowen, K Ley, D Wibergen and WL Havran. La Jolla, CA.


070* Preventive effects of the TLR4 ligands Mrp8/14 play a critical role in the development of autoreactive CD8+ T cells. K LoMonico and V Werth. Philadelphia, PA.
Detection of IgE by direct immunofluorescence in a large cohort of bullous pemphigoid patients. JR Vu, J Deng, T Patton and E Abell. Pittsburgh, PA.

Pharmacological levels of staphylococcal protein A are found in infected atopic dermatitis lesions. JB Travers, Y Yao, A Kozman and N Mousdicas. Indianapolis, IN.

A role for the novel pro-inflammatory cytokine IL-17C in the pathogenesis of psoriasis. PM Al-Attar, JE Gudjonsson, NL Ward, M Ribbert, K Xiong, JJ Voorhees, JT Eldor and A Johnston. Ann Arbor, MI. Cleveland, OH.

Myeloperoxidase as a marker to assess the propensity of psoriasis patients to develop cardiovascular disease in relation to systemic inflammation, lipids and disease severity. ME Rodríguez, J Ohotla, H Sugiyama, L Cao, D Kast, DC Babinew, KD Cooper, TS McCormick and NJ Korman. Cleveland, Oh.

A systems biology approach to evaluate psoriasis as a systemic disease. C Ryan, R Banchereau, G Obermoser, B Lemoine, V Pascual, J Banchereau, D Chassabel and A Menter. Dallas, TX.

Molecular and morphometric characterization of neuroinflammatory and neurovascular changes in the development of rosacea. M Steinhoff, M Sulk, V Schwab, P Nowak, J Aubert, H Hinte, J Buddenkotte and JJ Veiguel. Muenster, Germany; San Francisco, CA and Sophia Antipolis, France.

Constitutively active inflammasome in human melanoma cells mediating autoinflammation via caspase-1 processing and secretion of interleukin-18*. M Okamoto, W Liu, Y Luo, A Tanaka, X Cai, DA Norris, CA Dinarello and M Fujita. Aurora, CO.


Comparison of index values of Dsg3-ELISA and those of EDTA-treated Dsg3-ELISA is a reliable monitor for pathogenic autoantibody in pemphigus. Y Aoyama, K Kamiya, K Hisada, K Fujii, T Yamamoto and K Ikawatsuki. Okayama, Japan.


Cross-reactivity at the T-cell level between human and Malassezia sympodiophora thioredoxin(s) in adult patients with atopic dermatitis. H Venkatarayanan, A Heratizadeh, K Wuchmann, A Scheynius, R Crameri and T Werfel. Hannover, Germany; Stockholm, Sweden and Davos, Switzerland.


Erlotinib stimulates epidermal hyperplasia in KC-Tie2 mice and human skin organ culture. NL Ward, N Bhagavathula, CM Matheny, W Fu, JE Gudjonsson, A Johnston, J Varani and JT Eldor. Cleveland, OH and Ann Arbor, MI.

Substance P modifies antigen presentation in skin draining lymph nodes in a mouse model of stress and allergic dermatitis. C Liezmann, S Pavlovic, N Romani, J Kruse, BF Klapp and EM Peters. Berlin, Germany; Innsbruck, Austria and Giessen, Germany.

Peptide protection of the pinnas: a model for studying the role of CD8+ T cells in mice. S Pajek, F Miyagawa and SI Katz. Bethesda, MD.


Modifying the heavy chain third complementarity determining region (H-CDR3) of pemphigus antibody to prevent pathogenicity but not binding suggests a novel approach to targeted therapy. J Yamagami, AS Payne, K Kishir, DLSiegel and JR Stanley. Philadelphia, PA and Tokyo, Japan.

Possible pathogenic role of CD4+CD25highFoxp3+ and CD4+IL-10+ regulatory T cells in patients with pemphigus vulgaris. H Zhu, M Pan, Y Chen, Y Wang and J Zheng. Shanghai, China.

The cathelicidin response to wound repair in psoriatic lesional and non-lesional skin. J Miller, T Hata, P Kotol, M Jackson, D Alexandreescu, F Kabigting, M Gerber, Y Lai and R Gallo. La Jolla, CA.


Cytokine and chemokine protein levels of dorsal skin in the C3H model of alopecia areata. FJ Albuquerque, JP Sundberg, LE King and HB Everts. Columbus, OH; Bat Harbo, ME and Nashville, TN.


Myeloid cells, and not TH cells, are the main source of TNF-α in plaque-type psoriasis. PM Brunner, F Koszik, M Kalb and G Stengel. Vienna, Austria.

Signal transduction triggered by IgE class autoantibodies in bullous pemphigoid. KN Muesing, M Jay and JA Fairley. Iowa City, IA.


Analysis of anti-desmoglein 1 autoantibodies in 76 healthy mothers/neonates from a highly endemic region of Fogo Selvagem in Brazil. J Hilario-Vargas, IB Vitorio, P Prisayanh, EA Rivitti, V Aoki, P Hans Filho, V dos Santos and LA Dazio. Trujillo, Peru; Campo Grande, Brazil; Chapel Hill, NC and Sao Paulo, Brazil.

Therapeutic removal of amyloid deposits by anti amyloid antibodies. A Klop, C Lasagna-Reeves, R Wagner, M Pettitt, B Kelly, M Willkens, G Jackson and R Kayed. Galveston, TX.

Neutrophil elastase cleaves BP180 and its degradation products are chemotactic and therapeutic in skin autoimmune blistering disease in mice. LL Liu, T Betsuyaku, L Heimbach, N Li, D Rubenstein, S Shapiro, L An, L Diaz, R Senior and Z Liu. Dalian, China; Chapel Hill, NC; St. Louis, MO and Pittsburgh, PA.

Human 6-Sulfo LacNAc (slan) dendritic cells are powerful inducers of Th17/Th1 cells and prevail among inflammatory dermic dendritic cells in psoriatic skin. A Hansel, C Günther, J Ingwersen, EP Riebe, M Meurer and K Schäkel. Heidelberg, Germany and Dresden, Germany.


IG4 and IgE anti-Dsg1 auto-antibodies recognize Lutzomyia longipalpis salivary gland antigens. Y Qiao, JG Valenzuela, G Flores, EA Rivitti, V Aoki, G Hans Filho and LA Diaz. Chapel Hill, NC; Rockville, MD; Sao Paulo, Brazil.


The psoriasis associated IL12B risk haplotype influences IL-12 and IL-23 expression and secretion. JE Gudjonsson, X Zing, RP Nair, JJ Voorhees, A Johnston and JT Eldor. Ann Arbor, MI.

Generation of a hyper INOS-expressing macrophage leads to a severe delay in wound healing. BW Dorais, J Rosenjack, KD Cooper and KO Lu. Cleveland, OH.

A non-redundant role for HSP70I in autoimmune depigmentation. FY Mosenso, J Klarquist, J Guevara-Patino and IE Le Poole. Chicago, IL.

Epidermal depigmentation in a mouse model of vitiligo is IFN-γ dependent and associated with local chemokine expression. JF Harris, EJ Wherry, CA Hunter and LA Turka. Philadelphia, PA.
Carcinogenesis and Cancer Genetics

All orals [designated with an asterisk (*)] listed below are presented in the Carcinogenesis and Cancer Genetics Minisymposium on Friday, May 7, 2010 from 2:00-5:30 p.m. in Room 206-207, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

123 Abnormal DNA methylation in peripheral blood mononuclear cells and skin lesions from patients with psoriasis vulgaris. P Zhang, Y Su, H Chen, M Zhao and D Yu. Changsha, China.

124 CD 161+ NKT or NKT-like cells are major producers of IL-17 in psoriasis skin and blood. CJ Rubin, M Ribelet, AM Lin and AT Bruce. Ann Arbor, MI.

125 IL-15F, F6, F8, and F9 represent a novel IL-1 signaling system which is active in psoriasis and promotes keratinocyte antimicrobial peptide expression. A Johnstone, X Xiong, NL Ward, CM Matheny, M Ribelet, AM Guzman, J tau of the xeroderma pigmentosum group A and G proteins. C Kuschak, K Thoms, L Boekema, P Laspe, A Apel, MP Schön and E Emmert. Goettingen, Germany.

126 Inflammation blocks carcinogenesis in skin with severe barrier defect. S Demehri, M Turkoz, A Turkoz and R Kopan. St. Louis, MO.

127 Increased twist expression in advanced stage Mycosis Fungoides (MF)/ Sézary Syndrome (SS). X Ni, M Gwosvani, L Shiue, A Dougherty and M Duvic. Houston, TX.

128 The vitamin D receptor, Hedgehog signaling and epidermal carcinogenesis. A Teichert, V Bul and DD Biko. San Francisco, CA.

129 MicroRNA-211 regulates melanoma metastasis by inhibiting migration and invasion abilities of melanoma cells. S Jee, C Chu, S Cha, W Lin, H Chiu and M Kuo. Taipei, Taiwan.

130 TAT-mediated delivery of a DNA repair enzyme to skin cells rapidly catalyzes repair of UV-induced DNA damage. J Johnson, BC Lowell, OP Ryabinina, S Lloyd and AK McCullough. Portland, OR.

131* Isolation and characterization of a keratinocyte antibody that inhibits the invasion of melanoma cells. A Sai, B Kama, K Nakanishi, H Kamei and H Yamasaki. Tokyo, Japan.

132 A cohort study of skin cancer risk by immunosuppressive drug type in solid organ transplant patients. CD Schmults. Boston, MA.

133* The tumour suppressor gene BRM is downregulated in human skin cancer. GM Halliday, LG Lyons, VL Bock, FJ Moloney, PW Sou, Y Zhou, AM Jones, LA McDonald, XX Huang and RA Scolyer. Sydney, Australia.

134* ERB-041, an estrogen receptor beta agonist inhibits skin photocarcinogenesis in SKH-1 hairless mice. T Sinetti, P Kapur, SC Chaudhary, CA Elents, L Kopelovich and M Athar. Birmingham, AL and Bethesda, MD.


136* Inflammation blocks carcinogenesis in skin with severe barrier defect. S Demehri, M Turkoz, A Turkoz and R Kopan. St. Louis, MO.

137 Increased twist expression in advanced stage Mycosis Fungoides (MF)/ Sézary Syndrome (SS). X Ni, M Gwosvani, L Shiue, A Dougherty and M Duvic. Houston, TX.


139 MicroRNA-211 regulates melanoma metastasis by inhibiting migration and invasion abilities of melanoma cells. S Jee, C Chu, S Cha, W Lin, H Chiu and M Kuo. Taipei, Taiwan.

140 TAT-mediated delivery of a DNA repair enzyme to skin cells rapidly catalyzes repair of UV-induced DNA damage. J Johnson, BC Lowell, OP Ryabinina, S Lloyd and AK McCullough. Portland, OR.

141 Merkel cell polyomavirus is present in Merkel cell cancer (MCC) but absent in gastrointestinal neuroendocrine carcinomas and trichodysplasia spinulosa. RC Wang, MR Matthews, L Matthews, R Law, JS Susa, G Hesler, J Browning, CI Cockrell and KB Yancey. Dallas, TX and San Antonio, TX.


143 Balanced 9p22q translocation in a patient with melanoma, deafness and DNA repair deficiency disrupts p14ARF and down-regulates TBK1. X Tan, S Anizick, SK Khan, T Ueda, G Stone, JJ DiGiovanna, D Tamura, D Wottendorf, C Brewer, C Zaleski, R Walker, JA Butman, A Griffith, P Meltzer, P Bergstresser and KH Kraemer. Bethesda, MD; Tokyo, Japan; Providence, RI; Washington, DC and Dallas, Texas.

144* mtDNA changes in fibroblasts alter intracellular ROS levels resulting in enhanced cellular proliferation, migration and invasion. J Jandova, SP Gottesman and J Sigh. Tucson, AZ.

145* Aberrant cell proliferation by enhanced mitochondrial biogenesis through mTFa in arsenical skin cancers. C Lee, S Wu, C Hong, W Liao, G Chen, Y Wei and H Yu. Kaohsiung, Taiwan and Taipei, Taiwan.

146 Human Numb regulates spindle pole maturation through localization of PIK1 in melanoma cells. T Schmit, V Setaluri, VS Spiegelman and N Ahmad. Madison, WI.

147 Promoter methylation profiling of cancer/testis genes in human malignant peripheral nerve sheath tumor associated with neurofibromatosis type 1. Y Nobeya, M Ikemi and H Nakagawa. Tokyo, Japan.

148 Upregulation of inflammatory cytokines and STAT3 characterizes the tumor microenvironment leading to tumor formation in a murine model of cutaneous lymphoma. X Wu, R Sells and ST Huang. Milwaukee, WI.


150* Inhibition of human papilloma virus-31 in human keratinocytes by the phosphatidycholine specific phospholipase C-inhibitor LMV-601. F Amtmann, FK Mayer, H Pink and W Baader. Basel, Switzerland; Heidelberg, Germany and Frankfurt, Germany.

151* Mapping toll-like receptor activity in different stages of cutaneous T-cell lymphoma. JA Kado and DR Mehregan. Detroit, MI and Monro, MI.

152 CCRX3 ligand CCLX11 promotes proliferation of primary basal cell carcinoma cells in vitro. BK Lo, M Yu, D Zlotow, B Cowan, J Shapiro and K McCleew. Vancouver, Canada.

153* Induction of Fyn via the Ras/PI3K pathway is necessary and sufficient for enhanced migration and invasion. Y Yadav and MF Dunning. Maywood, IL.

154* PTEN regulation of cutaneous SCC. Y He, M Ming, CR Shea and K Soltani. Chicago, IL.

155* SOD3 expression is up-regulated by PKC-δ and inhibits cell proliferation in melanoma via the Stat1-p21 pathways. J Johnson, BC Lowell, OP Ryabinina, S Lloyd and AK McCullough. Portland, OR.

156 SOD3 expression is up-regulated by PKC-δ and inhibits cell proliferation in melanoma via the Stat1-p21 pathways. J Johnson, BC Lowell, OP Ryabinina, S Lloyd and AK McCullough. Portland, OR.


158* Epidermal expression of a mutant CYLD promotes skin carcinogenesis and metastasis. M Miliani de Marval, S Utefali, JY Jin, B Leshin and JY Zhang. Durham, NC.

