The Duke Department of Dermatology presents the 2012 Society for Investigative Dermatology Annual Meeting.

2012 SID Annual Meeting & 75th Anniversary Celebration

May 9 - 12, 2012
Raleigh Convention Center
Raleigh, North Carolina
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 March 15, 2012)

Future Annual Meetings
May 8 - 11, 2013
International Investigative Dermatology
Edinburgh, Scotland

May 7 - 10, 2014
Albuquerque Convention Center
Albuquerque, New Mexico

May 6 - 9, 2015
Hilton Atlanta
Atlanta, Georgia

May 11 - 14, 2016
The Westin Kierland Resort & Spa
Scottsdale, AZ

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SID Senior Medical & Scientific Advisor

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2012 Exhibitors
BCCNS Life Support Network
CellnTec Advanced Cell Systems
Coalition of Skin Diseases
Cutaneous Lymphoma Foundation
F.I.R.S.T.
International Investigative Dermatology 2013 (IID 2013)
National Alopecia Areata Foundation
National Foundation for Ectodermal Dysplasias
National Institute of Arthritis and Musculoskeletal and Skin Diseases
Nature Publishing Group
Pfizer, Inc.
STE, Inc.
Zen-Bio, Inc.
Welcome to Raleigh

On behalf of the Society for Investigative Dermatology (SID), we welcome you to the 2012 Annual Meeting. This year marks the 75th Anniversary of the Society, so we are planning a variety of special activities to celebrate the rich history of our organization.

Our host city, Raleigh, was named after famed explorer Sir Walter Raleigh. It is a fitting place for our research community to celebrate its anniversary, share advances in cutaneous biology and dermatology, and expand new scientific frontiers.

The SID scientific program incorporates research from multiple specialties and disciplines. It also offers a broad array of special tracks, symposia, and networking sessions. We would like to thank the 2011-2012 Committee on Scientific Programs for their dedication in developing an outstanding program.

SID Committee on Scientific Programs

Co-Chairs
David Margolis, MD/PhD
Anthony Oro, MD/PhD

Committee Members
Jack Arbiser, MD/PhD
Anthony Gaspari, MD
Sam Hwang, MD/PhD
Sarah Millar, PhD

Mitchell Denning, PhD
Tom Hornyak, MD/PhD
My Mahoney, PhD
Julie Segre, PhD

Since its founding in 1937, the Society has been committed to facilitating the careers of young investigators by providing a dynamic forum in which a diverse group of scientists can interact. We remain fully committed to this goal.

We have scheduled a variety of activities to highlight scientific advances made by our community. Our Society strives to offer programming that reaches all members of the dermatology and cutaneous biology research communities.

Thank you for your support of the SID.

Kim Yancey, MD
President

Russell Hall, MD
Secretary-Treasurer

Alice Pentland, MD
Asst. Secretary-Treasurer
Welcome to Raleigh!

On behalf of the members of the Raleigh City Council and the more than 404,000 residents of our city, I would like to welcome the Society for Investigative Dermatology Conference to Raleigh, North Carolina. We are glad to be your host city.

It is an honor to have you here, and we are especially excited that you have chosen to hold SID’s 75th Anniversary Celebration in Raleigh. SID and Raleigh have a lot in common! With your longstanding reputation of being on the forefront of scientific research, it is appropriate to meet in Raleigh where research, technology and medicine are the mainstays of our local economy. We are proud of our reputation and that of nearby Research Triangle Park and know your attendees will feel at home while they are here.

While you are here, we hope that you will explore and experience our great city. Raleigh is known for its hospitality and we invite you to see all that it has to offer. Great cultural attractions, fine restaurants and world class entertainment are just a few steps away from the Raleigh Convention Center. Our complimentary R-Line connector service makes it easy to get around when you want to adventure a little further away. The Visitor Information Center inside the Raleigh Marriott City Center, Tourism Ambassadors and Downtown Ambassadors are all close by and available to help you find your way.

Again, thank you for choosing Raleigh, welcome to the City and we wish you a successful conference!

Sincerely,

Nancy McFarlane
Mayor
CME Statement & Objectives

The Duke Department of Dermatology presents the 2012 Society for Investigative Dermatology Annual Meeting.

Jointly sponsored by:

Duke School of Medicine
Society for Investigative Dermatology

Commercial Support Statement
This CME activity is supported by educational grants from Abbott, Ceptaris Therapeutics, Genentech, Medicis, Merz Pharmaceuticals, and Valeant Pharmaceuticals International, Inc.

Statement of Need
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.

Learning Objectives
At the conclusion of this activity, participants should be able to:

- Identify which disease states require new or additional research
- Evaluate state-of-the-are information relating to basic skin biology research
- Describe how newly discovered, evidence-based scientific information may or may not be applied to the current practice of investigative or clinical dermatology
- Apply strategies to structure and design successful research proposals, abstracts, and manuscripts
- Facilitate interdisciplinary and/or collaborative investigation in clinical dermatology and skin biology to improve research hypotheses, processes, and/or techniques
- Incorporate knowledge gained from interactions between basic scientists and clinicians into daily decision-making

Faculty Listing

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

Activity Co-Director:
Alice P. Pentland, MD
Chair, Department of Dermatology
University of Rochester

Summary of Faculty Disclosure/Conflict Resolution

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

Resolution of Conflicts of Interest
In accordance with the ACCME Standards of Commercial Support of CME, the Duke University School of Medicine will implement 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
See addendum for a list of speakers and/or planning committee members who have indicated that they have no relationship(s) with industry to disclose relative to the content of this CME activity. Please see addendum for a list of speakers and/or planning committee members who have indicated they have relationship(s) with industry to disclose.

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 not be discussing information about pharmaceutical agents that is outside of U.S. Food and Drug Administration approved labeling.

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 attestation and activity evaluation forms and return them 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 Statement
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.

AMA Credit Statement
The Duke University School of Medicine designates this live activity for a maximum of 36.50 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.
### Wednesday, May 9, 2012

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Resident Retreat for Future Academicians</td>
<td>7:00 am - 3:00 pm</td>
<td>Raleigh Convention Center 305 A/B</td>
</tr>
<tr>
<td>PhD Retreat</td>
<td>7:00 am - 3:00 pm</td>
<td>Raleigh Convention Center 305 A/B</td>
</tr>
<tr>
<td>SID Board of Directors Meeting</td>
<td>7:00 am - 2:00 pm</td>
<td>Raleigh Convention Center 402</td>
</tr>
<tr>
<td>Pachyonychia Congenita Project (PC Project)</td>
<td>8:00 am - 3:00 pm</td>
<td>Raleigh Convention Center 301 A/B</td>
</tr>
<tr>
<td>Registration</td>
<td>8:00 am - 6:30 pm</td>
<td>Raleigh Convention Center 300 Level Registration Area</td>
</tr>
<tr>
<td>American Acne and Rosacea Society</td>
<td>10:30 am - 12:00 pm</td>
<td>Raleigh Convention Center 302 A</td>
</tr>
<tr>
<td>Atopic Dermatitis Conference</td>
<td>12:00 pm - 3:00 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>Irvin H. Blank Forum</td>
<td>3:00 pm - 5:00 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>Albert M. Kligman/Phillip Frost Leadership Lecture</td>
<td>5:00 pm - 5:30 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture 1</td>
<td>5:30 pm - 6:00 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture 2</td>
<td>6:00 pm - 6:30 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>Welcome Reception</td>
<td>7:00 pm - 8:30 pm</td>
<td>Raleigh Convention Center Grand Lobby and Outside Patio</td>
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**Indicates CME Credit Offered**

### Thursday, May 10, 2012

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society for Pediatric Dermatology</td>
<td>7:00 am - 8:00 am</td>
<td>Raleigh Convention Center 206</td>
</tr>
<tr>
<td>Registration</td>
<td>7:30 am - 4:00 pm</td>
<td>Raleigh Convention Center 300 Level Registration Area</td>
</tr>
<tr>
<td>Plenary Session I</td>
<td>8:00 am - 9:00 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>Eugene M. Farber Lecture</td>
<td>9:00 am - 9:30 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>The Neurofibroma Story: A Role for Mast Cells in Tumor Potentiation and Clinical Implications</td>
<td>9:30 am - 10:00 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>American Skin Association Achievement Awards</td>
<td>10:00 am - 10:10 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>David Martin Carter Mentor Award</td>
<td>10:10 am - 10:15 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>Poster Session I/Technical Exhibits Open w/coffee break</td>
<td>10:00 am - 12:00 pm</td>
<td>Raleigh Convention Center Exhibit Hall A</td>
</tr>
<tr>
<td>Research in Cutaneous Surgery</td>
<td>10:00 am - 1:00 pm</td>
<td>Raleigh Convention Center 305 A</td>
</tr>
<tr>
<td>Young Investigator and Trainee Symposium</td>
<td>10:00 am - 1:30 pm</td>
<td>Raleigh Convention Center 302 A</td>
</tr>
<tr>
<td>Clinical Scholars Plenary Session</td>
<td>10:15 am - 12:15 pm</td>
<td>Raleigh Convention Center 305 B</td>
</tr>
<tr>
<td>JDS Editorial Board Luncheon</td>
<td>12:00 pm - 1:30 pm</td>
<td>Raleigh Convention Center 307</td>
</tr>
<tr>
<td>Merkel Cell Carcinoma Symposium</td>
<td>12:00 pm - 2:00 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>Concurrent Minisymposia</td>
<td>2:00 pm - 5:30 pm</td>
<td>Raleigh Convention Center 305 B</td>
</tr>
<tr>
<td>1. Photobiology</td>
<td>Raleigh Convention Center 305 B</td>
<td></td>
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<tr>
<td>2. Auto-immunity and Inflammation</td>
<td>Raleigh Convention Center 306 C</td>
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<tr>
<td>3. Cell Adhesion/Matrix Biology</td>
<td>Raleigh Convention Center 302 B</td>
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<tr>
<td>4. Epidemiology/Health Services Research</td>
<td>Raleigh Convention Center 306 B</td>
<td></td>
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<tr>
<td>5. Hair and Cutaneous Development</td>
<td>Raleigh Convention Center 305 A</td>
<td></td>
</tr>
<tr>
<td>Cutaneous T Cell Lymphoma Symposium</td>
<td>2:00 pm - 5:30 pm</td>
<td>Raleigh Convention Center 302 A</td>
</tr>
<tr>
<td>International Society for Cutaneous Lymphomas Scientific (ISCL) &amp; Cutaneous Lymphoma Foundation (CLF)</td>
<td>Raleigh Convention Center 302 A</td>
<td></td>
</tr>
<tr>
<td>Social Event</td>
<td>6:00 pm - 10:00 pm</td>
<td>Raleigh Convention Center Ballroom A</td>
</tr>
</tbody>
</table>

**TICKETED EVENT; PRE-REGISTRATION REQUIRED**

See page 46 for additional information.
Friday, May 11, 2012

**Society for Pediatric Dermatology**
Raleigh Convention Center 206
7:00 am - 8:00 am

**Registration**
Raleigh Convention Center 300 Level Registration Area
7:30 am - 4:00 pm

**Business Meeting for Members**
Raleigh Convention Center Ballroom B/C
7:45 am - 8:30 am

**Plenary Session II**
Raleigh Convention Center Ballroom B/C
8:30 am - 9:30 am

**Stephen Rothman Award**
Presented to Paul Bergstresser, MD
Raleigh Convention Center Ballroom B/C
9:30 am - 9:40 am

**Herman Beerman Lecture**
*Why Don’t We Get More Cancer: A Proposed Role of the Microenvironment in Restraining Cancer Progression*
Mina Bissell, PhD
Raleigh Convention Center Ballroom B/C
9:40 am - 10:10 am

**State-of-the-Art Plenary Lecture 3**
*Cytoskeletal Organization and Function in the Epidermis*
Terry Lechler, PhD
Raleigh Convention Center Ballroom B/C
10:15 am - 10:45 am

**State-of-the-Art Plenary Lecture 4**
*Genomic Tracking of Microbial Pathogens*
Julie Segre, PhD
Raleigh Convention Center Ballroom B/C
10:45 am - 11:15 am

**BCCNS Life Support Network**
Raleigh Convention Center 301 A/B
11:00 am - 1:00 pm

**Posters Session II/Technical Exhibits Open w/coffee break**
Odd 289-573 / Even 576-864
Raleigh Convention Center Exhibit Hall A
11:15 am - 1:15 pm

**Clinical Scholars Program**
Raleigh Convention Center Room 305 B
11:30 am - 12:15 pm

**National Alopecia Areata Foundation**
Raleigh Convention Center 307
11:45 am - 1:30 pm

**Genomic Technology Workshop**
Raleigh Convention Center Ballroom B/C
12:00 pm - 2:00 pm

**Academic Dermatologists Luncheon**
Sponsored by the Women’s Dermatology Society
Raleigh Convention Center 302 B/C
12:00 pm - 2:00 pm

**Concurrent Minisymposia**
2:00 pm - 5:30 pm

- 6. Immunology II: Innate Immunity and Microbiology
  Raleigh Convention Center 306 C
- 7. Human Clinical Research and Therapeutics
  Raleigh Convention Center Center 306 C
- 8. Epidermal Structure and Function
  Raleigh Convention Center 306 C
- 9. Carcinogenesis, Growth Factors, and Cancer Genetics
  Raleigh Convention Center 305 A

**JID Editorial Board Meeting**
Raleigh Convention Center 402
4:00 pm - 5:30 pm

**Nanodermatology Society**
Raleigh Convention Center 302 A
4:00 pm - 7:00 pm

**North American Hair Research Society Scientific Meeting**
Raleigh Convention Center 302 B/C
6:00 pm - 9:30 pm

**Galderma Japan Scientific Forum**
Raleigh Convention Center 301 A/B
6:30 pm - 9:30 pm

**Trainee Dinner Session**
Raleigh Convention Center Ballroom A
7:30 pm - 9:30 pm

Saturday, May 12, 2012

**SID Board of Directors Meeting**
Raleigh Convention Center 402
7:00 am - 8:00 am

**Registration**
Raleigh Convention Center 300 Level Registration Area
7:30 am - 12:00 pm

**Plenary Session III**
Raleigh Convention Center Ballroom B/C
8:00 am - 9:00 am

**American Dermato-Epidemiology Network**
Business/Scientific Session
Raleigh Convention Center 302 A
8:00 am - 12:00 pm

**William Montagna Lecture**
*Genome Regulation by Long Noncoding RNAs*
Howard Chang, MD/PhD
Raleigh Convention Center Ballroom B/C
9:00 am - 9:30 am

**Julius Stone Lecture**
The Hyper IgE Syndromes
Rebecca Buckley, MD
Raleigh Convention Center Ballroom B/C
9:30 am - 10:00 am

**Poster Session III/Technical Exhibits Open w/coffee break**
Odd 289-573 / Even 576-864
Raleigh Convention Center Exhibit Hall A
10:00 am - 12:00 pm

**Clinical Scholars Program**
Raleigh Convention Center Room 305 B
10:15 am - 12:15 pm

**Concurrent Minisymposia**
12:30 pm - 4:00 pm

- 10. Pigmentation and Melanoma
  Raleigh Convention Center 306 B
- 11. Genetic Disease, Gene Regulation and Gene Therapy
  Raleigh Convention Center 305 B
- 12. Tissue Regeneration, Stem Cells and Wound Healing
  Raleigh Convention Center 306 C
- 13. Immunology I: Adaptive Immunity
  Raleigh Convention Center 305 A
Educational Tracks

The SID is pleased to offer two educational tracks within the 2012 Annual Meeting: the Clinical Scholars Track and the Young Investigator & Trainee 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 educational track programming. Spaces are limited, and early registration is recommended. Registration will remain open until all spaces are filled.

The following pages outline the programming that is suggested to attendees participating in educational tracks. Track participants are encouraged to attend other portions of the Meeting as well.

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 on topics such as:

- The mTOR Pathway and Dermatologic Disease
- Stem Cell Therapy/Epidermolysis bullosa
- Role of IL-17 in Psoriasis and Other Skin Diseases
- Update on Atopic Dermatitis
- The Impact of High Throughput Sequencing in Genetic Skin Disease
- Notch and SCC

Young Investigator & Trainee Track

- Designed for early career dermatology investigators and residents to learn about the latest developments in skin research as well as to gain insight into career development in dermatological research

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

- What Does an Academic Career in Investigative Dermatology Really Mean, and Is It Right for You?
- Finding the Right Job and Negotiating a Contract
- Making the Most of Mentorship: From Finding a Mentor to Being One
- Funding: A Brief Overview of Funding Opportunities Available to Young Investigators, and Strategies to Improve Your Grant Application
- Putting It All Together: Words of Advice on Finding a Niche, Building Collaborations, and Mentoring
- What Can the SID Do for Me?
## Clinical Scholars Track (Suggested Programming)

### Wednesday, May 9, 2012

**Atopic Dermatitis Conference**  
Raleigh Convention Center Ballroom B/C  
**12:00 pm - 3:00 pm**

**Irvin H. Blank Forum**  
Translating the Genetics of Disease into Therapeutics  
Raleigh Convention Center Ballroom B/C  
**3:00 pm - 5:00 pm**

**Albert M. Kligman/Phillip Frost Leadership Lecture**  
Keeping an Eye on Cutaneous Biology  
Robert Lavker, PhD  
Raleigh Convention Center Ballroom B/C  
**5:00 pm - 5:30 pm**

**State-of-the-Art Plenary Lecture 1**  
Stem Cell Regulation by Stem Cells in Hair Follicles  
Emi Nishimura, MD/PhD  
Raleigh Convention Center Ballroom B/C  
**5:30 pm - 6:00 pm**

**State-of-the-Art Plenary Lecture 2**  
Opportunities for Discovery Utilizing Next Generation Sequencing Technology  
Keith Choate, MD/PhD  
Raleigh Convention Center Ballroom B/C  
**6:00 pm - 6:30 pm**

**Welcome Reception**  
Raleigh Convention Center Grand Lobby & Outside Patio  
**7:00 pm - 8:30 pm**

### Thursday, May 10, 2012

**Plenary Session I**  
Raleigh Convention Center Ballroom B/C  
**8:00 am - 9:00 am**

**Naomi M. Kanof Lecture**  
The Neurofibroma Story: A Role for Mast Cells in Tumor Potentiation and Clinical Implications  
Luis Parada, PhD  
Raleigh Convention Center Ballroom B/C  
**9:30 am - 10:00 am**

**Clinical Scholars Program**  
Raleigh Convention Center Ballroom B/C  
**10:15 am - 12:15 pm**

**Concurrent Minisymposia**  
1. Photobiology  
   Raleigh Convention Center 305 B  
   **2:00 pm - 5:30 pm**
2. Auto-immunity and Inflammation  
   Raleigh Convention Center 306 C  
3. Cell Adhesion/Matrix Biology  
   Raleigh Convention Center 302 B  
4. Epidemiology/Health Services Research  
   Raleigh Convention Center 306 B  
5. Hair and Cutaneous Development  
   Raleigh Convention Center 305 A  
   **2:00 pm - 5:30 pm**

**Cutaneous T Cell Lymphoma Symposium**  
Raleigh Convention Center 302 A  
**2:00 pm - 5:30 pm**

**Social Event**  
**TICKETED EVENT; PRE-REGISTRATION REQUIRED**  
See page 46 for additional information.  
Raleigh Convention Center Ballroom A  
**6:00 pm - 10:00 pm**

### Friday, May 11, 2012

**Plenary Session II**  
Raleigh Convention Center Ballroom B/C  
**8:30 am - 9:30 am**

**Herman Beerman Lecture**  
Why Don’t We Get More Cancer: A Proposed Role of the Microenvironment in Restraining Cancer Progression  
Mina Bissell, PhD  
Raleigh Convention Center Ballroom B/C  
**9:40 am - 10:10 am**

**State-of-the-Art Plenary Lecture 3**  
Cytoskeletal Organization and Function in the Epidermis  
Terry Lechler, PhD  
Raleigh Convention Center Ballroom B/C  
**10:15 am - 10:45 am**

**State-of-the-Art Plenary Lecture 4**  
Genomic Tracking of Microbial Pathogens  
Julie Segre, PhD  
Raleigh Convention Center Ballroom B/C  
**10:45 am - 11:15 am**

**Clinical Scholars Program**  
Raleigh Convention Center 305 B  
**11:30 am - 1:30 pm**

**Concurrent Minisymposia**  
1. Immunology II: Innate Immunity and Microbiology  
   Raleigh Convention Center 305 B  
   **2:00 pm - 5:30 pm**
2. Human Clinical Research and Therapeutics  
   Raleigh Convention Center 306 C  
3. Epidermal Structure and Function  
   Raleigh Convention Center 306 B  
4. Carcinogenesis, Growth Factors, and Cancer Genetics  
   Raleigh Convention Center 305 A  
   **2:00 pm - 5:30 pm**

### Saturday, May 7, 2011

**Plenary Session III**  
Raleigh Convention Center Ballroom B/C  
**8:00 am - 9:00 am**

**William Montagna Lecture**  
Genome Regulation by Long Noncoding RNAs  
Howard Chang, MD/PhD  
Raleigh Convention Center Ballroom B/C  
**9:00 am - 9:30 am**

**Julius Stone Lecture**  
The Hyper IgE Syndromes  
Rebecca Buckley, MD  
Raleigh Convention Center Ballroom B/C  
**9:30 am - 10:00 am**

**Clinical Scholars Program**  
Raleigh Convention Center 305 B  
**10:15 am - 12:15 pm**

**Concurrent Minisymposia**  
1. Pigmentation and Melanoma  
   Raleigh Convention Center 305 B  
   **10:15 am - 12:15 pm**
2. Genetic Disease, Gene Regulation and Gene Therapy  
   Raleigh Convention Center 306 B  
3. Tissue Regeneration, Stem Cells and Wound Healing  
   Raleigh Convention Center 306 C  
4. Immunology I: Adaptive Immunity  
   Raleigh Convention Center 305 A  
   **12:30 pm - 4:00 pm**
### Wednesday, May 9, 2012

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Time</th>
<th>Location</th>
</tr>
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<tbody>
<tr>
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<td>3:00 pm - 5:00 pm</td>
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<td>6:00 pm - 6:30 pm</td>
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### Thursday, May 10, 2012

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<tr>
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<tbody>
<tr>
<td>Plenary Session I</td>
<td>8:00 am - 9:00 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>Eugene M. Farber Lecture</td>
<td>9:00 am - 9:30 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>Genomics Meets the Immune System: An Integrated Systems</td>
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<tr>
<td>Naomi M. Kanof Lecture</td>
<td>9:30 am - 10:00 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>The Neurofibroma Story: A Role for Mast Cells in Tumor</td>
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<tr>
<td>Young Investigator and Trainee Symposium</td>
<td>10:00 am - 1:30 pm</td>
<td>Raleigh Convention Center 302 A</td>
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<tr>
<td>Developing an Academic Career</td>
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<tr>
<td>Concurrent Minisymposia</td>
<td>2:00 pm - 5:30 pm</td>
<td>Raleigh Convention Center 305 B</td>
</tr>
<tr>
<td>1. Photobiology</td>
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<tr>
<td>2. Auto-immunity and Inflammation</td>
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<td>3. Cell Adhesion/Matrix Biology</td>
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<tr>
<td>4. Epidemiology/Health Services Research</td>
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<tr>
<td>5. Hair and Cutaneous Development</td>
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<tr>
<td>Social Event</td>
<td>6:00 pm - 10:00 pm</td>
<td>Raleigh Convention Center Ballroom A</td>
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### Friday, May 11, 2012

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<tr>
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<tr>
<td>Plenary Session II</td>
<td>8:30 am - 9:30 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>Herman Beerman Lecture</td>
<td>9:40 am - 10:10 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>Why Don't We Get More Cancer: A Proposed Role of the</td>
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<tr>
<td>State-of-the-Art Plenary Lecture 3</td>
<td>10:15 am - 10:45 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>Cytoskeletal Organization and Function in the Epidermis</td>
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<tr>
<td>State-of-the-Art Plenary Lecture 4</td>
<td>10:45 am - 11:15 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>Genomic Tracking of Microbial Pathogens</td>
<td></td>
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<tr>
<td>Clinical Scholars Program</td>
<td>11:30 am - 1:30 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>Concurrent Minisymposia</td>
<td>2:00 pm - 5:30 pm</td>
<td>Raleigh Convention Center Ballroom B/C</td>
</tr>
<tr>
<td>6. Immunology II: Innate Immunity and Microbiology</td>
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<tr>
<td>7. Human Clinical Research and Therapeutics</td>
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<tr>
<td>8. Epidermal Structure and Function</td>
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<td>9. Carcinogenesis, Growth Factors, and Cancer Genetics</td>
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<tr>
<td>Trainee Dinner Session</td>
<td>7:30 pm - 9:30 pm</td>
<td>Raleigh Convention Center Ballroom A</td>
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### Saturday, May 12, 2012

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<tr>
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<tbody>
<tr>
<td>Plenary Session III</td>
<td>8:00 am - 9:00 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>William Montagna Lecture</td>
<td>9:00 am - 9:30 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>Genome Regulation by Long Noncoding RNAs</td>
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<td>Julius Stone Lecture</td>
<td>9:30 am - 10:00 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td>The Hyper IgE Syndromes</td>
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<td>Clinical Scholars Program</td>
<td>10:15 am - 12:15 pm</td>
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<tr>
<td>Concurrent Minisymposia</td>
<td>12:30 pm - 4:00 pm</td>
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<tr>
<td>10. Pigmentation and Melanoma</td>
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<tr>
<td>11. Genetic Disease, Gene Regulation and Gene Therapy</td>
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<tr>
<td>12. Tissue Regeneration, Stem Cells and Wound Healing</td>
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<td>13. Immunology I: Adaptive Immunity</td>
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Ballroom Level
200 Level

Raleigh Convention Center Maps
300 Level

Raleigh Convention Center Maps
The COALITION of SKIN DISEASES congratulates the SID on 75 amazing years serving the skin research community.
May 2012

On behalf of the American Academy of Dermatology (AAD), I want to congratulate the Society for Investigative Dermatology on its 75th anniversary! The SID has an important history of scientific advancement and promoting research within the field of dermatology, and has been an important partner to the Academy throughout the years.

Since its founding in 1937, the Society has served as the forward guard of research in dermatology, and has consistently been on the edge of discovery in our field. The scientific contributions that SID and its members have made since its founding have been numerous and valuable, not only to scientists and researchers, but to policymakers, physicians, and patients as well. Furthermore, the *Journal of Investigative Dermatology* presents important basic and clinical research and has become an important resource to dermatologists and clinicians around the world. Basic science often provides the necessary foundation for improving patient care and, ultimately, quality of life for patients.

Throughout the shared history of our two organizations, SID has partnered with AAD to further the interests of our field. The strong leadership and vision of the Society have contributed to many successful collaborative efforts over the years. While fulfilling complementary missions, the Society and the Academy have made cooperation a priority, and both our organizations and the field of dermatology are better for it.

Now, as the Society prepares for the next 75 years, I am confident that the great work will continue unabated. Again, I offer congratulations on behalf of the Academy, and I look forward to many more years of strong partnership. Best wishes to the Society on this momentous occasion.

Sincerely,

Daniel M. Siegel, MD, MS, FAAD
President
Contributors to the SID Named Lecture Fund (as of March 16, 2012)

Anna Maria Abreu-Velez
Murad Alam
Rhoda M. Alani
Masayuki M. Amagai
Rex A. Amonette
Howard P. Baden
Eugene A. Amonette
Lisa A. Beck
Daniel D Bennett
Paul R. Bergstresser
Ernst H. Beutner
Wendy B. Bollag
Jean L. Bolognia
Irwin M. Braverman
Jeffery Callen
S. Wright Caughman
Theresa Chen
Mary-Margaret Chren
Tomoko M. Chubachi
Richard A. Clark
Kevin D. Cooper
Lynn Cornelius
George Cotsarelis
Dr. Alan M. Dattner
Harold M. Davidson
Robert M. Day
Mitchell Denning
Anna Di Nardo
Luis Diaz
Nouha Domloge
Tatiana Efimova
Arthur Z. Eisen
Ervin H. Epstein
Janet A. Fairley
Steve Feldman
Robert Fine
David Fisher
Phillip Fleckman
Richard L. Gallo
Desmond D. Gibson
Iurma Gigli
Barbara A. Gilchrest
Lowell A. Goldsmith
Robert W. Goltz
Joel S. Gordon
Kathleen J. Green
Ronald Grimwood
Doug Grossman
Russell P. Hall
Jon M. Hanifin
Ken Hashimoto
Harley Haynes
Sam T. Hwang
Akemi Ishida Yamamoto
Rivkah Isseroff
William D. James
Sewon Kang
Stephen I. Katz
Tae-Heung Kim
Alexa B. Kimball
Lloyd King
Heidi H Kong
Andrew P. Kowalczyk
Atsushi Kukita
Thomas Kupper
Joseph W. Landau
Alfred T Lane
KEY Bank
Robert M Lavker
Thomas J. Lawley
Gerald Lazarus
Mark G. Lebwohl
Ethan A. Lerner
Wilson Joe Liao
Fu-Tong Liu
Marshfield Clinic
Stanley J. Miller
Leonard M. Milstone
Rebecca M. Minnillo
John P. Minnillo
Hitoshi Mizutani
Akimichi Morita
Dedee F. Murrell
Paul T. Nghiern
Carien Maria Niessen
Thomas P. Nigra
John E. Olerud
Amy Susan Paller
Aimee S. Payne
Alice P. Pentland
Ronald P. Rapini
Revance Therapeutics
David S. Rubenstein
W. Mitchell Sams
Robert Saute
Richard K. Scher
John Seykora
Yutaka Shimomura
John & Susan Strauss
George Stricklin
Jean-Philippe Therrien
Jeffrey Travers
Marina L. Turner
Jouni J. Uitto
Eugene J. Van Scott
Bruce U. Winthrop
Kim B. Yancey
Stuart & Eleanor Yuspa
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On-site Registration
On-site registration will take place at the SID Registration Counter at the 300-level registration area in the Raleigh Convention Center during the following hours:

Wednesday, May 9, 2012  •  8:00 am - 6:30 pm
Thursday, May 10, 2012  •  7:30 am - 4:00 pm
Friday, May 11, 2012  •  7:30 am - 4:00 pm
Saturday, May 12, 2012  •  7:30 am - 12:00 pm

Badges
Badges are issued at the SID Registration Counter (300-level registration area in the Raleigh Convention Center). 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 Exhibit Hall A of the Raleigh Convention Center:

Thursday, May 10, 2012 • 10:00 am - 12:00 pm
Friday, May 11, 2012 • 11:15 am - 1:15 pm
Saturday, May 12, 2012 • 10:00 am - 12:00 pm

The SID welcomes representatives from the following organizations:
BCCNS Life Support Network
CellnTec Advanced Cell Systems
Coalition of Skin Diseases
Cutaneous Lymphoma Foundation
F.I.R.S.T.
International Investigative Dermatology 2013 (IID 2013)
National Alopecia Areata Foundation
National Foundation for Ectodermal Dysplasias
National Institute of Arthritis and Musculoskeletal and Skin Diseases
Nature Publishing Group
Pfizer, Inc.
STE, Inc.
Zen-Bio, Inc.
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<td>25</td>
<td>State-of-the-Art Plenary Lectures 1 and 2</td>
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**Wednesday Meeting-at-a-Glance**

**Wednesday, May 9, 2012**

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<td>7:00 am - 3:00 pm</td>
<td>Raleigh Convention Center 305 A/B</td>
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<tr>
<td>SID Board of Directors Meeting</td>
<td>7:00 am - 2:00 pm</td>
<td>Raleigh Convention Center 402</td>
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<tr>
<td>Registration</td>
<td>8:00 am - 6:30 pm</td>
<td>Raleigh Convention Center 300 Level Registration Area</td>
</tr>
<tr>
<td>Pachyonychia Congenita Project (PC Project)</td>
<td>9:00 am - 3:00 pm</td>
<td>Raleigh Convention Center 301 A/B</td>
</tr>
<tr>
<td>American Acne and Rosacea Society</td>
<td>10:30 am - 12:00 pm</td>
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**ANCILLARY MEETINGS**

**Wednesday, May 9, 2012**

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<td>9:00 am - 3:00 pm</td>
<td>Raleigh Convention Center 301 A/B</td>
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<tr>
<td>American Acne and Rosacea Society</td>
<td>10:30 am - 12:00 pm</td>
<td>Raleigh Convention Center 302 A</td>
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*Indicates CME Credit Offered*
ANCILLARY MEETINGS

WEDNESDAY, MAY 9, 2012

Resident Retreat for Future Academicians
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

PhD Retreat
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

SID Board of Directors Meeting
7:00 am - 2:00 pm
Raleigh Convention Center 402

Pachyonychia Congenita Project (PC Project)
8:00 am - 3:00 pm
Raleigh Convention Center 301 A/B

American Acne and Rosacea Society
10:30 am - 12:00 pm
Raleigh Convention Center 302 A

INTERNATIONAL PACHYONYCHIA CONGENITA CONSORTIUM (PC PROJECT)

NO CME CREDIT OFFERED

Hosted by Pachyonychia Congenita Project

Wednesday, May 9, 2012
8:00 am – 3:00 pm (Pre-meeting Breakfast — 7:00 am – 7:45 am)
Raleigh Convention Center 301 A/B

OPEN TO ALL MEETING ATTENDEES

Keynote Speaker
Harnessing Stem Cell Gene Biology to Combat Genodermatoses
Jakub Tolar, MD/PhD, University of Minnesota, Minneapolis, Minnesota

Section 1: Diagnostics and Genetics
Chair: Dennis Roop, PhD, University of Colorado Anschutz Medical Campus
New approaches to the diagnostics of genodermatoses
Gabriele Richard, MD, GeneDx, Inc., Gaithersburg, Maryland
Update on Pachyonychia Congenita Genetics
Frances J.D. Smith, PhD, Epithelial Genetics Group, University of Dundee, Dundee, Scotland, United Kingdom
Frizzled 6 Gene
Regina C. Betz, MD, University of Bonn, Germany