159* Akt inhibition suppresses the growth of basal cell carcinomas (BCCs) in Ptc1+/-/SKH-1 mice by blocking Akt and sonic hedgehog (Shh)-dependent pathways. Y Zhu, JH Back, X Tang, M Athar, AL Kim and DR Bickers. New York, NY and Birmingham, AL.

160* P38 MAPK regulates oxidative stress in UVB-induced squamous cell carcinoma by blocking NADPH MOK. X Tang, Y Zhu, JH Back, X Tang, M Athar, AL Kim and DR Bickers. New York, NY and Birmingham, AL.

161* Merkel cell polyomavirus impairs repair of UV radiation-induced DNA damage. SK DeMetrieu, TK Dong and DH Oh. San Francisco, CA.

162* XPC silencing in normal human keratinocytes induces AKT activation and triggers metabolic alterations that drive the formation of squamous cell carcinomas. HR Rezvani, F Mazurier, AL Kim, N Ali, M Daly, H de Vermeul, A Taieb and DR Bickers. Bordeaux, France and New York, NY.

163* Elucidation of hair follicle differentiation patterns in human basal cell carcinoma. I Siciliano, PE Bowden and GK Patel. Cardiff, United Kingdom.


165* mTOR-dependent Sir2uin 1 phosphorylation regulates DNA damage-induced cancer cell survival in UVB-induced skin carcinogenesis. JH Back, Y Zhu, M Athar, DR Bickers and AL Kim. New York, NY and Birmingham, AL.
Comparison of the squamous cell carcinoma transcriptome with normal skin by ultra-high-throughput sequencing (RNAseq): Detailed maps of changes associated with malignancy. T Andl and L Luan. Nashville, TN.

The role of cancer stem cells in the initiation and propagation of human cutaneous squamous cell carcinoma in an in vivo model. GK Patel, CL Yee, A Montemorano, K Maggio and JC Vogel. Cardiff, United Kingdom; Bethesda, MD and Washington DC.

Chronic exposure to nanosized titanium dioxide negatively affects DNA replication. M Marek, S Wang, L Hunter, J Laster, M Wolkerson and J Wickliffe. Galveston, TX and New Orleans, LA.


* Dysregulated ΔNp63α modulates p16 expression, blocks senescence, and promotes malignant conversion of keratinocytes. WC Weinberg, RM Pommmerapmuera, S Jay, S Ricci and L Ha. Bethesda, MD and Frederick, MD.

Therapeutic potential of dermal rejuvenation for treating non-melanoma skin cancer: Restoring an appropriate UVB response in geriatric skin. DA Lewis, JB Travers, C Machado, A Somani and DF Spandau. Indianapolis, IN.

Restoring FAS expression by reversing FAS promoter methylation: A novel approach to CTCL therapy. J Wu and GS Wood. Madison, WI.

Protein Kinase D protects keratinocytes from UVB-induced apoptosis. SN Arun, L Olaya, BA Shapiro and WB Bollag. Augusta, GA.

* Deregulated hedgehog signaling in the pathogenesis of Barrett's disease and gastric adenocarcinoma. AH Ermony, J Ferris, J Per, D Hong and AA Dlugosz. Ann Arbor, MI.


Hairless gene confers resistance to nonmelanoma skin cancer development. J Xu, Z Weng, H Kim, C Li, L Kopelovich, AM Christiano, DR Bickers and M Athar. Birmingham, AL; New York, NY and Bethesda, MD.

Epigenetic mechanisms regulate the T-Plastin (P153) gene, a gene highly expressed in Sezary T cells. H Gibson, H Wong and P Porcu. Detroit, MI and Columbus, OH.

High-resolution characterization of the cutaneous T-cell lymphoma genome. WM Lin, C Kacie, S Reddy, A Thomberg, G Sakseva, S Westman, G Getz, S Mane, C Berger, R Edelson and M Girardi. New Haven, CT and Cambridge, MA.


Identification of rare skin cancer stem cells using a syngeneic mouse model. RJ Kubick, K Murao and DR Roop. Aurora, CO.

PAP receptor knockout mice exhibit increased chemical carcinogenesis and an increase in chronic PMA-induced inflammation. NL Konger, A Kozman, RP Sahu, S DaSilva and JB Travers. Indianapolis, IN.

Further characterization of C-KIT and PDGFR-alpha expression and mutational status in Merkel cell carcinoma: Implications for treatment with imatinib mesylate. BL Swick, RN Srikantha, K Messingham and JA Fairley. Iowa City, IA.

Polo like kinase 1 (Plk1) is expressed by Cutaneous T-cell lymphoma (CTCL) and its down-regulation promotes cell cycle arrest and apoptosis. M Nihal, NC Stutz, TL Schmit, N Ahmad and GS Wood. Madison, WI.

Defining composite cancer vulnerabilities by genetic engineering of human melanoma. HJ Widlund. Boston, MA.

* New cancer models assessed via quantitative transcriptome analysis. TW Ridky, JM Chow, DJ Wong and PA Khavari. Palo Alto, CA and Stanford, CA.

Rho-associated Kinase (ROCK) promotes primary and v-ras transformed mouse keratinocyte differentiation. L Li, S Lutefali, A Lee and SH Yuspa. Bethesda, MD.

Cell Adhesion and Matrix Biology

All orals [designated with an asterisk (*)] listed below are presented in the Cell Adhesion and Matrix Biology Minisymposium on Saturday, May 8, 2010 from 2:00-5:30 p.m. in Salon B, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.


Heart autoantibodies in El Bagre endemic pemphigus foliaceus. AM Abreu-Velez, J Zhe, LF Arias Restrepo, MS Howard, HE Grossniklaus, SC Dudley and W Gao. Atlanta, GA; Medellin, Colombia and Chicago, IL.

* Keratinocyte cell surface heparan sulfate proteoglycans are required for uptake of double-stranded RNA prior to toll-like receptor 3 activation. DT Macleod and RL Gallo. La Jolla, CA.

A C-Xloypyransainde derivative is a potent stimulus for increased synthesis of chondroitin sulfate by keratinocytes. J Muto, L Breton, K Yamasaki and RL Gallo. San Diego, CA and Clichy, France.

UVA irradiation following treatment with 8-methoxypsoralen suppressive the sclerosis in a mouse model for scleroderma through the decrease of gene expression of collagen. S Hayashi, Y Kitamura, Y Hamasaki, S Yamazaki and A Hatamochi. Mibu, Japan.


Platelets interact with B16 melanoma cells to augment integrin-mediated tumor cell adhesion and promote lung metastasis formation. AS Londorf, AH Enk and HF Langer. Heidelberg, Germany and Tubingen, Germany.


* The desmosomal armadillo protein plakoglobin regulates keratinocyte motility through extracellular matrix modification. V Todorovic, BV Desai, MJ Schroeder Patterson, E Amargo, AD Dubash, JC Jones and KJ Green. Chicago, IL.


* Cotinus coggygria extracts enhance the elastic network and reduce pigment deposition. N Chen, D Rossetti, Y Hu, R Zhao, E Bruning, V Iotsos-Stone, C Lin and M Seiberg. Skillman, NJ.

* The role of the receptor tyrosine kinase Axl in cell-cell adhesion and signaling in cancer. MA Cichon, IC Mackenzie and EA O’Toole. London, United Kingdom.


GM6001, a broad spectrum metalloproteinase inhibitor, has multiple efficacies against skin aging. X Lin, K Tian, N Sinha, B Costello, R Carver, V André, L Dryer and L Lamy. Stony Brook, NY and Lyon, France.

Genomic study of fibroblasts links mtDNA changes to alterations in MMP and collagen expression affecting migration and invasion. J Jandou, JJ Jacobs, JS Boyer and JE Sligh. Tucson, AZ.


208* Plakoglobin rescues adhesive defects induced by desmoglein 1 truncation: implications for profilaxis to toxin-mediated blistering. CL Simpson, S Kojima, S Gettios and KJ Green. Chicago, IL.

209 ENAC mediates keratinocyte galanovasostasis by promoting lamellipodial protrusion at the cathodal side. H Yang and R Isseroff. Davis, CA.

210* Therapeutic implications of EGFR transactivation in pempagus acantholysis. P Jolly, M Bektas and DS Rubenstein. Chapel Hill, NC.

211 Discovery of novel ingredients which stimulate the expression of the focal adhesion protein, paxillin, in human skin and skin cells. JW Lyu, D Petchelintsev, U Santhanam, Q Zheng and S Chen. Suffern, NY.

212** p38 alpha MAPK is not required for the loss of intercellular adhesion in pempagus vulgaris. X Mao, Y Sano, JM Park and AS Payne. Philadelphia, PA and Boston, MA.


215* Non-muscle myosin II isoform roles and regulation during in vivo wound closure in the mouse epidermis. JF Crish and T Gelboin. Cleveland, OH.

216* Polynuclear expression of pempagus vulgaris IgG contributes to desmosomal disassembly by causing clustering and endocytosis of Dsg3. M Saito, M Kaufman, DK Tuckep and AK Owalczyk. Atlanta, GA.

217 Maripions® SCF-1 has anti-aging activity by stimulating collagen production and promoting fibroblast proliferation. K Tian, L Xin, C Judd, B Costello, N Sinha, L Dryer and RS Carver. Stony Brook, NY.

218 Both bullous pemphigoid antigens regulate signaling to Rac and cofilin and thereby determine the motility behavior of keratinocytes. KJ Hamill, SB Hopkinson and JC Jones. Chicago, IL.

219 A novel function for α6β1 integrin as a translational regulator of α3β1 integrin expression. KR Klige, Y Wu, SB Hopkinson and JC Jones. Chicago, IL.

220* Role of protease-activated receptors-1 and -2 in murine skin fibrosis and human scleroderma. F Cevikbas, S Seeliger, M Fastrich, H Robenek, B Homey and M Steinhoff. San Francisco, CA; Goettingen, Germany; Munster, Germany and Dusseldorf, Germany.

221* Elucidation of the structural and functional abnormalities of type VII collagen RDEB mutants created by site-directed mutagenesis. Y Hou, J Cooper, S Ahdoot, N Ng, E Cua, D Woodley and M Chen. Los Angeles, CA.


223* Caveolin-1 interacts with desmosiegins and modulates desmosome homeostasis. D Brennan, S Peltonen, M Wadhath, KJ Green, F Del Galdo and MG Mahoney. Philadelphia, PA; Turku, Finland and Chicago, IL.

224* DSCS in skin tumor development and progression. J Chen, O’Shean, KF Fitzpatrick and PJ Koch. Aurora, CO.

225* Desmosome assembly and dynamics in migrating epithelial cells. JK Wahl, B Roberts and A Pasahai. Lincoln, NE.


Clinical Research and Therapeutics

All orals [designated with an asterisk (*)] listed below are presented in the Clinical Research and Therapeutics Minisymposium on Saturday, May 8, 2010 from 2:00-5:30 p.m. in Salon E, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

238 Treatment of the severe photodamage. O Giuliani, R Alina and M Benedusi. Milan, Italy.

239* xCT expression within KS lesions correlates with histopathologic staging. R Sullivain, E Freitas, S Mohan, G Berger, R Bacelieri, D Branch, M Romano, D Hazen-Martin, J Maize and C Parsons. Charleston, SC and Mount Pleasant, SC.

240 Toll-like receptor signaling increases kallikrein in rosacea and affect skin barrier function. P Yamasaki, AW Brakowski, DT Macleod, T Nakatsuji and RL Gallo. San Diego, CA.


242 Modulatory effect of platelet-rich plasma on human fibroblasts. Y Lee, D Kim, M Kim and J Lee. Daejeon, South Korea; Chonnam, South Korea and Chungj, South Korea.

243 Antibacterial and antiviral activity of a new non-alcoholic hand sanitizer. JJ Wille. Chesterfield, NJ.

244 Correlation of livedo racemosa, cutaneous inflammatory plaque, and antiphospholipid antibodies in patients with cutaneous polyarteritis nodosa. T Kawakam, M Yamazaki and Y Soma. Kawasaki, Japan and Chonan, South Korea.

245 Non invasive study for the detection of advanced glycate end products within the skin and nails in patients with diabetes mellitus. C Castillo-Martinez, M Gherbe, B Torres-Alvarez, R Moncada and FJ Gonzalez. Davis, CA.

246 An effusion of blood and phlegmon secondary to anakinra. JJ Wu, AE Ortiz and CM Fulwider. Los Angeles, CA and Irvine, CA.

247 The dermatologic manifestation of hyperandrogenism: A retrospective chart review. CM Clark, J Ludolph, S Glick, AR Shalita and E Lowenstein. Brooklyn, NY.

248* Results of a phase 2b clinical trial of valomaciclovir versus valacyclovir for treating herpes zoster. L Morrison and S Tyeng. Houston, TX.

249* (-)-Epigallocatechin-3-gallate reactivates silenced tumor suppressor gene by modifying DNA methylation and histone acetylation patterns in human epidermoid carcinoma cells. M Vaid, V Nandakumar, CA Elments and SK Katiyar. Birmingham, AL.


251 Cutaneous T cell lymphoma utilizes distinct syndecan-4 moieties to bind DC-HL avidly and to trap TGF-β. Novel mechanisms that may blunt host anti-tumor responses. J Chang, P Cruz and K Ariizumi. Dallas, TX.

252* A phase II/II trial of photoactivated tissue bonding (“nanosuturing”) for excisional wound closure. S Tao, M Yao, FQ Henry, HV Tsoo, Y Zhao, J Kochevar, R Redmond and I Kochevar. Boston, MA.
253 Infant skin is similar in New Jersey and Mumbai and markedly different in Beijing in winter. M Chu, M Mack, N Tierney, E Ruvulo, G Stamatas, N Kollia, K Martin, K Bhagat and L Ma. Skillman, NJ; Mumbai, India and Beijing, China.

254 A clinical study on herpes zoster meningocellulitis. J Byun, B Yang, S Han, H Song, H Lee, G Choi and J Shin. Incheon, South Korea.


258 Cure rate, duration required for complete cure and recurrence rate in onychomycosis according to clinical factors. JXo, H Lee, J Hur, D Oh, JKim and H Yu. Seoul, South Korea.

259** Micronized sunscreen particles were not shown to penetrate beyond the stratum corneum in adults and children. M Mack, GN Stamatas and P Horowitz. Skillman, NJ; Issy-les-Moulineaux, France and Valencia, CA.

260* NVP-LDE225 inhibits the formation and induces the regression of murine basaloid tumor nests in embryonic and newborn murine skin organ cultures derived from Pcth−/− LacZ heterozygous mice. X Wu, Y Wang, R Javed, S Pan, A Stuetz and FS Kalhoff. Vienna, Austria and San Diego, CA.

261 Novel mechanism for topical treatment of plaque psoriasis—Results of a randomized, double blind, concentration ranging, vehicle controlled 12 week study with JAK 1/2 inhibitor INCB018424 cream. R Callis Duphlin, M Luchi, R Fidelus-Gort, R Newton, J Fridman, T Burn, P Haley, P Scherer, R Flores, N Punwani, R Levy, W Williams and A Gottlieb. Wilmington, DE; Salt Lake City, UT and Boston, MA.

262 A cross-sectional study of skin carotenoid levels in adult patients with psoriasis. XT Lima, HC Lima and AB Kimball. Boston, MA.

263 Low-dose UVA1 phototherapy sustains antifibrotic response in facial skin. OH.


266 Self-treatment is common and does not correlate with severity of hair loss or quality of life in women with non-scarring alopecia. E Reid, AC Haley, DP West and H Wickless. Chicago, IL.

267 Quality of life correlates more closely with patient-rated versus physician-rated hair loss severity in women with non-scarring alopecia. EE Reid, AC Haley, JH Borovicka, DP West and H Wickless. Chicago, IL.

268 Inducible hyaluronan macropinocytosis by melanoma cells: A useful endocytic route for bioconjugate drug delivery. L Zhang, H Greyner and ME Mummert. Fort Worth, TX and Dallas, TX.

269 Psoriasis prevalence among the 2009 melanoma/skin cancer screening patients. XT Lima, R Minnillo and AB Kimball. Boston, MA and Cleveland, OH.

270 Topical turmeric extract in a moisturizing cream formulation reduces the appearance of cheek texture and fine lines and wrinkles on human facial skin. CJ Scarpasse, J Kaczynski, JLJ, S Pepple, P Raleigh and L Robinson. Cincinnati, OH.


272 Development of a new dendritic cell (DC)-based screening assay for contact allergens. M Miyazawa and A Takashima. Tokyo, OH.


274 Association of autologous sweat gland atrophy and metal allergy with the intrinsic type of atopic dermatitis. T Bitto, R Kabashima, S Fukumachi, R Yoshih, R Hino, T Mori, C Nishigori and Y Tokura. Kitakyushu, Japan and Kobe, Japan.


276 NVP-LDE225 is a potent antagonist of both human and murine smoothened and blocks pathway activation by sonic hedgehog ligand and synthetic agonists. J Keller, M Dorsch, X Wu, S Pan, A Stuetz and F Kalhoff. Vienna, Austria; Cambridge, MA and San Diego, CA.

277 The smoothened inhibitor NVP-LDE225 has favorable skin penetration/permeation properties in vitro and in vivo. A Billich, FS Kalhoff, H Aschner, P Stuchlik, H Fahrngruber, E Kowsalsky, JM Meingasser and A Stuetz. Vienna, Austria.

278 Low dose alemutuzumab (LDA) depletes malignant central memory T cells but spares normal skin resident effector memory T cells in leukemic CTCL. R Clark, R Watanabe, DC Fisher, M Walsch, M Tawa, J Campbell, E Martin, N Adams and TS Kupper. Boston, MA.

279 The clonal malignant T cells in leukemic CTCL have diverse functionalities and cytokine production profiles. R Watanabe, J Teague, M Lichtman, Y Jiang, TS Kupper, J Campbell, M Tawa, E Martin, N Adams and R Clark. Boston, MA.


281 The impact of pyrurate and cell density on oxidative stress assays. D Kim, M Sperandio, S Palat and RA Clark. Stony Brook, NY.


286* The intrinsic type of atopic dermatitis shows normal barrier function, lack of filaggrin mutations, high percentage of Th1 cells, and high frequency of metal allergy. R Kabashima, N Nakamura, K Kobayashi, T Bitto, K Kabashima, Y Nomura, M Akiyama, H Shimizu and Y Tokura. Kitakyushu, Japan and Sapporo, Japan.


290 Evaluation of cytotoxicity with a non-animal sourced hyaluronic acid (HA) and an in vitro model. B Hardas, M Kaur, S Grundy and E Pappert. Greensboro, NC.


292 Fibroblasts in early striae gravidarum display a biosynthetic phenotype that reflects increased mechanical tension. F Wang, Y Helfrich, N Smith, P Sharaf, S Kang, J Voorhees and F Fisher. Ann Arbor, MI and Baltimore, MD.

293 Methicillin-resistant Staphylococcus aureus and childhood atopic dermatitis. CB Green, AM Schotthoefer and JB Travers. Aurora, CO and Indianapolis, IN.


295 Effect of taxifolin glycoside on atopic dermatitis-like skin lesions in NCGa mice. M Jeong, E Kim, D Kim, J Lee, K Li, C Hong, S Choi, M Lee and S Seo. Seoul, South Korea.
296 The topical antimicrobial zinc pyrithione is a potent inducer of heat shock response gene expression and TUNEL positivity in reconstructed human epidermis. SD Lamore, CM Cabellot and GT Wondrak. Tucson, AZ.

297 Atopic dermatitis-like skin lesions reduced by topical application and intraperitoneal injection of histureton in NC/Nga mice. M Jeong, E Kim, D Kim, J Lee, K Li, C Hong, S Choi, M Lee and S Seo. Seoul, South Korea.

298* Determining the extent to which clinically effective treatment, ustekinumab or etanercept, reverses the molecular disease profile of psoriatic skin: Comparisons of lesional, non-lesional and normal skin. J Krueger, K Li, F Baribaud, M Suarez-Farinas and C Brodmerkel. New York, NY and Malvern, PA.


301* Molecular tumor characteristics and pharmacodynamic (PD) responses of patients (pts) with advanced basal cell carcinoma (BCC) in a phase I trial of the hedgehog (Hh) pathway inhibitor GDC-0449. IL Caro, RL Yauch, W Darbonne, CA Callahan, HM Mackey, CM Rudin, PM LoRusso, JC Reddy, JA Low and DD Von Hoff. San Francisco, CA; Baltimore, MD; Detroit, MI and Scottsdale, AZ.

302 Evaluation of dermal contact sensitization in a guinea pig model using a non-animal sourced hyaluronic acid (HA). E Pappert, M Kaur, S Grundy and B Hardas. Greensboro, NC.


305 Gene profiling of side population identifies ABCB1 as a chemoresistant factor in human melanoma. Y Luo, M Takeda, K Dallaglio, DR Roop and M Fujita. Aurora, CO.


307 Bone mass, compression fractures, and associated risk factors in patients with epidermolysis bullosa. AL Bruckner, E Keiser, B Laleh, C Doernbrack, A Arbuckle, S Berman, K Kent and LK Bachrach. Cleveland, OH and Denver, CO.

308 A potent and selective CTRH2 antagonist is efficacious in a model of atopic dermatitis. LE Burgess, M McVean, C Napier, LL Carter, C Eberhardt, D Wright, N Kloepfenstein and A Cook. Boulder, CO.


310 Combination treatments for psoriasis: A systematic review. EE Bailey, A Alikhan and AW Armstrong. Boston, MA; New York, NY; Berwyn, IL and Davis, CA.


312 Effects of cosmetic ingredients as anti-cellulite agents: Synergistic action of actives in vitro and in vivo efficacy. T Al-Bader, A Byrne, J Gillbro, A Mitardonta, AV Rawlings and A Laloef. Stockholm, Sweden; Rey, Ireland and Northwich, United Kingdom.

313 Cosmetic ingredients stimulate fibroblast contractile capabilities and procollagen-1 production resulting in skin anti-aging and skin lifting properties in vivo. V Vidal-Johnsen, T Al-Bader, A Byrne, E Cahill, A Mitardonta, AV Rawlings and A Laloef. Stockholm, Sweden; Rey, Ireland and Northwich, United Kingdom.

314 Oral administration of carcinine improves Zucker diabetic fatty (ZDF) rats skin condition. L Nowaczyk, E Lomonte, M Ballester, P Markioli and L Valenti. Monaco, Monaco.

315 Involvement of increased protease-activated receptor-2 expression in the pathogenesis of melanoma. E Lee, J Kim, S Lee and S Lee. Seoul, South Korea.

316 Analysis of allergic triggers in adult and pediatric atopic dermatitis. ML Altrich. Lenexa, KS.

317 Development of a glycation evaluation method to support in-vivo ingredient screening. RC Roth and MC DePauw. Ada, MI.


320* Gadoalinium deposition in disease affected versus unaffected skin of nephrogenic systemic fibrosis. KN Christensen, CU Lee, MM Hanley, N Leung, TP Mayer and MR Pittelkow. Rochester, MN.


322 Doxycycline modifies sebum production in vitro. S Ni Raghaffali, N Lacey, CC Zouboulis and FC Powell. Dublin, Ireland and Dessau, Germany.


324 Natural PPARα-alpha agonist and atopic dermatitis: From research to clinical efficacy. P Misika, C De Belillovsy, F Menu, C Baudouin and B Chadoutaud. Epernon, France; Paris, France and Toulouse, France.

325 Resveratrol protects keratinocytes cells against nitric oxide-induced toxicity. S Bastianetto, Y Dumont, A Duranton, R Quirion and L Breton. Montreal, Canada and Chilly, France.


327 Treatment of hypovitaminosis D in veteran patients with psoriasis. FN Young and L Savoy. Detroit, MI.

328* A long-term study of safety and allergic comorbidity development in a randomized trial of pimecrolimus cream in infants with atopic dermatitis. JM Hanifin, M Boguniewicz, LF Eichenfeld, LC Schneider, AS Paller, JA Preston, F Kainfeld, J Nyirady, RK Zeldin, M Figliomeni and JM Spengler. Portland, OR; Denver, CO; San Diego, CA; Boston, MA; Chicago, IL; East Hanover, NJ and Philadelphia, PA.

329* Epidermal growth factor receptor inhibitors do not suppress the expression of the antimicrobial peptide human β-defensin 3 in the skin of treated patients. TV Cartee, K White, B Pollack, M Newton-West and RA Swerlick. Atlanta, GA.

330 Identification of risk factors in the development of central centrifugal cicatricial alopecia in African American women. AO Kya and WF Bergfeld. Cleveland, OH.

331 Perioral wrinkles are associated with female gender, aging, and smoking. A Chien, T Do, M Mesfin, R Ebbers, W Xie, C Chow, D Sachs, J Voorhees and S Kang. Baltimore, MD and Ann Arbor, MI.

332 Modulation of pruritus by visual stimuli. Atopic eczema patients display intensified itch perception and scratching in comparison to healthy controls when exposed to visual imagery of itch. AD Papoiu, H Wang, RC Coghill and G Yosipovitch. Winston-Salem, NC.


334 The relationship of PAR2 and pruritus in end stage renal disease patients and the clinical effectiveness of soybean extracts containing moisturizer on epidermal permeability barrier in end stage renal disease patients. H Kim, S Jeong, M Jeong, J Ahn, S Moon and S Lee. Seoul, South Korea and Daejeon, South Korea.


336 Long-term outcomes in a cohort of 1263 Mycosis Fungoides (MF) and Sézary Syndrome (SS) patients. T Talpur, S Daulat, P Liu and M Duvic. Houston, TX.

337 ABT-737 synergizes with bortezomib to kill melanoma cells by neutralizing multiple anti-apoptotic defects. YG Shellman, KA Parttyka, S Reuland, Y Luo, NB Goldenstein, S Smith, M Fujita, R Gonzalez, K Lewis and DA Norris. Aurora, CO.

339* Dermatoproteome arrays — a novel immunosassay method for stratification of systemic and cutaneous lupus erythematosus phenotypes. BF Chong, AB Pazzandak, HB Pratther, Q Li, NJ Olsen and C Mohan. Dallas, TX.

340 Engineering of mouse Basal Cell Carcinoma (BCC) allograft as hedgehog (Hh) inhibitor screening platform. GY Wang, P So, E Libove and EH Epstein. Oakland, CA and Berkeley, CA.

341 Reducing the pain of lidocaine administration by controlling angle of injection. KJ Martires, CG Malbasa and JS Bordeaux. Cleveland, OH.


343 Computer-assisted alignment and tracking of comedones in patients with predominantly comedonal acne indicate that most resolve within 4 weeks and do not become inflammatory lesions. R Egers, T Do, J Voorhees, D Sachs and S Kang. Ann Arbor, MI and Baltimore, MD.

344* Atrophic acne scars may arise from both inflammatory and non-inflammatory acne lesions. MJ Patel, A Antony, T Do, G Hinds, D Sachs, J Voorhees and S Kang. Baltimore, MD and Ann Arbor, MI.


346 T4 endoclinease V liposome (TANS) treatment ameliorates inflammation-related biomarkers and enhances apoptosis in both sun-exposed skin and AKs in chronically immune suppressed renal transplant patients (RTPs). R Shaf, W Cantrell, W Grizzle, M Athar and CA Elmets. Birmingham, AL.

347 Malignancies in ustekinumab-treated psoriasis patients: Observations with up to 3 years of follow-up & comparisons to the general US population. K Papp, J Utito, M Chen, D Woodley and M Cairo. New York, NY; London, United Kingdom; Chicago, IL; Aurora, CO; Durham, NC; San Francisco, CA; Los Angeles, CA; Asahikawa, Japan; Portland, OR and Philadelphia, PA.

348 Malignancies in ustekinumab-treated psoriasis patients: Observations with up to 3 years of follow-up & comparisons to the general US population. K Papp, J Utito, M Chen, D Woodley and M Cairo. New York, NY; London, United Kingdom; Chicago, IL; Aurora, CO; Durham, NC; San Francisco, CA; Los Angeles, CA; Asahikawa, Japan; Portland, OR and Philadelphia, PA.

349* Association of prediagnostic serum Vitamin D levels with the development of basal cell carcinoma. M Asgari, J Tang, M Warton, M Chren, C Quehenbury, D Bikle, R Horst, N Orentreich, J Vogelman and G Friedman. Oakland, CA; San Francisco, CA; Stanford, CA; Ames, IA and Cold Spring-on-Hudson, NY.