Section 2: Research Studies
Chair: E. Birgit Lane, PhD, Institute of Medical Biology, Singapore
Review of the GO Delivery! Grant
Christopher H. Contag, PhD, Stanford University, Stanford, California
Keratinocytes and Pain
Michael J. Caterina, MD/PhD, Johns Hopkins School of Medicine, Baltimore, Maryland

BREk
Nucleoside-modified messenger RNA for gene therapy
Katalin Kariko, PhD, and Drew Weissman, MD/PhD, University of Pennsylvania, Philadelphia, Pennsylvania
Update on Pachyonychia Congenita Research at TransDerm
Roger L. Kaspar, PhD, Robyn P. Hickerson, PhD, Tycho Speaker, PhD, TransDerm, Santa Cruz, California
K16 Null Mice
Juliane C. Kellner, PhD, Pierre A. Coulombe, PhD, Johns Hopkins Medical Institutions, Baltimore, Maryland
Keratins, Pachyonychia Congenita and Research Advances
W. H. Irwin McLean, PhD, Epithelial Genetics Group, University of Dundee, Scotland, United Kingdom

HOSTED LUNCH

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ANCILLARY MEETINGS

WEDNESDAY, MAY 9, 2012

Resident Retreat for Future Academicians
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

PhD Retreat
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

SID Board of Directors Meeting
7:00 am - 2:00 pm
Raleigh Convention Center 402

Pachyonychia Congenita Project (PC Project)
8:00 am - 3:00 pm
Raleigh Convention Center 301 A/B

American Acne and Rosacea Society
10:30 am - 12:00 pm
Raleigh Convention Center 302 A

INTERNATIONAL PACHYONYCHIA CONGENITA CONSORTIUM (PC PROJECT) (CONT’D)

Hosted by Pachyonychia Congenita Project

Wednesday, May 9, 2012
8:00 am – 3:00 pm (Pre-meeting Breakfast — 7:00 am – 7:45 am)
Raleigh Convention Center 301 A/B

OPEN TO ALL MEETING ATTENDEES

Section 3: PC Physician Network
Chair: Maurice van Steensel, MD/PhD, University Hospital Maastricht, The Netherlands

Trials and Tribulations
John A. McGrath, MD, St John’s Institute of Dermatology, Kings College London, United Kingdom

Towards Differential Diagnosis: What We Have Learned From The IPCRR
Edel A. O’Toole, MB, BCh, PhD, FRCP, DCH, Barts & the London, Queen Mary’s, London, United Kingdom

Developing Best Practices For Pachyonychia Congenita
Ilan Goldberg, MD, Dermatology Department, Tel-Aviv Sourasky Medical Center, Tel Aviv, Israel

Painless Biopsies for PC Plantar Keratoderma
Leonard M. Milstone, MD, Yale School of Medicine, New Haven, Connecticut

DISCUSSION: Moving forward with clinical studies for Pachyonychia Congenita
Eli Sprecher, MD/PhD, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

For additional information, please contact:
Mary Schwartz, Director, PC Project
Tel: 877-628-7300 (toll free) / Fax: 877-628-7399
e-mail: Mary.Schwartz@pachyonychia.org
ANCILLARY MEETINGS

Wednesday, May 9, 2012

Resident Retreat for Future Academicians
7:00 am - 3:00 pm
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American Acne and Rosacea Society
10:30 am - 12:00 pm
Raleigh Convention Center 302 A

OPEN TO ALL MEETING ATTENDEES

American Acne and Rosacea Society

Wednesday, May 9, 2012
10:30 am - 12:00 pm
Raleigh Convention Center 302 A

AARS Welcome and Overview
Diane Thiboutot, MD, AARS President

Recent Advances in Acne and Rosacea Research
Jenny Kim, MD/PhD, Assistant Professor, Dermatology, University of California, Los Angeles, California

1. Mast cells and neuropeptide expression are increased in erythematotelangiectatic rosacea in comparison to telangiectatic photoaging. Yolanda R Helfrich, James Varani, Gary Fisher, Craig Hammerberg, Allen Bruce, Andrew Lin, Lisa Maier, Dana Sachs and John Voorhees. Ann Arbor, MI and Portland, ME. 11:00 am, Poster #093


3. Developing a novel personalized interactive health care education system (MyPACE) for acne patients. Audrey S Wang, Julie Wu, Negar Foolad and April W Armstrong. Sacramento, CA. 11:20 am, Poster #511

4. IL-17A is involved in P. acnes-induced inflammation. George W Agak, Min Qin, Jennifer Nobe, Myung-Hwa Kim and Jenny Kim. Los Angeles, CA and Cheonan, South Korea. 11:30 am, Poster #633


Question & Answer Session
Moderated by Diane Thiboutot, MD

NO CME CREDIT OFFERED
**Atopic Dermatitis Conference**  
**Developments in Personalized Medicine for Skin Disease**

**Wednesday, May 9, 2012**  
12:00 pm - 3:00 pm  
Raleigh Convention Center Ballroom B/C

**Open to All Meeting Attendees**

**Introduction and Welcome**  
Lisa Beck, MD, Associate Professor, Department of Dermatology, University of Rochester, Rochester, New York

**No Place Like HOME: Goals of HOME and its Progress to Date and Plans for the Future**  
Hywel Williams, MSc/PhD/FRCP, Professor, Department of Dermatology, University of Nottingham, Nottingham, United Kingdom

**Solid Gold? Should IGA Be the “Gold Standard” for AD Assessment?**  
Eric Simpson, MD, Associate Professor, Department of Dermatology, Oregon Health & Sciences University, Portland, Oregon

**Q & A**

**Coming to Our Senses: Assessment Tools for Itch**  
Gil Yosipovitch, MD, Professor, Department of Dermatology, Wake Forest University, Winston-Salem, North Carolina

**Hitting the Mark—AD Biomarkers: How good are they?**  
Emma Guttman-Yassky, MD/PhD, Assistant Professor of Dermatology and Immunology, Director of Occupational Contact Dermatitis Clinic and Laboratory for Inflammatory Skin Diseases, Department of Dermatology and the Immunology Institute, Mt. Sinai Medical Center, New York, New York

**Continued on Next Page**
Hurdles in the Development of AD Therapeutics

Casting a Wide Net: Genetic & Epidemiological Insights
David J. Margolis, MD, PhD, Professor, Department of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania

Q & A
Discussion & Wrap-up
Lisa Beck, MD, Associate Professor, Department of Dermatology, University of Rochester, Rochester, New York
OPEN TO ALL MEETING ATTENDEES

**Introduction**
Todd Ridky, MD/PhD
Assistant Professor, Department of Dermatology
University of Pennsylvania, Philadelphia, Pennsylvania

**Rare and Common Variants in Medical Genetics**
David V. Goldstein, PhD
The Richard and Pat Johnson Distinguished University Professor
Director, Center for Human Genome Variation
Duke University, Durham, North Carolina

**Mutations in CARD14 Lead to Psoriasis**
Elisha Roberson, PhD
Division of Biology and Biomedical Sciences
Washington University, St. Louis, Missouri

**Exploring the Therapeutic Potential of Induced Pluripotent Stem (iPS) Cells for Inherited Skin Blistering Diseases**
Dennis Roop, PhD
Professor of Dermatology
Charles C. Gates Chair of Regenerative Medicine and Stem Cell Biology
Director, Charles C. Gates Center for Regenerative Medicine and Stem Cell Biology
University of Colorado Anschutz Medical Campus, Aurora, Colorado

**ANCILLARY MEETINGS**

**Wednesday, May 9, 2012**

**Resident Retreat for Future Academicians**
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

**PhD Retreat**
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

**SID Board of Directors Meeting**
7:00 am - 2:00 pm
Raleigh Convention Center 402

**Pachyonychia Congenita Project (PC Project)**
8:00 am - 3:00 pm
Raleigh Convention Center 301 A/B

**American Acne and Rosacea Society**
10:30 am - 12:00 pm
Raleigh Convention Center 302 A
ANCILLARY MEETINGS

WEDNESDAY, MAY 9, 2012

Resident Retreat for Future Academicians
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

PhD Retreat
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

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American Acne and Rosacea Society
10:30 am - 12:00 pm
Raleigh Convention Center 302 A

ALBERT M. KLIGMAN / PHILLIP FROST LEADERSHIP LECTURE
KEEPING AN EYE ON CUTANEOUS BIOLOGY

.5 CME CREDITS

Wednesday, May 9, 2012
5:00 pm - 5:30 pm
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Robert Lavker, PhD
Northwestern University
Chicago, Illinois

Dr. Lavker’s laboratory focuses on investigations of processes of proliferation and differentiation in keratinizing tissues. His lab has successfully employed laser capture microdissection to isolate pure populations of limbal epithelial basal cells (enriched in stem cells) and corneal epithelial basal cells (enriched in stem cell progeny). Dr. Lavker’s lab has also begun to characterize microRNAs (miRNAs) found in the stem cells of the epidermis and corneal epithelium and to understand how miRNAs regulate stem cell proliferation and differentiation.

LECTURESHIP HISTORY

Established in 2007 by Dr. Phillip Frost, the lectureship is intended to honor Dr. Albert M. Kligman, whose great commitment to dermatology and numerous contributions to the specialty has inspired generations of researchers and practitioners. The award is made to an individual in acknowledgment of significant contributions in the past five years to the understanding of structure and function of skin.
ANCILLARY MEETINGS

Wednesday, May 9, 2012

Resident Retreat for Future Academicians
7:00 am - 3:00 pm
Raleigh Convention Center 305 A/B

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7:00 am - 3:00 pm
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Raleigh Convention Center 301 A/B

American Acne and Rosacea Society
10:30 am - 12:00 pm
Raleigh Convention Center 302 A

STATE-OF-THE-ART PLENARY LECTURE 1
STEM CELL REGULATION BY STEM CELLS IN HAIR FOLLICLES

Wednesday, May 9, 2012
5:30 pm - 6:00 pm
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Emi Nishimura, MD/PhD
Tokyo Medical and Dental University
Tokyo, Japan

Dr. Nishimura’s research focuses on the mechanisms of tissue homeostasis driven by stem cell systems and understanding physiological or pathological conditions resulting from stem-cell system defect. Her research recently demonstrated that the incomplete maintenance of melanocyte stem cells causes hair graying, and her research is now trying to elucidate the mechanisms of cancer development and resistance to cancer treatments by focusing on “cancer stem cells.”

STATE-OF-THE-ART PLENARY LECTURE 2
OPPORTUNITIES FOR DISCOVERY UTILIZING NEXT GENERATION SEQUENCING TECHNOLOGY

Wednesday, May 9, 2012
6:00 pm - 6:30 pm
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Keith Choate, MD/PhD
Yale University
New Haven, Connecticut

Dr. Choate’s research focuses on identification of genes responsible for genodermatoses utilizing microarray based genotyping platforms and next-generation sequencing and therapies for patients with disorders of keratinization. In his research, Dr. Choate uses cutting-edge whole-genome DNA sequencing technologies to identify mutations causing genetic skin diseases, and his group studies the function of identified genes in normal and disease states.
ANCILLARY MEETINGS

WEDNESDAY, MAY 9, 2012

Resident Retreat for Future Academicians
7:00 am - 3:00 pm
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10:30 am - 12:00 pm
Raleigh Convention Center 302 A

WELCOME RECEPTION

Wednesday, May 9, 2012
7:00 pm - 8:30 pm
Raleigh Convention Center Grand Lobby and Outside Patio

OPEN TO ALL MEETING ATTENDEES

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. Beverage tickets will be distributed in registration packets.

NO CME CREDIT OFFERED
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<td>Cutaneous T Cell Lymphoma Symposium</td>
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<td>46</td>
<td>Social Event</td>
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# Thursday Meeting-at-a-Glance

**Thursday, May 10, 2012**

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<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td><strong>Society for Pediatric Dermatology</strong></td>
<td>7:00 am - 8:00 am</td>
<td>Raleigh Convention Center 206</td>
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<tr>
<td><strong>Registration</strong></td>
<td>7:30 am - 4:00 pm</td>
<td>Raleigh Convention Center 300 Level Registration Area</td>
</tr>
<tr>
<td><strong>Plenary Session I</strong></td>
<td>8:00 am - 9:00 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td><strong>Eugene M. Farber Lecture</strong></td>
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<td><strong>American Skin Association Achievement Awards</strong></td>
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<tr>
<td><strong>David Martin Carter Mentor Award</strong></td>
<td>10:10 am - 10:15 am</td>
<td>Raleigh Convention Center Ballroom B/C</td>
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<tr>
<td><strong>Poster Session I/Technical Exhibits Open w/coffee break</strong></td>
<td>10:00 am - 12:00 pm</td>
<td>Raleigh Convention Center Exhibit Hall A</td>
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<tr>
<td><strong>Research in Cutaneous Surgery Symposium</strong></td>
<td>10:00 am - 1:00 pm</td>
<td>Raleigh Convention Center 305 A</td>
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<tr>
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<td>10:00 am - 1:30 pm</td>
<td>Raleigh Convention Center 302 A</td>
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<tr>
<td><strong>Clinical Scholars Plenary Session</strong></td>
<td>10:15 am - 12:15 pm</td>
<td>Raleigh Convention Center 305 B</td>
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<td><strong>JDS Editorial Board Luncheon</strong></td>
<td>12:00 pm - 1:30 pm</td>
<td>Raleigh Convention Center 307</td>
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<tr>
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<tr>
<td>1. Photobiology</td>
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<td>Raleigh Convention Center 306 C</td>
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<td></td>
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<td></td>
<td>Raleigh Convention Center 305 A</td>
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<tr>
<td><strong>Cutaneous T Cell Lymphoma Symposium</strong></td>
<td>2:00 pm - 5:30 pm</td>
<td>International Society for Cutaneous Lymphomas Scientific (ISCL) &amp; Cutaneous Lymphoma Foundation (CLF) Raleigh Convention Center 302 A</td>
</tr>
<tr>
<td><strong>Social Event</strong></td>
<td>6:00 pm - 10:00 pm</td>
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**ANCILLARY MEETINGS**

**THURSDAY, MAY 10, 2012**

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Indicates CME Credit Offered

TICKETED EVENT; PRE-REGISTRATION REQUIRED

See page 46 for additional information.
Overview I: Pediatric Dermatology at SID
Amy Paller, Northwestern University

Presentations
1. Functional analysis of candidate genes identified by genomewide association study (GWAS) of infantile hemangiomas (IH). Eun-Kyung M Kwon, Dawn H Siegel, Ulrich Broeckel, Paula E North, Elizabeth Worthey, Yvonne E Chiu and Beth A Drolet. Milwaukee, WI. 7:15 am, Poster #393, Presented by Mary Kwon, Medical College of Wisconsin

2. Therapies for dystrophic epidermolysis bullosa require close evaluation for development of antibodies to type VII collagen. Emily S Gorell, Ngon Nguyen, Zurab Siprashvili, Peter Marinkovich and Alfred Lane. Stanford, CA. 7:25 am, Poster #399, Presented by Alfred Lane, MD, Stanford University

3. Eczema severity is associated with multiple comorbid conditions and increased healthcare utilization. Jonathan I Silverberg and Eric L Simpson. New York, NY and Portland, OR. 7:35 am, Poster #260, Presented by Jonathan Silverberg, MD, Oregon Health Sciences University

Concluding Remarks and Networking

Special thanks to the Society for Pediatric Dermatology and its Task Force on Research for supporting these sessions.
OPEN TO ALL MEETING ATTENDEES

1. Epigenetic regulation of cathelicidin expression by PTH/PTHrP controls skin infection. Beda Muehleisen, George Sen, Douglas W Burton, Leonard J Deftos and Richard L Gallo. San Diego, CA. 8:00 am, Poster #638

2. GLI2* engages the mTOR pathway to drive development of malignant peripheral nerve sheath tumors (MPNSTs) in skin. Alexandre N Ermilov, Elizabeth DeLassus, Jennifer Ferris, Deborah Hong, Joanna Pero, Jianhong Liu, Marina Grachtchouk, Simon J Conway, David R Lucas and Andrzej A Dlugosz. Ann Arbor, MI and Indianapolis, IN. 8:12 am, Poster #177

3. Efforts to provide a comprehensive overview of genetic changes in canine melanoma as a means to identify genetic correlates for drug response. Aleksandar Sekulic, Victoria Zismann, Roe Froman, April Allen, Matthew Huentleman, Melissa Paoloni, Mark Neff, Barbara Davis, Allison Cox, Nick Duesbery, Jianfeng Xu, Michael Bittner, Craig Webb, Kevin Brown, Patricia LoRusso and Jeffrey Trent. Phoenix, AZ; Scottsdale, AZ; Grand Rapids, MI; Bethesda, MD; Medford, MA; Winston-Salem, NC and Detroit, MI. 8:24 am, Poster 781

4. Germline mutation in ATR underlying a new autosomal dominant oropharyngeal cancer syndrome. Akio Tanaka, Sarah Weinel, Nikoletta Nagy, Mark O’Driscoll, Joey E Lai-Cheong, Carol L Kulp-Shorten, Alfred Knable, Michihiro Hide, Jeffrey Callen and John A McGrath. London, United Kingdom; Hiroshima, Japan; Louisville, KY and Brighton, United Kingdom. 8:36 am, Poster #404

5. PDK1 regulates keratinocyte differentiation. Teruki Dainichi, Matthew S Hayden and Sankar Ghosh. New York, NY. 8:48 am, Poster #298
EUGENE M. FARBER LECTURE
GENOMICS MEETS THE IMMUNE SYSTEM: AN INTEGRATED SYSTEMS PERSPECTIVE ON PSORIASIS

Thursday, May 10, 2012
9:00 am - 9:30 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Frank Nestle, MD
King’s College London
London, United Kingdom

Professor Frank O. Nestle holds the Mary Dunhill Chair of Cutaneous Medicine and Immunotherapy at St. John’s Institute of Dermatology, King’s College London. His main research interests include the pathogenesis and immunotherapy of psoriasis, and the role and therapeutic modulation of dendritic cells in inflammatory and neoplastic skin disease.

LECTURESHIP HISTORY

The Eugene M. Farber endowment was established by the family of Eugene M. Farber, MD, who devoted his scientific career to understanding the pathogenesis of psoriasis. In 2007, the SID Board of Directors voted to create the Eugene M. Farber Endowed Lecture. It is presented at the Society’s Annual Meeting by an investigator whose work is relevant to expanding our insights into the pathophysiology and treatment of psoriasis.
THE NEUROFIBROMA STORY: A ROLE FOR MAST CELLS IN TUMOR POTENTIATION AND CLINICAL IMPLICATIONS

Thursday, May 10, 2012
9:30 am - 10:00 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Luis Parada, PhD
University of Texas, Southwestern
Dallas, Texas

Dr. Parada’s research interest lies in the elucidation of intracellular regulatory pathways that control the complex process of vertebrate development. Central efforts have focused on the functions of the Trk gene family and the modeling of human disease including autism, brain cancer, and Von Recklinghausen’s Neurofibromatosis type 1 (NF-1).

LECTURESHP HISTORY

Established in 1988, this award was established to honor the memory of Naomi Kanof, MD. The Naomi M. Kanof Lectureship honors an individual making significant contributions to the improvement of health through clinical research. Clinical research is broadly defined as any scientific endeavor with a direct application to improving the prevention, diagnosis or treatment of clinical disease. This investigative work can be based in the laboratory and should be implemented or just ready to be implemented in clinical practice.
AMERICAN SKIN ASSOCIATION ACHIEVEMENT AWARDS & DAVID MARTIN CARTER MENTOR AWARD

Thursday, May 10, 2012
10:00 am - 10:15 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

American Skin Association Achievement Awards

The American Skin Association presents its 2012 Achievement Awards to Angela Christiano, PhD; Mark Lebwohl, MD; Gian Paolo Dotto, MD/PhD; Alain Taieb, MD; and Ponciano Cruz, MD.

David Martin Carter Mentor Award

The American Skin Association presents the 2012 David Martin Carter Mentor Award to Stuart Yuspa, MD.
OPEN TO ALL MEETING ATTENDEES

1. Bulge-derived stem cells form BCC-like tumors upon wounding. Sunny Y Wong and Jeremy F Reiter. Ann Arbor, MI and San Francisco, CA. 10:00 am, Poster #122

2. BRAF inhibitors suppress apoptosis through off-target inhibition of JNK signaling. Harina Vin, Marco L Leung, Vida Chitsazzadeh, Sandra Ojeda, David W Dwyer, Kristen N Richards, Larissa R Stewart, Jonathan L Curry, Kevin Kim, Ana M Ciurea, Madeleine Duvic, Victor G Prieto, Stephen E Ullrich, Elsa R Flores and Kenneth Y Tsai. Houston, TX. 10:10 am, Poster #505


4. Trends of in situ melanoma in U.S. men and women. Erin X Wei-Passanese, Jiali Han, Jennifer Y Lin and Abrar A Qureshi. Boston, MA. 10:30 am, Poster #224

5. Dramatically improved overall survival and predictors of disease in 17 metastatic basal cell carcinoma patients. Christina Danial, Bharathi Lingala, Anthony E Oro and Anne Lynn S Chang. Redwood City, CA. 10:40 am, Poster #227

6. Dermal matrix composition promotes development of aggressive squamous cell carcinoma in recessive dystrophic epidermolysis bullosa. Yi-Zhen Ng, Celine Pourreyron, Julio Salas-Alanis, R Cepeda-Valdes, W Yan, Sheila Wright, Mei Chen, Fiona Hogg, John McGrath, Deedee Murrell, Irene Leigh, Ellen Lane and Andrew South. Dundee, United Kingdom; Singapore, Singapore; Monterrey, Mexico; Sydney, Australia; Los Angeles, CA and London, United Kingdom. 10:50 am, Poster #119

7. Stage I primary cutaneous SCCs from solid organ transplant recipients show increased IL-22 producing CD8+ T-cells. Shali Zhang, Hideki Fujita, Julia S Pettersen, Mark J Bluth, Hiroshi Mitsui, James G Krueger, Diane Felsen and John A Carucci. New York, NY. 11:00 am, Poster #615

8. DC-HIL+ myeloid-derived suppressor cells (MDSC) are a new prognostic marker for melanoma and promising target for immunotherapy. Kaveh Nezafati, Jin-Sung Chung, Kyoci Tamura, Rohit Sharma, Amy Harker-Murray, James Huth, Ponciano Cruz and Kiyoshi Ariizumi. Dallas, TX. 11:10 am, Poster #744


10. Plexin C1, a neural guidance receptor, suppresses melanoma progression. Yulin Chen, Joanne Soong, Lei Xu, Sonali Mohanty and Glynnis Scott. Rochester, NY. 11:30 am, Poster #718


12. New shallow wound model using ablative CO2 fractional laser in hairless mice. Ji-Hae Lee, Il-Hong Bae, Young-Ho Park and Kyung-Min Lim. Yongin-si, South Korea. 11:50 am, Poster #784
13. **Bi 6727, a second generation small molecule inhibitor of polo-like kinase 1 (Plk1), causes significant melanoma growth delay and regression in vivo.** Brian D Cholewa, Joshua A Desotelle and Nihal Ahmad. Madison, WI. 12:00 pm, Poster #745

14. **Epidermal growth factor facilitates melanoma lymph node metastasis by influencing tumor lymphangiogenesis.** Andreas Bracher, Stefanie Tauber, Ana Soler, Astrid M Fink, Andreas Steiner, Hubert Pehamberger, Peter Petzelbauer, Marion Gröger and Robert Loewe. Vienna, Austria. 12:10 pm, Poster #722

15. **Melanoma simulation model: Promoting opportunistic melanoma screening and appropriate patient counseling through education.** M Anderson, N Jain, J Bierman, J A Vozenilek, M J Kwasny and J K Robinson. Chicago, IL. 12:20 pm, Poster #737


17. **Human melanoma cells resist to oxidative stress due to active EGFR/AKT and overproduction of melanin.** Kevin Szulak, David Calianese, Gabriella Brum, Charles Best, Nicola Kouttab, Wenjun Wang, Aie Xu and Yinsheng Wan. Providence, RI and Hangzhou, China. 12:40 pm, Poster #729
OPEN TO CLINICAL SCHOLARS & YOUNG INVESTIGATOR/TRAINEE TRACK PARTICIPANTS ONLY

Plenary Presentations

1. Skin commensal bacteria acts as antimicrobial shield: Identification of firmocidin, a novel small-molecule antibiotic produced by Staphylococcus epidermidis. 10:20 am, Poster #642, Presented by Richard Gallo, MD/PhD

2. Response to self antigen imprints regulatory memory in the skin. 10:40 am, Poster #107, Presented by Michael Rosenblum, MD/PhD

Lecture

The mTOR Pathway and Dermatologic Disease
Tom Darling, MD/PhD
Associate Professor
Uniformed Services University, Bethesda, Maryland

Stem Cell Therapy/Epidermolysis Bullosa
Katsuto Tamai, MD/PhD
Dept. of Stem Cell Therapy Science
Osaka University, Osaka, Japan
**Welcome and Introduction**
Kristina Callis Duffin, MD  
Assistant Professor  
University of Utah, Salt Lake City, Utah

**What Does an Academic Career in Investigative Dermatology Really Mean, and is it Right for You?**
Amy Paller, MD  
Professor and Chair  
Northwestern University, Chicago, Illinois

**Finding the Right Job and Negotiating a Contract**
John Zone, MD  
Professor and Chairman  
University of Utah, Salt Lake City, Utah

**Making the Most of Mentorship: From Finding a Mentor to Being One**
Angela Christiano, PhD  
Professor  
Columbia University, New York, New York

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**ANCILLARY MEETINGS**

**Society for Pediatric Dermatology**
7:00 am - 8:00 am  
Raleigh Convention Center 206

**Research in Cutaneous Surgery**
10:00 am - 1:00 pm  
Raleigh Convention Center 305 A

**JDS Editorial Board Luncheon**
12:00 pm - 1:30 pm  
Raleigh Convention Center 307

**Cutaneous T Cell Lymphoma Symposium**
2:00 pm - 5:45 pm  
Raleigh Convention Center 302 A

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**3.5 CME CREDITS**
OPEN TO YOUNG INVESTIGATOR/TRAINEE TRACK PARTICIPANTS ONLY

Funding: A Brief Overview of Funding Opportunities Available to Young Investigators, and Strategies to Improve Your Grant Application
Kim Yancey, MD
Professor and Chairman
University of Texas, Southwestern, Dallas, Texas

Putting It All Together: Words of Advice on Finding a Niche, Building Collaborations, and Mentoring
Joel Gelfand, MD, MSCE
Assistant Professor
University of Pennsylvania, Philadelphia, Pennsylvania

What Can the SID Do for Me?
Jodi Johnson, PhD
Research Assistant Professor
Northwestern University, Chicago, Illinois

Q & A and Closing Comments
Kristina Callis Duffin, MD
Assistant Professor
University of Utah, Salt Lake City, Utah

ANCILLARY MEETINGS

THURSDAY, MAY 10, 2012

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MERKEL CELL CARCINOMA SYMPOSIUM
FROM VIROLOGY AND IMMUNOLOGY TOWARD RATIONAL THERAPY

Thursday, May 10, 2012
12:00 pm - 2:00 pm
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

Introduction & Overview
Paul Nghiem, MD/PhD
Associate Professor
University of Washington, Seattle, Washington

Discovery and Implications of the Merkel Cell Polyomavirus in Merkel Cell Carcinoma Management
Yuan Chang, MD
Professor and Co-discoverer of Merkel polyomavirus and Kaposi’s sarcoma herpes virus
University of Pittsburgh Cancer Institute, Pittsburgh, Pennsylvania

Summary of MCC-related Abstracts Submitted to SID Meeting

1. Exploiting deregulated apoptotic signaling as a therapeutic strategy for Merkel cell carcinoma. 
   Monique E Verhaegen, Chris Bichakjian, Tracy Vozheiko, Jack Weick, Melissa Voutsalath, Timothy M Johnson and Andrzej A Dlugosz. Ann Arbor, MI. 1:00 pm, Poster #158

2. CD200, a molecule that can suppress T cell responses, is expressed on human Merkel cell carcinomas. 
   Mitra Dowlatshahi, Travis Hollmann, Jessica Scanlon, Linda Wang, Qian Zhan, George Murphy, Ahmed Gehad, Jessica Teague and Rachael A Clark. Boston, MA. 1:15 pm, Poster #055

3. Defective cell cycle arrest and DNA repair in Merkel cell carcinogenesis. 
   Stephanie K Demetriou, Katherine Ona-Vu, Erin M Sullivan, Tiffany K Dong, Shu-Wei Hsu and Dennis H Oh. San Francisco, CA. 1:30 pm, Poster #161

Concurrent Minisymposium 1
PHOTOBIOLOGY

Presiders: Tatiana Oberyszyn PhD and Yu-Ying He, PhD

Thursday, May 10, 2012
2:00 pm - 5:30 pm
Raleigh Convention Center 305 B

OPEN TO ALL MEETING ATTENDEES

1. Toll-like receptor-4 augments ultraviolet radiation induced cutaneous tumor development by DNA damage mechanism. Israr Ahmad, Purushotham Guroji, Eva Simanyi, Craig A Elmets and Nabiha Yusuf. Birmingham, AL. 2:00 pm, Poster #695

2. Diclofenac decreases tumor burden in male and female mice in two models of UVB-induced SCC. Erin M Burns, Kathleen L Tober, Judith A Riggenbach and Tatiana M Oberyszyn. Columbus, OH. 2:12 pm, Poster #681


4. AMPK activation prevents UVB-induced skin tumorigenesis through promoting DNA repair and growth control. Chunli Wu, Lei Qiang, Weinong Han, Mei Ming, Benoit Viollet and Yu-Ying He. Chicago, IL; Shenyang and China Paris, France. 2:36 pm, Poster #680


6. The role of α-melanocyte stimulating hormone in the DNA damage response of human melanocytes. Viki B Swope, Christina Alexander, Renny Starner, George Babcock and Zalfa A Abdel-Malek. Cincinnati, OH. 3:00 pm, Poster #711

7. A topical NF-kB inhibitor protects skin cells from photodamage and enhances DNA repair. Simarna Kaur, Thierry Oddos, Helene Wong and Michael D Southall. Skillman, NJ and Val de Reuil, France. 3:12 pm, Poster #714


9. IL-11, IL-1α, IL-6, and TNFα are induced by solar radiation and involved in the facial subcutaneous fat loss. Wen-Hwa Li, Li Zhang and Apostolos Pappas. Skillman, NJ. 3:36 pm, Poster #706

10. Induction of microRNA miR-21 by UV irradiation down-regulates TGF-β type II receptor and type I procollagen in human skin fibroblasts. Tianyuan He, Taihao Quan, Zhaoping Qin, John J Voorhees and Gary J Fisher. Ann Arbor, MI. 3:48 pm, Poster #704

11. Cyclophilin D alters UVA-induced apoptosis in keratinocytes through a mechanism involving mitochondrial ROS generation. Jaroslav Janda, Jana Jandova and James Sligh. Tucson, AZ. 4:00 pm, Poster #707

12. UVA-1 and UVA-1 oxidized phospholipids elicit an autophagic stress response in primary keratinocytes. Yi Zhao, Chengfeng Zhang, Heidemarie Rossiter, Ulrich König, Leopold Eckhart, Susanne Karner, Erwin Tschachler and Florian Gruber. Vienna, Austria and Neuilly, France. 4:12 pm, Poster #701


14. Photodynamic therapy with pc 4 induces cell death of trichophyton rubrum. Minh Lam, Sara Lin, Mauricio A Retuerto, Pranab K Mukherjee, Mahmoud A Ghannoum, Kevin D Cooper and Elma D Baron. Cleveland, OH. 4:36 pm, Poster #689

15. Photo(chemo)therapy reduces circulating Th17 cells and restores dysfunctional regulatory T cells in psoriasis. Takuya Furuhashi, Chiyo Saito, Kan Torii, Emi Nishida and Akimichi Morita. Nagoya, Japan. 4:48 pm, Poster #688

ANCILLARY MEETINGS

ANCILLARY MEETINGS

THURSDAY, MAY 10, 2012

Society for Pediatric Dermatology
7:00 am - 8:00 am
Raleigh Convention Center 206

Research in Cutaneous Surgery
10:00 am - 1:00 pm
Raleigh Convention Center 305 A

JDS Editorial Board Luncheon
12:00 pm - 1:30 pm
Raleigh Convention Center 307

Cutaneous T Cell Lymphoma Symposium
2:00 pm - 5:45 pm
Raleigh Convention Center 302 A

3.5 CME CREDITS
1. Ceramide deficiency in the epidermis leads to development of psoriasis-like lesions associated with IL-23-dependent proliferation of γδ-T cells. **Kimiko Nakajima, Sa yo Kataoka, Naoko Goto-Inoue, Mika Terao, Hiroyuki Murota, Hiroaki Azukizawa, Mitsutoshi Sano, Kochi, Japan; Tokyo, Japan; Osaka, Japan and Hamamatsu, Japan.** 2:00 pm, **Poster #103**

2. Functional interaction between complement and the proinflammatory cytokine TNF-α in experimental bullous pemphigoid. **Lisa Heimbach, Minglang Zhao, Ning Li, Jiang Fan, Janet Fairley, Luis A Diaz and Zhi Liu.** Chapel Hill, NC; Milwaukee, WI and Iowa City, IA. 2:12 pm, **Poster #022**

3. Epidermal control of psoriasis-like skin inflammation by a TNF-α and IL-24 dependent mechanism. **Snehlata Kumari, Manolis Pasparakis, Robert Sabat and Ingo Haase.** Cologne, Germany and Berlin, Germany. 2:24 pm, **Poster #102**