352 Independent and significant association between severity of hypertension and psoriasis. AW Armstrong. SW Lin, CJ Chambers and DL Chan. Sacramento, CA.


356 The relationship between neurologic disease and bullous pemphigoid—a population-based case-control study. SM Langan, RW Groves and J West. London, United Kingdom and Nottingham, United Kingdom.

357 The role of nutrition in acne pathogenesis: Youtube as a reflection of current popular thought. N Qureshi, D Gerber and E Lowenstein. Brooklyn, NY.

358 Gender in examination and counseling of patients in primary care. A Markova, MA Weinstock, P Risica, U Kirtania and H Ombao. Providence, RI.


A systematic review investigating whether healthy adults require exposure to ultraviolet radiation in order to maintain adequate vitamin D levels. SA Rice, M Carpenter, LM Wearcombe, J Baird and E Healy. Southampton, United Kingdom.

Identification of patients at increased risk of amelanotic melanoma. MW Waxweiler, P Dillon, M Berwick, L From, K Busam, A Kricker, BK Armstrong, LD Marret, SB Gruber, RC Milikan, H Anton-Culver, R Zanetti, S Ross, RP Gallagher, T Dwyer, CB Begh, H Wilcox and NE Thomas. Augusta, GA; Chapel Hill, NC; Albuquerque, NM; Toronto, Canada; New York, NY; Sydney, Australia; Ann Arbor, MI; Irvine, CA; Turino, Italy; Vancouver, Canada; Melbourne, Australia and Trenton, New Jersey.


364 ABO blood group and incidence of skin cancer. JXie, AA Qureshi, Y Li and J Han. Boston, MA.

365* Obesity and the risk of skin cancer. SZ Pothiawala, AA Qureshi, Y Li and J Han. Boston, MA.

366* How do sun protective habits (SPH) relate to vitamin D? A cross-sectional study using NHANES. SC Chen, E Veledar, A Soman and M Saraiya. Atlanta, GA.

367* Second primary melanomas have similar characteristics to the initial primary melanoma on the same patient. ME Ming and DB Shin. Philadelphia, PA.


369* Lifetime UV exposure and risk for lentigo maligna melanoma. E Lino, J Han and A Qureshi. Stanford, CA and Boston, MA.

370* Vitamin D and nonmelanoma skin cancer in a cohort of Caucasian health maintenance organization osteoporosis patients. ME Eide, D Johnson, R Krajenta, G Jacobsen, DS Rao, HW Lim and CC Johnson. Detroit, MI.

371* High-dose topical tretinoin for reducing multiplicity of actinic keratoses. MA Weinstock, SF Bingham and VAATC Trial Group. Providence, RI and Perry Point, MD.

372 Incidence of melanoma in coastal versus inland counties of California. RC Lee and MA Weinstock. Providence, RI.

373* The compact SF-12 can detect both physical and mental impacts of psoriasis severity. J Grootveld, D Kast, L Cao, D Carlson, K Kavlick, R Feigl, P Pujari, B Schmotzer, D Babineau, E Kern, T McCormick, K Cooper and N Korman. Cleveland, OH.

420* PKCδ and η, MEK1, MEK6, MEK3 and p38δ are essential mediators of normal keratinocyte differentiation. G Adhikary, Y Chew, EA Reece and RL Eckert. Baltimore, MD.

421* Multiple mechanisms regulate expression of the p21Waf1 cyclin-dependent kinase inhibitor leading to cessation of proliferation during keratinocyte differentiation. Y Chew and RL Eckert. Baltimore, MD.

422* TIG3, a retinoid-regulated suppressor of psoriatic phenotype, suppresses keratinocyte cell division by inhibiting daughter centrosome separation in mitosis. H Jiang, CA Kraft, T Scharadin, X Wen, EA Rorke and RL Eckert. Baltimore, MD.

423 Type I transglutaminase inactivation via misfolding and accumulation in the endoplasmic reticulum is a cause of ichthyosis. H Jiang, R Jans, CA Kraft, W Xu, EA Rorke and RL Eckert. Baltimore, MD.

424* AP1 factor inactivation in suprabasal epidermis causes increased epidermal hyperproliferation and hyperkeratosis but reduced carcinogen-dependent tumor formation. EA Rorke, R Jans, G Adhikary, JF Crish, Q Li, D Berman and RL Eckert. Baltimore, MD.

425 The polycomb group proteins are key regulators of keratinocyte survival. S Balasubramanian, G Adhikary and RL Eckert. Baltimore, MD.


428 Advanced glycation end products in the human stratum corneum and their relationship to physical properties of the skin. A Tada, K Nishikawa and T Gomi. Yokohama, Japan.


430 Effects of hypoxia upon differentiation and proliferation of keratinocytes. J Wein, D Robertson, IM Leigh and AA Panteleyev. Dundee, United Kingdom.

431 A novel function for TAp63α in the epidermis. D Dai and DR Roop. Houston, TX and Aurora, CO.

432 Caspase-14 is required for filaggrin degradation to natural moisturizing factor, boosting lysyl oxidase expression in the epidermis. D Dai and DR Roop. Baltimore, MD.


436 Regulatory mechanisms of a natural moisturizing factor-generating enzyme, bloemycin hydrolase—its relevance to atopic dermatitis. Y Kamata, M Yamamoto, R Tsibou, K Ishihara, A Takeda and T Hibino. Yokohama, Japan; Amsterdam, Netherlands and Seattle, WA.


438 Morphological study of penetration pathways via hair follicles using nano-sized iron oxide. K Choi, S Park, S Lee, S Lee, K Lee and T Yi. Yongin, South Korea; Seoul, South Korea and Seongnam, South Korea.

439 Morphological study of penetration pathways via hair follicles using nano-sized iron oxide. K Choi, S Park, S Lee, S Lee, K Lee and T Yi. Yongin, South Korea; Seoul, South Korea and Seongnam, South Korea.


444 Survivin, a protein member of the chromosomal passenger complex, helps protect the integrity of somatic stem cells of the epidermis. J Botto, F Labarrade, L Bergeron, C Meyrignac, A Plantivaux, C Serre, A Lebleu, C Dal Farra and N Domloge. Sophia Antipolis, France and Wayne, NJ.

445 Chemical modification and physical stabilization of papain — development of stabilized high molecular weight crosslinked enzyme polymer with skin exfoliation activity. M Chavan and L Dryer. Stony Brook, NY.


447 The control of epidermal differentiation gene expression by ARNT through EGRF- and HDAC-dependent pathways. V Robertson, L Weir, IM Leigh and AA Panteleyev. Dundee, United Kingdom.


450 A surinam quassia extract boosts lysyl oxidase expression in keratinocytes and improves epidermal differentiation in a skin equivalent model. V Cenizo, G Le Provost, V Andre and P Sommer. Lyon, France.


452 In vitro percutaneous absorption of salicylic acid from three distinct topical formulations. S Khan and P Lehman. Newtown, PA and Fargo, ND.

453 UCP2 is associated with differentiation in human epidermal keratinocytes via regulation of ATP production. M Yoshida, Y Niki, H Ando, MS Matsui, DB Yarosh and M Ichihashi. Kyoto, Japan; Kobe, Japan and Melville, NY.

454 A decline of TRPV6 function derives from a decrease of vitamin D activation and accounts for disturbed epidermal calcium gradient followed by skin barrier alteration in aged skin. M Jung, Y Lee, B Yeh, S Lee and E Choi. Wonju, South Korea and Seoul, South Korea.


457 The histone demethylases LSD1 is differentially regulated the expression of the differentiation markers during the calcium-induced differentiation of human keratinocytes. H Yang, H Kim, S Sim, J Yang and G Park. Seoul, South Korea and Providence, RI.

458 Expression of the homeobox gene, HOPX, is modulated by PKC dependent signaling pathways and is involved in the expression of differentiation markers during the differentiation of human keratinocytes. J Yang, S Sim, H Kim and G Park. Seoul, South Korea.

459 Ability to Achillea millefolium and Prunus spinosa to increase the expression of MC-2R and MOR-1 in keratinocytes and improve epidermal differentiation. S Pain, C Altobelli and V Andre-FreI. Lyon, France.

460 Genetic over-expression of protease-activated receptor-2 in mouse epidermis leads to skin inflammation, pruritus and neurotrophin release in vivo. A Ikoma, F Cevikbas, V Fong, E Camerer, SR Coughlin and M Steinhoff. San Francisco, CA; Paris, France and Muenster, Germany.
Nummular eczema is highly associated with diminished innervation of the epidermis. B Maddison, A Parsons, O Sangueza, D Maruziva and G Yosipovitch. Winston Salem, NC and Sharnbrook, United Kingdom.


Capsase-14 participates in the processing of prosaposin during the terminal differentiation. M Yamanoto, A Motoyama, R Tsuibo and T Hibi. Yokohama, Japan and Tokyo, Japan.


EGFR, caspases and PI3K but not apoptosis are involved in pemphigus vulgaris pathogenesis. C Luyten, D Howald, EJ Mueller and A Galichet. Bern, Switzerland.


Cavitation effects: Ultrastructural exchanges and enhancement of epidermal permeation by the low-frequency ultrasound in hairless mice. K Choi, S Park, L Yue and S Lee. Yongin, South Korea; Seoul, South Korea and Seongnam, South Korea.


Chemical and biological compatibility of calcipotriene and clobetasol foam formulations. E Hsieh, J Thirrien, B Millerman, R Ye, D Luu and H Hofland. Palo Alto, CA and Rowville, Australia.

Epidermal ablation of Dlx3 is linked to a disruption of barrier formation and a skin inflammatory response. J Hwang, R Kita, S Lee, L Lee and Ml Morasso. Bethesda, MD and Seoul, South Korea.

Regulation of skin barrier function and inflammation by patented natural peptides. D Naimi, S Breéf, C Baudouin, S Garnier, A Saunois and P Msika. Epernon, France.


Effects on proliferation, migration and cytoskeleton of keratinocytes and fibroblasts of a secretion of the mollusc cryptomphalus aspersa. A Juarranz, M Iglesias de la Cruz, F Sanz-Rodriguez, M Calvo, E Reyes and S González. Madrid, Spain and New York, NY.

Inactivation of autophagy in murine epidermal keratinocytes is associated with hair loss and sebaceous gland abnormalities. H Rossetter, C Barresi, M Buchberger, M Ghanadan, C Stremlitzer, R Gmeiner, M Komatsu, L Eckhart and E Tschachler. Vienna, Austria; Tokyo, Japan and Neufly, France.

Plakophilin-1 protects keratinocytes from pemphigus vulgaris IgG by promoting desmosome assembly. JK Tucker, M Saio and AP Kowalczyk. Atlanta, GA.

CD133 enriches for murine epidermal stem cell in vivo. A Chanryuer, LR Strachan, AS Toth, L Yue, ML Mancianti and R Ghadially. San Francisco, CA and Berkeley, CA.


ALDH-CD44+ and o6CD71+ keratinocyte populations are enriched for human epidermal stem cell in vivo. A Szabo, S Fong, K Zhang, ML Mancianti and R Ghadially. San Francisco, CA and Berkeley, CA.


Analysis by capillary electrophoresis of epidermal tryptase-like activity of stratum corneum layers obtained by tape stripping. Z Shihabi, AD Papoiu and G Yosipovitch. Winston Salem, NC.


The regulation of NHE1 by cytokines and calcium ions related to the epidermal permeability barrier homeostasis. H Kim, S Jeong, J Ahn and S Lee. Seoul, South Korea and Daejeon, South Korea.

Traction force microscopy reveals the mechanical heterogeneity of stratum corneum. GK German, E Pashkovski, V Horsley and ER Dufresne. New Haven, CT.


* Lorićnic deficient mice as a model for atopic dermatitis. AJ Huebner, Y Refaeli and DR Roop. Aurora, CO.

The effect of truncating the c-terminal domain of the Cldn6 tail in an aging phenotype of transgenic mice. NM Larivére, A Enikanolaiye, T Troy, A Azarbadézad, T Omar and K Turksen. Ottawa, Canada.

* Differentiation of human induced pluripotent stem (iPS) cells into keratinocytes. M Itoh and AM Christiano. New York, NY.


“Bathing suit ichthyosis” — A unique phenotypic variant of lamellar ichthyosis observed in a Jamaican female. ML Shelling, JM Vega and E Connelly. Miami, FL.

An unexpected role of transcription factor Ovol2 in epidermal integrity. B Lee and X Dai. Irvine, CA.

The role of Pecanex, a novel member of Notch pathway, in epidermal and hair follicle morphogenesis. C Celaj and AM Christiano. New York, NY.


Inositol polyphosphate-5-phosphatase (INPP5A) expression is associated with increased differentiation and decreased proliferative capacity of normal human keratinocytes. A Sekulic, M Pithitlow, S Shack, L Alla, M Bittner and J Trent. Scottsdale, AZ; Rochester, MN and Phoenix, AZ.

Improved dermal responsiveness and reproducibility in the human 3D skin model AccuSkin. C Tapia, C Goecke and W Hoeffler. Sausalito, CA and San Rafael, CA.

** Genetic Disease, Gene Regulation and Gene Therapy

All orals [designated with an asterisk (*)] listed below are presented in the Genetic Disease, Gene Regulation and Gene Therapy Minisymposium on Thursday, May 6, 2010 from 2:00-5:30 p.m. in Room 208-209, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

** Gene suppression in skin through topical delivery of polyvalent siRNA-gold nanoparticles. AS Paller, D Giljohann, D Zheng, H Iordanov, X Wang and CA Mirkin. Chicago, IL and Evanston, IL.

** Different immuno-suppressive strategies are required to control immune responses to antigenic fibroblistas and keratinocites: Implications for cutaneous gene/cell therapy. W Zhang, C Kusc and S Ghazizadeh. Stony Brook, NY.
504 Regulating the expression of genes responsible for the synthesis and maintenance of dermal hyaluronic and barrier lipids via topical treatment of salicin-an in vitro analysis. R Gopaul and HE Knaggs. Provo, UT.

505 Salicin reduces the expression of genes associated with skin inflammation — An in vitro analysis. R Gopaul and HE Knaggs. Provo, UT.

506 LIPH-prevalent founder mutations lead to loss of P2YS activation ability of PA-PLA1a in autosomal recessive hypotrichosis. S Shinikuma, M Akiyama, A Inoue, J Aoki, K Natsuga, T Nomura, K Arita, R Abe, W Nishie and H Shimizu. Sapporo, Japan; Sendai, Japan and Dundee, United Kingdom.

507 Combination therapy of Rapamycin and Imatinib synergistically inhibits and H Shimizu. Sapporo, Japan; Sendai, Japan and Dundee, United Kingdom. Akiyama, A Inoue, J Aoki, K Natsuga, T Nomura, K Arita, R Abe, W Nishie and H Shimizu. Sapporo, Japan; Sendai, Japan and Dundee, United Kingdom.

508 Genomewide association study of generalized vitiligo identifies specific and shared autoimmunity susceptibility genes. RA Spritz. Aurora, CO.

509 Redirecting adult human skin keratinocytes into smooth muscle cells via temporary reprogramming. DM Pacila and JR Bickenbach. Iowa City, IA.

510 Increased lysyl hydroxylase2(long) mRNA in scleroderma skin correlates with formation of pyridinol collagen crosslinks. LA McClellan, LC Walker, M Yamauchi, H Nagaoka, RP Hall, WE St. Clair and HN Yeowell. Durham, NC and Chapel Hill, NC.

511 Filaggrin mutation study and clinical characterization of patients with ichthyosis vulgaris and atopic dermatitis in Kyushu area, the most southern part of Japan. K Teve, T Hamada, S Sakaguchi, S Fukuda, N Ishitomi, S Yasumoto and T Hashimoto. Kurume, Japan.

512 Distribution of mitochondrial DNA deletions in Cm m/m and Cm C/- mice of different ages. Y Kamenshchik, A von Thaler, R Kuiper, van Hees, M Röcken, L Müller, and M Berneburg. Tuebingen, Germany; Leiden, Netherlands and Utrecht, Netherlands.

513 Connecting base excision repair (BER) and nucleotide excision repair (NER) within mitochondria: Cockayne syndrome A and B interact in complexes with mitochondrial mtDNA repair associated proteins 8-oxo-guanosine glycolysis (hOGG)-1 as well as mt single strand binding protein (SSBP)-1. Y Kamenshchik, J Knoch, A von Thaler, M Schaller, van Hees, M Röcken, L Mullenders and M Berneburg. Tuebingen, Germany; Leiden, Netherlands and Utrecht, Netherlands.

514 A survey of c-Kit mutations in adult-onset and childhood-onset mastocytosis patients. J Chan and MD Tharp. Chicago, IL.

515 Identification and characterization of zebrafish orthologues ofSAMD9 - the gene mutated in familial tumoral calcinosis. Q Li, M Frank, E Sprecher, S Ho and J Uitto. Philadelphia, PA and Tel Aviv, Israel.

516* The abca12 gene is required for normal zebrafish skin development - a model system for harlequin ichthyosis. M Frank, Q Li, M Akiyama, H Shimizu, S Ho and J Uitto. Philadelphia, PA and Sapporo, Japan.

517 The rate of wound healing is increased in psoriatic skin. VB Morhenn, SR Smith, EY Huang and D Grulich. San Diego, CA, and LA, Jolla, CA.


519* DNMT1 maintains epidermal progenitor function. GL Sen, JA Reuter, DE Webster, L Zhu and P Khavari. Palo Alto, CA and Stanford, CA.


521 Follow up study identifies two novel susceptibility loci for systemic lupus erythematosus in Chinese Han population. S Tang, Y Li, Z Zhang, J Han, L Sun and X Zhang. Hefei, China.

522 A genome-wide association study of vitiligo identifies two independent associations within MHC region and one novel susceptibility locus on 6q27. L Sun, S Yang and X Zhang. Hefei, China.


524 A double-blind, randomized, vehicle-controlled proof of concept study to evaluate the safety, local tolerability, pharmacokinetics and pharmacodynamics of multiple topical administrations of LDE225 (a specific smoothed inhibitor) on skin basal cell carcinomas in Gorlin Syndrome patients. MA de Rie, H Skvara, L Mickel, C Schuster, G Starry, A Stuetz, F Kalthoff, AM Costa Antunes, OJ David, K Rose, AP Bertolino and G Stingl. Basel, Switzerland; Austria and East Hanover, NJ.

525* Pemphigus vulgaris: A genome-wide association study. O Sarig, S Bercovici, L Zoller, M Indelman, I Goldberg, R Bergman, S Israel, S Rosenzweig, M Arvasi, D Geiger and E Sprecher. Tel Aviv, Israel; Haifa, Israel and Jerusalem, Israel.

526 Clerici-type poikiloderma with neutropenia resulting from a homozygous internal deletion mutation, c.179delC, in the Cbf57 gene. A Tanaka, F Morice-Picard, HR Revzani, M Hide, A Taieb and JA McGrath. London, United Kingdom; Hiroshima, Japan and Bordeaux, France.

527 Association of single nucleotide polymorphisms in the IL-12 and IL-12 receptor genes and gene-gene interactions with atopic dermatitis in Koreans. E J Kim, J Lee, J Namkung, S Kim, S Kim, E Shin, E Cho and J Yang. Seoul, South Korea and Cleveland, OH.


533 Correction of a mutant keratin 6a gene in HEK293 cells using small oligonucleotides. H Zambrano, J Zhou, PM Glazer, W McLean, RE Leube and LM Milstone. New Haven, CT; Dundee, United Kingdom and Aachen, Germany.

534 Mutations in the Zinc transporter gene SLC39A13 do not account for the phenotype of Ehlers-Danlos syndrome type VIb in cell lines from 15 patients. LC Walker, EM Ju and HN Yeowell. Durham, NC.


536 Global transcriptional analysis in psoriasis skin and blood highlights several genomic hotspots for differentially expressed genes. M Icen, JR Smith and AA Sinha. East Lansing, MI.

537* Topical application of type VII collagen for wound healing and treatment of DEB. P Gharti, X Wang, A Ng, D Woodley and M Chen. Los Angeles, CA.

538 Polymorphisms in the obesity related FTO gene are associated with psoriasis. R Soltan-Arabshahi, B Feng, K Callis Duffin, DE Goldgar, SC Hunt, RP Nair, JT Elder, GR Abecasis, AM Bowcock and GG Krueger. Salt Lake City, UT; Ann Arbor, MI and Saint Louis, MO.

539 Altered DNA methylome in patients with atopic dermatitis. J Han, K Shin and J Seoul, South Korea.

540* Delineation of the mode of action of SAMD9, a protein deficient in familial tumoral calcinosis. O Hershkovitz, A Aronheim, Y Gross, O Sarig, A Salzberg, N Avidan, and J Uitto. Tel Aviv, Israel, Tel Aviv University and Philadelphia, PA.


542 Cylindrosporadenum may arise from immunoprivileged hair follicle stem cells and are vulnerable to anti-inflammatory treatment. NT Meier, KC Meyer, C Rose and R Paus. Luebeck, Germany and Manchester, United Kingdom.

543* A milieu of regulatory elements in the epidermal differentiation complex (EDC) syntenic block: Implications for atopic dermatitis and psoriasis. C de Guzman Strong, S Conlan, CB Deming, J Cheng, K Sears and JA Segre. Bethesda, MD and Urbana, IL.

544* A large mutational study in pachyonychia congenita. NJ Wilson, SA Leachman, PR Hull, LM Milstone, ME Schwartz, CD Hansen and EL Smith. Dundee, United Kingdom; Salt Lake City, UT; SaoKato, Canada and New Haven, CT.

545* The mouse Samd9L gene: Developmental and tissue-specific expression. Q Jiang, B QuanYao, A Sun, Q Li, H Matsu, H Honda, E Sprecher and J Uitto. Philadelphia, PA; Hiroshima, Japan and Tel Aviv, Israel.
546 Mutation-specific siRNA therapy for epidermolysis bullosa simplex. **VE McQuillan, S Atkinson, H Liao, T Moore and I Mclean. Dundee, United Kingdom and Coleraine, United Kingdom.**


548* Aminoglycosides restore type VII collagen function by overcoming premature stop mutations: Implications for DEB therapy. **J Weinstein, J Cogan, Y Hou, S Martin, X Wang, P Ghiasi, A South, D Woodley and M Chen. Los Angeles, CA and Dundee, United Kingdom.**

549 Linking alopecia areata to atopy: Evaluation of transcriptionally regulated genes in patient subsets suggests a shared basis for genetic susceptibility. **A Codg and AA Sinha. East Lansing, MI.**

550 A comparison of Type VII collagen levels, mmp1 promoter polymorphism and clinical severity in a Mexican cohort of patients with recessive dystrophic epidermolysis bullosa. **J Garza-Gomez, J Salas-Alanis, J Ocampo-Candiani, M Gomez-Flores, J McGrath and AP South. Monterrey, Mexico and Dundee, United Kingdom.**

551* Genome-wide association study in alopecia areata implicates both innate and adaptive immunity. **J Petukhova, M Duvic, M Hordinsky, D Norris, V Price, Y Shimomura, H Kim, P Singh, A Lee, WV Chen, KC Meyer, R Paus, C Jahoda, CI Amos, PK Gregersen and AM Christianso. New York, NY; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA; Manhasset, NY; Lubeck, Germany; Manchester, United Kingdom and Durham, United Kingdom.**


553* Hairless and the polypeptide putrescine form a negative feedback loop in keratinocytes. **C Luke, C Alex, H Kim, S Gilmour and AM Christianso. New York, NY and Wynnewood, PA.**


555 Whole-genome transcriptional profiling for the evaluation of psoriasis-like mouse models. **WR Swindle, A Johnston, E Baerwald, JT Elder, EP Prent, NL Ward and JE Gudjonsson. Ann Arbor, MI; Rotterdam, Netherlands and Cleveland, OH.**

556 Tumour necrosis factor alpha promoter -308g/a (tnfa -308g/a) polymorphism in Mexican patients with alopecia areata. **CS Salinas-Cantu, M Salinas-Santander, A Lagos-Rodriguez, C Sanchez-Dominguez, C Rios-Ibarra, R Ortiz-Lopez and J Ocampo-Candiani. Monterrey, Mexico.**

557* Promoter elements and protein function of TNFIP1 indicate a regulatory feedback loop. **C Zhang, P Encarnacao, G Gurevich and B Aaneskivich. Storrs, CT.**


559 A nonsense mutation in the SCNA9 gene in congenital insensitivity to pain. **M Kiu, M Kurban, M Wajid, Y Shimomura and AM Christianso. New York, NY.**

560 Evaluation of functional siRNA delivery in a human epidermal skin equivalent model. **RP Hickerson, D Leake and RL Kaspar. Santa Cruz, CA and Lafayette, CO.**

561 Silencing of reporter gene expression in skin using siRNAs delivered by a soluble protrusion array device (RAD). **G Gonzalez-Gonzalez, TJ Speaker, R Hickerson, R Spiter, M Flores, D Leake, CH Contag and RL Kaspar. Stanford, CA; Santa Cruz, CA and Lafayette, CO.**

562 Increased interstitial pressure increases nucleic acid delivery to skin enabling a comparative analysis of constitutive promoters. **E Gonzalez-Gonzalez, H Ra, R Spiter, RP Hickerson, CH Contag and RL Kaspar. Stanford, CA and Santa Cruz, CA.**

563* Differentiation of induced pluripotent stem cells into a multipotent keratinocyte lineage. **S Bilousov, J Chen and DR Roop. Aurora, CO.**


565 Copy number variations upstream of SOX9 gene are associated with hypertrichosis. **M Kurban, M Kiu, Y Shimomura, J Salas, K Fantauzzo, B Levy and AM Christianso. New York, NY and Monterrey, Mexico.**

566 The first Asian case of Dowling Degen Disease described with a recurrent keratin 5 mutation. **RL Haines, JE Common, D Lunny, K Chong, E Lane and B Goh. Singapore, Singapore.**

567 MicroRNAs in the epidermis and dermis are associated with skin and hair follicle morphogenesis. **M Tavazoie, C Higgins, K Inoue, K Fantauzzo, H Bazzi, GD Richardson, C Jahoda and AM Christianso. New York, NY and Durham, United Kingdom.**

568 Gene-breaking mutagenesis in zebrafish identifies the novel epidermal mutant wicked witch of the Midwest. **SE Westcott, D Balcunas, S Sivasubbu, JK Clark, AM Petzold, G Moulder, TM Greenwood and SC Eker. Minneapolis, MN; Rochester, MN; Philadelphia, PA and New Delhi, India.**

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**Growth Factors and Signal Transduction**

All orals [designated with an asterisk (*)] listed below are presented in the Growth Factors and Signal Transduction Minisymposium on Friday, May 7, 2010 from 2:00-5:30 p.m. in Salon D, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

569 Pitavastatin suppresses lipid peroxidation-induced VEGF expression in the skin of KKAY metabolic syndrome mice. **K Nakai, K Yoneda, Y Ishihara, K Ohmori, T Moriue, I Gishari, M Kohno, H Kosaka and Y Kubota. Kita, Japan.**

570 Calcium-induced epidermal differentiation is a reversible process regulated by PKD. **A Jadaal and S Ghazizadeh. Stony Brook, NY.**

571 Uregulation of nuclear factor-κB (NF-κB) expression by SLURP-1 via Keratinocyte α7 Nicotinic Acetylcholine Receptor (nAChR) involves both ionic events and activation of protein kinases. **A Chernyavsky, J Qian and SA Grando. Irvine, CA.**

572* Role of Smad-interacting protein 1 (SIP1) in collagen synthesis of dermal fibroblasts. **M Teraishi, M Takeda, M Ikeda, T Furukawa, T Fukada, S Shimoda, Y Asada and S Sano. Nankoku, Japan; Suita, Japan and Yokohama, Japan.**

573* ErbB2 interacting protein (Erbvin) binds unique domains of the desmoglein 1 C-terminus to form a complex that cooperatively promotes epidermal differentiation. **CL Simpson, R Harmon, S Getsoins and KL Green. Chicago, IL.**

574 Neurotrophins stimulate human fibroblast differentiation, migration and contractile strength. **K Dallaggio, E Palazzo, A Marconcini, C Viennet, M Dumas, P Humbert and C Pincelli. Modena, Italy; Saint Jean de Braye, France and Besancon, France.**

575* Targeted inducible expression of wnt5a in adult mouse epidermis. **J Reilly, M Romanowska and J Foerster. Dundee, United Kingdom.**