4. IL-15 is a therapeutic target in human alopecia areata. **Luzhou Xing, Zhenpeng Dai, Weijuan Gong, Ali Jabbari, Annemieke de Jong, Sivan Harel, Angela M Christiano and Raphael Clynes.** New York, NY. 2:36 pm, **Poster #104**

5. Effective prevention and treatment of CD8 T cell-mediated Graft-versus-host-like disease (GvHD) using a JAK inhibitor. **Naoko Okivama, Yasuko Furumoto, Vadim Villarroel, Jan Gutermuth, Kamran Ghoreschi, Massimo Gadina and Stepheni Katz.** Bethesda, MD. 2:48 pm, **Poster #040**

6. Host genetics play a role in controlling skin bacterial species and autoimmune blistering skin disease. **Girish Srinivas, Steffen Moeller, Ralf Ludwig, Sven Kuenzel, Detlef Zillikens, John Baines and Saleh Ibrahim.** Luebeck, Germany and Ploen, Germany. 3:00 pm, **Poster #039**

7. A key role for the polyclonal nature of pemphigus vulgaris IgG in p38 MAPK-dependent loss of keratinocyte adhesion. **Masataka Saito, Christopher Y Caughman, Dana K Tucker, Xuming Mao, Sara N Stahley, Aimée S Payne, Masayuki Amagai and Andrew P Kowalczyk.** Atlanta, GA; Tokyo, Japan and Philadelphia, PA. 3:12 pm, **Poster #032**

8. Response to self antigen imprints regulatory memory in the skin. **Michael Rosenblum, Iris Gratz, Jonathan Paw, Hong-An Truong and Abul Abbas.** San Francisco, CA. 3:24 pm, **Poster #107**

9. CD103-positive CD4+Foxp3+ T regulatory cells are necessary for optimal suppression of cutaneous inflammation. **Jane Yoo, John McGuire, Anne Manicone, Xiaodong Zhu, Peter Treuting, E Alden Landis, Timothy Birkland, Laura Johnston, Vivian Lee, Cliff Rims, Ying Wang and William Parks.** Seattle, WA. 3:36 pm, **Poster #087**

10. Inhibition of the SDF-1/CXCR4 axis alleviates chronic and acute skin inflammation. **Silvana Zeraggeno, Reto Huggenberger, Alexander Ochsenbein and Michael Detmar.** Zurich, Switzerland. 3:48 pm, **Poster #008**

11. Identification of cytotoxic T cell epitopes in alopecia areata. **Eddy Wang, Jan P Dutz, Jerry Shapiro and Kevin J McElwee.** Vancouver, Canada. 4:00 pm, **Poster #015**

12. IL-17 Receptor A subunit is a central hub for inflammatory signaling in human psoriasis. **Chris B Russell, Keith Kerkof, Jeannette Bigler, Marty Timour, R L Diaz, Antony Symons, Hugh Rand, James G Krueger and David A Martin.** Seattle, WA. 4:12 pm, **Poster #041**
13. Scurfy mice reveal strong autoimmune skin inflammation with Th2-deviation of skin-infiltrating CD4+ T cells and high epidermal expression of thymic stromal lymphopoietin (TSLP). Eva N Hadaschik, Britta Heckmann and Alexander H Enk. Heidelberg, Germany. 4:24 pm, Poster #046

14. Anti-desmoglein 1 autoantibodies from Fogo Selvagem recognize LJM11, a member of the “yellow” family of salivary proteins from Lutzomyia longipalpis. Ye Qian, Joseph S Jeong, Mike Maldonado, Flor Evangelista, Bahjat F Qaqish, Valeria Aoki, Gunter Hans-Filhio, Evandro A Rivitti, Jesus G Valenzuela and Luis A Diaz. Chapel Hill, NC; Sao Paulo, Brazil; Mato Grosso do Sul, Brazil and Rockville, MD. 4:36 pm, Poster #054

15. CORRECTION
TITLE: The role of the IL12B associated psoriasis risk allele in the pathogenesis of psoriasis
AUTHORS (FIRST NAME, LAST NAME): Xianying Xing1, MaryBeth Riblett1, James J. Kochkodan1, Rajan P. Nair1, John J. Voorhees1, James T. Elder1, Andrew Johnston1, Johann E. Gudjonsson
INSTITUTIONS (ALL):
1. Dermatology, University of Michigan, Ann Arbor, MI, United States. Poster #77
## Concurrent Minisymposium 3
### CELL ADHESION/MATRIX BIOLOGY

**Presiders:** Peter Koch, PhD and Jonathan Jones, PhD

**Thursday, May 10, 2012**
2:00 pm - 5:30 pm  
Raleigh Convention Center

**OPEN TO ALL MEETING ATTENDEES**

1. Inhibition of MK2 signaling prevents blister formation in pemphigus *in vivo*.  
   Xuming Mao, Hong Li and Aimee S Payne.  Philadelphia, PA. 2:00 pm, Poster #193

2. Fueling the keratinocyte motor: Factor-inhibiting Hypoxia-inducible Factor 1 (FIH-1) is a positive regulator of epithelial migration.  
   Han Peng, Spiro Getsios and Robert M Lavker.  Chicago, IL. 2:12 pm, Poster #191

3. Membrane raft microdomains are platforms for desmosome regulation.  
   Sara N Stahley, Masataka Saito, Victor Faundez, Michael Koval and Andrew P Kowalczyk.  Atlanta, GA. 2:24 pm, Poster #202

4. Plakoglobin as a regulator of desmocollin gene expression.  
   Etienne Tokonzaba, Xing Cheng, Radhika Ganeshan, Eliane J Müller and Peter J Koch.  Aurora, CO and Bern, Switzerland. 2:36 pm, Poster #208

5. Distinct functions of α6β4 and α3β1 integrins in keratinocyte migration.  
   Kristina R Kligys, Susan B Hopkinson and Jonathan C Jones.  Chicago, IL. 2:48 pm, Poster #202

6. Actinin-4 regulates the directed migration of keratinocytes and modulates cell-matrix interactions.  
   Kevin J Hamill, Susan B Hopkinson, Omar Skalli and Jonathan C Jones.  Chicago, IL and Memphis, TN. 3:00 pm, Poster #207

7. Obligatory roles of filamin A in calcium-induced cell-cell adhesion and differentiation in epidermal keratinocytes.  
   Chia-Ling Tu, Wenhan Chang, Michael You and Daniel D Bikle.  San Francisco, CA. 3:12 pm, Poster #219

8. Collective galvanotaxis - together we move better.  
   Li Li, Robert Hartley, Bjorn Reiss, Yaohui Sun, Jin Pu, Trung Hoang, Soichiro Yamada, Jianxin Jiang and Min Zhao.  Sacramento, CA; Chongqing, China; Aberdeen, United Kingdom and Davis, CA. 3:24 pm, Poster #219

   Aditi Bandyopadhyay, Gerson Rothschild, Sean Kim, David Calderwood and Srikala Raghavan.  New York, NY and New Haven, CT. 3:36 pm, Poster #220

10. Characterization of CCN1 functional domains that stimulate MMP-1 through integrin αVβ3 in human dermal fibroblasts.  
   Zhaoping Qin, Patrick Robichaud, John J Voorhees, Gary J Fisher and Taihao Quan.  Ann Arbor, MI. 3:48 pm, Poster #211

11. Intracellular collagen degradation mediates age-associated collagen deficit.  
    Yong Li, Wei Xia, Andrew Little, Toru Okubo, John J Voorhees and Gary J Fisher.  Ann Arbor, MI. 4:00 pm, Poster #209

12. Integrin-linked kinase is a key player for TGFβ1 homeostasis and myofibroblast differentiation.  
    Katrin Blumbach, Georg Brunner, Andreas S Peters, Jan-Niklas Schulz, Thomas Krieg and Beate Eckes.  Cologne, Germany and Münster, Germany. 4:12 pm, Poster #198

    Florian K Groebner, Jan Hansmann, Michaela Kaufmann and Heike Walles.  Stuttgart, Germany and Würzburg, Germany. 4:24 pm, Poster #199

14. P120-catenin inhibits cadherin endocytosis by binding to a conserved endocytic signal in the cytoplasmic domain of classical cadherins.  
    Benjamin A Nanes, Christine M Chiasson, Anthony M Lowery, Peter A Vincent and Andrew P Kowalczyk.  Atlanta, GA and Albany, NY. 4:36 pm, Poster #182

15. Laminin alpha 5 regulates microvascular endothelial cell migration and tubule formation.  
    Tengjiao Cui, Ling Tang and He Li.  Miami, FL. 4:48 pm, Poster #218

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**ANCILLARY MEETINGS**

**THURSDAY, MAY 10, 2012**

**Society for Pediatric Dermatology**
7:00 am - 8:00 am  
Raleigh Convention Center 206

**Research in Cutaneous Surgery**
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Raleigh Convention Center 305 A

**JDS Editorial Board Luncheon**
12:00 pm - 1:30 pm  
Raleigh Convention Center 307

**Cutaneous T Cell Lymphoma Symposium**
2:00 pm - 5:45 pm  
Raleigh Convention Center 302 A

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3.5 CME CREDITS
1. Limitations of psoriatic arthritis screening instruments in patients with psoriasis. Jessica A Walsh, Kristina Callis Duffin, Gerald Krueger and Daniel O Clegg. Salt Lake City, UT. 2:00 pm, Poster #229

2. Validation of a large population-based basal cell carcinoma registry. Maryam M Asgari, Melody Eide, Margaret Warton, Marianne Sadler and Suzanne Fletcher. Oakland, CA; Detroit, MI and Boston, MA. 2:12 pm, Poster #232

3. Melanoma screening can substantially reduce melanoma mortality: Evidence from the SCREEN project in Schleswig-Holstein. A Katalinic, A Waldmann, M A Weinstock, A Geller, N Eisemann, R Greinert, B Volkmann and E Brietbart. Providence, RI; Luebeck, Germany; Boston, MA and Buxtehude, Germany. 2:24 pm, Poster #233

4. Differences between invasive and in situ melanoma according to age of diagnosis, mortality, host risk factors and lifetime ambient UV exposure. Andrew C Walls, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA. 2:36 pm, Poster #254


7. Molecular epidemiology of non-syndromic ARCI in a Middle Eastern population. Shiri Israeli, Dana Fuchs-Telem, Reuven Bergman, Margarita Indelman, Ora Bitterman-Deutsch, Aviram Liberman, Yaakov Bash, Yaffa Ikar, Eli Sprecher and Yaakov Lanyi. Tel Aviv, Israel; Haifa, Israel and Nahariya, Israel. 3:12 pm, Poster #250


9. Aspirin is associated with lower melanoma risk in a cohort of postmenopausal women in the Women's Health Initiative (WHI). Susan M Swetter, Christina A Gamba, Marcia L Stefanick, Katrinka M Spahnhurst, Jessica Kubo, Manisha Desai, Maryam M Asgari, Animesh A Sinha and Jean Y Tang. Palo Alto, CA; Stanford, CA; Los Angeles, CA; Oakland, CA and Buffalo, NY. 3:36 pm, Poster #236


11. Psoriasis and risk of inflammatory bowel disease in US women. Wenzheng Li, Jiali Han, Andrew T Chan and Abrar A Qureshi. Boston, MA. 4:00 pm, Poster #288


13. Factors related to the impact of pruritus on quality of life. Christopher Carr, Emil Veledar and Suephy Chen. Atlanta, GA. 4:24 pm, Poster #230


15. Low-fat dietary pattern and skin cancer risk: The Women's Health Initiative (WHI) randomized controlled dietary modification trial. Christina A Gamba, Marcia L Stefanick, James M Shikan, Joseph Larson, Eleni Linos, Stacy T Sims, James Marshall, Linda Van Horn, Nathalie Zeitouni and Jean Y Tang. Stanford, CA; Birmingham, AL; Seattle, WA; San Francisco, CA; Buffalo, NY and Chicago, IL. 4:48 pm, Poster #258
Disruption of Tsc2 in dermal mesenchymal cells of mice results in skin defects observed in tuberous sclerosis complex. P Klover, R Thangapazham, S Li, A Devine, J Wang and T N Darling. Bethesda, MD. 2:00 pm, Poster #456

Conditional knock-in expression of a CYLD mutant leads to the abnormal growth of sebaceous glands. Jane Jin, Sally Wang, George Mosiolas and Jennifer Zhang. Durham, NC and Thessaloniki, Greece. 2:12 pm, Poster #442

A position effect on FGF13 underlies x-linked hypertrichosis. Gina M DeStefano, Katherine Fantauzzo, Mazen Kurban, Lynn Petukhova, Marija Tadin-Strapps, Brynn Levy, Dorothy Warburton, Courtney Luke, Carolina Cela, Elizabeth T Cirulli, Yujun Han, David B Goldstein, Julio Salas-Alanis and Angela M Christiano. New York, NY; Durham, NC and Monterrey, Mexico. 2:24 pm, Poster #450

Plasticity and cellular memory during epidermal differentiation in response to BRAF activation and inhibition. Suguna R Krishnaswami, Shantanu Kumar, Christopher Cowing-Zitron and Benjamin D Yu. 2:36 pm, Poster #494

p63 transcription factor controls the establishment of nuclear architecture and higher-order chromatin remodelling during development of the epidermis. Michael Y Fessing, Valentina Rapisarda, Andrei N Mardaryev, Michal R Gdula, Andrei A Sharov, Iakowos Karakesisoglou, Chris J Hutchison and Vladimir A Botchkarev. Bradford, United Kingdom; Boston, MA and Durham, United Kingdom. 2:48 pm, Poster #461

The polarity protein aPKCλ regulates epidermal cell fate decisions. Michaela Niessen, Jeanie Scott, Susanne Vorhagen, Panagiota Sotropoulou, Cedric Blanpain, Michael Leitges and Carien M Niessen. Cologne, Germany; Brussels, Belgium and Oslo, Norway. 3:00 pm, Poster #469

Wnt signaling in embryonic dermal papilla precursor cells is required for hair follicle morphogenesis. Su-Yi Tsai, Rachel Sennett, Laura Grisanti, Sara Najam and Michael Rendl. New York, NY. 3:12 pm, Poster #453

Dermal β-catenin activity in response to epidermal Wnt ligands is required for hair follicle initiation. Demeng Chen, Andrew Jarrell, Richard Lang and Radhika Atti. Cleveland, OH and Cincinnati, OH. 3:24 pm, Poster #482

The regulation of dermal papilla cell number to specify hair size. Bruce A Morgan. Boston, MA. 3:36 pm, Poster #484

Dkk family members pattern the development of multiple types of ectodermal appendage. Mingang Xu, Yuhang Zhang and Sarah E Millar. Philadelphia, PA. 3:48 pm, Poster #452

Two-photon microscopy to capture live cell behavior in the hair follicle stem cell niche. Rupali Karmakar, Piul Rabbani and Mayumi Ito. New York, NY. 4:00 pm, Poster #459

Requirement of TACE/ADAM17 for the maintenance of hair follicle stem cell niche. Tetsuro Kobayashi, Keisuke Horiuchi, Manabu Ohyama, Haruhiko Akiyama, Masayuki Amagai and Keisuke Nagao. Tokyo, Japan and Kyoto, Japan. 4:12 pm, Poster #440

Medium and long chain fatty acids elicit oxidative stress and stem cell death in human and animal models of cicatricial alopecia. Mary C Consolo, Sreejith P Panicker and Pratima Karnik. Cleveland, OH. 4:24 pm, Poster #474

Critical role of endothelin receptor signaling in follicular melanocyte stem cells in adult skin. Makoto Takeo, Piul Rabbani and Mayumi Ito. New York, NY. 4:36 pm, Poster #486

Forkhead transcription factor FoxA1 regulates sweat secretion through Best2 and Nkcc1 ion transporters. Chang-Yi Cui, Victoria Childress, Yulan Piao, Marc Michel, Adir A Johnson, Makoto Kunisada, Minoru S Ko, Klaus H Kaestner, Alan D Marmorstein and David Schlessinger. Baltimore, MD; Tucson, AZ; Kobe, Japan and Philadelphia, PA. 4:48 pm, Poster #472
Presiders: Sam Hwang, MD/PhD and Gary Wood, MD

Thursday, May 10, 2012
2:00 pm - 5:30 pm
Raleigh Convention Center 302 A

OPEN TO ALL MEETING ATTENDEES

Introduction

Cutaneous Lymphoma Foundation Young Investigator Award
Rei Watanabe, MD/PhD, Brigham and Women’s Hospital, Boston, Massachusetts


2. Th2 cytokines from malignant T cells suppress benign Th1 responses in patients with L-CTCL. Emmanuella Guenova, Rei Watanabe, Christoph Schlappbach, Jennifer Desimone, Andrew Dorosario, Natalie Adams, David C Fisher, Marianne Tawa, Thomas S Kupper and Rachael A Clark. Boston, MA. 2:24 pm, Poster #598


4. IL-22, but not IL-17, dominant environment in cutaneous T-cell lymphoma. Tomomitsu Miyagaki, Makoto Sugeya, Hiraku Suga, Masahiro Kamata, Hanako Ohmatsu, Hideki Fujita, Yoshihide Asano, Yayoi Tada, Takaumi Kadono and Shinichi Sato. Tokyo, Japan. 2:48 pm, Poster #568

5. Exploratory study of brentuximab vedotin (SGN-35), a novel monoclonal antibody-drug-conjugate against CD30, in mycosis fungoides (MF) and Sézary syndrome (SS) demonstrates clinical responses regardless of CD30 expression levels. Sameer Bashey, Michael Krathen, Katherine Sutherland, Uma Sundram, Bharathi Lingala, Steven Horwitz, Richard Hoppe, Melissa Pulitzer, Ranjana Advani and Youn Kim. Stanford, CA and New York, NY. 3:00 pm, Poster #560

6. Successful treatment of human cutaneous T cell lymphoma xenografts by potassium antimonyl tartrate. Adrian Tun-Kyi, Patrick A Oberholzer, Jian-Zhong Qin, Maria B Karpova, Alexander A Navarini, Udo Ungethüm, Reinhard Dummer and Udo Döbbeling. Boston, MA; Cambridge, MA; Bern, Switzerland; Maywood, IL and Zurich, Switzerland. 3:12 pm, Poster #149


10. Reduced myeloid-derived suppressor cell function is associated with interferon therapy of cutaneous T-cell lymphoma. Michael K Schowalter, Oleg E Akilov, Louis D Falo and Larisa J Geskin. Pittsburgh, PA. 4:00 pm, Poster #625


ISCL Annual Business Meeting
SOCIAL EVENT

From the tallest mountain in Appalachia through Tobacco Road all the way to the Outer Banks, no other state has it all like the blue skies of North Carolina...sometimes referred to as a “little slice of heaven.” The social event offers attendees the opportunity to learn about and experience some of the elements that North Carolina is best known for.

The Wright Brothers interactive museum is brought to life with interactive museum “curators” who have experience building these planes, and who know all about the history of flight. Guests can learn how to use the bicycle and flight simulators and other educational elements to really get a feel for what the Wright Brothers experienced that day in Kitty Hawk.

Around the ballroom, guests can see actual NASCARs and have the opportunity to talk with experienced drivers. Guests will also be able to sit in the driver’s seat, and even have their photo made if they desire. Great photo ops even for the novice photographer! Interactive Daytona driving simulators and slot car racing games will be enjoyed by all as they compete NASCAR style.....fulfilling that “need for speed.”

Guests can also enjoy the Pinehurst golf simulator, as well as other interactive and decorative features reflecting the culture and nature of North Carolina.
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## Friday Meeting-at-a-Glance

**Friday, May 11, 2012**

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<td>Registration</td>
<td>7:30 am - 4:00 pm</td>
<td>Raleigh Convention Center 300 Level Registration Area</td>
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<td>Business Meeting for Members</td>
<td>7:45 am - 8:30 am</td>
<td>Raleigh Convention Center B/C</td>
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<td><strong>Plenary Session II</strong></td>
<td>8:30 am - 9:30 am</td>
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<td><strong>Stephen Rothman Award</strong></td>
<td>9:30 am - 9:40 am</td>
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<td><strong>Herman Beerman Lecture</strong></td>
<td>9:40 am - 10:10 am</td>
<td>Raleigh Convention Center B/C</td>
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<tr>
<td>Why Don’t We Get More Cancer: A Proposed Role of the Microenvironment in Restraining Cancer Progression</td>
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<td>Mina Bissell, PhD</td>
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<td><strong>State-of-the-Art Plenary Lecture 3</strong></td>
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<td>Cytoskeletal Organization and Function in the Epidermis</td>
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<td>Terry Lechler, PhD</td>
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<td>Julie Segre, PhD</td>
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<td><strong>BCCNS Life Support Network</strong></td>
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<td>Raleigh Convention Center Exhibit Hall A</td>
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<td><strong>Clinical Scholars Program</strong></td>
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<td><strong>National Alopecia Areata Foundation</strong></td>
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<td><strong>Genomic Technology Workshop</strong></td>
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<td>12:00 pm - 2:00 pm</td>
<td>Raleigh Convention Center 302 B/C</td>
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<tr>
<td><strong>Concurrent Minisymposia</strong></td>
<td>2:00 pm - 5:30 pm</td>
<td>Raleigh Convention Center 305 B</td>
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<td>6. Immunology II: Innate Immunity and Microbiology</td>
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<td>Raleigh Convention Center 305 B</td>
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<tr>
<td>7. Human Clinical Research and Therapeutics</td>
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<td>Raleigh Convention Center 306 C</td>
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<tr>
<td>8. Epidermal Structure and Function</td>
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<td>Raleigh Convention Center 306 B</td>
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<td>9. Carcinogenesis, Growth Factors, and Cancer Genetics</td>
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<td>Raleigh Convention Center 305 A</td>
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<tr>
<td><strong>JID Editorial Board Meeting</strong></td>
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<tr>
<td><strong>Trainee Dinner Session</strong></td>
<td>7:30 pm - 9:30 pm</td>
<td>Raleigh Convention Center Ballroom A</td>
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### ANCILLARY MEETINGS

**Friday, May 11, 2012**

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<thead>
<tr>
<th>Event</th>
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<tr>
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*Indicates CME Credit Offered*
MODERATOR: Amy Paller, MD

Friday, May 11, 2012
7:00 am - 8:00 am
Raleigh Convention Center 206

OPEN TO ALL MEETING ATTENDEES

Overview II: Pediatric Dermatology at SID
Amy Paller, MD, Northwestern University

Presentations

1. Development of induced pluripotent stem cell-based therapy for pseudoxanthoma elasticum.
   7:15 am, Poster #832, Presented by Jouni Uitto, MD/PhD, Thomas Jefferson University

2. Special Presentation: Progress in Understanding Alopecia Areata,
   7:25 am
   Presented by Angela Christiano, PhD, Columbia University

Discussion and Concluding Remarks

Special thanks to
the Society for Pediatric Dermatology and its Task Force on Research
for supporting these sessions.
BUSINESS MEETING FOR MEMBERS

OPEN TO ALL MEETING ATTENDEES

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 2011 Business Meeting and discuss SID affairs. Officials from the ESDR, JSID and SID leadership will also acknowledge travel grant recipients and provide updates on IID2013.

Election of New Officers

After conducting its annual request for nominations for new officers, the Committee on Nominations received a total of 25 nominees for office. After consideration of multiple factors including demographics, strategic planning, initiatives, commitment and prior service and/or participation in SID activities, the Committee recommends the following candidates to the Board of Directors: Paul Bergstresser, MD (President-elect); Lynn Cornelius, MD (Vice President-elect); James Elder, MD and Anthony Oro, MD (Board Members); and Anu Mathur, MD/PhD (Resident Board Member).

Appointment of Honorary Members

The SID is pleased to appoint the following honorary members.

Luis Diaz, MD
University of North Carolina, Chapel Hill
Chapel Hill, North Carolina

John Grupenhoff, PhD
Potomac, Maryland

Georg Stingl, MD
University of Vienna
Vienna, Austria

John Voorhees, MD
University of Michigan
Ann Arbor, Michigan

Jouni Uitto, MD/PhD
Jefferson Medical College
Philadelphia, Pennsylvania

ANCILLARY MEETINGS

FRIDAY, MAY 11, 2012

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Sponsored by the Women’s Dermatology Society
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Galderma Japan Scientific Forum
6:30 pm - 9:30 pm
Raleigh Convention Center 301 A/B

2. Neutralization of IL-17A with LY2439821 compared to TNF with etanercept: effects on inflammatory gene expression underlying psoriasis pathogenesis. James Krueger, Scott Fretzin, Mayte Suárez-Fariñas, Patrick Haslett, Krista Phipps, Gregory Cameron, Juliet McColm, Artemis Katcherian, Inna Cueto, Traci White, Subhashis Banerjee and Robert Hoffman. New York, NY and Indianapolis, IN. 8:42 am, Poster #498

3. Overexpression of TGFβ1 in murine epidermis alters skin dendritic cell homeostasis and enhances adaptive immunity. Javed Mohammed, Andrew Gunderson, Lina Khong, Richard Koubek, Mark Udey and Adam Glick. University Park, PA and Bethesda, MD. 8:54 am, Poster #609


5. Toll-like receptor 2 signaling protects against ultraviolet-induced inflammation in vivo. Dong-Hun H Lee, Youngae Lee, Changyup Y Shin, Serah Lee, Kyoughwan H Kong, Jieun E Kim, Kyuhan H Kim and Jinho H Chung. Seoul, South Korea. 9:18 am, Poster #676
The Stephen Rothman Memorial Award is presented annually for distinguished service to investigative cutaneous medicine. The recipient of this award has made major scientific achievements and excelled as a teacher and recruiter of outstanding dermatologists. The recipient is an individual who has distinctly altered the course and image of dermatology or its allied fields. It is the Society’s highest award.

2012 Stephen Rothman Award Recipient
Paul R. Bergstresser, MD
Professor
University of Texas, Southwestern, Dallas, Texas

ANCILLARY MEETINGS
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Galderma Japan Scientific Forum
6:30 pm - 9:30 pm
Raleigh Convention Center 301 A/B
HERMAN BEERMAN LECTURE
WHY DON’T WE GET MORE CANCER? A PROPOSED ROLE OF THE MICROENVIRONMENT IN RESTRAINING CANCER PROGRESSION

Friday, May 11, 2012
9:40 am - 10:10 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Mina Bissell, PhD
Lawrence Berkeley National Laboratory
Berkeley, California

Dr. Bissell has been recognized for her lifetime contributions to the fields of breast cancer research, the enhanced role of extracellular matrix (ECM) and the nucleus environment to gene expression in normal and malignant tissues. One of the first to propose and elucidate the important signaling role of the extracellular-matrix (ECM), she recognized the crucial role of the microenvironment surrounding each tissue and organ and of the three-dimensional (3D) tissue structure in differentiation and cancer as factors that determined tissue-specificity.

LECTURESHIP HISTORY

This award is given in recognition of Dr. Herman Beerman’s long and devoted service to the SID and his efforts to secure for it a position of respect in the scientific community. The Herman Beerman Lecture is given by a distinguished medical scholar at a scientific session of the Society’s Annual Meeting. Traditionally, lecturers from fields other than dermatology are chosen in order to give meeting attendees the opportunity to learn about scientific advances in other fields.
State-of-the-Art Plenary Lecture 3
CYTOSKELETAL ORGANIZATION AND FUNCTION IN THE EPIDERMIS

Friday, May 11, 2012
10:15 am - 10:45 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Terry Lechler, PhD
Duke University
Durham, North Carolina

Dr. Lechler studies the morphogenesis of epithelia, focusing on two highly proliferative tissues, the skin and the intestine. Both of these tissues turn over rapidly throughout adulthood, contain stem cells that contribute to tissue homeostasis and both are common sites for cancer development. His research seeks to understand how both cell shape and three-dimensional organization of cells is achieved to meet the diverse functions of these tissues.

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Sponsored by the Women’s Dermatology Society
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6:30 pm - 9:30 pm
Raleigh Convention Center 301 A/B

State-of-the-Art Plenary Lecture 4
GENOMIC TRACKING OF MICROBIAL PATHOGENS

Friday, May 11, 2012
10:45 am - 11:15 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Julie Segre, PhD
National Human Genome Research Institute
Bethesda, Maryland

Dr. Segre’s research has historically focused on how the epidermis creates a barrier at the interface of the body and the environment. Recently, Dr. Segre shifted her research focus to identifying the microbes that inhabit the skin. As the largest organ of the human body, skin serves as a critical barrier to invasion by microbes, while at the same time providing a major home to them. Using contemporary genomic methodologies, she is focusing on the role that these microbes may play in human health and disease.
OPEN ONLY TO CLINICAL SCHOLARS & YOUNG INVESTIGATOR/TRAINEE TRACK PARTICIPANTS

Plenary Presentations

1. **Neural recruitment and dynamism in the pathogenesis of atopic dermatitis.** Sarina B Elmariah, Vemuri B Reddy and Ethan A Lerner. Charlestown, MA. 11:30 am, Poster #344, Presented by Ethan Lerner, PhD

2. **A novel therapeutic strategy for correcting the desquamation defects in Harlequin Ichthyosis.** Lei Zhang and Dennis R Roop. Aurora, CO. 11:50 am, Poster #372, Presented by Dennis Roop, PhD

Lectures

**Role of IL-17 in Psoriasis and Other Skin Diseases**

James Krueger, MD/PhD
Dept. of Investigative Dermatology
Rockefeller University, New York, New York

**Update on Atopic Dermatitis**

Lisa Beck, MD
Dept. of Dermatology
University of Rochester, Rochester, New York
### Genomic Technology Workshop

**NEXT GEN SEQUENCING (THIS IS NOT YOUR MENTOR’S GENOMICS)**

Friday, May 11, 2012  
12:00 pm - 2:00 pm  
Raleigh Convention Center Ballroom B/C

**Open to All Meeting Attendees**

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<thead>
<tr>
<th>Event</th>
<th>Description</th>
<th>Presenter Details</th>
<th>Venue</th>
<th>Time</th>
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</table>
| Welcome, Overview of Workshop, Introductions | Julie Segre, PhD  
Investigator  
National Human Genome Research Institute, Bethesda, Maryland | | Raleigh Convention Center Ballroom B/C | 12:00 pm - 12:10 pm |
| Just Browsing—Demonstration of Online Browsers | Cristina de Guzman-Strong, PhD  
Assistant Professor  
Washington University, St. Louis, Missouri | | Raleigh Convention Center Ballroom B/C | 12:10 pm - 12:30 pm |
| Technically Speaking Genomics—New Technology | Heidi Kong, MD  
Investigator  
National Cancer Institute, Bethesda, Maryland | | Raleigh Convention Center Ballroom B/C | 12:30 pm - 12:50 pm |
| A Sequence of Events—Insights into Novel Gene Therapies | Keith Choate, MD/PhD  
Assistant Professor  
Yale University, New Haven, Connecticut | | Raleigh Convention Center Ballroom B/C | 12:50 pm - 1:10 pm |
| ChIP Away at the Unknown—Non-Coding DNA: Visualizing, Testing and Predicting | Kevin Wang, MD/PhD  
Instructor  
Stanford University, Stanford, California | | Raleigh Convention Center Ballroom B/C | 1:10 pm - 1:30 pm |

**Ancillary Meetings**

**Friday, May 11, 2012**

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  Raleigh Convention Center 302 A
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  Raleigh Convention Center 302 B/C
- **Galderma Japan Scientific Forum**  
  6:30 pm - 9:30 pm  
  Raleigh Convention Center 301 A/B
3.5 CME CREDITS

Concurrent Minisymposium 6
IMMUNOLOGY II: INNATE IMMUNITY AND MICROBIOLOGY

Presiders: Lloyd Miller, MD/PhD and Anna DeBenedetto, MD
Friday, May 11, 2012
2:00 pm - 5:30 pm
Raleigh Convention Center 305 B

OPEN TO ALL MEETING ATTENDEES

1. Epidermal dendritic cell function is controlled by the hyaluronan microenvironment. Jun Muto, Aaron F Carlin, Margaret Kim, Andrea Garcia, Ajit Varki and Richard L Gallo. San Diego, CA. 2:00 pm, Poster #639


3. Interleukin-33 mediates antibacterial defense against skin infections. Changwei Li, Ziwei Jiang, Zhiheng Li and Yuping Lai. Shanghai, China. 2:24 pm, Poster #662


5. Cutaneous TLR2-6 ligands limit T cell mediated skin inflammation by IL-6 dependent induction of myeloid derived suppressor cells. Yuliya Skabytska, Ko-Ming Chen, Susanne Kaesler and Tilo Biedermann. Tübingen, Germany. 2:48 pm, Poster #664

6. The role of NOD-like receptor (NLR) signaling pathways in P. acnes' induction of innate immune response. Min Qin, Aslan Pirouz, George Agak and Jenny Kim. Los Angeles, CA. 3:00 pm, Poster #667


8. Neutrophil-derived IL-1β is required for abscess formation in immunity against Staphylococcus aureus. John Cho, Yi Guo, Frank Hebroni, Romelal Ramos, Seema Plasier, Hironori Matsushima, Yoichiro Iwakura, Akira Takashima, Delphine Lee, Scott Simon and Lloyd Miller. Los Angeles, CA; Santa Monica, CA; Toledo, OH; Tokyo, Japan and Davis, CA. 3:24 pm, Poster #648


10. Intracellular dsRNA activates inflammasome in the keratinocytes resulting in the release of IL-1β and IL-18. Xiuju Dai, Yuji Shirakata, Mikiko Tohyama, Yasushi Hanakawa, Hidenori Okazaki and Koji Sayama. Toon, Japan. 3:48 pm, Poster #656

11. Epidermal Toll-like receptor 2 (TLR2) enhances skin barrier recovery and its expression is decreased in atopic dermatitis. I-Hsin Kuo, Anna De Benedetto, Takeshi Yoshida, Donald Y Leung and Lisa A Beck. Rochester, NY and Denver, CO. 4:00 pm, Poster #637


13. Deficiency in mouse beta-defensin 14 leads to a delay in skin permeability barrier repair. Nina Graumann, Claudia Neumann, Harder Jürgen, Catherine Walker, Werner Müller and Ehrhardt Proksch. Kiel, Germany and Manchester, United Kingdom. 4:24 pm, Poster #647

14. Distinct immune responses induced by lipoteichoic acid from S. aureus or S. epidermidis despite common pattern recognition pathways. Thomas Volz, Susanne Kaesler, Christian Draing, Friedrich Götz, Thomas Hartung, Martin Rücken and Tilo Biedermann. Tübingen, Germany; Konstanz, Germany and Baltimore, MD. 4:36 pm, Poster #660

15. Langerhans cells and dendritic cells require AhR for constitutive expression of the immunosuppressive enzyme IDO. Stephanie Kadow, Bettina Jux, Rebecca Scholz, Heike Weighardt and Charlotte Esser. Duesseldorf, Germany and Bonn, Germany. 4:48 pm, Poster #640
3.5 CME CREDITS

Concurrent Minisymposium 7
Human Clinical Research and Therapeutics

Presiders: Robert Dellavalle, MD/PhD and Victoria Werth, MD

Friday, May 11, 2012
2:00 pm - 5:30 pm
Raleigh Convention Center 306 C

Open to all Meeting Attendees

1. Hematopoietic and mesenchymal cell transplantation after myeloablative and non-myeloablative conditioning for recessive dystrophic and junctional epidermolysis bullosa (RDEB, JEB). Jakub Tolar, John A McGrath, Douglas R Keene, Kristen Hook, Mark J Osborn, Megan J Riddle, Sima Kavand, Maria Hordinsky, David Woodley, Mei Chen, Alain Hovnanian, Katsuto Tama, Bruce R Blazar and John E Wagner. Minneapolis, MN; London, United Kingdom; Portland, OR; Los Angeles, CA; Paris, France and Osaka, Japan. 2:00 pm, Poster #534

2. Efficacy and safety of vismodegib in advanced basal cell carcinoma. Anne Chang, Aleksandar Sekulic, Michael R Migden, Axel Hauschild, Karl Lewis, John D Hainsworth, Simon Yoo, Luc Dirix, Jeannie Hou, Howard Mackey and Anthony E Oro. Stanford, CA; Scottsdale, AZ; Houston, TX; Kiel, Germany; Denver, CA; Nashville, TN; Evanston, IL; Antwerp, Belgium and South San Francisco, CA. 2:12 pm, Poster #546


5. Adalimumab treatment for moderate to severe psoriasis substantially improves PASI scores as analyzed by body region and individual PASI component: Sub-analysis from the CHAMPION study. Alexander A Navarini, Yves Poulin, Yihua Gu and Henrique D Teixeira. Zurich, Switzerland; Quebec, Canada and Abbott Park, IL. 2:48 pm, Poster #547

6. Punch incision with removal of cyst contents leaves a smaller scar yet has a similar rate of recurrence compared to elliptical excision of truncal epidermal inclusion cysts. Justin T Cheeley, Laura K DeLong, Suephy C Chen, Michelle M Pennie, Seema P Kini and Shannon Setzer. Atlanta, GA. 3:00 pm, Poster #541

7. Long-term treatment with ustekinumab does not compromise the immune response to T-cell dependent or T-cell independent vaccines in patients with moderate-to-severe psoriasis: A comparison of ustekinumab-treated versus untreated psoriasis patients. C Brodmerek, R Langley, K Papp, B Courier, Y Poulin, V Ho, L Guenther, M C Hsu and P O Szapary. Spring House, PA; Halifax, Canada; Waterloo, Canada; Moncton, Canada; Quebec, Canada; Vancouver, Canada and London, Canada. 3:12 pm, Poster #545


9. Preliminary results of a Phase 2 trial evaluating efficacy and safety of vismodegib (GDC-0449) in operable basal cell carcinoma. Kenneth G Gross, Howard Sofen, Leonard H Goldberg, Harry Sharara, Tiffani K Hamilton, Kenneth Zerivitz, Huiбин Yue, Ron Firestein and Ivor Caro. San Diego, CA; Los Angeles, CA; Houston, TX; Madison, WI; Atlanta, GA and South San Francisco, CA. 3:36 pm, Poster #543

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ANCILLARY MEETINGS

FRIDAY, MAY 11, 2012

Society for Pediatric Dermatology
7:00 am - 8:00 am
Raleigh Convention Center 206

BCCNS Life Support Network
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National Alopecia Areata Foundation
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Academic Dermatologists Luncheon
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Raleigh Convention Center 302 B/C

JID Editorial Board Meeting
4:00 pm - 5:30 pm
Raleigh Convention Center 402

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Scientific Meeting
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Galderma Japan Scientific Forum
6:30 pm - 9:30 pm
Raleigh Convention Center 301 A/B

CONCURRENT MINISYMPOSIUM 7 (CONT’D)
HUMAN CLINICAL RESEARCH AND THERAPEUTICS

Presiders: Robert Dellavalle, MD/PhD and Victoria Werth, MD
Friday, May 11, 2012
2:00 pm - 5:30 pm
Raleigh Convention Center 306 C

OPEN TO ALL MEETING ATTENDEES


12. Investigator-initiated, open-label trial of ustekinumab for the treatment of moderate to severe palmoplantar psoriasis showed higher doses may be required. Shiu-chung Au, Ari M Goldminz, Noori Kim, Nicole Dumont, Melissa Michelon, Eva Volf, Meghan Hession, Paul F Lizzul, Israel Andrews, Todd Kerensky, Andrew Wang, Shimrat Yaniv and Alice B Gottlieb. Boston, MA. 4:12 pm, Poster #547

13. Treatment of pemphigus vulgaris(PV) patients with infliximab and prednisone is associated with decreased autoantibodies and an increase in immature B cells. Russell Hall, Janet Fairley, David Woodley and Victoria Werth. Durham, NC; Iowa City, IA; Los Angeles, CA and Philadelphia, PA. 4:24 pm, Poster #525


15. Double-blind, randomized, bilateral comparison of skin irritancy following application of the combination acne products clindamycin/tretinoin and benzoyl peroxide/adapalene. Renato Goreshi, Aman Samrao and Benjamin D Ehst. Portland, OR and Torrence, CA. 4:48 pm, Poster #508
Concurrent Minisymposium 8
EPIDERMAL STRUCTURE AND FUNCTION

Presiders: Terry Lechler, PhD and Bogi Anserensen, MD

Friday, May 11, 2012
2:00 pm - 5:30 pm
Raleigh Convention Center 306 B

OPEN TO ALL MEETING ATTENDEES

1. Increased retinoic acid levels through ablation of Cyp26b1 determine the processes of embryonic skin barrier formation and peridermal development. Junko Okano, Ulrike Lichti, Satoru Mamiya, Maria Aronova, Guofeng Zhang, Stuart H Yuspa, Hiroshi Hamada, Yasuo Sakai and Marial Morasso. Bethesda, MD and Osaka, Japan. 2:00 pm, Poster #313

2. CXCR4 regulates lymphangiogenesis and keratinocyte proliferation in contact and IL23-mediated dermatitis. Tomonori Takekoshi, Xuesong Wu, Michael B Dwinnell and Sam T Hwang. Milwaukee, WI. 2:12 pm, Poster #316

3. Beta-catenin is essential for complete epidermal barrier formation. Samriddha Ray and Terry Lechler. Durham, NC. 2:24 pm, Poster #333

4. A novel therapeutic strategy for correcting the desquamation defects in Harlequin Ichthyosis. Lei Zhang and Dennis R Roop. Aurora, CO. 2:36 pm, Poster #372

5. BAF53A enforces the epidermal progenitor state by re-targeting the SWI/SNF/BAF chromatin remodeling complex away from differentiation gene promoters. Xiaomin Bao, Jiong Tang, Shiyong Tao, Kun Qu, Gerald R Crabtree and Paul A Khavari. Stanford, CA. 2:48 pm, Poster #373

6. GPHR-dependent functions of the Golgi apparatus are essential for formation of lamellar granules and the skin barrier. Masahito Tarutani, Kimiko Nakajima, Yoshikazu Uchida, Mikiro Takaishi, Naoko Goto-Inoue, Masahito Ikawa, Mitsutoshi Setou, Peter M Elias, Taroh Kinoshita, Yusuke Maeda and Shigetoshi Sano. Nankoku, Japan; San Francisco, CA; Minamiosawa, Japan; Suita, Japan and Handayama, Japan. 3:00 pm, Poster #320


10. KLK7 participates in the maturation of caspase-14 during keratinocyte terminal differentiation - Role of an intermediate form. Mami Yamamoto, Yuuko Matsumoto, Masashi Miyai, Ryoji Tsuboi and Toshihiro Hibino. Yokohama, Japan and Tokyo, Japan. 3:48 pm, Poster #341

11. Imaging mass spectrometry visualizes epidermal barrier ceramides and their immediate precursors. Naoko Goto-Inoue, Takahiro Hayasaka, Nobuhiro Zaima, Kimiko Nakajima, Walter M Holleran, Shigetoshi Sano, Mitsutoshi Setou and Yoshikazu Uchida. San Francisco, CA; Hamamatsu, Japan; Nara, Japan and Kochi, Japan. 4:00 pm, Poster #317

12. Redundant roles of Ovol1 and Ovol2 transcription factors in epidermal morphogenesis. Briana Lee and Xing Dai. Irvine, CA. 4:12 pm, Poster #363

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OPEN TO ALL MEETING ATTENDEES


15. Mandatory role of kallikrein 5 in profilaggrin maturation and possible association of its impairment with atopic dermatitis. Jun-ichi Sakabe, Mami Yamamoto, Akira Motoyama, Satoshi Hirakawa, Miwa Kobayashi, Motonobu Nakamura, Toshihiko Hibino and Yoshiki Tokura. Hamamatsu, Japan; Yokohama, Japan; Tokyo, Japan and Kitakyushu, Japan. 4:48 pm, Poster #325
3.5 CME CREDITS

OPEN TO ALL MEETING ATTENDEES

1. SMO inhibitor effectiveness in a patient with a SHH locus translocation causing holoprosencephaly and basal cell carcinomas. Natalia Gomez-Ospina, Charles D Bangs, Kun Qu, Anne L Chang and Anthony E Oro. Stanford, CA. 2:00 pm, Poster #167
6. Human basal cell carcinoma tumor initiating cells express MDR1 and are resistant to etoposide killing. Chantal S Colmont, Ansar Ben Ketah, Raheal Errington, Carole L Yee, Mark Udey, Jonathan C Vogel and Girish K Patel. Cardiff, United Kingdom and Bethesda, MD. 3:00 pm, Poster #124
7. Transcriptome analysis identifies thymocyte developmental factor TOX as a novel diagnostic and prognostic marker for mycosis fungoides. Yang Wang, Ivan Litvinov, Yuanshen Huang, Mingwan Su, Denis Sasseville and Youwen Zhou. Vancouver, Canada. 3:12 pm, Poster #113
8. Histone deacetylase-3 promotes melanoma metastasis by deacetylating ganglioside GM3 and increases cell proliferation through p70S6 kinase signaling. Daniel Q Bach, Qiu Yan, Ji-Wei Liu, Amy S Pallier, Shuang-ni Yang, Tom Traczyk, Pedram Gerami and Xiao Q Wang. Chicago, IL. 3:24 pm, Poster #116
9. Quantitative RT-PCR reveals a similar pattern of cytokine dysregulation in mycosis fungoides skin compared to those identified in a mouse model of CTCL. Xuesong Wu, Alexander C Mackinnon and Sam T Hwang. Milwaukee, WI. 3:36 pm, Poster #112
10. Protein Kinase Cε and its interacting proteins Hsp90β and Stat3 are potential molecular targets for prevention of ultraviolet radiation-induced cutaneous damage and development of squamous cell carcinomas. Ait K Verma, Jordan M Sand, Moammar H Aziz and Absarul Haque. Madison, WI. 3:48 pm, Poster #131
11. Elevated epidermal thymic stromal lymphopoitcin levels prevent skin tumorigenesis. Shadmehr Demehri, Ahu Turkoz, Laura J Yockey, Mustafa Turkoz and Raphael Kopan. St. Louis, MO. 4:00 pm, Poster #142

CONTINUED ON NEXT PAGE
12. **Epidermal growth factor receptor transactivation is suppressed in diabetic wounds, but stimulated by ganglioside depletion.** Sarah Lee, Heather Wilson, Xiaoqi Wang and Amy S Paller. Chicago, IL. 4:12 pm, Poster #117

13. **Keratinocyte-specific p38δ mitogen-activated protein kinase (MAPK) deletion reveals a context and gender dependent regulation of skin carcinogenesis.** Alexi Kiss, Aaron C Koppel, Joanna Anders, Christophe Cataisson, Stuart H Yuspa and Tatiana Efimova. St. Louis, MO and Bethesda, MD. 4:24 pm, Poster #130

14. **Inhibitors of oncogenic signal transduction pathways augment the induction of MHC class I molecules by IFN-γ.** Brian Pollack and Bishu Sapkota. Atlanta, GA and Decatur, GA. 4:36 pm, Poster #129

15. **Interferon-γ renders myeloid-derived suppressor cells (MDSC) with the potent immunosuppressive activity via inducing expression of DC-HIL and inducible nitric oxide synthase (iNOS).** Jin Sung Chung, Kyoichi Tamura, Ponciano D Cruz and Kiyoshi Ariizumi. Dallas, TX. 4:48 pm, Poster #164
OPEN TO ALL MEETING ATTENDEES

6:00 pm - 6:45 pm  Poster Presentations & Reception

1. **P-cadherin regulates human hair follicle growth and pigmentation through canonical wnt signaling.** Liat Samuelov, Jennifer E Kloepper, Daisuke Tsuruta, Tamás Biró, Suman K Singh, Desmond J Tobin, Eli Sprecher and Ralf Paus.  Luebeck, Germany; Tel Aviv, Israel; Kurume, Japan; Debrecen, Hungary; Bradford, United Kingdom; Ramat Aviv, Israel and Manchester, United Kingdom.  Poster #443

2. **DP-specific Sox2 ablation impairs hair follicle growth.** Carlos Clavel, Laura Grisanti, Roland Zemla, Amelie Rezza, Rita Barros and Michael Rendl.  New York, New York NY and Porto, Portugal.  Poster #489

3. **RNA-binding Pumilio proteins are expressed in mammalian epidermis and regulate the balance between keratinocyte proliferation and apoptosis.** Sean R Christensen and Haifan Lin.  New Haven, CT.  Poster #483

4. **Hairless is a histone demethylase involved in hair follicle cycling and epidermal homeostasis.** Liang Liu, Hyunmi Kim, Claire A Higgins and Angela M Christiano.  New York, NY.  Poster #476

5. **The role of a novel immunoglobulin-like protein in hair and sebaceous development.** Carmen Perez, Angel G Leiva, Joaquin J Jimenez and Tongyu C Wikramanayake.  Miami, FL.  Poster #471

6. **Dlx3 is a critical regulator on hair follicle differentiation and development.** Jin-Chul Kim, Joonsung Hwang and Marial Morasso. Bethesda, MD and Cheongwon-gun, South Korea.  Poster #449

7. **Characterization of the human hair keratin-associated protein 2 (KRTAP2) gene family.** Hiroki Fujikawa, Atushi Fujimoto, Muhammad Farooq, Masaaki Ito and Yutaka Shimomura.  Niigata, Japan.  Poster #445

8. **Tolbutamide, an ATP-sensitive potassium (K_ATP) channel blocker, inhibits hair growth, promotes catagen and stimulates TNF/TNFRSF1A signalling in human hair follicles in organ culture.** Heero Rahman, Nilof er Farjo, Bassam Farjo and Valerie Randall. Bradford, United Kingdom and Manchester, United Kingdom.  Poster #488

9. **Somatostatin is expressed in hair follicles and may play a role in immune privilege.** Trisia Breitkopf, Blanche K Lo, Gigi Leung, Mei Yu, Jerry Shapiro and Kevin J McElwee. Vancouver, Canada.  Poster #441

10. **Neurogenic inflammation: Evidence for a causal role in lichen planopilaris.** Margaret Pierre-Louis, Isabella Doche, Marna Ericson, Sima Kavand, Rebecca Speltz-Paiz, George L Wilcox and Maria K Hordinsky. Minneapolis, MN and Sao Paulo, Brazil.  Poster #485

11. **Spatially mapping changes in protein secondary structure and lipid distribution in human hair with FTIR imaging microscopy.** David J Moore and Samuel Gourion-Arsiquaud.  Princeton, NJ.  Poster #491

6:45 pm - 7:15 pm  Keynote Speaker

**Wnt-dependent regeneration of pigmented hair**

Mayumi Ito, PhD

Assistant Professor, Department of Dermatology and Cell Biology

New York University School of Medicine
ANCILLARY MEETINGS

FRIDAY, MAY 11, 2012

Society for Pediatric Dermatology
7:00 am - 8:00 am
Raleigh Convention Center 206

BCCNS Life Support Network
11:00 am - 1:00 pm
Raleigh Convention Center 301 A/B

National Alopecia Areata Foundation
11:45 am - 1:30 pm
Raleigh Convention Center 307

Academic Dermatologists Luncheon
Sponsored by the Women’s Dermatology Society
Raleigh Convention Center 302 B/C

JID Editorial Board Meeting
4:00 pm - 5:30 pm
Raleigh Convention Center 402

Nanodermatology Society
4:00 pm - 7:00 pm
Raleigh Convention Center 302 A

North American Hair Research Society Scientific Meeting
6:00 pm - 9:30 pm
Raleigh Convention Center 302 B/C

Galderma Japan Scientific Forum
6:30 pm - 9:30 pm
Raleigh Convention Center 301 A/B

NORTH AMERICAN HAIR RESEARCH SOCIETY
SCIENTIFIC MEETING (Cont’d)

Presider: Wilma F. Bergfeld, MD and Stephen Lyle, MD/PhD

Friday, May 11, 2012
6:00 pm - 9:30 pm
Raleigh Convention Center 302 B/C

OPEN TO ALL MEETING ATTENDEES

7:15 pm - 8:30 pm  Oral Abstract Presentations

1. **A perivascular stem cell niche in the hair follicle.**  Ying Xiao, Wei-Meng Woo, Atsushi Terunuma, Anthony E Oro, Jonathan C Vogel and Isaac Brownell. Bethesda, MD and Stanford, CA. *Poster #467*

2. **Human induced pluripotent stem cell-derived keratinocyte precursors contribute to hair follicle regeneration in vivo.**  Ophelia K Veraitch, Tetsuro Kobayashi, Yoichi Imaizumi, Wado Akamatsu, Masayuki Amagai, Hideyuki Okano and Manabu Ohyama. Tokyo, Japan. *Poster #446*

3. **Defining the role of p63 in hair follicle stem cells.**  Velmurugan Balaiva, Merlin Ariejdjohan, Peter J Koch and MarankeI Koster. Aurora, CO. *Poster #473*

4. **Complex pigment patterning and topology of melanocyte stem cell niche in feathers.**  Sung-Jan Lin, John Foley and Cheng-Ming Chuong. Los Angeles, CA; Taipei, Taiwan and Bloomington, IN. *Poster #448*

5. **Disruption of the cholesterol biosynthesis pathway contributes to hair follicle cycling deficiency and stem cell apoptosis in a mouse model.**  Sreejith P Panicker, Mary C Consolo, Kord Honda and Pratima Karnik. Cleveland, OH. *Poster #481*

8:30 pm - 9:30 pm  NAHRS Business Meeting
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—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, a career in industry, life in academia or how to combine clinical work with research.
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### Saturday Meeting-at-a-Glance

**Saturday, May 12, 2012**

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<td>American Dermato-Epidemiology Network Business/Scientific Session</td>
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<td>William Montagna Lecture</td>
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<td>Genome Regulation by Long Noncoding RNAs Howard Chang, MD/PhD Raleigh Convention Center Ballroom B/C</td>
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<td>Julius Stone Lecture</td>
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<td>The Hyper IgE Syndromes Rebecca Buckley, MD Raleigh Convention Center Ballroom B/C</td>
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<td>Poster Session III/Technical Exhibits Open w/coffee break</td>
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<td>Clinical Scholars Program</td>
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Plenary Session III

Presider: Michael Girardi, MD and James Elder, MD/PhD

Saturday, May 12, 2012
8:00 am - 9:00 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

1. Extracellular Hsp90alpha promotes human dermal fibroblast migration and skin wound healing via the NPTY motif within LRP-1 receptor and three downstream Akt kinases: Direct evidence for a cross-membrane signal transduction mechanism. F Tsen, C Cheng, M Chen, D Woodley and W Li. Los Angeles, CA. 8:00 am, Poster #210

2. CxCL10, an IFN-γ-induced chemokine, is required for the development of depigmentation in a mouse model of vitiligo. Mehdi Rashighi, Priti Agarwal, TajieH Harris, April Deng, ChristopherA Hunter and JohnE Harris. Worcester, MA and Philadelphia, PA. 8:12 am, Poster #001

3. The role of the microRNA miR-17~92 cluster in hair follicle biology. Thomas Andl and Liming Luan. Nashville, TN. 8:24 am, Poster #466


5. The role of voltage-gated calcium channels in controlling stem cells in non-excitable tissues. Gozde Yucel, Banu Altindag, Natalia Gomezospina, Ricardo Dolmetsch and Anthony Oro. Stanford, CA. 8:48 am, Poster #810
1. Gender is an age-specific effect modifier for ulcerated malignant melanomas. Blakely S Richardson, William F Anderson, Jill S Barnholtz-Sloan, Margaret A Tucker and Meg R Gerstenblith. Cleveland, OH and Bethesda, MD. 8:00 am, Poster #282

2. Clinical characteristics and outcomes of Merkel cell carcinomas in the Kaiser Permanente Northern California population. Maryam M Asgari, E Margaret Warton, Monica M Sokil, Jayasri Iyer, Kelly G Paulson and Paul Nghiem. Oakland, CA and Seattle, WA. 8:12 am, Poster #296


4. Dramatically improved overall survival and predictors of disease in 17 metastatic basal cell carcinoma patients. Christina Danial, Bharathi Lingala, Anthony E Oro and Anne Lynn S Chang. Redwood City, CA. 8:36 am, Poster #227


6. Web-based curriculum improves primary care providers’ skin cancer detection skills. Melody J Eide, M Asgari, W Shaikh, L L Li, S W Fletcher, A Halpern, A Geller, G Alexander, A Altschuler, S Dusza, A Marghoob, E Quigley and M A Weinstock. Detroit, MI; Oakland, CA; Providence, RI; Boston, MA and New York, NY. 9:00 am, Poster #275

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Break


8. Interactions between adiposity and genetic polymorphisms on the risk of psoriasis. Wenqing Li, Jiali Han, Mingfeng Zhang and Abrar A Qureshi. Boston, MA. 9:36 am, Poster #287


10. Eczema severity is associated with multiple comorbid conditions and increased healthcare utilization. Jonathan J Silverberg and Eric L Simpson. New York, NY and Portland, OR. 10:00 am, Poster #260

11. Atopic dermatitis prevalence and co-morbidities in US women. Longde Lin, Jiali Han, Carlos Camargo and Abrar A Qureshi. Boston, MA and Nanning, China. 10:12 am, Poster #273


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ANCILLARY MEETINGS

SATURDAY, MAY 12, 2012

SID Board of Directors Meeting
7:00 am - 8:00 am
Raleigh Convention Center 402

American DermatoEpidemiology Network Business/Scientific Session
8:00 am - 12:00 pm
Raleigh Convention Center 302 A

OPEN TO ALL MEETING ATTENDEES

Invited Lecture
Health Services Research in Dermatology
Suephy Chen, MD/MS
Associate Professor
Dept. of Dermatology
Emory University, Atlanta, Georgia


ADEN Business Meeting
GENOME REGULATION BY LONG NONCODING RNAs

Saturday, May 12, 2012
9:00 am - 9:30 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Howard Chang, MD/PhD
Stanford University
Palo Alto, California

Dr. Chang’s research is focused on how the activities of hundreds or even thousands of genes (gene parties) are coordinated to achieve biological meaning. He and his team have pioneered methods to predict, dissect, and control large-scale gene regulatory programs; these methods have provided insights into human development, cancer, and aging. A particular interest is how cells know and remember their locations in the body, particularly with the help of long noncoding RNAs.

LECTURESHP HISTORY

The William Montagna Lecture is given annually at the Society’s Annual Meeting. This award is intended to honor and reward young active investigators. Primary emphasis is given to researchers in skin biology.
ANCILLARY MEETINGS

SATURDAY, MAY 12, 2012

SID Board of Directors Meeting
7:00 am - 8:00 am
Raleigh Convention Center 402

American DermatoEpidemiology Network Business/Scientific Session
8:00 am - 12:00 pm
Raleigh Convention Center 302 A

JULIUS STONE LECTURE
THE HYPER IGE SYNDROMES

.5 CME CREDITS

Saturday, May 12, 2012
9:30 am - 10:00 am
Raleigh Convention Center Ballroom B/C

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Rebecca Buckley, MD
Duke University
Durham, North Carolina

The overall emphasis of Dr. Buckley’s research is in human T, B and NK cell development and in aberrations in their development and regulation. Research examines the cellular and molecular bases of genetically-determined human immunodeficiency diseases; the use of bone marrow stem cells to cure genetically-determined immunodeficiency diseases; and the use of human SCID bone marrow stem cell chimeras to study human thymic education, T and B cell ontogeny, tolerance induction and MHC restriction mechanisms.

LECTURESHIP HISTORY

The Julius Stone Lectureship is intended to promote the advancement of knowledge in immunology as it relates to the skin and skin disease. The Lectureship is intended to honor Dr. Julius Stone, whose great commitment to the application of new principles of immunology to the benefit of patients with skin disorders is recognized by this award.
OPEN ONLY TO CLINICAL SCHOLARS & YOUNG INVESTIGATOR/TRAINEE TRACK PARTICIPANTS

Plenary Presentations

1. Resident memory T cells are much more effective than central memory T cells in protection against viral skin infection. Xiaodong Jiang, Rachael A Clark, Luzheng Liu, Amy J Wagers, Robert C Fuhlbrigge and Thomas S Kupper. Boston, MA. 10:20 am, Poster #616, Presented by Thomas Kupper, MD

2. IL-15 is a therapeutic target in human alopecia areata. Luzhou Xing, Zhenpeng Dai, Weijuan Gong, Ali Jabbari, Annemieke de Jong, Sivan Harel, Angela M Christiano and Raphael Clynes. New York, NY. 10:40 am, Poster #104, Presented by Angela Christiano, PhD

Lectures

The Impact of High Throughput Sequencing in Genetic Skin Disease
David Kelsell, PhD
Professor
Dept. of Human Molecular Genetics
Barts and the London School of Medicine and Dentistry, London, United Kingdom

Notch and SCC
Raymond Cho MD/PhD
Dept. of Dermatology
University of California, San Francisco, San Francisco, California

ANCILLARY MEETINGS

Saturday, May 12, 2012

SID Board of Directors Meeting
7:00 am - 8:00 am
Raleigh Convention Center 402

American DermatoEpidemiology Network Business/Scientific Session
8:00 am - 12:00 pm
Raleigh Convention Center 302 A
PIGMENTATION AND MELANOMA

Presiders: Neil Box, PhD and Connie Lin, PhD
Saturday, May 12, 2012
12:30 pm - 4:00 pm
Raleigh Convention Center 306 B

OPEN TO ALL MEETING ATTENDEES

1. **MC1R determines melanocyte viability upon UV irradiation by protecting PTEN activity.** Juxiang Cao, Fang Liu, James Shen, Stefania Lenna, Stefania Celia Jimenez-Cervantes, Nick Leslie, George X Xu, Yongjun Wang and Rutao Cui. Boston, MA; Murcia, Spain; Shanghai, China; Dundee, United Kingdom and Philadelphia, PA. 12:30 pm, Poster #739

2. **Targeting protein trafficking pathways synergizes melanoma sensitivity to inhibition of the PI3K pathway and cytotoxic agents.** Zhi-ming Huang, Glenn Millhauser and Maria L Wei. San Francisco, CA and Santa Cruz, CA. 12:42 pm, Poster #753

3. **Melanosome biogenesis protein complexes interact with the endosomal WASH complex.** PV Ryder, A Gokhale, M N Seaman and V Faundez. Atlanta, GA and Cambridge, United Kingdom. 12:54 pm, Poster #720

4. **The dichotomous effects of IL-17 and TNF on normal human melanocytes may contribute to both hyper- and hypo-pigmentation associated with skin inflammation.** Claire Q Wang, Yemsratch T Akalu, Judilyn Fuentes-Duculan, Mayte Suarez-Farinas, Hiroshi Mitsui and James G Krueger. New York, NY. 1:06 pm, Poster #776

5. **A mouse model of vitiligo with spontaneous epidermal depigmentation.** Jonathan Eby, Jared Klarquist, Hee-Kap Kang, Michael Nishimura, Shikhar Mehrotra and Caroline Le Poole. Maywood, IL and Charleston, SC. 1:18 pm, Poster #778

6. **Keratinocyte p53, skin tanning and melanoma.** Tamara Terzian, Kayla Boortz, Regan Stiegmann, Victoria Gonzalez, Graeme Walker and Neil Box. Aurora, CO and Brisbane, Australia. 1:30 pm, Poster #782

7. **Deficiency in IL-23, but not IL-12, promotes the development of melanocytic tumors with regional lymph node involvement in C3H/HeN mice.** Tahseen Nasti, Tarannum Jaleel, Barry Cochran, Laura Timares and Craig Elmets. Birmingham, AL. 1:42 pm, Poster #780

8. **Melanoma differs from other cancers in generating a subset of DC-HIL+ myeloid-derived suppressor cells (MDSC) that cause potent T cell suppression.** Yuchun Luo, Lixia Z Ellis, Katiuscia Dallaglio, Weimin Liu, Moe Takeda, William A Robinson, Steven Robinson, Karl D Lewis, Martin D McCarter, Rene Gonzalez, David A Norris, Dennis R Roop, Natalie G Ahn and Mayumi Fujita. Aurora, CO and Boulder, CO. 2:06 pm, Poster #768


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OPEN TO ALL MEETING ATTENDEES

11. MITF-driven subcompartment-specific distribution of differentially cycling tumor cells in melanoma. Nikolos K Haass, Andrea Anfosso, Kimberley A Beaumont, David S Hill, Paulus Mrass, Ichiko Kinjyo, Osami Kanagawa and Wolfgang Weninger. Newtown, Australia; Sydney, Australia; Camperdown, Australia and Yokohama, Japan. 2:30 pm, Poster #724

12. A genome-wide shRNA screen identified the WNT pathway as a potential target for combination treatments with BRAF inhibitors in melanoma. Adam R Almeida, Katie A Partyka, Aik Choon Tan, Jiuye Kim, Chris Porter, Matias Casas, Mark Gregory, Shilo Smith, Mayumi Fujita, James DeGregori, David A Norris and Yiqun G Shellman. Aurora, CO. 2:42 pm, Poster #746

13. A locked, dimeric CxCL12 variant effectively inhibits pulmonary metastasis of CXCR4-expressing melanoma cells due to enhanced serum stability. Tomonori Takekoshi, Joshua J Ziarek, Brian F Volkman and Sam T Hwang. Milwaukee, WI. 2:54 pm, Poster #733


15. Fisetin inhibits human melanoma cell invasion through promotion of mesenchymal to epithelial transition and by targeting MAPK and NF-κB signaling pathways. Harish C Pal, Samriti Sharma, Craig A Eimets and Farrukh Afaq. Birmingham, AL. 3:18 pm, Poster #757
3.5 CME CREDITS

Concurrent Minisymposium II
GENETIC DISEASE, GENE REGULATION AND GENE THERAPY

Presiders: Andrew South, MD/MPH and Olga Igoucheva, PhD

Saturday, May 12, 2012
12:30 pm - 4:00 pm
Raleigh Convention Center 305 B

OPEN TO ALL MEETING ATTENDEES

1. Coactivator MED1 regulates epidermal and hair follicular keratinocyte proliferation and differentiation. Lizhi Hu, Vadim Bul, Daniel D Bikle and Yuko Oda. San Francisco, CA. 12:30 pm, Poster #422

2. ZNF750 is a p63 target that induces KLF4 to drive epidermal differentiation. George L Sen, Lisa Boxer, Dan Webster, Rose Bussat, Kun Qu, Brian Zarnegar, Danielle Johnston, Zurab Siprashvili and Paul A Khavari. Stanford, CA and San Diego, CA. 12:42 pm, Poster #438

3. TRIM32 regulates Th1/17 vs Th2 response to TLR activation, leading to psoriasis-like vs atopic dermatitis-like inflammatory diseases in mice. Yun Wang, Emily Swanzey, James Lagowski, Yuangang Liu and Molly Kulesz-Martin. Portland, OR. 12:54 pm, Poster #428

4. HDAC inhibition prevents loss of subcutaneous fat in CSB-deficient mice. Marc Majora, Christine Goetz, Christine Schumacher, Maren Schneider and Jean Krutmann. Duesseldorf, Germany. 1:06 pm, Poster #407

5. Whole-exome sequencing in a single proband reveals a mutation in the CHST8 gene in autosomal recessive peeling skin syndrome. Mazen Kurban, Rita Cabral, Muhammad Wajid, Yutaka Shimomura, Lynn Pethukova and Angela M Christiano. New York, NY. 1:18 pm, Poster #426

6. Intravenously injected recombinant human type VII collagen restores collagen function in dystrophic epidermolysis bullosa. Xinyi Wang, Mahsa Amir, Brian Hwang, Douglas Keene, Yingping Hou, Aditi Bauskar, David Woodley and Mei Chen. Los Angeles, CA and Portland, OR. 1:30 pm, Poster #441

7. mtDNA mutations seen in UV-induced mouse models of skin cancer induce CCL20 overexpression promoting tumorigenic phenotypes. Jana Jandova, Jaroslav Janda and James E Sligh. Tucson, AZ. 1:42 pm, Poster #425