576 Opposing actions of insulin and arsenite converge on PKCδ to alter keratinocyte proliferative potential and differentiation. **TV Reznikova, MA Phillips, TJ Patterson and RH Rice. Davis, CA.**

577 Endogenous galectin-3 positively regulates keratinocyte migration by controlling EGFR intracellular trafficking through Alix. **W Liu, DK Hsu, H Chen, R Yang, L Larsen, RS Isseroff and F Liu. Sacramento, CA and North Chicago, IL.**

578* STA-21, a stat3 inhibitor, induces differentiation of normal human epidermal keratinocytes and human keratinocyte derived cell lines. **M Takaishi, M Yokogawa, K Miyoshi, K Nakajima, J DiGiavvano and S Sano. Nankoku, Japan and Austen, TX.**

579 Spermidine stimulates hair follicle elongation and anagen prolongation, accompanied by increased keratin K15 expression. **Y Ramot, S Tiede, G Giuliani and R Paus. Jerusalem, Israel; Luebeck, Germany; Milan, Italy and Manchester, United Kingdom.**

580* EphA2 negatively regulates erelmal Erk1/2-MAPK signaling and growth. **S Lin, K Gordon and S Getsoins. Chicago, IL.**

581* Th2 cytokines-induced dual oxidase 1 in human epidermal keratinocytes makes a positive feedback loop for IL-4/IL-13 signaling by augmenting STAT6 phosphorylation via oxidative inactivation of protein tyrosine phosphatase 1B. **S Hirakawa, R Saito, H Obara, R Okuyama and S Aiba. Sendai, Japan and Yokahama, Japan.**

582 Vegetable peptide SP005 promotes activation of mTOR pathway through ERK/MAPK signal in stem cell proliferation. **J Lee, E Jung, S Huh, K Roh, Y Kim, D Park and J Lee. Gunpo-City, South Korea.**

583 Eotaxin-CCR3 interaction promotes survival of anaplastic large cell lymphoma cells via ERK1/2 activation. **T Miyagaki, M Sugaya, T Kadono, T Murakami, H Okochi, K Tamaki and S Sato. Tokyo, Japan and Tochigi, Japan.**
Adipose-derived stem cell-cultured media improves oxazolone induced atopic dermatitis skin lesions. H Lee, M Jung and E Choi. Wonju, South Korea.


586 Genetic deletion of Egfr results in delayed catagen associated with defective cell cycle progression. M Michael, DA Porto, E Forney, C Poole and LA Hansen. Omaha, NE.


588* The TBIIRI Expression Levels determine whether TGFβ activates or inhibits ERK without participation of TBIIRI. A Han, B Bandypadhy, J Dai, J Fan, Y Li, M Chen, D Woodley and W LI. Los Angeles, CA.


590 UV irradiation reduces Type II TGF-β receptor expression by transcriptional repression through a 3β base pair promoter sequence in human skin fibroblasts. T He, T Quan, Z Qin, JJ Voorhees and GJ Fisher. Ann Arbor, MI.

591* Deacetylated ganglioside GM3 activates uPAR/p38 MAP kinase signaling in caveolar domains. X Wang, P Sun, J Liu, Q Yan and AS Paller. Palo Alto, CA.

592 p75NTR mediates apoptosis in transit amplifying (TA) cells and its overexpression restores cell death in psoriatic keratinocytes. F Truzzi, A Marconi, R Lotti, K Dallaglio, E Palazzo, R Borroni, C Vaschieri, R Tiberio and C Pincelli. Modena, Italy and Novara, Italy.

593** Adipocytokines and adiponectin secretion plays a major role in skin physiology and in diabetes wound healing pathology. L Braiman-Wiksman, R Mandil-Levin, M Ben-Hamo and T Tennenbaum. Revehot, Israel.

594* The role of the PLD2/AQP3/PG signaling module in keratinocyte proliferation and differentiation. H Qin and WB Bollag. Augusta, GA.

595* Tissue inhibitor of metalloproteinase 1 is induced in Th1 and Th17 t-helper cell subsets in a stat-dependent manner. AS Adamson, A Laurence, K Ghoreschi, M Rittler, Y Kanno, L Wei, W Stetler-Stevenson and J O'Shea. Cambridge, MA and Bethesda, MD.

596 Withdrawn.

597 Irritant induced purine release mediates EGFR activation in vitro. K White, M Newton-West, VJ Maﬁfﬁ and RA Swerlick. Atlanta, GA and Decatur, GA.

598 Cathepsin S is a cysteine protease, elicits itch and signals via protease-activated receptors. EA Lerner, Y Sun, SG Shimada, P Sikand, RH LaMotte and WB Reddy. Charlestown, MA and New Haven, CA.


601 A study of NGF levels in atopic dermatitis. N Hacohen, JJ Campbell and M Boes. Boston, MA; Charlestown, MA; Philadelphia, PA and Smithville, TX.

602 The phospholipase D2-aquaporin-3-phosphatidylglycerol lipid signaling pathway in corneal epithelial proliferation and migration. D Xie and WB Bollag. Augusta, GA.

603 UVR induction of snail and slug is independent of lipid raft composition. SH Shirley, S George, S Wu and DF Kusewitt. Smithville, TX and Athens, OH.

604* Slug modulates ultraviolet radiation induction of calpain-protectin in keratinocytes. J He and DZ Kusewitt. Smithville, TX.

605 Modulation of signal transduction by (-)spigaicolactechin-3-gallate (EGCG) in sebocytes. J Kim, DM Thiboutot and D Suh. Seoul, South Korea and Hershey, PA.

606* Amphiregulin carboxy-terminal domain regulates autocrine keratinocyte growth and differentiation. SW Stoll, L Rittié and JT Elder. Ann Arbor, MI.

Hair and Cutaneous Development

All orals [designated with an asterisk (*)] listed below are presented in the Hair and Cutaneous Development Minisymposium on Friday, May 7, 2010 from 2:00-5:30 p.m. in Salon D, Hilton Atlanta or in the Hair and Cutaneous Development II: Hair Differentiation & Cycling Minisymposium on Saturday, May 8, 2010 from 2:00-5:30 p.m. in Salon D, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.


608 Probiotic Lactobacillus rhamnosus LR-04 oral supplementation improves dendruff condition. G Giuliani, A Benedusi, B Marzani and M Ascalo. Milano, Italy.


610* Defective metabolic degradation of retinoic acid in mice lacking Cyp26b1 alters skin development. J Okano, U Lichti, M Aronova, G Zhang, SH Yusu, Y Sakai and Mi Morasso. Bethesda, MD and Osaka, Japan.


613 Gene expression profiling reveals similarities and distinct differences between lymphoepithelial and neutrophilic cicatricial alopecias. S Parameswara Panicker, L Xu, MC Consoho, VH Price, P Mirrimeri and P Karkini. Cleveland, OH; San Francisco, CA and Vallejo, CA.

614 Expression of MPFL3 during mouse skin differentiation. J Weiss, R Rodriguez, P Racz, GY Nakamatsu, K Csiszar and Z Cao. Miami, FL and Honolulu, HI.

615 The role of Prostaglandin D2 and its receptor DP-2 in promotion of androgenetic alopecia. LA Gargia, B Alagesan, JA Lawson, SM Norberg, E Loy, T Zhao, DC Stanton, L Carrasco, SM Fischer, GA Fitzgerald and G Cotsarelis. Baltimore, MD; Philadelphia, PA and Smithville, TX.


617* Fuz is a PCP effector gene that controls the morphogenesis and differentiation of hair follicles. D Dai, H Zhu, BW Wlodarczyk, Z Zhang, AG Li, RH Finnèl, DR Roop and J Chen. Aurora, CO; Houston, TX and Portland, OR.

618* Dermal Sonic Hedgehog signaling is required for hair follicle morphogenesis and regeneration. W Woo, HZ Zhen and AE Oro. Palo Alto, CA.

619* Deletion of dermal integrin beta-1 leads to adhesion, but not hair follicle morphogenesis, defects. MC DeRouen, MP Marinovich and AE Oro. Stanford, CA.

620* Patterning dissociated heterotypic adult cells into functional folliculoid organ germs by substrate-facilitated self-assembly. J Hong, C Chan, C Yen and S Lin. Taipei, Taiwan.

621 VEGF stimulates proliferation of human outer root sheath cells through VEGF receptor-2 mediated ERK signal pathway. M Zheng, W LI, C Li, X Man, Y Yang, S Cai and Z Z. Hangzhou, China.


626* IRF3 and IRF6 are components of a common molecular pathway disrupted in ectodermal dysplasias. F Moretti, G Spallone, E Botti, A Giunta, N Lo Iacono, G Merlio, A Mills, S Alemà, S Chimenti, L Guerrini and A Costanzo. Rome, Italy; Milan, Italy; Turin, Italy; Cold Spring Harbor, NY and Monterotondo, Italy.
627 Effects of extracellular calcium on cultured sebocytes. J Kim, W Lee, H Kim, B Kim, S Lee and D Kim. Daegu, South Korea and Busan, South Korea.


629 Withdrawn.

630 New pointers towards a role of perifollicular mast cells in alopecia areata. M Bertolini, P Kleditzsch, VJU Emelianov, K Sugawara, KC Meyer and R Paus. Lübeck, Germany and Manchester, United Kingdom.

631 A Safe and effective new topical treatment for nail fungus (Onychomycosis). G Polson, N Skoulis, D Ciccognani, K Roberts, K DiNicola, K Lou and J Gruber. Cheshire, CT.

632 Inhibition of sebaceous gland differentiation and production of sebum-specific lipids by a melanocin receptor 3 antagonist. M Eisinger, W Li, M Anthonavage, L Zhang, A Pappas, D Rossetti and M Seiberg. Skillman, NJ.


634** Genome organizer and special A-rich binding protein Satb1 controls the establishing tissue-specific chromatin organization during development of the epidermis. MFessing, MR Gdula, AN Mardaryev, AA Sharov, TY Sharova, KB Gordon, K Kohwi-Shigematsu and VA Botchkarev. Bradford, United Kingdom; Boston, MA and Berkeley, CA.

635 Autoimmunity, skin morphology and hair cycling in a mouse model of systemic lupus erythematosus. T Parsons, E Hagen, L Xu, B Sakic and P Arck. Hamilton, Canada and Berlin, Germany.


641* Tonic inhibition of human and mouse skin mast cell functions in situ by endocannabinoids and cannabinoid receptor 1 (CB1)-mediated signaling. K Sugawara, T Bíró, A Kromminga, A Zimmer, BF Gibbs, A Zimmer and R Paus. Luebeck, Germany; Debrecen, Hungary; Hamburg, Germany; Bonn, Germany; Kent, United Kingdom and Manchester, United Kingdom.

642* Identification of human ABCB5 dermatogenic progenitors with multipotent differentiation plasticity. S Kim, B Meier, T Schattorh, B Wilson, Q Zhou, YH Loh, GQ Daley, MH Sayegh, Y Ziouta, C Ganso, K Scharffetter-Kochanek, GF Murphy, MH Frank and NY Frank. Boston, MA; Ulm, Germany and Heidelberg, Germany.

643* Regulation of Shh and Sox9 by Trp53 in the developing murine hair follicle. KA Fantauzzo and AM Christiano. New York, NY.


645* The miRNA-processing enzyme Drosha is required for hair follicle regression, hair shaft differentiation, long-term maintenance of hair follicle stem cells, and epidermal homeostasis. Y Choi, A Nagy, O Tam, GJ Hannon and SE Millar. Philadelphia, PA; Toronto, Canada and Cold Spring Harbor, NY.

646 Effect of the Lexington LaserComb on hair regrowth in the C3H/HeJ model of alopecia areata. JJ Jimenez, T Cao, R Sevel, LM Mauro, K Nouri and LA Schachner. Miami, FL and Ann Arbor, MI.

647* Inductive signaling from the dermal papilla of the hair follicle. D Enshel-Seiffers, M Kashiwagi and BA Morgan. Boston, MA.

648* Adult human epithelial stem cells are a novel target for thyroid hormone regulation in situ and in vitro. K Bohm, S Tiede, N Meier and R Paus. Lübeck, Germany and Manchester, United Kingdom.

649* The nude mutant gene Foxn1 is a HOXC13 regulatory target during hair follicle and nail differentiation. CS Potter, ND Pruett, MJ Kern, AR Godwin, JP Sundberg and A Awguliewitch. Charleston, SC; Kansas City, KS and Bar Harbor, ME.

650* The ΔNp63 isofrom is an essential regulator of epithelial development and stem cell renewal. R Romano and S Sinha. Buffalo, NY.


655* Extrinsic regulation of hair follicle cycling. E Festa, M Rodeheffer, M Horowitz and V Horsley. New Haven, CT.


657* Negative regulation of Shh expression in a model of the RAS/MAPK syndromes. A Mukhopadhyay, S Kumar and BD Yu. San Diego, CA.


659 Age, gender and ethnic variations in sebaceous lipids. A Pappas, J Fantasia and T Chen. Skillman, NJ.

660 Suppression of DNA degradation by inactivation of DNase1L2 leads to increased fragility of hair. H Fischer, S Szabo, J Scherz, J Jaeger, M Buchberger, H Rossiter, M Ghannadan, R Gmeiner, M Hermann, DJ Tobin, EF Wagner, E Tschachler and L Eckhart. Vienna, Austria; Bradford, United Kingdom; Madrid and Paris, France.


662* The living wave: Self-organizing regenerative behavior of stem cells revealed in the cycling of large hair follicle populations. MV Pike, RE Baker, C Chen, Fare, D de la Cruz, PK Maini, S Millar, RB Widelitz and CM Chuong. Los Angeles, CA; Oxford, United Kingdom and Philadelphia, PA.

663 Generation of induced pluripotent stem cells by reprogramming human dermal papilla cells. CA Higginson, M Ito, K Inoue, GD Richardson, CA Jahoda and AM Christiano. New York, NY and Durham, United Kingdom.

664* Wnt/b-Catenin- and depletion-induced activation of hair follicle stem cells requires chromatin regulatory protein Pyg02. P Sun and X Dai. Irvine, CA.

665* Defining BMP functions in hair follicle stem cell homeostasis by conditional ablation or activation of BMP receptor 1A. E Kandyba, Y Leung, Y Chen and K Kobielak. Los Angeles, CA.