8. Developing a stem cell-based therapy for epidermolysis bullosa simplex by promoting an allele-specific knockout of mutant keratin 14 in induced pluripotent stem cells. Ganna Bilousova, Jiang Chen, Masahito Yasuda and Dennis R Roop. Aurora, CO. 1:54 pm, Poster #434

9. CSA and CSB proteins localize in a large multiprotein complex involved in repair and transcription of mitochondrial DNA: Involvement for neurodegeneration. York Kamenisch, Sara Giovannini, Nurgül Düzenli, Martin Röcken and Mark Berneburg. Tuebingen, Germany. 2:06 pm, Poster #388

10. Elucidation of the molecular basis of a novel osteocutaneous disease. Ofer Sarig, Sagi Nahum, Debona Rapaport, Akemi Ishida-Yamamoto, Dana Fuchs, Li Qiaoli, Ksenya Cohen, Renen Spiegel, Janna Nousek, Shirli Israeli, Zvi Borochowitz, Gilly Padalon, Jouni Uitto, Mia Horowitz, Stavit Sprecher, Tel Aviv, Israel; Tel Aviv, Israel; Asahikawa, Japan; Philadelphia, PA and Afula, Israel. 2:18 pm, Poster #405

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OPEN TO ALL MEETING ATTENDEES

11. Cutaneous features of pseudoxanthoma elasticum in generalized arterial calcification of infancy due to ENPP1 gene mutations. Qiaoli Li, Wendy Schumacher, Dawn Siegel and Jouni Uitto. Philadelphia, PA and Milwaukee, WI. 2:30 pm, Poster #418

12. AP-1 proteins are induced by irritant and field injury through purinoceptor and EGFR activation. Kellie J White, Vincent J Maffei and Robert A Swerlick. Atlanta, GA and Decatur, GA. 2:42 pm, Poster #420

13. Recombinant filaggrin successfully internalized and processed in epidermal cells. Thomas Stout, Trevor McFarland and Binoy Appukuttan. Portland, OR. 2:54 pm, Poster #389

14. Circadian genes are expressed in human sebocytes and regulate sebaceous lipid production. Suzanne Berkovitz, Min Qin, Myung-Hwa Kim, George Agak, Diane M Thiboutot and Jenny Kim. Los Angeles, CA; Cheonan, South Korea and Hershey, PA. 3:06 pm, Poster #390

15. A photaging-like phenotype in dermal equivalents: Evidence for proteasomal dysregulation in KSS fibroblasts. Christine Goetz, Bianca Schuermann, Marc Majora, Susanne Franke, Maren Schneider, Françoise Bernard and Jean Krutmann. Duesseldorf, Germany and Clichy, France. 3:18 pm, Poster #410
**Concurrent Minisymposium 12**

**TISSUE REGENERATION, STEM CELLS AND WOUND HEALING**

Presiders: Cheng Ming Chuong, MD/PhD and Tom Darling, MD/PhD

Saturday, May 12, 2012
12:30 pm - 4:00 pm
Raleigh Convention Center 306 C

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1. Fgf9 secreted by gamma delta T cells is a critical component of hair follicle neogenesis in wounding. **Denise Gay**, Oh Sang Kwon, Zhikun Zhang, Michelle Burrows, Chang Deok Kim, Sheena Baratono, Maksim Plikus, Mayumi Ito, Zaixin Yang, Fen Wang, Ornitz M David and George Cotsarelis. Philadelphia, PA; New York, NY; Houston, TX; St Louis, MO and Daejeon, South Korea. 12:30 pm, Poster #847

2. Epidermal Wnt ligands are required for adult hair follicle regeneration. **Peggy Myung**, Makoto Takeo, Mayumi Ito and Radhika Atit. Cleveland, OH and New York, NY. 12:42 pm, Poster #802


4. Wnt signaling in nail epithelium is required for nail differentiation and digit regeneration. Makoto Takeo, WeiChin Chou and Mayumi Ito. New York, NY. 1:06 pm, Poster #860

5. CD133+ keratinocytes are a subpopulation of CD34+ cells, are enriched in label retaining cells and possess multipotential differentiation ability. Alexandra Charruyer, Lili Yue, Lauren R Strachan, Maria L Mancianti and Ruby Ghadially. San Francisco, CA and Berkeley, CA. 1:18 pm, Poster #841


7. Differentiation of human induced pluripotent stem cells into dermal fibroblasts. **Munenari Itoh** and Angela M Christiano. New York, NY and Tokyo, Japan. 1:42 pm, Poster #817

8. Reprogramming of dermal fibroblasts to epithelial precursors using one defined factor. **Joyce Teng**, Erin McMillan, Alexandra Bryant, Emily Gebhardt and B Jack Longley. Madison, WI. 1:54 pm, Poster #848

9. Differentiation-associated silencing of the Nanog locus is accompanied by changes in its nuclear positioning in human embryonic stem cells. Mohammed I Ahmed, Neil J Harrison, Andrei Mardaryev, Michael Y Fessing, Krzysztof Poterlowicz, Peter Wi Andrews and Vladimir A Botchkarev. Bradford, United Kingdom; Boston, MA and Sheffield, United Kingdom. 2:06 pm, Poster #819

10. New intrinsic mechanism of ligand-receptor dependent cross-talk between BMP and WNT signaling in hair follicle stem cell homeostasis. Eve Kandyba, Yvonne Leung, Yi-Bu Chen, Randall Widelitz, Cheng-Ming Chuong and Krzysztof Kobielak. Los Angeles, CA. 2:18 pm, Poster #864

11. Nestin-expressing multi-potent stem cells originate in the bulge of the hair follicle and migrate to the dermal papilla. **Aisada Uchugonova**, Jennifer Duong, Nan Zhang, Karsten Koenig and Robert M Hoffman. San Diego, CA and Saarbruecken, Germany. 2:30 pm, Poster #811

12. Localization, isolation and characterization of new skin stem cells from sweat glands. **Yvonne Leung**, Eve Kandyba, Yi-Bu Chen and Krzysztof Kobielak. Los Angeles, CA. 2:42 pm, Poster #857


14. Human hair follicle neogenesis using dermal papilla cells. **Claire A Higgins**, Colin A Jahoda and A M Christiano. Columbia, NY and Durham, United Kingdom. 3:06 pm, Poster #797

1. Botulinum neurotoxin A decreases infiltrating cutaneous lymphocytes and improves acanthosis in psoriasiform KC-Tie2 mice. Nicole L Ward, Kevin D Kavlick, Doina Diaconu, Kellie A Michaels, Sean M Dawes and Erin Gilbert. Cleveland, OH and Brooklyn, NY. 12:30 pm, Poster #581

2. Resident memory T cells are much more effective than central memory T cells in protection against viral skin infection. Xiaodong Jiang, Rachael A Clark, Luzheng Liu, Amy J Wagers, Robert C Fuhlbrigge and Thomas S Kupper. Boston, MA. 1:22 pm, Poster #616

3. Clarification of the roles of cutaneous dendritic cell subsets in the elicitation phase of contact hypersensitivity response. Yohei Natsuaki, Gyoei Egawa, Satoshi Nakamizo, Hideaki Tanizaki, Takashi Hashimoto, Yoshiki Miyachi and Kenji Kabashima. Kyoto, Japan and Kurume, Japan. 12:54 pm, Poster #596

4. Tissue specific homing and antigen specificity: The majority of human peripheral blood Th9 cells are tropic for the skin. Christoph Schlaphach, Emmanuella Guenova, Ahmed Gehad, Rei Watanabe, Jessica Teague, Thomas S Kupper and Rachael A Clark. Boston, MA. 1:06 pm, Poster #614

5. Th9 lymphocytes contribute to human allergic contact dermatitis. Julia Liu, Antonella Tammaro, Nick Girardi, Ayako Nakazono, Rita Fishelevich and Anthony A Gaspari. Baltimore, MD; Rome, Italy; Philadelphia, PA and Fukuoka, Japan. 1:18 pm, Poster #589


7. CD4+ T cells regulate skin resident memory CD8+ T cells (Tres). Xiaodong Jiang, Rachael A Clark, Luzheng Liu, Julien Seneschal, Rahul Purar, Tian Tian, Robert C Fuhlbrigge and Thomas S Kupper. Boston, MA and Bordeaux, France. 1:42 pm, Poster #605

8. Migratory properties of skin-resident γδ T cell populations. Xiaodong Jiang, Min Jae Yoo and Thomas S Kupper. Boston, MA. 1:54 pm, Poster #611

9. Lipids from human epidermis can function as antigens for CD1a-restricted T cells. Annemieke de Jong, Tan-Yun Cheng, Shouxiong Huang, Anne G Kasmar, Victor Pena-Cruz, John Altman and D Branch Moody. New York, NY; Boston, MA and Atlanta, GA. 2:06 pm, Poster #627

10. microRNAs regulate epidermal Langerhans cell cross-presentation. Qing-Sheng Mi, Ying-Ping Xu, Rui-Qun Qi and Li Zhou. Detroit, MI. 2:18 pm, Poster #628

11. Galectin-3 modulates Th17 responses by regulating dendritic cell cytokine expression. Agnes Fermin, Daniel K Hsu, Huan-Yuan Chen, Shang-Yang Wu, Jhang-Sian Yu, Lei Wan, Betty Wu-Hsieh and Fu-Tong Liu. Sacramento, CA; Taipei, Taiwan and Taichung, Taiwan. 2:30 pm, Poster #600

12. Global Tres-mediated immune protection in skin after single or multiple skin infections. Xiaodong Jiang, Luzheng Liu, Rachael A Clark and Thomas S Kupper. Boston, MA. 2:42 pm, Poster #617


14. Effective immunoprevention against chemical carcinogenesis is induced by genetic immunization vectors that selectively expand mutant H-ras-specific CD8 T cells. Tahseen Nasti, Kyle Rudemiller, George Twitty, Hee Kyung Kim, Yuko Tsuruta, Mohammad Athar, Craig Elmets and Laura Timares. Birmingham, AL. 3:06 pm, Poster #631

15. EpCAM (CD326) enables epidermal Langerhans cell motility and migration. Maria R Gaiser, Tim Lämmermann, Xu Feng, Botond Z Igyarto, Daniel H Kaplan, Lino Tesserollo, Ronald N Germain and Mark C Udey. Bethesda, MD; Heidelberg, Germany; Minneapolis, MN and Frederick, MD. 3:18 pm, Poster #578
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**Abstract Presentation Information**

**Oral Presentations**
Oral presentations and lectures will take place at the Raleigh Convention Center. 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 (Raleigh Convention Center 303).

**Poster Presentations**
All posters will be displayed until Saturday, May 12 at 12:00 p.m. in Exhibit Hall A. 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 12. Posters may not be removed early. The SID is not responsible for posters left unclaimed as of 6:00 p.m. on Saturday, May 12. Unclaimed posters will not be returned.

**Install All Posters**
Wednesday, May 9, 2012  •  8:00 am - 4:00 pm

**Poster Session I**
*Odd poster numbers 001-287 & Even poster numbers 288-574*
Thursday, May 10, 2012  •  10:00 am - 12:00 pm

**Poster Session II**
*Even Poster numbers 002-286 & Odd Poster numbers 575-863*
Friday, May 11, 2012  •  11:15 am - 1:15 pm

**Poster Session III**
*Odd Poster numbers 289-573 & Even Poster numbers 576-864*
Saturday, May 12, 2012  •  10:00 am - 12:00 pm

**Dismantle All Posters**
Saturday, May 12, 2012  •  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**
Raleigh Convention Center 303 will be available to all presenters.

**Keyword Index**
The keyword index is located on pages 108-114 and appears in the May issue of the *Journal of Investigative Dermatology* (JID).
Auto-immunity and Inflammation

All oral [designated with an asterisk (*)] listed below are presented in the Auto-immunity and Inflammation Minisymposium on Thursday, May 10, 2012 from 2:00-5:30 p.m. in Raleigh Convention Center 306 C. Oral sessions designated by two asterisks (**) will be presented during a Plenary Session.

**001** CXCL10, an IFN-γ-induced chemokine, is required for the development of depigmentation in a mouse model of vitiligo. Mehdi Rashighi, Prit Agrawal, Tajei Harris, April Deng, Christopher A Hunter and John E Harris. Worcester, MA and Philadelphia, PA.


**003** Cutaneous expression of neutrophil elastase in relation to IgG autoantibodies to desmogleins 1 and 3 in pemphigus foliaceus and pemphigus vulgaris. Marian Dmochowska, Justyna Gornowicz-Porowska, Agnieszka Serasek-Jaros, Elżbieta Kaczmarek, Paweł P Pietkiewicz and Monika Bowsz-Dmochowska. Poznan, Poland.

**004** Genome-wide analyses of generalized vitiligo identify 31 loci that define an interacting network of melanocyte-specific and immunoregulatory proteins. Richard A Spritz. Aurora, CO.

**005** Decreased expression of acetylcholine esterase in cholinergic urticaria. Yu Sawada, Motonobu Nakamura, Rieko Kubo, Ryosuke Hino, Miwa Kobayashi, Toshinori Bito and Yoshiki Tokura. Kitakyushu, Japan; Kobe, Japan and Hamamatsu, Japan.

**006** IL-36 cytokines are over-expressed in psoriasis, induce keratinocyte chemokine expression and alter antigen-presenting cell phenotype and function. Cynthia S Chen, Andrew M Guzman, Paul M Al-Attar, Alexander M Foster, Xianying Xing, Marybeth Riblett, Johann E Gudjonsson and Andrew Johnston. Ann Arbor, MI and Rochester, NY.

**007** A natural biotechnological active ingredient dedicated to skin troubles management. Caroline Baudouin, Sophie Leclere-Bienfait, Sebastien Garnier, Johan Rochetaux, Stephanie Bredif, Sebastien Debrock, Alex Saunois and Philippe Msika. Epernay, France.

**008** Inhibition of the SOF-1/CXCR4 axis alleviates chronic and acute skin inflammation. Silvana Zegraeg, Reto Huggenerberger, Alexandra Ochsenbein and Michael Detmar. Zurich, Switzerland.

**009** Antibodies against desmoglein 1 in healthy Tunisians in the area of endemic depigmentation. Amina Toumi, Marwa A Saleh, Jun Yamagami, Olfa Abida, Maryem Kallel, Abderrahmen Masmoudi, Sonds Mekni, Hamida Turkia, Takahisa Tsuchiya, Keiko Kuroda, John R Stanley, Hatem Masmoudi and Masayuki Amagai. Tokyo, Japan.


**011** Signaling through the P2X7 receptor for ATP induces psoriasis-like inflammation: A human skin model. Alicia R Mathers, Meaghan E Kileen, Laura Ferris and Louis Falo, Jr. Pittsburgh, PA.

**012** In vitro effects of neuropeptides and bicyclic monoterpenes diol on the inflammatory pathway using primary human keratinocytes. Catherine Y Ding, Yaping Ee, Alan R Shalita and Wei-Li S Lee. Brooklyn, NY.

**013** IL-4 up-regulates epidermal IL-19 expression in atopic dermatitis. Lei Bao, Jaime Alexander, Vivian Y Shi and Lawrence S Chan. Chicago, IL.


**016** Vasin as a possible link of obesity and psoriasis. Katharina Vester, Anja Saalbach, Kathrin Rall, Jenny Trelmel, Ulf Anderegg, Marco Averbeck, Marc Bodendorf, Mirjana Ziemer, Annette G Beck-Sicking, Matthias Blüher and Jan C Simon. Leipzig, Germany.

**017** Elevated EphA2 in the psoriatic epidermis provides a molecular target for restoring keratinocyte differentiation. Johann E Gudjonsson, Hans Blatt, Kristin Gordon, James Kochkodan, Andrew Johnston, Samantha Lin, Paul Hoover, Bethaney J Schlosser, James T Elder and Spiro Getsis. Chicago, IL and Ann Arbor, MI.

**018** Social stress prevents the development of psoriasis in modified transgenic K14/VEGF mice. Oscar Vegas, Brian Poligone, JoAnne VanBuskirk and Francisco Taussk. San Sebastián, Spain and Rochester, NY.

**019** Calcineurin inhibitors suppress cytokine production from memory T cells and differentiation of naïve T cells into cytokine-producing mature T cells. Keiichi Yamanaka, Kenshiro Tsuda, Hiroshi Kitagawa, Tomoko Akeda, Masanao Naka, Koarri Niwa, Takehisa Nakamichi, Masato Kakeda and Hitoshi Mizutani. Tsu, Japan.

**020** Effect of Liang Xue Hoo Xue Capsules on mice psoriasis-like lesions induced by Imiquimod. Ping Li and Tingting Di. Beijing, China.

**021** The alpha adrenergic receptor agonist oxymetazoline inhibits temperature-induced vasodilation and LL-37-induced skin inflammation. Edward Hsia, Mingting Tian, Emily Santori, Dolly Mistry and Daniel Gil. Irvine, CA.

**022** Functional interaction between complement and the proinflammatory cytokine TNF-α in experimental bullous pemphigoid. Lisa Heimbach, Mingliang Zhao, Ning Li, Jiang Fan, Janet Fairley, Luis A Diaz and Zhi Liu. Chapel Hill, NC; Milwaukee, WI and Iowa City, IA.

**023** Whole tissue molecular profiling identifies unique cytokine-related gene sets of disease progression and response to therapy. Sagathri K Perera, Chrysanthi Ainali, Christian Hundhausen, Guillermo Barinaga, Deepika Kassen, Andrew Williams, Muddassar Mirza, Sophia Tsoka, Wenjun Ouyang and Frank O Nestle. London, United Kingdom and San Francisco, CA.


**025** Autoantibodies vs. desmogleins (Dsg) 1 or 3 do not represent tissue-specific disease amplifiers in subjects with discoid or systemic lupus erythematosus (LE). Lin-chiang Tseng, Loderick A Matthews, Kim B Yancey and Benjamin F Chong. Dallas, TX.

**026** Early detection and therapy of hemophagocytic lymphohistiocytosis improves patient outcome. Terry T Farsani, William Tsiaras and Arturo P Saavedra. Boston, MA.


**028** Loss of hTid-1, expression and aberrant actin cytoskeleton organization in lesions psoriatic skin. Ji hye Choi and Cheol O Joe. Daejeon, South Korea.


**030** Mapping conformational epitopes on the ectodomain of desmoglein 1 for Fogo Selvagem IgG4 autoantibodies by proteolytic footprinting. Flor Evangelista, Aleza Roth, Zhi Liu, David G Klapper and Luis A Diaz. Chapel Hill, NC.

**031** Facial pseudolymphoma responsive to pulsed-dye-laser therapy. Terry T Farsani, Clarissa F Yang and Arturo P Saavedra. Boston, MA.
A key role for the polyclonal nature of pemphigus vulgaris IgG in p38 MAPK-dependent loss of keratinocyte adhesion. Masataka Saito, Christopher Y Caughman, Dana K Tucker, Xuming Mao, Sara N Stahley, Aimee S Payne, Masayuki Amagai and Andrew P Kowalczyk. Atlanta, GA; Tokyo, Japan and Philadelphia, PA.

Cathelicidin anti-microbial peptide is expressed and secreted from adipocytes—a novel mechanism for fat cells in the innate immune system. Ling-juan Zhang, Alvin Coda, Tissa Hata and Richard Gallo. San Diego, CA.

Cynorropcin, an extract from artichoke, inhibits UVB-induced oxidative stress in cultured human keratinocytes. Gaku Tsui, Masakazu Takahara, Xianghong Yan, Akiko Hachiya, Hiroshi Uchi, Satoshi Takeuchi, Fumiko Yasukawa, Kenjiro Takei, Yoichi Moroi and Masatasi Furue. Fukukoa, Japan and Kobe, Japan.


Newly developed enzyme-linked immunosorbent assays using eukaryotic recombinant proteins of desmocollins (Dsc) are highly sensitive and revealed Dsc2 and Dsc3 as autoantigens specific for paraneoplastic pemphigus. Norito Ishii, Shunpei Fukuda, Kwesi Teye, Atesunari Tsuchisaka, Takahiro Hamada, Daisuke Tsuruta, Teruki Dainichi and Takashi Hashimoto. Fukukoa, Japan.

Increased serum VEGA levels correlate with therapeutic responsiveness to biologics in patients with psoriasis. Takatoshi Shimachi, Satoshi Hirakawa, Takahiro Suzuki, Ayako Yasuma, Taisuke Ito and Yoshihiko Tokura. Hamamatsu, Japan.

Bullous pemphigoid is characterized by a reduction of skin-homing/circulating FOxP3+ Tregs and by a down-regulation of the IL-10 pathway. Ralf Ludwig, Sven Kuenzel, Detlef Zillikens, John Baines and Saleh Ibrahim. Lansing, MI and Buffalo, NY.

Expanding the psoriasis disease profile: Risk pathways for cardiovascular and metabolic diseases are expressed in psoriasis skin lesions. Katherine Li, Mayte Suarez-Farinas, Judilyn Fuentes-Duculan, Karen Hayden, Carrie Brodmerkel and James G Krueger. Radnor, PA and New York, NY.


Anti-desmoglein 1 autoantibodies from Fogo Selvagem recognize LJM11, a member of the "yellow" family of salivary proteins from Lutzomyia longipalpis. Ye Qian, Joseph S Leong, Mike Maldonado, Flor Evangelista, Bahjat F Qaqish, Valeria Aoki, Gunter Hans-Filho, Evandro A Rivitetti, Jesus G Valenzuela and Luis A Diaz. Chapel Hill, NC; Sao Paulo, Brazil; Mato Grosso do Sul, Brazil and Rockville, MD.

CD200, a molecule that can suppress T cell responses, is expressed on human Merkel cell carcinomas. Mitra Dowlatshahi, Travis Hollmann, Jessica Scanlon, Linda Wang, Qian Zhan, George Murphy, Ahmed Gehad, Jessica Teague and Rachael A Clark. Boston, MA.

The pro-fibrotic cytokines IL-33 and IL-13 modulate dermal fibrosis via the A2A adenosine receptor. Ross C Radusky, Lisa Franks, Jessica Feig, Patricia Fernandez, Andrew G Franks, Bruce N Cronstein and Edwin S Chan. New York, NY.

A role for IgE receptor expression on eosinophils in BP. Kelly N Messingham, Alexandra Frydman, Raymond J Roewe and Janet A Fairley. Iowa City, IA.


Studies using newly developed Dsg1/Dsg2 swapped molecules showed unique epitopes on Dsg1 in five Japanese cases of oral pemphigus foliaceus, possibly new disease entity, which showed oral mucosal lesion and reacted with Dsg1 but not Dsg3. Hiroshi Koga, Bungo Ohyama, Norito Ishii, Takahiro Hamada, Teruki Dainichi, Daisuke Tsuruta and Takashi Hashimoto. Fukukoa, Japan.


064 Agonistic binding of neurokinin 1 receptor is necessary for the development of cutaneous effector Th1 and Th2 immunity. Chin H.Ho, Tina L.Sumpter, Olga A.Tkacheva, William J.Shufesky, Adrian E.Morelli and Adriana T.Larregina. Pittsburgh, PA.

065 Granular C3 dermatitis, a possibly new disease entity. Daisuke Tsuruta, Norito Ishii, Hiroshi Koga, Takahiro Hamada, Teruki Dainichi, Chika Ohata, Minao Furumura and Takashi Hashimoto. Fukuoka, Japan.


067 High degree of reproducibility in psoriasis gene expression analysis of two independent patient populations. Daniel Aires, Alan Menter, Graham Rodwell, Patrick Prath, Stephanie Srdyov, Ossama Tawfik, Anne Bowcock and Animesh A.Sinha. Kansas City, KS; Dallas, TX; Boston, MA; Overland Park, KS; St. Louis, MO and Buffalo, NY.


070 Use of constitutively active STAT6 transgenic mice to characterize calcipotriene-mediated worsening of atopic dermatitis. Matthew J.Turner, Sonia Da Silva, Mark H.Kaplan and Jeffrey B.Travers. Indianapolis, IN.


072 Differential activation of the inflammasome in loaded skin of young and elderly individuals. Olivera Stojašinovic, Julia Minkiewicz, Andrew Sawaya, Juan De Rivero Vaccari, Robert W.Keane and Marjana Tomic-Canic. Miami, FL.


074 Keratinocyte specific inactivation of Sharpin is critical in the mouse chronic proliferative dermatitis (Sharpin-cdpm-) phenotype. Christopher S.Potter, Kathleen A.Silva, Victoria Kennedy, Zhe Wang, Harm Hogen Esch and John P.Sundberg. Bar Harbor, ME and West Lafayette, IN.

075 Organotypic in vitro human epithelial models with engineered gene knockdown or mechanistic reporter functions. Patrick Hayden, Courtney E.Mankus, Pedro Lei, George R.Jackson, Jennifer Bolmarich, Alexander Armento, Stelios Andreadis and Mitchell Klausner. Ashland, MA and Amherst, NY.

076 IL-13 is a pro-inflammatory cytokine active in psoriasis. James J.Kochkodan, Xianying Xing, Riberlyt M.Beth, Reem Jan, Andrew Johnston and Johann E.Gudjonsson. Ann Arbor, MI.

077 The role of the IL12B associated psoriasis risk allele in the pathogenesis of psoriasis. Xianying Xing, MaryBeth Ribelet, James J.Kochkodan, Rajan P.Nair, John J.Voorhees, James T.Elder, Andrew Johnston and Johann E.Gudjonsson. Ann Arbor, MI.


080 Carbon monoxide releasing molecule-2 inhibits the inflammatory response induced by tumor necrosis factor-α in dermal fibroblasts. Susan Ward and Dorne Yager. Richmond, VA.

081 CD11c+ inflammatory dendritic cells and CD163+ macrophages are the main source of TNF-alpha in chronic plaque-type psoriasis. Patrick M.Brunner, Frieder Koszik, Madeleine L.Kalb, Baerbel Reiningher and Georg Stingl. Vienna, Austria.

082 Evaluation of the immunotoxicological potential of small molecular weight compounds in THP-1 cells and primary monocyte-derived dendritic cells. Katrin Sebastian, Claudia Skazik-Voogt, Hagen Ott, Yvonne Marquardt, Katharina Czaja, Gabriele Zwdalo-Klarwasser, Jens M.Baron and Hans F.Merk. Aachen, Germany and Hamburg, Germany.

083 Hyaluronan small oligosaccharides regulate TLR3-dependent autoimmune inflammatory responses. Margaret Kim, Jun Muto and Richard L.Gallo. San Diego, CA.

084 Investigating the role of the transcriptional repressor Bimpl1 in the interplay between adult epithelial cells and the immune system. Natalie A.Roberts, Weiguo Cui and Valerie Horsley. New Haven, CT.


088 Regulation of integrin a6 in scleroderma keratinocytes. Wei Li, Xiao-Yong Man, Jia-Qi Chen, Jiong Zhou, Sui-Qing Cai and Min Zheng. Hangzhou, China.

089 Comparison of the expression of cytokertatin 19, integrin a6 and β1 in normal and psoriatic skin. Min Zheng, Wei Li, Xiao-Yong Man, Jiong Zhou, Jia-Qi Chen and Sui-Qing Cai. Hangzhou, China.


091 Maximal TNFα-induced interleukin-8 in keratinocytes requires EGFR activation. Vincent J.Maffei, Kellie J.White and Robert A.Swerlick. Atlanta, GA and Decatur, GA.


093 Mast cells and neuropeptide expression are increased in erythematotelangiectatic roacea in comparison to telangiectatic photoaging. Yolandia R.Helfrich, James Varani, Gary Fisher, Craig Hammerberg, Allen Bruce, Andrew Lin, Lisa Maier, Dana Sachs and John Voorhees. Ann Arbor, MI and Portland, ME.


095 Increased depression in cutaneous lupus erythematosus compared to the general population and dermatomyositis. Elizabeth R.Ghazi, Mitchel A.Kling, Kathleen Propert, Joyce Okawa and Victoria P.Werth. Philadelphia, PA and Piscataway, NJ.

096 Slow clinical response to combined treatment with rituximab and low dose steroid in two cases of recalcitrant epidermolysis bullosa. Wataru Fujimoto, Hiroaki Hayashi and Shunsuke Sasaoka. Kurashiki, Japan.


098 The up-regulation of cyclic AMP in monocytes inhibit the differentiation to multinucleated giant cells. Kana Mizuno, Manabu Osawa, Hirotsugu Tanimura, Fumikazu Yamazaki and Hiroyuki Okamoto. Moriguchi, Japan.

099 Rituximab decreases all anti BP180 IgG subclasses in patients with refractory bullous pemphigoid(BP). Arash Ronaghy, Robert D.Streilein and Russell P.Hall. Durham, NC.

101 Human monocytic Myeloid-Derived Suppressor Cells (MDSC) are increased in the peripheral blood of psoriatic patients. David C Soler, Andrew Young, Jackelyn Golden, Thomas S McCormick and Kevin D Cooper. Cleveland, OH.

102* Epidermal control of psoriasis like skin inflammation by a TNF-α and IL-24 dependent mechanism. Shnehla Kumari, Manolis Pasparakis, Robert Sabat and Ingo Haase. Cologne, Germany and Berlin, Germany.


106 Glucocorticoid receptor localizes to adherens junctions at the plasma membrane of keratinocytes. Irena Pastar, Oliwiera Stojadinovic, Andrew Shawaya and Mariana Tomic-Canic. Miami, FL.


Carcinogenesis and Cancer Genetics
All oral [designated with an asterisk (*)] listed below are presented in the Carcinogenesis and Cancer Genetics Minisymposium on Friday, May 11, 2012 from 2:00-5:30 p.m. in Raleigh Convention Center 305 A. Orals designated by two asterisks (**) will be presented during a Plenary Session.


111 Ultraviolet A radiation increases invasiveness of melanoma cells. Anna K von Thaler, York Kamenisch, Martin Röcken, Friedegund Meier and Mark Bernburg. Tuebingen, Germany.

112* Quantitative RT-PCR reveals a similar pattern of cytokine dysregulation in mycosis fungoides skin compared to those identified in a mouse model of CTCL. Xuesong Wu, Alexander C Mackinnon and Sam T Hwang. Milwaukee, WI.

113* Transcriptome analysis identifies thymocyte developmental factor TOX as a novel diagnostic and prognostic marker for mycosis fungoides. Ying Wang, Ivan Litvinov, Yuanshen Huang, Mingwan Su, Denis Sasserville and Youwen Zhou. Vancouver, Canada.


115 Pralatrexate alone and in combination with bexarotene inhibit tumor growth in a CTCL xenograft model. Xiang Zhang, Sophia Rangwala, Madeleine Duvic and Chunlei Zhang. Houston, TX.


117* Epidermal growth factor receptor transactivation is suppressed in diabetic wounds, but stimulated by ganglioside depletion. Sarah Lee, Heather Wilson, Xiaoxi Wang and Amy S Paller. Chicago, IL.

118 Transforming growth factor-β1 (TGF-β1)-mediated transcriptional regulation of CXCR4 in human basal cell carcinoma cells is mediated by extracellular signal-related kinase 1/2 (ERK1/2) and ETS-1 pathways. Shio-Hwa Lee, Chia-Yu Chu, Shih-Ting Cha, Hisen-Ching Chiu and Min-Liang Kuo. Taipei, Taiwan.

119 Dermal matrix composition promotes development of aggressive squamous cell carcinoma in recessive dystrophic epidermolysis bullosa. Yi-Zhen Ng, Celine Pourreymoon, Julio Salas-Alanis, R Cepeda-Valdes, W Y Yang, Sheila Wright, Mei Chen, Fiona Hogg, John McGrath, Deedee Murrell, Irene Leigh, Ellen Lane and Andrew South. Dundee, United Kingdom; Singapore, Singapore; Monterrey, Mexico; Sydney, Australia; Los Angeles, CA and London, United Kingdom.

120 Genome-wide association studies on human pigmentation traits and non-melanoma skin cancer risk. Mingfeng Zhang, Fengju Song, Abrar Qureshi, Jiangwen Zhang, Liming Liang and Jialin Han. Boston, MA and Cambridge, MA.


122 Bulge-derived stem cells form BCC-like tumors upon wounding. Sunny Y Wong and Jeremy F Reiter. Ann Arbor, MI and San Francisco, CA.

123 Aldo-keto reductase 1C3 (AKR1C3) is highly expressed in cutaneous squamous cell carcinoma (SCC) and affects SCC cell proliferation. Alon Mantel, Amanda Mendini, JoAnne Vanbuskirk and Alice P Pentland. Rochester, NY.

124* Human basal cell carcinoma tumor initiating cells express MDRI and are resistant to etoposide killing. Chantal S Colmont, Antsar Ben Ketah, Raheel Errington, Carole L Yee, Mark Udey, Jonathan C Vogel and Girish K Patel. Cardiff, United Kingdom and Bethesda, MD.


126* Histone deacetylase-3 promotes melanoma metastasis by deacetylating ganglioside GM3 and increases cell proliferation through p70S6 kinase signaling. Daniel Q Bach, Qiu Yan, Ji-Wei Liu, Amy S Paller, Shuang-ni Yang, Tom Traczyk, Pedram Gerami and Xiao Q Wang. Chicago, IL.

127 Expression of CD10 in squamous cell carcinoma and precancerous lesion. Jong-Rok Lee, Jeong-Hyoun Youn and Joo-Young Roh. Incheon, South Korea.


129 Inhibitors of oncogenic signal transduction pathways augment the induction of MHC class I molecules by IFN-γ. Brian P Pollack and Bishu Sapkota. Atlanta, GA and Decatur, GA.


131* Protein Kinase Cε and its interacting protein Hsp90β are potential molecular targets for prevention of ultraviolet radiation-induced cutaneous damage and development of squamous cell carcinomas. Ajit K Verma, Jordan M Sand, Moammir H Aziz and Absarul Haque. Madison, WI.

132 Genetic and chemical knockdown of class I1 histone deacetylase (HDAC) Sirt1 decreases cellular growth and induces apoptosis in cutaneous T-cell lymphoma (CTCL). Minakshi Nihal, Nihal Ahmad and Gary S Wood. Madison, WI.
133 Transcriptomic analysis in basal cell carcinoma provides insights into the genetic basis of disease. Elizabeth R Heller, Ankit Gor, Dan Wang, Qiang Hu, Meena Kadhare, Song Liu and Animesh A Sinha. Buffalo, NY and Hampton, VA.


135 Next-generation sequencing identifies Notch receptors as integral tumor suppressors in cutaneous and lung squamous cell carcinomas. Nicholas J Wang, Zachary Sanborn, Kelly L Arnett, Laura J Bayston, Wilson Liao, Charlotte M Proby, Irene M Leigh, Patricia B Gordon, Mimansa Sharma, Jeffrey P North, Swapna S Vemula, Theodor M Mauro, Issac M Neuhaus, Philip E LeBoit, Pui-Yan Kwok, Sarah T Arron, Ellen A Bale, David Haussler, James E Cleaver, Joe W Gray, Paul T Spellman, Andrew P South, Jon C Aster, Stephen C Blacklow and Raymond J Cho. Portland, OR; Santa Cruz, CA; Boston, MA; San Francisco, CA; Dundee, United Kingdom and New Haven, CT.

136 Human bioengineered proteins induce apoptosis in skin cancers. Emmett Pinney, Mayra Montes-Camacho, Robert Hoffman, Mark Baumgartner and Gail K Naughton. San Diego, CA.

137 Dual role of apoptosis-associated speck-like protein containing a CARD (ASC) in tumorigenesis of human melanoma. Weimin Liu, Jeffrey H Dunn, David A Norris, Charles A Dinarello and Mayumi Fujita. Aurora, CO.


139 Identification of protein kinase C activating phorbol ester and ingenol derivatives as candidates for cutaneous P-glycoprotein absorptive transport across the epidermis. Liuwei Li, Megan Ansbro, Sunet Shukla, Suresh Ambudkar, Peter Blumberg and Stuart H Yuspa. Bethesda, MD.

140 Akt and keratin intermediate filaments collaborate to regulate autophagy and tumorigenesis. Richard C Wang, Yongjie Wei, Zhongjun Zou, Zhenyi An, Govind Bhagat, Michael White, Julia Reichelt and Beth Levine. Dallas, TX and New York, NY.

141 Ser27 phosphorylation in STAT3 plays a crucial role in cell survival and nuclear translocation of STAT3 in human melanocytes and melanoma cells. Masahiro Oka, Masanobu Sakaguchi, Tetsushi Iwasaki, Yasuo Fukami and Chiakako Nishigori. Kobe, Japan.

142 Elevated epidermal thymic stromal lymphopoietin levels prevent skin tumorigenesis. Shadmehr Demehri, Adu Turkoz, Laura J Yockey, Mustafa Turkoz and Raphael Kopan. St. Louis, MO.

143 Edar signaling promotes epithelial tumor growth via stimulation of Hedgehog pathway upon BMP inhibition in the skin. Andrei N Mardariev, Igor Malashchuk, Tatyana Y Sharova, Andrei A Sharov and Vladimir A Botchkarev. Bradford, United Kingdom and Boston, MA.


149 Investigating the capacity of two-photon confocal microscopy to monitor the uptake, localization, and efflux of polyaromatic hydrocarbons in Langerhans cells. Julia Lewis, Peter Zhao, Renata Filler and Michael Girardi. New Haven, CT.


152 Evidence for a napdh oxidative-stat pathway in human melanoma. Jack L Arbisler, Michael Y Bonneur, Robert Cerulli, Suhi Liu and David A Frank. Atlanta, GA and Boston, MA.

153 Characterization of a human Merkel cell carcinoma cell line. Kai Liang, Lijian Shao, Shiqiao Ye, Catherine Gurley, Wei Feng, Brendan C Stack Jr, Daniel Davis and Ling Gao. Little Rock, AR.

154 Using a gene signature to predict metastases in melanoma patients. Craig Carson, Bernard Omolo, Haitao Chou, Yingchun Zhou, Patrick Tompkins, Dennis Simpson, Cheng Fan, Alain Sarasin, Philippe Dessen, Joseph Ibrahim, William Kauffman and Nancy Thomas. Minneapolis, MN; Chapel Hill, NC; Villejuif, France and Spartanburg, SC.

155 Exploiting deregulated apoptotic signaling as a therapeutic strategy for Merkel cell carcinoma. Monique E Verhaegen, Chris K Bickhajian, Tracy Vozheiko, Jack Weick, Melissa Voutsalath, Timothy M Johnson and Andrej A Dlugosz. Ann Arbor, MI.

156 Evidence suggesting that cosmetic therapies may prevent non-melanoma skin cancer. Dan F Spandau, Davina A Lewis, Marc A Carozza, Ally-Khan Somani and Jeffrey B Travers. Indianapolis, IN.

157 HB-EGF directly promotes epithelial-mesenchymal transition and invasiveness in human keratinocytes. Stefan W Stoll, Laure Rittie and James T Elder. Ann Arbor, MI.

158 Defective cell cycle arrest and DNA repair in Merkel cell carcinogenesis. Stephanie K Demetriou, Katherine Ona-Vu, Erin M Sullivan, Tiffany K Dong, Shu-Wei Hsu and Dennis H Oh. San Francisco, CA.

159 Early Langerhans cell-specific responses to exogenous polyaromatic hydrocarbon exposure. Renata Filler, Julia Lewis and Michael Girardi. New Haven, CT.

160 Forward genetic screen to identify genes that confer drug resistance to BRAF-inhibitors in melanoma. Jaehyuk Choi, Nur-Taz Rahman, Sean Landrette and Tian Xu. New Haven, CT.

161 Interferon-γ renders myeloid-derived suppressor cells (MDSC) with the potent immunosuppressive activity via inducing expression of DC-HIL and inducible nitric oxide synthase (iNOS). Jin Sung Chung, Kyoichi Tamura, Ponciano D Cruz and Kiyoshi Ariizumi. Dallas, TX.

162 SHH-mediated Akt1 activation promotes survival of Ptch1/- mice. Shrinivas Chavali, Beata Omolo, Wenke Shen, Akiko Morita, Lorraine Rall, Joaquin Mena, Mark Dicken, Kiyoshi Ariizumi and Alfred B Jenson. Bar Harbor, ME; Louisville, KY and Khaghar, Navi Mumbai, India.

163 Circadian clock controlled sensitivity to UVB-induced DNA damage in the epidermis. Mikhail Geyfman, Vivek Kumar, Qiang Liu, Rolando Ruiz, Sean Jackson and Bogi Andersen. Irvine, CA and Dallas, TX.

164* Interferon-γ mediates Th1 and Th2 responses in human keratinocytes. Stefan W Stoll, Laure Rittie and James T Elder. Ann Arbor, MI.

165 Evidence suggesting that cosmetic therapies may prevent non-melanoma skin cancer. Dan F Spandau, Davina A Lewis, Marc A Carozza, Ally-Khan Somani and Jeffrey B Travers. Indianapolis, IN.

166 Defective cell cycle arrest and DNA repair in Merkel cell carcinogenesis. Stephanie K Demetriou, Katherine Ona-Vu, Erin M Sullivan, Tiffany K Dong, Shu-Wei Hsu and Dennis H Oh. San Francisco, CA.

167 Early Langerhans cell-specific responses to exogenous polyaromatic hydrocarbon exposure. Renata Filler, Julia Lewis and Michael Girardi. New Haven, CT.

168 Forward genetic screen to identify genes that confer drug resistance to BRAF-inhibitors in melanoma. Jaehyuk Choi, Nur-Taz Rahman, Sean Landrette and Tian Xu. New Haven, CT.
**Cell Adhesion/Matrix and Vascular Biology**

All oral [designated with an asterisk (*)] listed below are presented in the Cell Adhesion/Matrix and Vascular Biology Minisymposium on Thursday, May 10, 2012 from 2:00-5:30 p.m. in Raleigh Convention Center 302 B. Oral sessions designated with an asterisk will be presented during a Plenary Session.

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168 Novel L1 and Alu retrotransposon insertions in melanoma related gene loci in NCI-60 melanoma cell lines. [John Zampella](#) and [Kathleen H Burns](#). Baltimore, MD.

169 Aldehyde dehydrogenase activity is cancer stem cell marker in human cutaneous squamous cell carcinoma. [Masahito Yasuda](#), Jiang Chen, Steven E Robinson, Mayumi Fujita and [Dennis R Roop](#). Aurora, CO.

170 Indian hedgehog protects from malignant progression of skin tumours. [Parisa Kakanj](#), Gilles Séquars, Dagmar Fehrenschuld, Peter Schettina, Christos C Zouboulis and [Catherine Niemann](#). Cologne, Germany and Dessau, Germany.

171 Topical application of the PAFR agonist carbamoyl PAF or oral administration of the PPARα agonist Rosiglitazone suppresses chemical carcinogenesis and chronic PMA-induced inflammation. [Raymond L Konger](#), Ravi P Sahu, Sonia DaSilva, Jeffrey B Travers and Samin Rezania. Indianapolis, IN.

172 Transcriptome sequencing in squamous cell carcinoma identifies novel skin malignancy regulated transcripts. [Cari Lee](#), Alex Ungewickell, Aparna Bhaduri, Kun Qu, Dan Webster, Cady Aros, Angela Mah, Markus Kretz and Paul A Khavari. Stanford, CA.


175 Detection of peripheral blood involvement in CTCL by multi-parametric flow cytometric analysis. [Kristina Liu](#), Kacie R Carlson, Michael Girdari and Jaehyuk Cho. New Haven, CT.

176 Dysregulation of the L1-family in cutaneous squamous cell carcinoma. Abhishek Aphale, Xianying Xing, Marybeth Riblett, Johann E Gudjonsson and Andrew Johnston. Ann Arbor, MI.

177** GLI2* engages the mTOR pathway to drive development of malignant cutaneous squamous cell carcinoma. [Jashim Uddin](#), Irfan Ali-Khan, Lawrence J Marnett, Jean Tang and Jonathan C Jones. Chicago, IL.

178** P120-catenin inhibits cadherin endocytosis by binding to a conserved endocytic signal in the cytoplasmic domain of classical cadherins. Benjamin A Nanes, Christine M Chiasson, Anthony M Lowery, Peter A Vincent and [Andrew Johnston](#). Ann Arbor, MI.

179 Characterizing tumor adaptations via in vivo imaging. [Bradley J Kubick](#) and Dennis R Roop. Aurora, CO.


181* Obligatory roles of filamin A in calcium-induced cell-cell adhesion and differentiation in epidermal keratinocytes. [Chia-Ling Tu](#), Weihao Chang, Michael You and Daniel D Bikle. San Francisco, CA.

182* P120-catenin inhibits cadherin endocytosis by binding to a conserved endocytic signal in the cytoplasmic domain of classical cadherins. [Benjamin A Nanes](#), Christine M Chiasson, Anthony M Lowery, Peter A Vincent and [Andrew P Kowalczyk](#). Atlanta, GA and Albany, NY.

183 Role of CX3C chemokine receptor 1 in tissue injury induced by immune complex deposition. Sohshi Morimura, Makoto Sugaya and Shinichi Sato. Tokyo, Japan.


185 Hypoxia-inducible factor-1α, a key factor in skin physiology and pathophysiology. [Hamid R Rezvani](#), Nsrein Ali, Alain Taieb, Hubert de Verneuil and Frederic Mazurier. Bordeaux, France.

186 Disruption of adherens junctions by non-IGF factor(s) present in a PF serum. [Ning Li](#), Moonhee Park, Zhi Liu and Luis A Diaz. Chapel Hill, NC.

187 Repression of psoriasisform skin inflammation reverses aortic root vascular lesion formation and prevents enhanced thrombosis. Yunmei Wang, Huiyun Gao, Candace M Loyd, Wen Fu, Doina Diaconu, Shijian Liu, [Kevin D Cooper](#), Thomas S McCormick, Daniell Simon and Nicole L Ward. Cleveland, OH.

188 Bullous pemphigoid IgG induces BP180 internalization through clathrin- and caveolin-independent endocytic pathway. [Sho Hirotsu](#), Toshiyuki Ozawa, Hiromi Kobayashi, Masamitsu Ishii, Teruichi Harada, Yumi Aoyama, Yasuo Kitajima, Takashi Hashimoto, Jonathan C Jones and Daisuke Tsuruta. Osaka, Japan; Minokamo, Japan; Kurume, Japan and Chicago, IL.


189* Fueling the keratinocyte motor: Factor-inhibiting Hypoxia-inducible Factor 1 (FIH-1) is a positive regulator of epithelial migration. Han Peng, Spiro Getios and Robert M Laver. Chicago, IL.

190 NF-kB associated with COL1A1 transActivators defects repress Type I collagen expression during aging in human dermal skin fibroblasts. [Nicolas Bigot](#), Gallic Beauchef, Magalie Hervieu, Thierry Oddos, Magali Demoor, Karim Boumediene and Philippe Galera. Caen, France and Val de Reuil, France.

190** Disruption of adherens junctions by non-IgG factor(s) present in a PF serum. [Chia-Ling Tu](#), Wei Han Peng, Jin Pu, Trung Hoang, Soichiro Yamada, Jianxin Jiang and [Min Zhao](#). Sacramento, CA; Chongqing, China; Aberdeen, United Kingdom and Davis, CA.


192 Tuberous sclerosis skin tumor cells express high levels of cathepsins B, L, and N. [Li Li](#), Robert Hartley, Bjorn Reiss, Yaohui Sun, Jin Pu, Trung Hoang, Soichiro Yamada, Jianxin Jiang and [Min Zhao](#). Sacramento, CA; Chongqing, China; Aberdeen, United Kingdom and Davis, CA.

193 Inhibition of MK2 signaling prevents blister formation in pemphigus in vivo. [Xuming Mao](#), Song Li and Aimee S Payne. Philadelphia, PA.

194 Membrane raft microdomains are platforms for desmosome regulation. Sara N Stahley, Masataka Saito, Victor Faundez, Michael Koval and Andrew P Kowalczyk. Atlanta, GA.

195 Collective galvanotaxis - together we move better. Li Li, Robert Hartley, Bjorn Reiss, Yaohui Sun, Jin Pu, Trung Hoang, Soichiro Yamada, Jianxin Jiang and [Min Zhao](#). Sacramento, CA; Chongqing, China; Aberdeen, United Kingdom and Davis, CA.

196* Distinct functions of α6β4 and α3β1 integrins in keratinocyte migration. [Geetha Kalahasti](#), Tiffany Florence and Michelle Hines. Dallas, TX.

197* Inhibition of MK2 signaling prevents blister formation in pemphigus in vivo. [Xuming Mao](#), Song Li and Aimee S Payne. Philadelphia, PA.

198* Distinct functions of α6β4 and α3β1 integrins in keratinocyte migration. [Geetha Kalahasti](#), Tiffany Florence and Michelle Hines. Dallas, TX.

199 Development of a vascularized skin equivalent with a physiological perfused vascular network. [Fioran K Groebner](#), Jan Hansmann, Michaela Kaufmann and Heike Walles. Stuttgart, Germany and Wurzburg, Germany.

200 The role of the basement membrane in stem cell maintenance and epidermal homeostasis. [Supattra T Marsh](#), Vera Martins, Kristin Braun, Michael Donaldson and Edel A O’Toole. London, United Kingdom and Uxbridge, United Kingdom.

201 Both low and high molecular weight hyaluronan potentiates migration of human dermal fibroblasts. [Lucie Vistejnova](#), Kristina Nesporova, Tomas Muthny, Martina Hermannova, Vladimir Velebny and Lukas Kubala. Dolni Dobrouc, Czech Republic and Brno, Czech Republic.

202* Collective galvanotaxis - together we move better. Li Li, Robert Hartley, Bjorn Reiss, Yaohui Sun, Jin Pu, Trung Hoang, Soichiro Yamada, Jianxin Jiang and [Min Zhao](#). Sacramento, CA; Chongqing, China; Aberdeen, United Kingdom and Davis, CA.


205 LaNT κ31, a novel extracellular mediator of keratinocyte adhesion and motility. Kevin J Hamill and Jonathan C Jones. Chicago, IL.

206 The neurotrophic factors NGF, BDNF, NT-3 and GDNF contribute to the angiogenic balance in reconstructed human skin. Mathieu Blais, Philippe Lévesque and François Berthod. Quebec, Canada.

207 Actinin-4 regulates the directed migration of keratinocytes and modulates cell-matrix interactions. Kevin J Hamill, Susan B Hopkinson, Omar Skalli and Jonathan C Jones. Chicago, IL and Memphis, TN.

208 Plakoglobin as a regulator of desmocollin gene expression. Etienne Tokozoba, Xing Cheng, Radhika Ganeshan, Eliane J Müller and Peter J Koch. Aurora, CO and Bern, Switzerland.

209 Intracellular collagen degradation mediates age-associated collagen deficit. Yong Li, Wei Xia, Andrew Little, Toru Okubo, John J Voorhees and Gary J Fisher. Ann Arbor, MI.

210 Extracellular Hsp90alpha promotes human dermal fibroblast migration and skin wound healing via the NPTY motif within LRP-1 receptor and three downstream Akt kinases: Direct evidence for a cross-membrane signal transduction mechanism. F Tseu, C Cheng, M Chen, D Woodley and W Li. Los Angeles, CA.

211 Characterization of CCN1 functional domains that stimulate MMP-1 through integrin αvβ3 in human dermal fibroblasts. Thaoqine Qiu, Patrick Robichaud, John J Voorhees, Gary J Fisher and Taihao Quan. Ann Arbor, MI.


213 Reverse aging processes through the reduction of progerin production by a synthetic tripeptide. Estelle Loing and Elisabeth Lamarque. Quebec, Canada and Ramonville St Agne, France.


216 Knockdown of paraoxonase 1 expression influences the aging of human dermal microvascular endothelial cells. Yong Li, Wei Xia, Andrew Little, Toru Okubo, John J Voorhees and Taihao Quan. Ann Arbor, MI.

217 Stratifin regulates plakophilin-3 incorporation into the desmosomal plaque. James K Wahl and Brett Roberts. Lincoln, NE.

218 Lamin alpha 5 regulates microvascular endothelial cell migration and tubule formation. Tengjiao Cui, Ling Tang and Jie Li. Miami, FL.

219 Uncovering functional differences between kindlin-1 and kindlin-2 in keratinocytes. Aditi Bandopadhyay, Gerson Rothschild, Sean Kim, David Calderwood and Srikala Raghavan. New York, NY and New Haven, CT.

220 Lysosomes are central regulators of collagenolysis. Thomas M Rünger. Boston, MA.

Epidemiology and Health Services Research

All orals [designated with an asterisk (*)] listed below are presented in the Epidemiology and Health Services Research Minisymposium on Thursday, May 10, 2012 from 2:00-5:30 p.m. in Raleigh Convention Center 306 B. Orals designated by two asterisks (**) will be presented during a Plenary Session.

221 Do patients with methicillin-resistant Staphylococcus aureus (MRSA) infections of the skin revert to methicillin-susceptible isolates? Anisha Patel, Emma Hill, Eric Simpson and Jon Hanifin. Portland, OR.

222 Associated comorbidities in patients with vitiligo and alopecia areata. Erin X Wei-Passanese, Vineeta Sheth, Kathie P Huang and Abrar A Qureshi. Boston, MA.

223* Treatment satisfaction with commonly used treatments for moderate to severe plaque psoriasis in clinical practice. Howa Young, Kristina Callis Duffin, Joy Wan, Andrea B Troxel, Daniel B Shin and Joel M Gefland. Philadelphia, PA and Salt Lake City, UT.

224 Trends of in situ melanoma in U.S. men and women. Erin X Wei-Passanese, Jiali Han, Jennifer Y Lin and Abrar A Qureshi. Boston, MA.

225 Difficulty in dermatologists reporting melanoma to state cancer registries. Lauren C Payne and Suephy Chen. Atlanta, GA.


227 Dramatically improved overall survival and predictors of disease in 17 metastatic basal cell carcinoma patients. Christina Danial, Bharathi Lingala, Anthony E Oro and Anne Lynn S Chang. Redwood City, CA.

228* Comparative effectiveness of commonly used systemic treatments or phototherapy for moderate to severe plaque psoriasis in clinical practice. J M Gefland, J Was, G G Krueger, K Callis Duffin and A S Van Voorhees. Philadelphia, PA and Salt Lake City, UT.


230* Factors related to the impact of pruritus on quality of life. Christopher Carr, Emir Veledar and Suephy Chen. Atlanta, GA.

231 Monkey see, monkey do: Contagious itch in nonhuman primates. Ashley N Feneran, Russell O’Donnell, Ashley Press, Gil Yosipovitch, Mark Cline, Greg Dugan, Alexandru Papoiu, Leigh Nattkemper, Yiong Huak Chan and Maryam M Asgari. Oakland, CA; Detroit, MI and Boston, MA.

232* Validation of a large population-based basal cell carcinoma registry. Maryam M Asgari, Melody Eide, Margaret Warton, Marianne Sadler and Suzanne Fletcher. Oakland, CA; Detroit, MI and Boston, MA.


234 Smoking and risk of skin cancer: A prospective analysis and a meta-analysis. Fengjui Song, Abrar A Qureshi, Xiang Gao, Tricia Li and Jiali Han. Boston, MA.

235 Dermatologists and popular media may influence the social acceptability of hand-held umbrellas for sun protection. Jennifer Ezirike, Josette McMichael, Jessica Rice, Emir Veledar and Suephy C Chen. Atlanta, GA.

236* Aspirin is associated with lower melanoma risk in a cohort of postmenopausal women in the Women’s Health Initiative (WHI). Susan M Swetter, Christina A Gamba, Marcia L Stefanick, Katrina M Spahnhurst, Jessica Kubo, Manisha Desai, Maryam M Asgari, Animesh A Sinha and Jean Y Tang. Palo Alto, CA; Stanford, CA; Los Angeles, CA; Oakland, CA and Buffalo, NY.


244 Cutaneous findings predict the presence of systemic symptoms in pediatric urticaria pigmentosa. Meredith Barnes, Livia Van, Laura Delong and Leslie Lawley. Atlanta, GA.

245 An online approach to melanoma education aimed at the Hispanic population improves knowledge and behaviors. Carla J Roman and Jeremy S Bordeaux. Cleveland, OH.


248 A comparison of the body mass index (BMI) profiles of patients seen in the academic dermatology and general medicine clinical settings. Noah Smith, Heather Chubb and Yolanda Halffrich. Ann Arbor, MI.

249 Effect of a web-based curriculum on primary care practice: The basic skin cancer triage trial. Alina Markova, Martin A Weinstock, Patricia Risica, Waqas Shaikh, Ussre Kirtania and Hernando Ombao. Providence, RI.

250 Molecular epidemiology of non-syndromic ARCI in a Middle Eastern population. Shirli Israel, Dana Fuchs-Telem, Reuven Bergman, Margarita Indelman, Ora Bitterman-Deutsch, Avikam Harel, Yaacov Mashiah, Ofer Sarig and Eli Sprecher. Tel Aviv, Israel; Haifa, Israel and Nahariya Ombao. Providence, RI.

251 DNA repair is critical in maintaining neurologic integrity and hearing function. Carly J Roman and Jeremy S Bordeaux. Cleveland, OH.

252 Variation in dermatologist beliefs about the safety and effectiveness of treatments for moderate-to-severe psoriasis. Katrina Abuabara, Joy Wan, Andrea B Troxel, Daniel B Shin, Abby S Van Voorhees, Bruce F Bebo, Gerald G Krueger, Kristina Callis Duffin and Joel M Gelfand. Philadelphia, PA; Portland, OR and Salt Lake City, UT.

253 High throughput screening for transcriptional inducers of IGFBP7 points to histone deacetylases as new therapeutic targets in psoriasis. Nadav Sagiy, Janna Nounseub, Varda Shoshan-Barmatz, Dana Fuchs-Telem, Ofer Sarig and Eli Sprecher. Tel Aviv, Israel and Beer Sheva, Israel.

254 Differences between invasive and in situ melanoma according to age of diagnosis, mortality, host risk factors and lifetime ambient UV exposure. Andrew C Walls, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA.


256 Association of eyeglasses use with periocular keratinocyte carcinomas and actinic keratos. Kachiu C Lee and Martin A Weinstock. Providence, RI and Washington DC.


258 Low-fat dietary pattern and skin cancer risk: The Women’s Health Initiative (WHI) randomized controlled dietary modification trial. Christina A Gamba, Marcia L Stefanick, James M Shikany, Joseph Larson, Eleni Linos, Stacy T Sims, James Marshall, Linda Van Horn, Nathalie Zeitouni and Jean T Yang. Stanford, CA; Birmingham, AL; Seattle, WA; San Francisco, CA; Buffalo, NY and Chicago, IL.


260 Eczema severity is associated with multiple comorbid conditions and increased healthcare utilization. Jonathan I Silverberg and Eric L Simpson. New York, NY and Portland, OR.

261 Relative humidity, dew point, indoor heating and ultraviolet index are associated with the prevalence of eczema. Jonathan I Silverberg, Jon M Hanifin and Eric L Simpson. Portland, OR and New York, NY.

262 Do we know the cost of dermatology specialty care? A survey of dermatology providers, residents and patients. Julianne A Mann, Valerie M Carberg, Alexia B Kimball, Frances J Storrs, Andrew Blauvelt and Eric L Simpson. Portland, OR and Boston, MA.

263 The availability of free samples of acne medications increases the prescription of more expensive, branded drugs in lieu of generic alternatives. M Hurley, R Stafford and A Lane. Stanford, CA.

264 Progression from cutaneous to systemic lupus erythematosus by ACR criteria usually occurs with mild disease and few systemic symptoms. Isabela T Wieczorek, Kathleen J Propter, Joyce Okawa and Victoria P Werth. Philadelphia, PA.

265 Internet crowdsourcing as a venue for collection of dermatologic quality of life data. Andrew Ostrowski, Supey Chan, Emir Veledar, Adam Sperduto and Robert Swerlick. Augusta, GA and Atlanta, GA.

266 Characterization of SEER-reported unknown melanoma thickness cases. Wagas Shaikh, Steven Dusa, Alan Geller, Allan Haipern and Martin Weinstock. New York, NY; Boston, MA and Providence, RI.

267 Obesity and melanoma risk: The Skin Health Study. Behana L Ahmed, Rachel I Vogel and DeAnn Lazovich. Minneapolis, MN.

268 Natural product use in sunscreens and their annual economic burden. B Ma, R Johal, T Ma, R R Isseroff, H I Maibach and R K Sivamani. Sacramento, CA; Mather, CA and San Francisco, CA.


270 Prevalence of comorbidities is lower among HLA-Cw6-positive psoriasis patients. Trilokraj Tejaswi, Philip E Stuart, Rajan P Nair, John J Voorhees and James T Elderd. Ann Arbor, MI.

271 The impact of patient and physician gender on awareness of visit’s goals. Anna Rogers, Laura K DeLong, Supey C Chen, Robert A Swerlick and Kimberly Neyman. Atlanta, GA and Chicago, IL.

272 Pre-diagnostic plasma 25-hydroxyvitamin D and risk of non-melanoma skin cancer in women. Geyu Liang, Hongmei Nan, Abrar A Qureshi and Jiali Han. Boston, MA.

273 Atopic dermatitis prevalence and co-morbidities in US women. Longde Lin, Jiali Han, Carlos Camargo and Abrar A Qureshi. Boston, MA and Nanning, China.

274 Increasing incidence of invasive squamous cell carcinoma in US women and men. Khang Nguyen, Jiali Han, Tricia Li and Abrar Qureshi. Boston, MA.
275 Web-based curriculum improves primary care providers’ skin cancer detection skills. Melody J Eide, M Asgari, W Saikhk, L L Li, S W Fletcher, A Halpern, A Geller, A Alexander, A Altschuler, S Dusza, A Marghoob, E Quigley and M A Weinstock. Detroit, MI; Oakland, CA; Providence, RI; Boston, MA and New York, NY.

276 Implementing a system to collect outcome measures for psoriasis. Peter L Mattei, Kevin R Donahue, Kristen C Corey and Alexa B Kimball. Boston, MA.

277 The prevalence of stump dermatoses remains high 40 years after amputation. Nicole B Yang, Luis A Garza, Sewon Kang, Carrie E Foote and Jon H Meyerle. Baltimore, MD; Singapore, Singapore; Indianapolis, IN and Bethesda, MD.


279 A comprehensive systematic review and meta-analysis of treatments for lichen planus. Paramasto Davari, Farzam Gorouhi, Hui-Hua Hsiao and Nasim Fazel. Sacramento, CA.

280 Visualizing the human dermatologic phenotype: Implications for diagnostic error, medical education, and scientific inquiry with the other "omics." Lauren Rimon, Adrianna Cruz, Victor M Blanco, Nancy G Saravia, Art Papier and Noah Craft. Los Angeles, CA; Cali, Colombia; Rochester, NY and Torrance, CA.

281 Internet survey of tattoo skin care. Jamira T Jones, Eilee K Sandmark, Monica Salazar, Barbara J Walkosz and Robert P Dellavalle. Aurora, CO; Golden, CO and Denver, CO.

282 Gender is an age-specific effect modifier for ulcerated malignant melanomas. Blakely S Richardson, William F Anderson, Jill S Barnholtz-Sloan, Margaret A Tucker and Meg R Gerstenblith. Cleveland, OH and Bethesda, MD.

283 1-year mortality rate in bullous pemphigoid—significant correlation. Bethesda, MD.


285 Race and eosinophilia in mycosis fungoides: Retrospective study of a multiethnic cohort. Chen Shi, Ben Britt, Sanjay Mathur, Mamoun Muhammed, Bengt Fadeel and Jim E Riviere. Rochester, MN; Baltimore, MD; Denver, CO; San Diego, CA; Boston, MA and Portland, OR.

286 Type 1 Diabetes associated auto-antibodies are present in 19% of alopecia areata sera. Lynn Petukhova, M Duvic, M Hordinsky, D Norris, V Price, A Delong, L Bian, D L Pittman, W E Winter, J Mackay-Wiggen, R Clynès and A M Christiano. New York, NY; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA and Gainesville, FL.

287 Interactions between adiposity and genetic polymorphisms on the risk of psoriasis. Wenqing Li, Jiali Han, Mingfeng Zhang and Abrar A Qureshi. Boston, MA.

288* Psoriasis and risk of inflammatory bowel disease in US women. Wenqing Li, Jiali Han, Andrew T Chan and Abrar A Qureshi. Boston, MA.

289 Arbitration of diagnoses for quality assurance in pathology is reproducible for major discrepancies. Jonthan Hsu. Pittsburgh, PA.


292 High prevalence of psoriasis among patients presenting with inflammatory bowel disease. Eva Mihalis, Jiali Han, Sonia Friedman, Peter A Banks, Matthew Hamilton, Frederick Makrauer, Jonathan Levine and Abrar A Qureshi. Boston, MA.

293 Juvenile Localized Scleroderma (jLS) is associated with a high degree of morbidity: Description of the jLS subgroup of the CARRNet study. Eveline Wu, Eglarabinovich, Kathryn Torok, Suzanne Li and Robert Fuhlbrigge. Boston, MA; Durham, NC; Pittsburgh, PA and Hackensack, NJ.


295 Undergraduate student knowledge about sexually transmitted disease in Brazil. E Lazzarini, T A Caldas, E M Pereira and P E Velho. Campinas, Brazil and Minneapolis, MN.

296 Clinical characteristics and outcomes of Merkel cell carcinomas in the Kaiser Permanente Northern California population. Maryam M Asgari, E Margaret Warton, Monica M Sokl, Jayarsi Iyer, Kelly G Paulson and Paul Nghiem. Oakland, CA and Seattle, WA.

Epidermal Structure and Function

All orals [designated with an asterisk (*)] listed below are presented in the Epidermal Structure and Function Minisymposium on Friday, May 11, 2012 from 2:00-5:30 p.m. in Raleigh Convention Center 306 B. Orals designated by two asterisks (**) will be presented during a Plenary Session.

297 Caffeic acid improves skin barrier function as Peroxisome proliferator-activated receptor (PPAR)-a agonist. Myoung Jin Oh, Jin Eun Kim, Su Min Lee, Bora Kim, Hyuk Kim, Sun Young Kim, Byung-Ha Chang and Joo Dong Lee. Incheon, South Korea and Seoul, South Korea.

298** PDK1 regulates keratinocyte differentiation. Teruki Dainichi, Matthew S Hayden and Sankar Ghosh. New York, NY.


300 Analysis of profilaggrin N-terminal fragment function in keratinocyte terminal differentiation. Teruhiko Makino, Mami Yamamoto, Takako Yamakoshi, Moti U Rehman, Toshiko Hibino and Tadamichi Shimizu. Toyama, Japan; Yokohama, Japan and Tokyo, Japan.


302 Reduced expression of occludin, epidermal growth factor receptor, filaggrin, loricrin and SIRT1 in the skin of klotho gene deficient mice. Kozo Nakai, Shigeaki Inoue, Kozo Yoneda and Yasuo Kubota. Kita-gun, Japan and Hirotsuka, Japan.

303 Anti-proliferative role of PKD1 and PKD2 in human epidermis. Trivikram Saddapara, Kamil Alazaydy and Sossan Ghazizadeh. Stony Brook, NY.


307 Conneix-26 is upregulated in atopic dermatitis epidermis. Anna De Benedetto, Takeshi Yoshida, J-Hsin Kuo, Nicholas Rafaels, Mark Boguniewicz, Tissa Hata, Lynda Schneider, Jon Hanflin, Richard Gallo, Donald Leung, Kathleen Barnes and Lisa Beck. Rochester, NY; Baltimore, MD; Denver, CO; San Diego, CA; Boston, MA and Portland, OR.