667* c-myl ablation affects hair follicle homeostasis. J Murphy, E Lustiger, JC Strange, J Frampont and A Engelhard. New York, NY and Edgbaston, United Kingdom.

668* Keratin 74 is a novel determinant of human hair texture and is mutated in autosomal dominant woolly hair. Y Shimomura, M Wajid, L Petukhova, M Kurbain and AM Christiano. New York, NY.

669 Differences in mean current intensity required to evoke sensation in c-fibres in the scalp of alopecia areata subjects and normal controls. R Farah, R Farah, A Junqueira, H Guo, N Gallus, M Ericson, C Boeck and M Hordinsky. Minneapolis, MN.

670 Reconstitution of human hair follicles using fetal epidermal and dermal cells. C Yang, D Gay and C Cotsarelis. Tainan, Taiwan and Philadelphia, PA.

672 Effects of fermented Rhus verniciflua Stokes extract (FRVE) on hair regeneration in cyclopensamide-induced Alopoea model C57Bl/6 mouse. P Lee, M Kim, H Shin, S Park and T Yi. Yongin-si, South Korea.

673 Impact of copy number variations in the human genome on hair patterns. Gk Lefkowitz, A Muthopadhyay, C Cowing-Zitrion and BD Yu. La Jolla, CA.

Immunology I: Adaptive Immunity

All orals [designated with an asterisk (*)] listed below are presented in the Immunology 1: Adaptive Immunity Minisymposium on Thursday, May 6, 2010 from 2:00-5:30 p.m. in Salon B, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

674 Different effects of active or IgE-dependent passive systemic anaphylaxis on endothelin-1. M Metz, B Schäfer, M Tsaï, M Maurer and SJ Galli. Berlin, Germany and Stanford, CA.

675* Galectin-1 is a potent inducer of a regulatory phenotype on skin-resident memory T cells. F Cedeno-Laurent, SR Barthel, RA Clark and CJ Dimumtroff. Boston, MA.


677 Exposure of Langerhans cells (LCs) to pituitary adenylate cyclase-activating peptide (PACAP) or vasoactive intestinal peptide (VIP) biases antigen presentation towards a CD4+ T cell IL-17 response. W Ding, LL Stohl, M Manni and RD Granstein. New York, NY.

678 Muramyl dipeptide induces Th17 polarization through activation of endothelial cells. M Manni, W Ding, LL Stohl and R Granstein. New York, NY.

679* PD-1 expression is a marker of a tumor-reactive but functionally impaired lymphocyte population influencing human melanoma. T Inozume, K Hanada, J Wunderlich, S Rosenberg, S Shimada and Y James. Bethesda, MD and Chuo, Japan.


681* Desmoglein 3-specific TCR transgenic CD4+ T cells that escape from central tolerance induce autoreactive dermatitis. H Takahashi, S Koyasu, M Kuwana and M Amagai. Tokyo, Japan.

682 Both the elicitation phase of contact hypersensitivity response and irratant dermatitises are suppressed by administration of Thioderoid. A Fukunaga, T Horikawa, K Ogura, K Taguchi, X Yu, Y Funasaka, M Takeda, H Nakamura, J Yodoi and C Nishigori. Kobe, Japan.

683 A novel polyclonal peripheral B cell tolerance model (Liver specific Ig-k SuperAntigen). T Otta, M Aoki-Ota, B Duong and D Nemazee. La Jolla, CA.


685 The effect of clonal mesenchymal stem cells on IgE production of activated B cells. H Lee, J Byun, C Choi and J Shin. Incheon, South Korea.

686* Discovery of a new dendritic cell subset, termed “gr-DC”, derived from a granulocyte precursor. S Geng, H Matsushima and A Takashima. Toledo, OH.

687* In vivo immunomodulatory functions of Abcbs B dermal mesenchymal stem cells. T Schatton, J Yang, M Grimm, M Gasser, AM Waaga-Gasser, MH Sayegh and MH Frank. Boston, MA and Würzburg, Germany.

688 Abscopal effect in a patient with metastatic Merkel cell carcinoma following radiation therapy. SE Cotter, PM Devlin, KM Colins, D Sahni, AK Ng and LC Wang. Boston, MA.


691 Chemokine requirements for epidermal T cell trafficking. JJ Campbell and NJ Tubo. Boston, MA.

692 Abnormal barrier function and allergen skin inflammation in mice overexpressing Th2 cells via a constitutively active Stat6 gene. S Da Silva, S Sehra, MD Southall, MH Kaplan and JB Travers. Indianapolis, IN and Skillman, NJ.

693* Langerhans cells induce expansion of skin resident tregs in the absence of exogenous antigen, but activate T effector memory cells in the presence of microbial antigen. J Senescha, RA Clark and TS Kupper. Boston, MA.

694 Comparison of flow cytometry and ELISA in the evaluation of the skin sensitization by non-radioactive murine local lymph node assay using bromodeoxyuridine. K Jung, J Lee, Y Chung, Y Park and K Lim. Youngin-si, South Korea and Seoul, South Korea.

695 A controlled aquaporin-3 expression in T lymphocytes regulate their migration and trafficking in cutaneous immune reaction. M Harachikuma, S Chikuma, K Kabashima, K Nakahigashi, A Kamegawa, Y Fujiyoshi, AS Verkmann, Y Sugiyama, S Inoue and Y Miyachi. Kyoto, Japan; Odawara, Japan and San Francisco, CA.

696 Propionibacterium acnes vaccination improves mouse atopic dermatitis inducing regulatory T cells and Th1 immune response. H Kitagawa, K Yamaoka, M Kakeda, H Inada, Y Imai, EC Gabaza, I Kurokawa and H Mizutani. Tsu, Japan and Nishinomiya, Japan.

697 Serum- and glucocorticoid-inducible kinase 1 is critical for early but dispensable for delayed type mast cell responses. F Wolbing, M Sobiesiak, E Shumiliina, S Kaisers, RL Nam, M Matzner, IM Zemtsova, A Luespcu, N Zahir, D Kuhl, M Schaller, F Lang and T Biedermann. Tübingen, Germany and Hamburg, Germany.

698 Role of HERV-K dUTPase in immune dysregulation and psoriasis disease. M Arita and MV Williams. Columbia, SC and Columbus, OH.


700 Interleukin-31 directly regulates neuronal function in inflammation and itch. F Cevikbas, X Wang, S Siewioger, M Fischer, SR Dillon, B Homey, A Basbaum and M Steinhoff. San Francisco, CA; Goettingen, Germany; Seattle, WA; Erlangen, Germany; Dudesseldorf, Germany and Muenster, Germany.

701* Sustained skin specific inflammation elicits increases in circulating Ly-6C monocytes and spontaneous atherosclerotic plaque formation in a murine model of psoriasis. Y Wang, H Gao, C Matheny, W F, D Diaconou, S Liu, KD Cooper, Dl Simon, TS McCormick and Nd Ward. Cleveland, OH.

702 Langerhans cells require cognate interaction with CD4 T cells and secrete IL-10 to suppress CHS responses. B Igyarto, JC Dudda, A Roers, PA Koni, DJ Campbell and DH Kaplan. Minneapolis, MN; Seattle, WA; Dresden, Germany and Augusta, GA.

703 Acute ablation of epidermal Langerhans cells enhances skin immune responses. A Bobr, I Olvera-Gomez, BZ Igyarto, KA Hogquist and DH Kaplan. Minneapolis, MN.

704 Homoslofavinone prevents allergic responses by degranulation of mast cells through the inhibition of FceRL signaling pathways. Y Lee, S Hur and T Kim. Seoul, South Korea.


707 IFR8 as a potentially key determinant in the activation or death of CD8 T cells. F Miyagawa, EA Nelson and SI Katz. Bethesda, MD.

708 Deletion of microRNAs mediated by Langerin-Cre impairs epidermal Langerhans cell development. H Wang, K Li, R Qi, K Seo, Z Zheng, D Kaplan, Q Mi and L Zhou. Detroit, MI and Minneapolis, MN.

709 Effect of extracorporeal photopheresis on dendritic cell populations in patients with Sézary syndrome and graft versus host disease. LH Shiue, M Goswami, A Alousi, M Duvic and X Ni. Houston, TX.

710* Retinooid Orphan Receptor-gamma (ROR-γ) deficient mice generate potent Th9 responses, but not Th17 responses, under Th17 polarizing conditions. R Purwar, AM Jetten and TS Kupper. Boston, MA and Research Triangle, NC.
711 Deficiency of retinoid related orphan receptor-gamma (ROR-γ) results in impaired contact hypersensitivity (CHS) responses, but enhanced melanoma tumor immunity. R Purwar, AM Jetten and T Kupper. Boston, MA and Research Triangle, NC.

712** Effector memory T cells persist long term in the skin, and their recirculation into blood is limited. X Jane, A Wagers, R Clark, L Liu, R Fuhlbrigge and T Kupper. Boston, MA.

713** Vaccination through epidermis with Vaccinia Virus (VACV) generates skin resident T cells, central memory T cells and lung resident T cells which protect the host independent of antibody. L Lisa, T Tian and TS Kupper. Boston, MA.

714 T-cell immunosuppression is associated with the presence of Kaposi’s Sarcoma in antiretroviral treated human immunodeficiency virus infected persons. P Unemori, P Hunt, Ks Leslie, E Sinclair, JN Martin, SG Deeks and T Maurer. San Francisco, CA.


716 A role for IL-5 in promoting increased IgM at the site of disease in leprosy. MT Ochoa, R Teles, B Haas, D Zagh, H Li, EN Sarno, TH Rea, RL Modlin and DJ Lee. Los Angeles, CA; Bronx, NY and Rio de Janeiro, Brazil.

717* Psoriasis lesions are enriched in IL-22+ and IL-17+ T cells with an associated increase in the IL-17A+/IL-17A- T cell ratio. CJ Rubin, M Ribelet, A Lin, RJ Nair, JT Elder and AT Bruce. Ann Arbor, MI.


719 Effect of local hyperthermia on Langerhans cells in normal and HPV infected skin. H Chen and X Gao. Shenyang, China.

720 The human T cell repertoire contains CD1a autoreactive T cells that home to the skin and modulate keratinocytes through interleukin-22. A de Jong, V Peña-Cruz, T Cheng and B Moody. Boston, MA.

721* Platelet induction of monocyte-to-dendritic cell maturation. TS Durazzo, CL Berger and RL Edelson. New Haven, CT.

** Immunology 2: Innate Immunity and Microbiology All oral [designated with an asterisk (*)] listed below are presented in the Immunology 2: Innate Immunity and Microbiology Minisymposium on Saturday, May 8, 2010 from 2:00-5:30 p.m. in Salon C, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

722 Antimycotics enhance the production of human β-defensin-3 in human keratinocytes: Another possible mechanism for antimycotic effects. N Kanda and S Watanabe. Tokyo, Japan.

723 Staphylococcus aureus hijacks a skin commensal to intensify its virulence: Vaccination targeting β-hemolysin and CAMP factor. C Lo, Y Lai, RL Gallo and C Huang. San Diego, CA and Hsinchu, Taiwan.

724 N-acetyl-S-farnesyl-L-cysteine (AFC) suppresses ATP5s-induced CxCL8, CCL2 and CxCL1 production in a human dermal microvascular endothelial cell line (HMVEC-1) and primary human dermal microvascular endothelial cells (pHMDECs). R Adhami, J Wong, M Schieri, JS Gordon, JR Fernandez, E Perez, M Stock and R Granstein. New York, NY and Monmouth Junction, NJ.

725 Staphylococcal LTA suppresses TLR3-dependent inflammation following skin injury. Y Lai and R Gallo. San Diego, CA.

726* Dietary vitamin D3 protects against bacterial skin infection. B Muehleisen, T Jaleel, K Radek and R Gallo. San Diego, CA; Birmingham, AL and Maywood, IL.


728* Staphylococcus aureus derived monomeric peptidoglycan is a NOOD ligand and aggravates TLR mediated inflammation by amplifying Th1 and Th17 responses. T Volz, M Nega, J Buschmann, S Kaesler, E Guenova, M Röcken, F Götz and T Biedermann. Tübingen, Germany.

729** IL-23 and Th17 cytokines control cutaneous infection with Candida albicans as well as C. albicans-induced epidermal hyperplasia. S Kagami, H Rizzo, S Kurtz and A Blauvelt. Portland, OR.


734 Propionibacterium acnes induces an inflammatory response in keratinocytes via croststalk of the p38 MAPK and NF-kB pathways. S Kaur, P Lyte, R Kharidin and MD Southall. Skillman, NJ.


737 Antimicrobial and anti-inflammatory effects of newly designed synthetic Cpecrin A (I-B) Magainin 2 (1-12) hybrid peptide CA-MA analogue 5S against Malassezia furfur. S Ryu, S Acharya, C Gurley, Y Park, CA Armstrong and PI Song. Little Rock, AR and Gwangju, South Korea.

738 Production of IL-37 during herpes simplex virus type 2 infection in human keratinocytes enhances HSV susceptibility in Langerhans cells. Y Ogawa, T Kawaamura, A Blauvelt and Shima. Yamanaishi, Japan and Portland, OR.

739 The contact allergen 2,4-dinitrochlorobenzene has minimal effects on microRNA-155 expression in human monocyte-derived dendritic cells and in a skin explant model. F Vavatsikou, C Pickard, T Sanchez-Elsner and E Healy. Southampton, United Kingdom.

740* TLR2-activation turn mast cells in skin sentinel against viruses. Z Wang, Y Lai, DT McLeod, AL Cogen and A Di Nardo. La Jolla, CA.

741 Claudin-1 defect in atopic dermatitis may enhance susceptibility to HSV-1 infections. A De Benedetto, M Dubois, M Bolognino, DC Johnson, MK SIlfka, DY Leung and LA Beck. Rochester, NY: Beaverton, OR and Denver, CO.

742 Activating Transcription Factor 3 (ATF3)-mediated protection against endotoxins causes severe susceptibility to bacterial infections. W Hoetzeener, E Guenova, F Woelbing, B Echtenacher, J Brueck, I Glocova, T Biedermann, K Ghoreschi and M Roecken. Tuebingen, Germany.