308 Delphinidin, a dietary anthocyanidin promotes epidermal differentiation through activation of caspase-14 and filaggrin: Studies in submerged and 3D organotypic cultures. Jean Christopher Chamecheu, Deeba N Syed, Imtiaz A Siddiqui, Vajar M Adhami and Hasan Mukhtar. Madison, WI.
309 Erysipelas at uncommon sites. Martin Glatz, Daniela Degen, Werner Aberer, Lars E French and Robert R Muellegger. Zurich, Switzerland; Wiener Neustadt, Austria and Graz, Austria.


311 Microtubule nucleation rates are similar in proliferating and differentiating keratinocytes. Lindsey N Seldin and Terry Lechler. Durham, NC.


313* Increased retinoic acid levels through activation of Cyp26b1 determines the processes of embryonic skin barrier formation and peridermal development. Junko Okano, Ulrike Licht, Satoru Mamiya, Maria Aronova, Guofeng Zhang, Stuart H Yusp, Hiroshi Hamada, Yasuo Sakai and Marial Morasso. Bethesda, MD and Osaka, Japan.

314 Enhancing barrier repair response in compromised skin by influencing caspase-14 and hyaluronic acid production. Smitha Rag and James V Gruber. South Plainfield, NJ.

315 Regulating the localization of two distinct pools of NupMA. Nicholas D Pousson and Terry Lechler. Durham, NC.

316* CXCR4 regulates lymphangiogenesis and keratinocyte proliferation in contact and IL23-mediated dermatitis. Tomonori Takekoshi, Xuesong Wu, Michael B Dwinell and Sam T Hwang. Milwaukee, WI.


320* GPHR-dependent functions of the Golgi apparatus are essential for formation of lamellar granules and the skin barrier. Masahito Tarutani, Kimiko Nakajima, Yoshiyuki Uchida, Mikiko Takaishi, Nakoto Goto-Inoue, Masahito Ikawa, Mitsutoshi Setou, Peter M Elias, Taroh Kinoshita, Yusuke Maeda and Shigetoshi Sano. Nankoku, Japan; San Francisco, CA; Minami-osawa, Japan; Saita, Japan and Handayama, Japan.

321 Filaggrin buffering capacity participates in the stratum corneum acid mantle. Truus Roelandt, Tom Hillery, Christina Giddello, Caroline Baudouin, Philippe Msika, Debbi Mangelings, Yvan Vander Heyden, Joachim Flehr, Matthias Schmutz and Jean-Pierre Hachem. Brussels, Belgium; Epernon, France; Berlin, Germany and Innsbruck, Austria.

322 The calcium channel Orai1 is required for the development of human epidermis. Matthieu Vandenbergh, V. L. en'kyi, Dimitri Gordienko, Maylis Raphael, Roman Skryma, Thierry Oddos and Natalia Prevarskaya. Villeneuve d'Ascq, France; London, United Kingdom and Val de Reuil, France.

323 Preservation of antimicrobial neuropeptide Catestatin secretion from neuronal cells may improve innate immunity in aged skin. Pascale Prouxhez, Jean-Francois Nicolai and Mathilde Frechet. Monaco, Monaco.


325* Mandatory role of kallikrein 5 in filaggrin maturation and possible association of its impairment with atopic dermatitis. Jun-ichi Sakabe, Mami Yamamoto, Akira Motoyama, Satoshi Hirakawa, Miwa Kobayashi, Motonobu Nakamura, Toshihiko Hibino and Yosikazu Tokura. Hamamatsu, Japan; Yokohama, Japan; Tokyo, Japan and Kitakyushu, Japan.

326 Zebrafish KS promoter driven GFP expression as a transgenic system for epidermal research. Hao Chen, Bo Hu, Ju-Ahng Lee and Xiaoxin Chen. Durham, NC and Chapel Hill, NC.

327 Secosteroids with a long side chain interact more strongly with the vitamin D receptor (VDR) than those with a shorter side chain. T Kim, J Wang, Z Janjetovic, J Chen, R Tuckey, M Nguyen, E Tang, D Miller, W Li and A Slominski. Memphis, TN and Crawley, Australia.

328 Different roles of Rho-kinase inhibitor (Y-27632) on human skin cells. Imane Garcia, Catherine Serre, Marianne Arcioni, Cedric Pouzet, Marie Brulas, Eric Bauza, Jean Marie Botto and Nouha Domloge. Sophia Antipolis, France.


330 Interest of pentyl-rhamnoside, the active ingredient of Trixera+ balm, in atopic dermatitis by strengthening lipid barrier of the skin. Hélène Hernandez-Pigeon, Marie-Florence Galliano, Marie-Françoise Aries, Jérôme Besse, Sandrine Bessou-Touya, Hélène Duplan and Nathalie Castex-Rizzi. Toulouse, France.

331 Topical antistatins enhance permeability barrier homeostasis and demonstrate efficacy in inflammatory dermatosis models. Tzu-Kai Lin, Mao-Qiang Man, Juan-Luis Santiago, Kyungho Park, Truus Roelandt, Yoko Oda, Melanie Huspe, Debra Crumrine, Maria Gschwandtner, Carles Trullas, Erwin Tschachler, Ken Feingold and Peter Elias. San Francisco, CA; Tainan, Taiwan; Cuidad Real, Spain; Vienna, Austria and Barcelona, Spain.


333* Beta-catenin is essential for complete epidermal barrier formation. Samriddha Ray and Terry Lechler. Durham, NC.

334 Systems biology investigation of dynamic relationships between epidermal biology, barrier function and external perturbation. Nandou Lu, Patrick B Warren, Jian-Ming Lee, Clive Harding, Jorge L Cardenas, Jean Adamus, Li Feng, Janette Jones and Carol Bosko. Trumbull, CT and Beibington, United Kingdom.


336 miR-203 and epidermal differentiation: Repression of keratinocytes “stemness” by targeting survivin. Florian Labarrade, Catherine Serre, Jean Marie Botto and Nouha Domloge. Sophia Antipolis, France.

337 Impact of the reduction in oxygen and nutrient supplies to skin cells and ex vivo skin. Ludmive Chr. Christelle Plaza, Jean Marie Botto and Nouha Domloge. Sophia Antipolis, France.

338 Protection of telomeres integrity and prevention from DNA breaks limited senescence process. Laurine Bergeron, Alexia Labeau, Emilie Court, Jean Marie Botto and Nouha Domloge. Sophia Antipolis, France.

339 Histamine suppresses epidermal keratinocyte differentiation and impairs the inside-out barrier function of the epidermis—a new role for mast cells in inflammatory skin diseases. Maria Gschwandtnner, Michael Mildner, Veronika Militz, Leopold Eckhart, Thomas Werfel, Ralf Gutzmer, Peter M Elias and Erwin Tschachler. Vienna, Austria; Hannover, Germany; San Francisco, CA and Neuilly, France.

340 Antimicrobial peptide pheomone Plantaricin A increases the cellular antioxidant defenses of human keratinocytes and modulates the synthesis of filaggrin, involucrin, β-defensin 2, and tumor necrosis factor alpha. Barbara Marzani, Daniela Pinto, Maria De Angelis, Marco Gobbetti, Anna Benedusi and Gianmaria Giuliani. Milan, Italy and Bari, Italy.

341* KLK7 participates in the maturation of caspase-14 during keratinocyte terminal differentiation - Role of an intermediate form. Mami Yamamoto, Yuuko Matsumoto, Masashi Miyai, Ryoji Tsuobi and Toshihiko Hibino. Yokohama, Japan and Tokyo, Japan.

343 In vitro investigation of ethnic metabolic skin variations. Galina Yarova, John Bajor and Carol Bosko. Trumbull, CT.

344* Neural recruitment and dynamism in the pathogenesis of atopic dermatitis. Sarina B Elmariah, Vemuri B Reddy and Ethan A Lerner. Charlestown, MA.

345 EGFR regulation of epidermal barrier function. Thomas R Sutter, Quynh Tran, Lawrence H Kennedy, Sandra Carrion, Sridi C Bodreddigari, Shirleen Goodwin and Carrie H Sutter. Memphis, TN.

346 Topical hesperidin improves epidermal permeability barrier function and cytokine response to in vivo tandem repeated irritation in aged skin. Irene Angelova-Fischer, Verena Becker, Anne-Karin Hoek, Sanja Kezic, Tobias W Fischer and Detlef Zillikens. Lübeck, Germany and Amsterdam, Netherlands.


348 A novel therapeutic strategy for correcting the desquamation defects in a murine model of palmoplantar pustulosis. Shigeyoshi Fuziwara, Yumiko Hioki, Yutaka Ashida, Kenji Hamase and Jiro Young Yoon, Minyoung Jung, Dong Hye Kim, Seong-Jin Kim and Eung Ho Choi. Wonju, South Korea and Gwangju, South Korea.

349 The p63 target gene Calml4 is involved in epidermal terminal differentiation.


352 Selective alterations in the permeability barrier function and cytokine response to in vivo tandem repeated irritation in aged skin. Irena Angelova-Fischer, Verena Becker, Anne-Karin Hoek, Sanja Kecic, Tobias W Fischer and Detlef Zillikens. Lübeck, Germany and Amsterdam, Netherlands.

353 Redundant roles of Ovol1 and Ovol2 transcription factors in epidermal morphogenesis. Briana Lee and Xing Dai. Irvine, CA.

354 The p63 target gene Calml4 is involved in epidermal terminal differentiation.

355* Topical apigenin up-regulates epidermal filaggrin expression and inhibits skin barrier disruption in murine epidermis.

356 Selective alterations in the permeability barrier function and cytokine response to in vivo tandem repeated irritation in aged skin. Irena Angelova-Fischer, Verena Becker, Anne-Karin Hoek, Sanja Kecic, Tobias W Fischer and Detlef Zillikens. Lübeck, Germany and Amsterdam, Netherlands.


358 Neural recruitment and dynamism in the pathogenesis of atopic dermatitis. Sarina B Elmariah, Vemuri B Reddy and Ethan A Lerner. Charlestown, MA.

359 Neural recruitment and dynamism in the pathogenesis of atopic dermatitis. Sarina B Elmariah, Vemuri B Reddy and Ethan A Lerner. Charlestown, MA.

360 Multiple over-expression of kallikrein related peptidases contributes to the inflammatory hyperkeratotic change with abnormal desquamation in lesions of palmoplantar pustulosis. Masamoto Murakami, Takanori Kaneko, Mari Kishibe, Maria Brattsand, Vera Morhenn, Akemi Ishida- Yamamoto, Hajime Iizuka, Yuji Shirakata and Koji Sayama. Toon, Japan; Asahikawa, Japan; Umea, Sweden and San Diego, CA.

361 Topical hesperidin improves epidermal permeability barrier function and cytokine response to in vivo tandem repeated irritation in aged skin. Irene Angelova-Fischer, Verena Becker, Anne-Karin Hoek, Sanja Kecic, Tobias W Fischer and Detlef Zillikens. Lübeck, Germany and Amsterdam, Netherlands.

362 Topical hesperidin improves epidermal permeability barrier function and cytokine response to in vivo tandem repeated irritation in aged skin. Irena Angelova-Fischer, Verena Becker, Anne-Karin Hoek, Sanja Kecic, Tobias W Fischer and Detlef Zillikens. Lübeck, Germany and Amsterdam, Netherlands.

363* Redundant roles of Ovol1 and Ovol2 transcription factors in epidermal morphogenesis. Briana Lee and Xing Dai. Irvine, CA.

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365 Neural recruitment and dynamism in the pathogenesis of atopic dermatitis. Sarina B Elmariah, Vemuri B Reddy and Ethan A Lerner. Charlestown, MA.


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370 Neural recruitment and dynamism in the pathogenesis of atopic dermatitis. Sarina B Elmariah, Vemuri B Reddy and Ethan A Lerner. Charlestown, MA.


A photosensitizing phenotype in dermal equivalents: Evidence for proteasomal dysfunction in K5 fibroblasts. Christine Goetz, Bianca Schuermann, Marc Majora, Susanne Franke, Maren Schneider, Francois Bernder and Jean Krutmann. Duesseldorf, Germany and Clichy, France.


Patients with the rare DNA repair disease overlap syndrome xeroderma pigmentosum and trichohiodystrophy (XP/TTD) are at high risk for skin and internal cancers. Sikandar G Khan, Deborah Tamura, Taro Rao, Wadim M Zein, Brian P Brooks, Jennifer Boyle, Takahiro Ueda, John J DiGiovanna and Kenneth H Kraemer. Bethesda, MD.

Expanding the differential diagnosis for pachyonychia congenita. Neil J Wilson, C D Hansen, Dilek Azkur, Can N Kocabas, Ayse Metin, Zeynep Coskun, Mary E Schwartz, Peter R Hull, W H MeLean and Frances J Smith. Dundee, Unit Kingdom; Salt Lake City, UT; Ankara, Turkey and Saskatoon, Canada.

The pseudoxanthoma elasticum phenotype in the Abcc6- mice is modified by different genetic backgrounds. Qiaoli Li, Adele Donahue and Jouni Uitto. Philadelphia, PA.


Samd9L, a mouse paralog of Samd9, does not modify the mineralization process in Abcc6- mice, a model for pseudoxanthoma elasticum. Qiaoli Li, Haitao Guo, Hirotaka Matsui, Hiroaki Honda, Toshiya Inaba, Eli Sprecher and Jouni Uitto. Philadelphia, PA; Hiroshima, Japan and Tel Aviv, Israel.


Cutaneous features of pseudoxanthoma elasticum in generalized arterial calcification of infancy due to ENPP1 gene mutations. Qiaoli Li, Wendy Schumacher, Dawn Siegel and Jouni Uitto. Philadelphia, PA and Milwaukee, WI.

Intravenously injected recombinant human type VII collagen restores collagen function in dystrophic epidermolysis bullosa. Xinyi Wang, Mahsa Amir, Brian Hwang, Douglas Keene, Yingping Hou, Aditi Bauskar, David Woodley and Mei Chen. Los Angeles, CA and Portland, OR.

AP-1 proteins are induced by irritant and injury through purinoceptor and EGFR activation. Kellie J White, Vincent J Maffei and Robert A Swerlick. Atlanta, GA and Decatur, GA.


Coactivator MED1 regulates epidermal and hair follicular keratinocyte proliferation and differentiation. Lijzi Hu, Vadim Bul, Daniel D Bilke and Yuko Oda. San Francisco, CA.

An epidermal-specific cis-regulatory enhancer in the EDC with spatial and temporal sensitivity. Inez Oh, Danielle Albea, Breeana Baker, Grace Kroner and Cristina de Guzman Strong. St. Louis, MO.

Genetic and environmental factors influence the severity and tissue susceptibility of mineralization in PXE mouse models. QiuJie Jiang, Dian Wang and Jouni Uitto. Philadelphia, PA.

mtDNA mutations seen in UV-induced mouse models of skin cancer induce CCL20 overexpression promoting tumorigenic phenotypes. Jana Jandova, Jaroslav Janda and James E Slihg. Tucson, AZ.

Whole-exome sequencing in a single proband reveals a mutation in the CHST8 gene in autosomal recessive peeling skin syndrome. Mazen Kurban, Rita Cabral, Muhammad Wajid, Yutaka Shimomura, Lynn Pethukova and Angela M Christiano. New York, NY.

Use of an Er: YAG laser to facilitate nucleic acid delivery to skin. Robyn P Hickerson, Cheryl Deguara, Christopher H Contag, Leonard M Milstone and Roger L Kaspar. Santa Cruz, CA; Palo Alto, CA; Stanford, CA and New Haven, CT.

TRIM32 regulates Th1/17 vs Th2 response to TLR activation, leading to psoriasis-like vs atopic dermatitis-like inflammatory diseases in mice. Yun Wang, Emily Swanzy, James Lagowsky, Guangliang Liu and Molly Kulesz-Martin. Portland, OR.


Residual genomic signature of atopic dermatitis despite clinical resolution with narrow band UVB. Juliak Gittler, Mayte Suarez-Farininas, Avner Shemer, Irma Cardinale, James G Krueger and Emma Gutmann-Yassky. New York, NY and Tel Aviv, Israel.

Alopecia Areata genome-wide association study. L Petukhova, S Ripke, T Becker, M Duvic, M Hordinsky, D Norris, V Price, J Mackay-Wiggin, S Redler, W Y Chen, C I Amos, A Lee, P K Gregersen, B Blauemeier, D Altschuler, M J Daly, M Nöthen, R Betz and A M Christiano. New York, NY; Boston, MA; Cambridge, MA; Bonn, Germany; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA; Manhasset, NY and Antwerp, Belgium.

RNA profiling of gene expression in pachyonychia congenita skin lesions reveals dramatic changes in microRNA and mRNA expression patterns. Roger L Kaspar, Leonard M Milstone, Jean Tang, Annalene Vermeulen, Kevin G Sullivan, Marc Bessette, Devin Leake, Mary Schwartz and Robyn Hickerson. Santa Cruz, CA; Stanford, CA; New Haven, CT; Lafayette, CO and Salt Lake City, UT.

Developing a stem cell-based therapy for epidermolysis bullosa simplex by promoting an allele-specific knockout of mutant keratin 14 in induced pluripotent stem cells. Ganna Bilousova, Jiayen Chong, Masahito Yasuda and Dennis R Roop. Aurora, CO.

Real-time non-invasive imaging of siRNA delivery to skin by soluble microneedles. Tycho J Speaker, Robyn H Hickerson, Manuel A Flores and Roger L Kaspar. Santa Cruz, CA.

Data regarding nails from 101 patients with pachyonychia congenita. Phillip Holler, Christopher Urban and Adam Rubin. Philadelphia, PA and Salt Lake City, UT.

Cross-cell-type analysis of expression profiles towards the understanding of cutaneous immunity. Babu Singh, Seema Plaisier, Peter Sieling, Robert L Modlin and Delphine J Lee. Santa Monica, CA; Boston, MA and Los Angeles, CA.

ZN7F50 is a p63 target that induces KLF4 to drive epidermal differentiation. George L Sen, Lisa Boxer, Dan Webster, Rose Bussat, Kun Qu, Brian Zarnegar, Danielle Johnston, Zurab Siprashvili and Paul A Khavari. Stanford, CA and San Diego, CA.
439* Two-photon microscopy to capture live cell behavior in the hair follicle stem cell niche. Panteleimon Rompolas and Valentina Greco. New Haven, CT.


441 Somatostatin is expressed in hair follicles and may play a role in immune privilege. Trisia Breitkopf, Blanche K Lo, Gigi Leung, Mei Yu, Jerry Shapiro and Kevin J McElwee. Vancouver, Canada.


443 P-cadherin regulates human hair follicle growth and pigmentation through canonical wnt signaling. Iliu Samuelov, Jennifer E Kloepper, Daisuke Tsutrata, Tamás Biró, Suman K Singh, Desmond J Tobin, Eli Sprecher and Ralf Paus. Luebeck, Germany; Tel Aviv, Israel; Kurume, Japan; Debrecen, Hungary; Bradford, United Kingdom; Ramat Aviv, Israel and Manchester, United Kingdom.

444 Novel genes relevant for hair aging identified in human female hair follicles of different age. Konrad Kleszczyński, Remo Gräub, Nathalie Kruse, Detlef Zillikens and Tobias W Fischer. Lübeck, Germany and Basel, Switzerland.

445 Characterization of the human hair keratin-associated protein 2 (KRTAP2) gene family. Hiroki Fuikawa, Atsushi Fujimoto, Muhammad Farooq, Masaaki Ito and Yutaka Shimomura. Tokyo, Japan.

446 Human induced pluripotent stem cell-derived keratinocyte precursors contribute to hair follicle regeneration in vivo. Ophelia K Veraitch, Tetsuro Kobayashi, Yoichi Imazumi, Wado Akamatsu, Masayuki Amagai, Hideyuki Okano and Manabu Ohyama. Tokyo, Japan.

447 Treatment of alopecia in mice with a novel parathyroid hormone fusion protein. Robert Gensure, Ranjitha Katikaneni, Joshua Sakon, Osamu Matsushita and Tulasi Ponnapakkam. Bronx, NY; Tokyo, Japan and Fayetteville, AR.

448 Complex pigment patterning and topology of melanocyte stem cell niche. Yujun Han, David B Goldstein, Julio Salas-Alanis and Enrique Cela, Elizabeth T Cirulli, Yujun Han, David B Goldstein, Julio Salas-Alanis and Enrique Cela. Fayetteville, AR.

449 Dlx3 is a critical regulator on hair follicle differentiation and development. Hideyuki Okano and Manabu Ohyama. Tokyo, Japan.

450* A position effect on FGF13 underlies X-linked hypotrichosis. Gina M DeStefano, Katherine Fantauzzo, Mazen Kurban, Lynn Petukhova, Marija Tadin-Straps, Brynn Levy, Dorothy Warburton, Courtney Luke, Carolina Cela, Elizabeth T Cirilli, Yujun Han, David B Goldstein, Julio Salas-Alanis and Angela M Christiano. New York, NY; Durham, NC and Monterrey, Mexico.

451 Human fetal skin cells as a cell source for skin reconstruction. Kenneth Tan, John Foley and Cheng-Ming Chuong. Los Angeles, CA; Taipei, Taiwan and Bloomington, IN.

452 Dkk3 is a critical regulator on hair follicle differentiation and development. Jin-Chul Kim, Joonsung Hwang and Marial Morasso. Bethesda, MD and Cheongwon-gun, South Korea.


455 Role of hair follicle stem cells in the modulation of hair and eyelash growth by the combination of 2 specific ingredients. Estelle Loing, Elisabeth Lamarque and Michel Hocquaux. Québec, Canada and Ramonville St Agne, France.

456* Disruption of Tsc2 in dermal mesenchymal cells of mice results in skin defects observed in tuberous sclerosis complex. P Klover, R Thangapazham, S Li, A Devine, J Wang and T N Darling. Bethesda, MD.

457 The concentration of red blood cells (RBC) is increased in the affected scalp of alopecia areata (AA) patients. Ronda Farah, Rina Farah, Ana Carina Junquiera Burton, Marna Ericson, Cathleen Boeck, Nathan Gallus and Maria Hordinsky. Iowa City, IA and Minneapolis, MN.


459 Expression of specific hair keratins in a stably transfected cell line. Florian Labarrade, Armelle Perrin, Coralie Segalen, Catherine Gondran, Jean Marie Botto and Nouha Domloge. Sophia Antipolis, France.


461* p63 transcription factor controls the establishment of nuclear architecture and higher-order chromatin remodelling during development of the epidermis. Michael Y Fessing, Valentina Rapisarda, Andrei N Mardarvey, Michel R Gudula, Andrei A Sharov, Iakowos Karakessoglou, Chris J Hutchison and Vladimir A Bobtchkarev. Bradford, United Kingdom; Boston, MA and Durham, United Kingdom.


463 Global genome analysis of Lhn2 target genes in keratinocytes reveals their non-random distribution and topological associations with functionally related genes in distinct genomic loci. Krzysztof Poterlowicz, Andrei N Mardarvey, Michael Y Fessing, Tatyana Y Sharova, Andrei A Sharov, Yonghong Peng and Vladimir A Bobtchkarev. Bradford, United Kingdom and Boston, MA.


466** The role of the microRNA mir-17~92 cluster in hair follicle biology. Thomas Andl and Liming Luan. Nashville, TN.

467 A perivascular stem cell niche in the hair follicle. Ying Xiao, Wei-Meng Woo, Atsushi Terunuma, Anthony E Oro, Jonathan C Vogel and Isaac Brownwell. Bethesda, MD and Stanford, CA.

468 Novel caffeine target genes identified in male and female human hair follicles. Tobias W Fischer, Tamas Bo, Nathalie Kruse, Detlef Zillikens and Ralf Paus. Lübeck, Germany; Debrecen, Hungary and Manchester, United Kingdom.

469* The polarity protein aPKCa regulates epidermal cell fate decisions. Michaela Niessen, Jeanie Scott, Susanne Vorhagen, Panagiota Sotiropoulou, Cedric Blanpain, Michael Leitges and Carsten M Niessen. Cologne, Germany; Brussels, Belgium and Oslo, Norway.

470 A novel mouse model for pseudoxanthoma elasticum, KK/HJ: Comparison with the Abcc6 tm1Jfk null mouse. Qiaoli Li, Annette Epper, Hai Tao Guo, John P Sundberg and Jouni Uitto. Philadelphia, PA; Pittsburgh, PA and Bar Harbor, ME.


472 Forkhead transcription factor FoxA1 regulates sweat secretion through comparison with the Abcc6tm1Jfk null mouse. Qi Liu, Annette Epper, Hai Tao Guo, John P Sundberg and Jouni Uitto. Philadelphia, PA; Pittsburgh, PA and Bar Harbor, ME.

473* Definition of the role of p63 in hair follicle stem cells. Velmurugan Balaiya, Merlin Arfiedjohan, Peter J Koch and Maranel Koster. Aurora, CO.
Medium and long chain fatty acids elicit oxidative stress and stem cell death in human and animal models of cicatricial alopecia. Mary C Consolo, Sreejith P Panicker and Pratima Karnik. Cleveland, OH.

Epidermal differentiation factor 1 is a critical regulator of the epidermal switch between proliferation and differentiation. Sunjin Lee and Scott D Weatherbee. New Haven, CT.

Hairloss is a histone demethylase involved in hair follicle cycling and epidermal homeostasis. Liang Liu, Hyunmi Kim, Claire A Higgins and Angela M Christiano. New York, NY.

The local immune environment regulates hair follicle cycling. Sivan Harel, Raphael Clynes and Angela M Christiano. New York, NY.

Hair follicle development depends on mitochondrial respiration: Insights from keratin14 promoter-targeted Tfam knockout mice. Jennifer F Kloepper, Olivier R Baris, Daniela Weiland, Catherin Niemann, Karen Reuter, Ken Kobayashi, Silvia Vidali, Desmond J Tobin, Rudolf J Wiersen and Ralf Paus. Luebeck, Germany; Cologne, Germany; Sapporo, Japan; Bradford, United Kingdom and Manchester, United Kingdom.

The versatility of a novel ΔNp63α knock-in mouse model system to study epidermal development and differentiation. Rose-Anne Romano and Satrajit Sinha. Buffalo, NY.


Disruption of the cholesterol biosynthesis pathway contributes to hair follicle cycling deficiency and stem cell apoptosis in a mouse model. Sreejith P Panicker, Mary C Consolo, Kord Honda and Pratima Karnik. Cleveland, OH.

Dermal β-catenin activity in response to epidermal Wnt ligands is required for hair follicle initiation. Demeng Chen, Andrew Jarrell, Richard Lang and Radhika Attt. Cleveland, OH and Cincinnati, OH.

RNA-binding Pumilio proteins are expressed in mammalian epidermis and regulate the balance between keratinocyte proliferation and apoptosis. Sean R Christensen and Haifan Lin. New Haven, CT.

The regulation of dermal papilla cell number to specify hair size. Bruce A Morgan. Boston, MA.

Neurogenic inflammation: Evidence for a causal role in lichen planopilaris. Margareth Pierre-Louis, Isabella Doche, Marna Ericson, Sima Kavand, Rebecca Speltz-Paiz, George L Wilcox and Maria K Hordinsky. Minneapolis, MN and São Paulo, Brazil.

Critical role of endothelin receptor signaling in follicular melanocyte stem cells in adult skin. Makoto Takeo, Piul Rabbani and Mayumi Itou. New York, NY.

Human scalp hair follicles express the enzymes to synthesise de novo progestagenals and prostandimides from phospholipids. Karzan G Khidhir, Nilofor P Farjo, Bessam K Farjo, David F Woodward, Steven M Pickles, Jenny W Wang and Valerie A Randall. Bradford, United Kingdom; Manchester, United Kingdom and Irvine, CA.

Tolbutamide, an ATP-sensitive potassium (K₃ATP) channel blocker, inhibits hair growth, promotes catagen and stimulates TNF/TNFRSF1A signalling in human hair follicles in organ culture. Heero Rahman, Nilofor Farjo, Bassam Farjo and Valerie Randall. Bradford, United Kingdom and Manchester, United Kingdom.


Targeting the stem cell niche during embryonic hair follicle induction. Laura Grisanti, Carlos Clavel, Amelie Rezza, Xiaoxiang Cai, Su-Yi Tsai, Chenleng Cai and Michael Rendl. New York, NY.


Absence of adrenal cortical suppression and improvement in the severity of alopecia totalis (SALT) score in alopecia area (AA) patients treated with intralesional (IL) triamcinolone acetonide (TMC) 10mg/cc . Maria K Hordinsky, Joanna Quast, Cathleen Boeck, Stephanie Aamodt St. Pierre, Rina S Farah and Ronda S Farah. Minneapolis, MN.

Inhibition of Wnt signaling initiates a stratification program in the uterus through induction of ΔNp63α. Daisy Dai, Masahito Yasuda, Jiachen Chen, Heather L Franco, Jaewook Jeong, John P Lydon, Francesco J DeMayo and Dennis R Roop. Aurora, CO and Houston, TX.

Plasticity and cellular memory during epidermal differentiation in response to BRAF activation and inhibition. Suguna R Krishnaswami, Shantanu Kumar, Christopher Cowling-Zitron and Benjamin D Yu. La Jolla, CA.

Generation of a small RNA library from normal human nails reveals nail-selective expression of genes implicated in psoriasis. Goran Bozinovic, Gloria K LeFkowitz, Christopher Cowling-Zitron and Benjamin D Yu. La Jolla, CA.

Amniotic fluid signals the developing epidermis to repair a barrier defect in utero. Aaron J Huebner, Daisy Dai, Edward E Schmidt, Matthias Schafer, Sabine Werner and Dennis R Roop. Aurora, CO; BozenaMT, and Zurich, Switzerland.

Human Clinical Research and Therapeutics

All orals [designated with an asterisk (•)] listed below are presented in the Human Clinical Research and Therapeutics Minisymposium on Friday, May 11, 2012 from 2:00-5:30 p.m. in Raleigh Convention Center 306 C. Orals designated by two asterisks (**) will be presented during a Plenary Session.

Adalimumab treatment for moderate to severe psoriasis substantially improves PASI scores as analyzed by body region and individual PASI component: Sub-analysis from the CHAMPION study. Alexander A Navarini, Yves Poulin, Yihua Gu and Henrique D Teixeira. Zurich, Switzerland; Quebec, Canada and Abbott Parkinson, IL.

Neutralization of IL-17A with LY2439821 compared to TNF with etanercept: effects on inflammatory gene expression underlying psoriasis pathogenesis. James Krueger, Scott Fretzin, Mayte Suárez-Fariñas, Patrick Haslitt, Krista Phipps, Gregory Cameron, Juliet McColm, Artemis Katcheryan, Inna Cueto, Traci White, Subhashis Banerjee and Robert Hoffman. New York, NY and Indianapolis, IN.


The efficacy of acyclovir 5%/hydrocortisone 1% cream by age: Post hoc analysis. Christopher M Hull, Rachel Gordon, Jason T Olin and Stephen K Tying. Salt Lake City, UT; Houston, TX and Bridgewater, NJ.

Stimulation of procollagen production by cosmeceuticals is dependent on low initial level of procollagen in photoaged human skin. Dana Sach, Laure Ritter, Heather Chubb, Jeffrey Orringer, Gary Fisher and John Voorhees. Ann Arbor, MI.


507 Healthy scalp has a reduced sensory thresholds to temperature, pain, itch and neurogenic inflammation response. Ghada A Bin Saif, Abdulkalim Alajrous, Amy Mcmichael and Gil Yosipovitch. Riyadh, Saudi Arabia; Winston-Salem, NC.

508* Double-blind, randomized, bilateral comparison of skin irritancy following application of the combination acne products clindamycin/tretinoin and benzoyl peroxide/adapalene. Renato Goreshi, Aman Samrao and Benjamin D Esh. Portland, OR and Torrance, CA.


510 Autoantibody profiling alludes to a protective role for discoid lesions in human lupus. Benjamin F Chong, Lin-chiang Tseng, Thomas Lee, Rebecca Vasquez, Quan Li, Song Zhang, David Karp, Nancy Olsen and Chandra Mohan. Dallas, TX and Hershey, PA.

511 Developing a novel personalized interactive health care education system (MyPACE) for acne patients. Audrey S Wang, Julie Wu, Negar Foolad and April W Armstrong. Sacramento, CA.


513 The safety and efficacy of tongue piercing in people quadriplegia for use with assistive neuro-technologies. Jaimee S Holbrook, Julia S Minoucha, Diane Rowles, Beatrice Nardone, Victoria Godinez-Puig, Dennis P West, Elliot Roth, Maysam Ghovanloo and Anne E Laumann. Chicago, IL and Atlanta, GA.

514 Oral plethysmography: A novel method to clinically assess tongue swelling. Julia S Minocha, Jaimee S Holbrook, Jeonghee Kim, Eric Sutton, Joy Bruce, Dennis R West, Maysam Ghovanloo and Anne E Laumann. Chicago, IL and Atlanta, GA.


516 Oral supplementation with a pine bark extract containing nutritional radioprotective agents: Molecular evidence for beneficial effects on skin elasticity and hydration. Susanne Grether-Beck, Alessandra Marini, Thomas Jaenicke, Monika Weber, Carolina Burki, Pia Formann, Heidi Brenden, Annie Olsen and Gil Yosipovitch. Riyadh, Saudi Arabia; Winston-Salem, NC.

517 High-sensitivity c-reactive protein response to adalimumab in people with active vs. inactive psoriatic arthritis. Ghada A Bin Saif, Abdulkalim Alajrous, Amy Mcmichael and Gil Yosipovitch. Riyadh, Saudi Arabia; Winston-Salem, NC.


519 Stimulation of hair growth in humans by cell-secreted proteins. Gail K Naughton, Craig Ziering, Neil Sadick, David Perez-Meza, Mark Hubka, Danielle Ehrlich and Jonathan Mansbridge. San Diego, CA; Los Angeles, CA; New York, NY and Maitland, FL.