743* The Activating Transcription Factor 3 (ATF3) determines the state of postepithemic immune suppression in humans. W Hoetzeener, B Echtenacher, E Guenova, J Brueck, K Hoetzeener, T Biedermann, K Ghoreschi and M Roecken. Tuebingen, Germany.


749 TRIF-mediated IGE type class switch which are inhibited by TLR9 and MyD88 activation. E Lee, K Na, J Cheon, M Jeon and T Kim. Seoul, South Korea.


752 Peptidoglycan and related molecules increase tight junction function and expression in human keratinocytes. J Kuo, A De Benedetto, T Yoshida, MY Laura and LA Beck. Rochester, NY and Baltimore, MD.

753* Sebum free fatty acids modulate skin innate immune responses by enhancing antimicrobial function of sebocytes and attenuating TLR2-mediated inflammatory response of keratinocytes. J Nakatsui, K Yamasaki, CC Zouboulis, RL Gallo and C Huang. San Diego, CA and Dessau, Germany.

754* Epidermal Langerhans cells act as negative regulators of a protective anti-Leishmania response, whereas dermal CD11c-high dendritic cells promote healing. K Kautz-Neu, D John, S Dinges, M Noordegraaf, BE Clausen and E von Stebut. Mainz, Germany; Rotterdam, Netherlands and Amsterdam, Netherlands.


756* IL-22 contributes to disease progression in Leishmania major-infected mice. S Brosch, S Haak, B Lorenz, B Becher and E von Stebut. Mainz, Germany and Zürich, Switzerland.

757 Response to Toll-Like Receptor agonists in human neonatal foreskin. BK Bonish. Chicago, IL.


760* Epidermal Langerhans cells act as negative regulators of a protective anti-Leishmania response, whereas dermal CD11c-high dendritic cells promote healing. K Kautz-Neu, D John, S Dinges, M Noordegraaf, BE Clausen and E von Stebut. Mainz, Germany; Rotterdam, Netherlands and Amsterdam, Netherlands.


762* TNFa, a critical cytokine for cutaneous immunity to vaccinia virus. T Tian, K Dubin, A Qureshi, L Liu, X Jiang, T Kupper and R Fuhlbrigge. Boston, MA.


764* Photodynamic therapy with the phthalocyanine Pc 4 for T cell mediated diseases: Activated T cells exhibit increased uptake of Pc 4 and increased susceptibility to PDT-mediated cell death. J Ohtola, H Sugiyama, ME Rodriguez, NL Oleinick, M Lam, TS McCormick, KD Cooper and ED Baron. Cleveland, OH.


766* Obesity exacerbates UVB radiation-induced inflammation and cell survival signals in UVB-irradiated mouse skin. SD Sharma and SK Katiyar. Birmingham, AL.

767* Sillymarin, a plant flavonoid, suppresses UV radiation-induced apoptosis of epidermal cells by stimulating DNA repair. SK Katiyar and SK Mantena. Birmingham, AL.

768 Langerhans cells protect against acute UVB-induced epidermal oxidative stress. DA Smith, J Lewis, R Filler, K Golubets and M Girardi. New Haven, CT.

771* Photodynamic therapy with the phthalocyanine Pc 4 for T cell mediated diseases: Activated T cells exhibit increased uptake of Pc 4 and increased susceptibility to PDT-mediated cell death. J Ohtola, H Sugiyama, ME Rodriguez, NL Oleinick, M Lam, TS McCormick, KD Cooper and ED Baron. Cleveland, OH.

772 CpG-ODN protects against UV-induced apoptosis via enhancement of AKT and mTORC1/mTORC2 activation in keratinocytes and dendritic cells. S Lu, C Cao, J Li, F Ji, R Kivlin, M McCauley, A Nalbandian, G Brum, J Parisi, S Sarkisian, J Marshall, W Chu, A Xu and Y Wan. Providence, RI and Hangzhou, China.


774 Resveratrol sensitizes keratinocytes to UVA-induced apoptosis through increased oxidative stress in mitochondria and mitochondrial permeability transition pore (MPTP) opening. JY Jovanova, FR Vleugels and JF Sligh. Tucson, AZ.

775 Resveratrol acts specifically with UVA and not with UVB to induce apoptosis in HaCaT cells. FR Vleugels, JY Jovanova and JF Sligh. Tucson, AZ.

776 No formation of DNA double strand breaks and no activation of recombination repair with UVA. J Rizzo, J Dunn, A Rees and TM Ruenger. Boston, MA.

777 p300 histone acetyltransferase inhibitor anacardic acid (6-nonenoyl salicylic acid) inhibits UV-induced MMP-13, COX-2, and TNF-alpha expression in hairless mice. H Yoon, M Kim, J Lee, K Kong, D Lee and J Chung. Seoul, South Korea.

779© Visualization of in vivo behavioral responses of Langerhans cells to UVB irradiation. R Lu and A Takashima. Toledo, OH.

780 Ginensoside-Rg1 protects human dermal fibroblasts against Methoxyxypolgen plus Ultraviolet A-induced photaging through telomere mechanism. G Yingying, L Dan, Z Bingrong, L Wei and M Wei. Nanjing, China.


783 Ultraviolet B radiation of human skin generates platelet-activating factor receptor agonists. J Travers, Y Yao, RL Konger and JB Travers. Indianapolis, IN.

784 Deficiency of xeroderma pigmentosum A results in an augmentation of UVB mediated oxidative stress and platelet-activating factor activity. Y Yao, RL Konger and JB Travers. Indianapolis, IN.


Microarray analysis of differently expressed microRNA profiles induced by UVB irradiated in mice skin. L Wei, H Lijuan and L Dan. Nanjing, China.

TLR2 mediates UV-induced epidermal proliferation, inflammation and cell apoptosis in mouse skin in vivo. Y Lee, K Kong, S Lee, D Lee, J Han, K Kim and J Chung. Seoul, South Korea.


Neuraminidase 3 (Neu3) is critically involved in the initiation of the UVA stress response. S Grether-Beck, R Walli, Z Kohne, H Brenden, I Felsner, M Majora, J Füller, T Kurzhalia and J Krutmann. Düsseldorf, Germany; Heidelberg, Germany and Dresden, Germany.


Multiple exposures with visible light following a large initial dose induce persistent pigmentation, blue wavelengths are the major contributors. J Seo, F Liebel, E Ruvolo, PR Bargo, M Southall and N Kollias. Skillman NJ.

E-Light as a novel nonablative approach to photaging. M El-Domyati, M Medhat, T El-Amawi, O Moawad, D Brenan, MG Mahoney and J Uitto. Al-Minya, Egypt; Philadelphia, PA and Cairo, Egypt.

Evaluation of sunscreen photoprotection against cyctobutanoyl pyrimidine dimers on ex vivo human skin model exposed to UVb or UVA radiation. S Mouret, P Bogdanowicz, M Haure, N Castex-Rizzi and T Douki. Grenoble, France and Toulouse, France.


High levels of serum resistin in psoriasis patients are restored to normal by phototherapy. K Kawashima, K Tori, T Furuhashi, C Saito and A Morita. Nagoya, Japan.


Calpain plays a pivotal role in the UVB-irradiated ROS generation in HaCaT keratinocyes through stimulation by IL-1alpha. H Hasaki, Y Izuatsu, S Yahagi and Y Okano. Tokyo, Japan.


Effects of helium-neon laser on melanoblast differentiation: Focusing on mitochondrial biogenesis and antioxidant enzyme. H Yu, C Lan, C Wu, S Wu and Y Wei. Kaohsiung, Taiwan and Taipei, Taiwan.

Vitamin loaded nanosomes reduce erythma and tryptophan content changes in skin due to solar simulated ultraviolet radiation induced damage. C Sunkari, E Papazoglou, M Neidrauer, JF Klement and J Uitto. Philadelphia, PA.

Antiphotopotic, pro-antioxidative protective effects of melatonin against UV induced damage in a human full skin model in vitro. K Kleszczyński, LF Hardkop, N Piskub and TW Fischer. Luebeck, Germany.

Apoptosis induced by photodynamic therapy with the silicon phthalocyanine Pc 4 in Candida albicans. M Lam, AA Lattif, PC Jou, Y Lee, CL Malbasa, PK Mukherjee, NL Oleinick, MA Ghannoum, KD Cooper and ED Baron. Cleveland, OH.

Regulation of ultraviolet (UV) radiation induced cutaneous photomununosuppression by Toll like receptor-4 (TLR4). TH Nasti and N Yuwut. Birmingham, AL.


Generation of immature dendritic cells by modified extracorporeal photophoresis. At Baird, BL Berger and RL Edelson. New Haven, CT.

Oxidative stress elevates cystein-rich protein 61 (Cystein, 1) in a novel mediator of photaged skin, in human skin fibroblasts. Z Qin, T He, JJ Voorhees, GI Fisher and T Quan. Ann Arbor, MI.


Endogenous and exogenus urocanic acid protects against ultraviolet B-induced DNA damage. C Stermmitzer, C Barresi, V Militz, S Keicz, A Kammerer, M Ghannadan, K Posa-Markaryan, C Selden, E Tschachler and L Eckhart. Vienna, Austria; Amsterdam, Netherlands; London, United Kingdom and Neufilly, France.

Enhancement of photoprotypohrin IX and suppression of ferrochelatase levels by Vitamin D in tumor models of nonmelanoma skin cancer: Implications for tumor response to photodynamic therapy. A Anand, N Anastakova, C Wilson, T Hasan and EV Maytin. Cleveland, OH and Boston, MA.

Loss of epidermal PPARv in SKH-1 mice results in absent sebaceous glands, a defect in permeability barrier function, and augmented UVB-induced apoptosis and inflammatory responses. RP Sahu, S DaSilva and RL Konger. Indianapolis, IN.

UVB irradiation silences igf-1 expression in dermal fibroblasts both in vivo, and in vitro. DF Spandau, WH Beeson and DA Lewis. Indianapolis, IN.

Microscopic UV changes on skin provide new information on relationship of challenge to response. I Seo, PR Bargo, M Chu and N Kollias. Skillman, NJ.


Oncogenic transformation of cutaneous melanocytes by ultraviolet radiation and Bisphenol A. Y Drorkin, L Xu, M Consolo, T McCormick, K Cooper and P Karnik. Cleveland, OH.

Frequencies of somatic mutations in GNAQ in primary, pigmented dermal melanocytic proliferations. A Emley, LP Nguyen, S Yang and M Mahalingam. Boston, MA.

The p16ink4a tumor suppressor regulates cellular oxidative stress. NC Jenkins, T Liu, AG Goodson, G Samadashwily and D Grossman. Salt Lake City, UT.

Combination of dacarbazine and dimethylfumarate efficiently reduces melanoma lymph node metastasis. T Valero, S Steele, K Neumueller, A Bracher, H Niederleithner, H Pehamberger, P Petzelbauer and R Loewe. Vienna, Austria.


Pigmentation and Melanoma

All orals [designated with an asterisk (*)] listed below are presented in the Pigmentation and Melanoma Minisymposium on Thursday, May 6, 2010 from 2:00-5:30 p.m. in Salon C, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.


Oncogenic transformation of cutaneous melanocytes by ultraviolet radiation and Bisphenol A. Y Drorkin, L Xu, M Consolo, T McCormick, K Cooper and P Karnik. Cleveland, OH.

Frequencies of somatic mutations in GNAQ in primary, pigmented dermal melanocytic proliferations. A Emley, LP Nguyen, S Yang and M Mahalingam. Boston, MA.

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Combination of dacarbazine and dimethylfumarate efficiently reduces melanoma lymph node metastasis. T Valero, S Steele, K Neumueller, A Bracher, H Niederleithner, H Pehamberger, P Petzelbauer and R Loewe. Vienna, Austria.

830* The melanocyte-specific glycoprotein, Pmel17/gp100, is released by ectodomain shedding. T Hoashi, N Kanda, S Watanabe, S Sato and VI Hearing. Tokyo, Japan and Bethesda, MD.

831* A mechanism of acquired resistance to B-RAF (V600E) inhibition in melanoma. RS Lo, R Nazarian, Q Wang, X Kong, RC Koya, N Attar, H Szagcer, Z Chen, S Nelson, G McArthur, J Josman, JS Economou and A Riba. Los Angeles, CA; Melbourne, Australia and Nashville, TN.

832 An advanced approach for skin whitening /lightening regulation through the inhibition of a new intracellular target. E Loing and I Lacasse. Quebec, Canada.


834 A new insight into skin whitening: The accumulation of advanced glycation end products (AGEs) in the dermis triggers melanogenesis in epidermal melanocytes. S Yagahi, Y Izuuti, Y Okano, P Andre, I Reinemel and H Masaki. Tokyo, Japan and Saint-Jean-de-Braye, France.


836 Seasonal variation in serum level of S-S-cysteinylidopa in postoperative cases of malignant melanoma without metastasis. T Shukuya, A Yoshizaki and H Ishikawa. Omura, Japan and Kawatana, Japan.

837 Skin melanin index obtained from digital photography and videodermoscopy correlates with dermatologist assessment of skin type. B Nardone, A Haley, M Martini, K Brown, DP West and JK Robinson. Chicago, IL.


839 Pediatric melanoma of the head and neck: A single-institution review of 41 patients. JY Tcheung, PK Puri, AP Abernethy and KC Nelson. Durham, NC.


841 Pigmentation and skin cancer genome-wide association studies: A review and meta-analysis. MR Gerstenblith, J Shi and MT Landi. Rockville, MD.


843* Regulation of human skin pigmentation in situ by repetitive UV exposure - molecular characterization of responses to UVA and/or UVB. W Choi, Y Miyamura, R Wolber, C Smuda, W Reinhold, H Liu, L Kolbe and VI Hearing. Bethesda, MD; Hamburg, Germany and Washington, DC.

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The BH3-mimetic ABT-737 induces strong synergistic killing of melanoma cells when combined with the alkylating agent temozolomide. SN Reuland, NB Goldstein, KA Partyka, YG Shellman and DA Norris. Aurora, CO.


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Conflict of Interest Disclosure Key

A - Advisory Board
B - Board of Directors
C - Consultant
E - Employee or Salary Support
F - Founder
G - Grant or Research Support
H - Honoraria
I - Investigator
P - Co-inventor on Patent Held by University of Corporation
SB - Speakers Bureau
SH - Stock Holder
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Unless otherwise noted, authors/speakers/presiders with no disclosure statements listed had no conflicts of interest to disclose.

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