522 Low skin thinning potential of pimecrolimus cream versus triamcinolone cream on otherwise normal forehead target area skin in adults with a history of atopic dermatitis. H I Katz, Cathleen Boeck, Tina Liu, Ken Abrams and Jason T Olin. Minneapolis, MN; Bridgewater, NJ and East Hanover, NJ.

523 Use of expert modeling to assess the best compound for transdermal development. Virginia Schmitth, Jon Lenn, Hans Hofland, Phil Turnbull and Huybert Groenendaal. Research Triangle Park, NC and Boulder, CO.

524 High probability that plasma calcipotriene concentrations are nonquantifiable in pediatric subjects. Virginia Schmitth, Melody R Wyres, Jon Lenn, Eunyee Kang and Mary Mills. Research Triangle Park, NC.

525* Treatment of pemphigus vulgaris(PV) patients with infliximab and prednisone is associated with decreased autoantibodies and an increase in immature B cells. Russell Hall, Janet Fairley, David Woodley and Victoria Werth. Durham, NC; Iowa City, IA; Los Angeles, CA and Philadelphia, PA.

526 Double-blind placebo-controlled clinical study of a nutritional supplement containing Lactobacillus rhamnosus T12 for enhancement in dermatological conditions characterized by sebum production alteration. Giorgio Maresi, Barbara Marzani, Anna Benedusi, Beatrice Tenconi and Adele Sparavigna. Milan, Italy and Monza, Italy.

527* Effect of extracorporeal photopheresis on Th1/Th2/Th17/Treg cytokines in cutaneous T-cell lymphoma patients. Hua Zhong, Lisa Shiu, Yasmim Mekkhl, Meghali Goswami, Madeleine Duivic and Xiao N. Houston, TX.

528 Extent of variability in doses of foam products following typical application directions. Eunyee G Kang, Elizabeth Hussey, Mary Mills, Melody Wyres and Virginia D Schmith. Research Triangle Park, NC and Chapel Hill, NC.


530 The missing chromophores in the analysis of human skin color: Comparison of tristimulus colorimetric measurements and chromophore analysis from diffuse reflectance spectroscopy. In Seok Seo, Paulo R Bargo, Gregory Payonk, Yang Liu and Nikiforos Kollias. Skillman, NJ.

531 Gadolinium in the skin of those with nephrogenic systemic fibrosis (NSF) compared to those without NSF-A 5 cohort analysis. Beatrice Nardone, Kassandra E Holzem, David Mai, Pedram Gerami, Kevin MacRenaris, Dennis P West and Anne E Laumann. Chicago, IL.


534* Hemato poetic and mesenchymal cell transplantation after myeloablative and non-myeloablative conditioning for recessive dystrophic and junctional epidermolysis bullosa (RDEB, JEB). Jakub Tolar, John A McGrath, Douglas R Keene, Kristen Hook, Mark J Osborn, Megan J Riddle, Sima Kavand, Maria Hordinsky, David Woodley, Mei Chen, Alain Hovnanian, Katsumi Tamar, Bruce R Blazar and John E Wagner. Minneapolis, MN; London, United Kingdom; Portland, OR; Los Angeles, CA; Paris, France and Osaka, Japan.


538 Characteristic correlations with impaired barrier in flaggirin gene related Korean atopic dermatitis patients. Seo Jun Seo, Mi Kyung Park, Mi Sook Jeong, Ji-Yun Kim, In Su Kim and Kapso K. Seoul, South Korea.


541* Punch incision with removal of cyst contents leaves a smaller scar yet has a similar rate of recurrence compared to elliptical excision of truncal epidermal inclusion cysts. Justin T Cheeley, Laura K DeLong, Suephy C Chen, Michelle M Penne, Seema P Kini and Shannen Setter. Atlanta, GA.

542 Cw6 but not allele LCE3C LCE3B deletion confers sensitivity to ustekinumab treatment in psoriasis. Elisabetta Botti, Marina Talamonti, Giulia Spallone, Marco Galluzzo, Mauro Bavetta, Miriam Teoli, Valentina Pinetti and Antonio Costanzo. Rome, Italy.

543* Preliminary results of a Phase 2 trial evaluating efficacy and safety of Pimecrolimus cream 1% rapidly reduces the extent and severity of disease risk in children and adolescents with psoriasis. Pristine W Lee and Lawrence F Eichenfield. San Diego, CA.


545* Long-term treatment with ustekinumab does not compromise the immune response to T-cell dependent or T-cell independent vaccines in patients with moderate-to-severe psoriasis: A comparison of ustekinumab-treated versus untreated psoriasis patients. C Brodmerek, R Langley, K Papp, M Bourcier, Y Poulin, V Ho, L Guenther, M C Hsu and P O Szapary. Spring House, PA; Halifax, Canada; Waterloo, Canada; Moncton, Canada; Quebec, Canada; Vancouver, Canada and London, Canada.

546* Efficacy and safety of vismodegib in advanced basal cell carcinoma. Anne Chang, Aleksandar Sekulic, Michael R Migden, Axel Hauschild, Karl Lewis, John D Hainsworth, Simon Yoo, Luc Dirix, Jermaine Hou, Howard Mackey and Anthony E Oro. Stanford, CA; Scottsdale, AZ; Houston, TX; Kiel, Germany; Denver, CA; Nashville, TN; Evanston, IL; Antwerp, Belgium and South San Francisco, CA.

547* Investigator-initiated, open-label trial of ustekinumab for the treatment of moderate to severe palmoplantar psoriasis showed higher doses may be required. Shiu Chuang, Arib M Goldin, Noori Kim, Nicole Dumont, Melissa Michelon, Eva Volf, Meghan Hession, Paul F Lizzul, Israel Andrews, Todd Kerensky, Andrew Wang, Shimitr Yaniv and Alice B Gottlieb. Boston, MA.


549 Pimecrolimus cream 1% rapidly reduces the extent and severity of atopic dermatitis in infants and children, including head-and-neck involvement: post hoc analysis of a 6-month, randomized, vehicle-controlled trial. Elaine C Siegried and Jason T Olin. St Louis, MO and Bridgewater, NJ.

550 Topical retinol, a precursor to tretinoin, can deliver comparable efficacy to tretinoin in treatment of photoaging. Anna Chien, Nancy Cheng, Sameer Bashey, Michael Krenthen, Katherine Sutherland, Uma Sundram, Bharathi Lingala, Steven Horwitz, Richard Hoppe, Melissa Pulitzer, Ranjana Advani and Youn Kim. Stanford, CA and New York, NY.


552 Denosumab is associated with dermatologic toxicity in the FDA-AERS database. Victoria Godinez-Puig, Beatrice Nardone, Dennis P West, Xian Shen, Dennis W Raisch, Jaimee S Holbrook, Steve Belknap, Nazila Barahamani and Beatrice J Edwards. Chicago, IL and Albuquerque, NM.

553 The comorbidities associated with serum vitamin D deficiency in veteran psoriasis and effect of antioxidant therapy. Chen N Young, Benjamin Workman, Sara Herman, Suzanne Smith, Christoffer Hatzis and L B Savoy. Detroit, MI.


555 Immunohistochemical study on axillary hyperpigmentation and its response to topical treatment with 4% niacinamide vs 0.05% desonide. Gabriela N Larraga-P., Bertha Torres-Alvarez, Rodrigo Valdes-Rodriguez and Juan P Castanedo-Cazares. San Luis Potosi, Mexico.

556 Use of beximexudim vetolin for recalitrant CD30+ cutaneous T cell lymphoma. Esther E Freeman, Marianne Tawa, Andrew A Dorosario, Thomas S Kupper and David C Fisher. Boston, MA.

557 Control of blood glucose level in type 2 diabetes mellitus patients affects stratum corneum hydration, which is remarkably improved by a novel moisturizer containing physiologic lipid granules. Na Young Yoon, Dong Hye Kim, Noo Ri Lee, Sang Yeon Park, Choon Hee Chung, Young Goo Shin, Mi Young Lee, Yeon Su Jeong, Chang Geun Yi and Eung Ho Choi. Wonju, South Korea and Yongin, South Korea.


559 Application of novel imaging tools and analysis methods to quantify and compare efficacy of various semi-invasive cosmetic treatments. Di Ou, Sarah Whitehead, Lianne Straathof, Robin Fleser, Gopa Majmudar, G P Seehra and Gary Fisher. Ada, MI and Ann Arbor, MI.

560 Exploratory study of brentuximab vedotin (SGN-35), a novel monoclonal antibody-drug-conjugate against CD30, in mycosis fungoides (MF) and Sézary syndrome (SS) demonstrates clinical responses regardless of CD30 expression levels. Sameer Bashey, Michael Krathen, Katherine Sutherland, Uma Sundram, Bharathi Lingala, Steven Horwitz, Richard Hoppe, Melissa Pulitzer, Ranjana Advani and Youn Kim. Stanford, CA and New York, NY.

561* Graft-versus-lymphoma effect after non-myeloablative allogeneic transplant induces molecular remission assessed by high-throughput sequencing of T cell receptor in patients with advanced stage mycosis fungoides (MF) and Sézary syndrome (SS). 55 years.


564 Withdrawn.

565 Development of an automatic lesion counting program with digital image processing: An objective and reproducible method for the evaluation of acne severity. Dae Hun Seo, Hyoun-jong Kong, Chiyu Yoon and Hee Chan Kim. Seoul, South Korea.


567 Breast implant associated ALCL — a unique entity in the spectrum of CD30+ LPD. Sara Story and Larisa J Geskin. Pittsburgh, PA.
Immunology I: Adaptive Immunity

All oral [designated with an asterisk (*)] listed below are presented in the Immunology 1: Adaptive Immunity Minisymposium on Saturday, May 12, 2012 from 12:30-4:00 p.m. in Raleigh Convention Center 305 A. Orals designated by two asterisks (**) will be presented during a Plenary Session.

578* EpCAM (CD326) enables epidermal Langerhans cell motility and improves acanthosis in psoriasiform KC-Tie2 mice. Andrew Johnston, Sean M Dawes, Doina Diaconu, Matthew J Turner, Raymond L Konger and Jeffrey B Travers. Indianapolis, IN.

583 CCR6 is required for epidermal trafficking of (and IL22 production by) γδ-low T cells in an IL23-induced model of psoriasiform dermatitis. Tomotaka Mabuchi, Tej Singh, Tomonori Takekoshi, Joshua Farber and Sam Hwang. Milwaukee, WI and Bethesda, MD.

584 Circulating central memory T cells are increased and have different cytokine production properties in patients with psoriasis. Mai Hayashi, Takuya Furuhashi, Emi Nishida, Chiyo Saito, Kan Torii and Akichika Morita. Nagoya, Japan.

585 Dendritic cell trafficking in skin is regulated by hair follicles via chemokine production. Keiuke Nagao, Tetsuro Kobayashi, Kazuyo Moro, Kenji Kabashima, Manabu Ohyama, Young-hun Cho, Björn E Clausen, Mark C Udey and Masayuki Amagai. Tokyo, Japan; Kyoto, Japan; Rotterdam, Netherlands and Bethesda, MD.


589* Th9 lymphocytes contribute to human allergic contact dermatitis. Julia Liu, Antonella Tammaro, Nick Girardi, Ayako Nakazono, Rita Fishelevich and Anthony A Gaspari. Baltimore, MD; Rome, Italy; Philadelphia, PA and Fukuoka, Japan.


591 Alcohol consumption inhibits Th1-skewed CHS responses independent of hapten strength. Rhonda Brand, J Mark Stottlemeyer and Louis D Falo, Jr. Pittsburgh, PA.


599 Circulating central memory T cells are increased and have different cytokine production properties in patients with psoriasis. Mai Hayashi, Takuya Furuhashi, Emi Nishida, Chiyo Saito, Kan Torii and Akichika Morita. Nagoya, Japan.

600 Dendritic cell trafficking in skin is regulated by hair follicles via chemokine production. Keiuke Nagao, Tetsuro Kobayashi, Kazuyo Moro, Kenji Kabashima, Manabu Ohyama, Young-hun Cho, Björn E Clausen, Mark C Udey and Masayuki Amagai. Tokyo, Japan; Kyoto, Japan; Rotterdam, Netherlands and Bethesda, MD.


603 Alcohol consumption inhibits Th1-skewed CHS responses independent of hapten strength. Rhonda Brand, J Mark Stottlemeyer and Louis D Falo, Jr. Pittsburgh, PA.


600* Galexin-3 modulates Th17 responses by regulating dendritic cell cytokine expression. Agnes Fermin, Daniel K Hsu, Huan-Yuan Chen, Shang-Yang Wu, Jhng-Sian Yu, Lei Wan, Betty Wu-Hsieh and Fu-Tong Liu. Sacramento, CA; Taipei, Taiwan and Taichung, Taiwan.

601 Effects of simultaneous exposure to formaldehyde and house dust mite on atop dermatitis in vivo. Ji-Yun Kim, Mi Sook Jeong, Mi-Kyung Lee and Seong Jun Seo. Seoul, South Korea.


604 Induction of human epidermotropic T-cell lymphoma in immuno deficient transgenic mice after injection of CD34+ stem cells. Chelsea A Peterson, Chao Sun, Paul Rennert, Gerry Majeau, Aimee Landry and Robert W Dunstan. Cambridge, MA and East Lansing, MI.

605* CD4+ T cells regulate skin resident memory CD8+ T cells (T RM). Xiaodong Jiang, Rachael A Clark, Luzheng Liu, Julien Seneschal, Rahul Purwar, Tian Tian, Robert C Fuhlbreg and Thomas S Kupper. Boston, MA and Bordeaux, France.

606 Generation of tumor-specific CD4+ T helper lymphocytes for immunotherapy against malignant melanoma. Cristina N Boss, Simone Kayser, Tobias Feuchtinger and Martin Röcken. Tübingen, Germany.


608 CD4+ T cell tolerance to melanocyte differentiation antigen TRP1. Matthew P Rausch and Karen T Hastings. Phoenix, AZ and Tucson, AZ.

609** Overexpression of TGFβ1 in murine epidermis alters skin dendritic cell homeostasis and enhances adaptive immunity. Javed Mohammed, Andrew Gunderson, Lina Khong, Richard Koube, Mark Udey and Adam Glick. University Park, PA and Bethesda, MD.


611* Tissue specific homing and antigen specificity: The majority of human peripheral blood Th9 cells are trophic for the skin. Christoph Schlapbach, Emmanuella Guenova, Ahmed Gehad, Rei Wataneba, Jessica Teague, Thomas S Kupper and Rachael A Clark. Boston, MA.

612 Combined vaccine + aititinb therapy yields superior anti-tumor efficacy in a murine melanoma model. Devin B Lowe, Anamika Bose and Walter J Storkus. Pittsburgh, PA.

613 S100A8/A9 inhibition by genetic depletion or antibody inhibition results in opposite effects on psoriasisform skin disease in a murine model. Sean M Dawes, Doina Dianconu, Julie A Wolfram, Philippe A Tessier, Thomas S McCormick and Nicole L Ward. Cleveland, OH and Quebec, Canada.

614* Tissue specific homing and antigen specificity: The majority of human peripheral blood Th9 cells are trophic for the skin. Christoph Schlapbach, Emmanuella Guenova, Ahmed Gehad, Rei Wataneba, Jessica Teague, Thomas S Kupper and Rachael A Clark. Boston, MA.

615 Stage I primary cutaneous SCCs from solid organ transplant recipients show increased IL-22 producing CD8+ T-cells. Shali Zhang, Hideki Fujita, Julia S Pettersen, Mark J Bluth, Hiroshi Mitsui, James G Krueger, Diane Felsen and John A Carucci. New York, NY.

616* Resident memory T cells are much more effective than central memory T cells in protection against viral skin infection. Xiaodong Jiang, Rachael A Clark, Luzheng Liu, Amy J Wagers, Robert C Fuhlbreg and Thomas S Kupper. Boston, MA.

617 Global TCR mediated immune protection in skin after single or multiple skin infections. Xiaodong Jiang, Luzheng Liu, Rachael A Clark and Thomas S Kupper. Boston, MA.


619 In situ activation of human skin resident T regulatory cells by autologous langerhans cells. Julien Seneschal, Rachael A Clark and Thomas S Kupper. Boston, MA.


621 FL3L-dependent Langerin(-) CD11b(-) DC are efficient skin-resident antigen presenting cells. Joseph S Dobrin, Rachel Feder, Cheolho Cheong, Angela Feixeira, Ralph M Steinman and Niroshana Anandasabapathy. New York, NY.

622 Poly(dG) particulates vaccines target and activate skin antigen presenting cells to induce potent immunity in vivo. Hélène Toussaint, Jo Erika N Narciso, Geza Erdos, Adriana T Larregina, Cara Donahue and Louis D Falo. Pittsburgh, PA.


625 Reduced myeloid-derived suppressor cell function is associated with interferon therapy of cutaneous T-cell lymphoma. Michael K Schowalter, Oleg E Akilov, Louis D Falo and Larisa J Geskis. Pittsburgh, PA.


627* Lipids from human epidermis can function as antigens for CD1a-restricted T cells. Annemieke de Jong, Tan-Yun Cheng, Shouxing Huang, Anne G Kasmar, Victor Pena-Cruz, John Altman and D Branch Moody. New York, NY; Boston, MA and Atlanta, GA.

628* microRNAs regulate epidermal Langerhans cells cross-presentation. Ging-Sheng Mi, Ying-Ping Xu, Rui-Qun Qi and Li Zhou. Detroit, MI.

629 The discovery of the importance of skin resident memory T cells (TRM) in contact hypersensitivity suggests that current molecular/mouse models may not be informative of human disease. Olivier F Gaide and Tom S Kupper. Boston, MA.

630 Assessment of the number of T cells responding to a given hapten using 31OHA/A9 inhibition by genetic depletion or antibody inhibition results in opposite effects on psoriasisform skin disease in a murine model. Jean M Dawes, Doina Dianconu, Julie A Wolfram, Philippe A Tessier, Thomas S McCormick and Nicole L Ward. Cleveland, OH and Quebec, Canada.

631* Effective immunoprevention against chemical carcinogenesis is induced by genetic immunization vectors that selectively expand mutant H-ras-specific CD8 T cells. Taasen Nasti, Kyle Rudemiller, George Twitty, Hee Kyung Kim, Yuko Tsuruta, Mohammad Ather, Craig Elmets and Laura Timares. Birmingham, AL.


633 IL-17A is involved in P. acnes-induced inflammation. George W Agak, Min Qin, Jennifer Nobe, Myung-Hwa Kim and Jenny Kim. Los Angeles, CA and Cheonan, South Korea.
**Immunology II: Innate Immunity and Microbiology**

All orals [designated with an asterisk (*)] listed below are presented in the Immunology II: Innate Immunity and Microbiology Minisymposium on Friday, May 11, 2012 from 2:00-5:30 p.m. in Raleigh Convention Center 305 B. Orals designated by two asterisks (**) will be presented during a Plenary Session.

**634** The antibacterial properties of acid anhydride copolymer microneedles. Ryan D Boehm, Philip R Miller, Ritika Singh, Akash Shah, Shane Stafslien, Justin Daniels and Roger I Narayan. Raleigh, NC; Cary, NC and Fargo, ND.

**635** Autophagy is an innate immune system of epidermal keratinocytes. Hidenori Okazaki, Xiжу Dai, Yasushi Hanakawa, Yuji Shirakata, Mikiko Tohyama and Koji Sayama. Toon, Japan.

**636** Effects of common skin microbial species on epidermal differentiation and proliferation. Patrick Duckney, Heng Kuan Wong, José Serrano, Diyarf Yaradou, Thierry Oddo and Georges N Stamatatos. Issy-Ies-Moulineaux, France and Paris, United Kingdom.

**637** Epidermal Toll-like receptor 2 (TLR2) enhances skin barrier recovery and its expression is decreased in atopic dermatitis. L-Hsin Kuo, Anna De Benedetto, Takeshi Yoshida, Donald Y Leung and Lisa A Beck. Rochester, NY and Denver, CO.


**639** Epidermal dendritic cell function is controlled by the hyaluronan microenvironment. Jun Muto, Aaron F Carlin, Margaret Kim, Andrea Garcia, Ajit Varki and Richard L Gallo. San Diego, CA.

**640** Langerhans cells and dendritic cells require AhR for constitutive expression of the immunosuppressive enzyme IDO. Stephanie Kadow, Bettina Jux, Rebecca Scholz, Heike Weighardt and Charlotte Esser. Duesseldorf, Germany and Bonn, Germany.

**641** Arsenic mobilizes Langerhans cell migration and induces Th1 response in epicutaneous protein sensitization via CCL21: A plausible cause of decreased Langerhans cells in arsenic-induced intraepithelial carcinoma. Chih-Hung Lee, Chien-Hui Hong, Chia-Li Yu, Li-Fang Wang, Bjoern E Clausen, Wei-Ting Liao, Shau-Ku Huang, Gwo-Shin Chen and Hsin-Su Yu. Kaohsiung, Taiwan; Taipei; Taiwan and Rotterdam, Netherlands.


**643** Cathelicidin antimicrobial peptide induces IL-36s in keratinocytes; Possible mechanism of IL-36 induction in psoriasis skin. Na Li, Kenshi Yamasaki, Ryoko Shimada, Rumiko Sato and Setsuya Aiba. Sendai, Japan.

**644** Effect of N-acetyl-S-farnesyl-L-cysteine (AFC) on ATPγS- and TNFα-indued CCL2, CXC11 and CXC18 mRNA levels and stability by a human dermal microvascular endothelial cell line (HMEC-1). Lori L Stohl, Jason Lee, WanHong Ding, Joel S Gordon, Eduardo Perez, Max Stock and Richard D Granstein. New York, NY and Monmouth, NJ.

**645** Superoxide dismutase 3 suppresses haluronic acid fragments mediated skin inflammation by inhibition of Toll like receptor 4 signaling pathway: Superoxide dismutase 3 inhibits ROS induced trafficking of Toll like receptor 4 to lipid rafts. Myung-Ja Kwon, Ji Hye Han, Byung Hak Kim, Yun Sang Lee and Taee-Yoon Kim. Seoul, South Korea.

**646** Analysis of bacterial communities in hidradenitis suppurativa lesions. Natalia Vlassova, Omolara Olowoyeye and Ginette Hinds. Baltimore, MD.

**647** Deficiency in mouse beta-defensin 14 leads to a delay in skin permeability barrier repair. Nina Graumann, Claudia Neumann, Harder Jürgen, Catherine Walker, Werner Müller and Ehrhardt Proksch. Kiel, Germany and Manchester, United Kingdom.

**648** Neutrophil-derived IL-1β is required for abscess formation in immunity against Staphylococcus aureus. John Cho, Yi Guo, Frank Hrenkoli, Romelal Ramos, Seema Plasier, Hironori Matsushima, Yoichiro Ikawaka, Akira Takashima, Delphine Lee, Scott Simon and Lloyd Miller. Los Angeles, CA; Santa Monica, CA; Toledo, OH; Tokyo, Japan and Davis, CA.

**649** IL-17+ neutrophil extracellular traps form characteristic structures in pyoderma gangrenosum and Sweet’s syndrome. Ritika Khandpur, Lin M Andrew, Steve H Olsen, Rajiv M Patel, Mariana J Kaplan and Allen T Bruce. Ann Arbor, MI.

**650** Lipoteichoic acid induces mast cells recruitment in the skin by up-regulation of Kit Ligand. Zhenping Wang and Anna Di Nardo. La Jolla, CA.

**651** Interleukin-36γ is released through pyroptosis by polyinosinic-polycytidylic acid activated keratinocytes. Kateyann A Milora, Li-Hua Lian, Katherine K Manupipatpong and Liselotte E Jensen. Philadelphia, PA.

**652** Stimulation of cathelicidin antimicrobial peptide production by ER stress-induce sphingosine-1-phosphate signaling. KyungHo Park, Peter M Elas, Andrew W Borkowski, Richard L Gallo, Yong-Moon Lee, Walter M Hollar and Yoshikazu Uchida. San Francisco, CA; San Diego, CA and Cheongju, South Korea.

**653** Induction of hyper-inflammation in Mycobacterium tuberculosis-infected macrophages enhances phagolysosome formation. Julie Rosenjack, Bryan W Doreian, Kerstin A Wolf, Liam Nguyen and Kurt Q Lu. Cleveland, OH.


**655** Staphylococcus aureus colonization in acute and chronic skin lesions of patients with atopic dermatitis. Hae-Young Park, Cho-Rok Kim, Mi-Young Jung, Ji-Hye Park, Dong-Youn Lee and Jun-Mo Yang. Seoul, South Korea.

**656** Intracellular dsRNA activates inflammasome in the keratinocytes resulting in the release of IL-1β and IL-18. Xiuju Dai, Yuji Shirakata, Mikiko Tohyama, Yasushi Hanakawa, Hidenori Okazaki and Koji Sayama. Toon, Japan.


**660** Distinct immune responses induced by lipoteichoic acid from S. aureus or S. epidermidis despite common pattern recognition pathways. Thomas Voigt, Susanne Keesler, Christian Draing, Friedrich Götz, Thomas Hartung, Martin Röcken and Tilo Biedermann. Tubingen, Germany; Konstanz, Germany and Baltimore, MD.

**661** Vitamin D suppresses Th17-induced proinflammatory alarmins psoriasin (S100A7) and koebnerisin (S100A15) in psoriasis. Konstanz, Germany and Baltimore, MD.

**662** Interleukin-33 mediates antioxidant defense against skin infections. Changwei Li, Ziwei Jiang, Zhixieng Li and Yuping Lai. Shanghai, China.

**663** Mast cells secrete hemokinin-1 that signals via neurokinin-1 receptor to increase their proinflammatory function. Tina L Sumpter, Chin H Ho, Olga A Tkacheva and Adriana T Larregina. Pittsburgh, PA.

**664** Cutaneous TLR2-6 ligands limit T cell mediated skin inflammation by IL-6 dependent induction of myeloid derived suppressor cells. Juvye Skabytska, Ko-Ming Chen, Susanne Kaesler and Tilo Biedermann. Tubingen, Germany.


**667** The role of NOD-like receptor (NLR) signaling pathways in P. acnes’ induction of innate immune response. Min Qin, Aslan Pirouz, George Agak and Jenny Kim. Los Angeles, CA.

669 Atypical mycobacterium in an HIV positive man: A rare case of mycobacterium gordonae infection. Esther E Freeman, Tannehre Farzani, William Tisara, Christine G Lian, Travis Hoffmann, Manisha Thakuria and Joseph F Merola. Boston, MA.

670 Keratinocyte derived S100 proteins A8 and A9 alter monocyte differentiation and psoriasis inflammatory signals. Andrew Y Young, Thomas S McCormick, Myriam Rodriguez and Kevin D Cooper. Cleveland, OH.

671 Nanoparticles increase the probability of leukemiasis and staphylococcal infection. Yury Yakubchuk, Chien-Hsiu Lin, Stephen Walker, Brian Lee, Alexander Lee, Adil Allahverdyev, Marcia Simon and Miriam H Raffaiovich. Stony Brook, NY; LaGrangeville, NY; Hauppauge, NY.

674 Differential gene expression by simulated solar UV can control and promote DNA repair and growth control. Santosh K Katiyar, Virginia Jones and Vijayalakshmi Nandakumar. Birmingham, AL.

675 UVB irradiation with a monochromatic wavelength of 300-310 nm increases filaggrin expression in a three dimensional human skin model. Kan Torri and Akimichi Morita. Nagoya, Japan.


678 Proanthocyanidins inhibit UV-induced immunosuppression through multiple dendritic cell subtypes and activation of innate defense molecules. Andrew Y Young, Virginia Jones and Vijayalakshmi Nandakumar. Birmingham, AL.

680* AMPK activation prevents UVB-induced skin tumorigenesis through promoting DNA repair and growth control. Chunli Wu, Lei Qiang, Weining Han, Mei Ming, Benoit Violett and Yu-Ying He. Chicago, IL; Shenyang, China and Paris, France.

681* Diclofenac decreases tumor burden in male and female mice in two models of UVB-induced SCC. Erin M Burns, Kathleen L Tober, Judith A Riggenbach and Tatiana M Obrynszyn. Columbus, OH.

682 Induction of immature pigment cell development is significantly affected by the irradiance of UVB therapy. Cheng-Che Lan, Hsin-Su Yu and Ching-Shuang Wu. Kaohsiung, Taiwan.

683 UVR regulates local cortisol production and GR expression in a wavelength dependent manner. Cezary Skobowiat and Andrezj Slominski. Memphis, TN.


689* Photodynamic therapy with 4-4 induces cell death of trichophyton rubrum. Minh Lam, Sara Lin, Mauricio A Retuerto, Pranab K Mukherjee, Mahmoud A Ghannoum, Kevin D Cooper and Elma D Baron. Cleveland, OH.


691 Cosmetic formulations that contain botanicals with natural antioxidant activities quench free radicals as measured by the Briggs-Rauscher reaction method. Tiffany C Florence, David Gan, Geetha Kalahasthi and Michelle D Hines. Dallas, TX.

692 A cosmetic formulation containing ingredients that stimulate the production of matrix proteins in vitro improves skin texture, laxity, sagging, and overall appearance in vivo. Tiffany C Florence, David Gan, Geetha Kalahasthi and Michelle D Hines. Dallas, TX.


694* Proteomic identification of biomarkers of photoprotection in in vivo human skin. Patricia A Oyetakin White, Giridharan Gokulrangan, Jean-Eudes Dazard, Elizabeth Yohannes, Mary S Matsui, Mark Chance, Kevin D Cooper and Elma D Baron. Cleveland, OH and New York, NY.

695* Toll-like receptor-4 augments ultraviolet radiation induced cutaneous tumor development by DNA damage mechanism. Israr Ahmad, Purushotham Guroji, Eva Simanyi, Craig A Elments and Nabiba Yusuf. Birmingham, AL.

696 LED generated low level light therapy inhibits human skin fibroblast proliferation while maintaining cellular viability. Hadar Lev-Toy, Daniel Siegel, Neil Brody and Jared Jagdeo. Sacramento, CA; Mather, CA and Brooklyn, NY.

697 Human dermal fibroblasts protect against UVB-induced keratinocyte damage in a human skin equivalent model. Tara L Fernandez, Der ek Van Dunlop, Maarit Kokkonen, Petri Pehkonen, Genevieve Bart, Rajia Tammi and Sanna Pasonen-Seppänen. Kuopio, Finland and Helsinki, Finland.

699 A method for analyzing the protective effect against UVB stress in a human epidermal 3D culture model. Kenji Hattori, Tomoko Kawamata, Ryoei Aoyagi and Hirooomi Tamura. Tokyo, Japan.

687 A method for analyzing the protective effect against UVB stress in a human epidermal 3D culture model. Kenji Hattori, Tomoko Kawamata, Ryoei Aoyagi and Hirooomi Tamura. Tokyo, Japan.


683 UVR regulates local cortisol production and GR expression in a wavelength dependent manner. Cezary Skobowiat and Andrezj Slominski. Memphis, TN.
700 Expression of catalytically active Matrix Metalloproteinase-1 in transgenic mice induces dermal extracellular matrix degradation and fibroblast alterations that resemble photoaged human skin. Wei Xia, Taihao Quan, Craig Hammerberg, Andrew Little, John J Voorhees and Gary J Fisher. Ann Arbor, MI.


703 Semi-targeted tandem mass spectrometry-based lipidomic analysis of oxidized phosphatidylcholines induced by UVA irradiation in dermal fibroblasts. Florian Gruber, Olga V Oskolkova, Erwin Tschachler, Wolfgang Bicker and Valery N Bochkov. Vienna, Austria and Neullly, France.

704* Induction of microRNA mir-21 by UV irradiation down-regulates TGF-β type II receptor and type I procollagen in human skin fibroblasts. Tianyu He, Taihao Quan, Zhaoping Qin, John J Voorhees and Gary J Fisher. Ann Arbor, MI.

705 Matrix metalloproteinase expression and nano-scale quantitative surface morphometric analysis of photodamaged human dermis. Taihao Quan, Emily Little, Hehui Quan, Zhaoping Qin, John J Voorhees and Gary J Fisher. Ann Arbor, MI.

706* IL-11, IL-1α, IL-6, and TNFα are induced by solar radiation and involved in the facial subcutaneous fat loss. Wen-Hua Li, Li Zhang and Apostolos Pappas. Skillman, NJ.

707* Cyclophilin D alters UVA-induced apoptosis in keratinocytes through a mechanism involving mitochondrial ROS generation. Jaroslav Janda, Jana Jandova and James Sligh. Tucson, AZ.


709 Advances in the protection and reparation of epidermal cells from UV-induced DNA damages. Estelle Loing and Thierry Suere. Québec, Canada and Ramonville St Agne, France.


711* The role of α-melanoctye stimulating hormone in the DNA damage response of human melanocytes. Wei Xia, Taihao Quan, Craig Hammerberg, Andrew Little, John J Voorhees and Gary J Fisher. Ann Arbor, MI.

712 Longwave ultraviolet light (UVA) accelerates intrinsic aging by inducing progerin and by impairing shape and function of nuclear membranes. Hirotaka Takeuchi and Thomas M Rünger. Boston, MA and Yokohama, Japan.


714* A topical NF-κB inhibitor protects skin cells from photodamage and enhances DNA repair. Simarna Kaur, Thierry Oddos, Helene Wong and Alexander Marzuka and Marcus Lipkin and Martin Rosenberg. New Haven, CT.

715 Photoprotection against UV damage by a stabilized silicone gel matrix antioxidant formulation. Sujatha Sonti, Elizabeth Makino, John Garruto and Rahul Mehta. Carlsbad, CA.

716 Familial melanoma-associated mutations in p16 uncouple its tumor suppressor functions. Noah Jenkins, Jae Jung and Doug Grossman. Salt Lake City, UT.

717 A mixture of Schinus terebinthifolius Radii extract and linoleic acid from Passiflora alata oil synergically decreases the level of melanin synthesis in human reconstituted epidermis. Adriano Jorge, Kelen Arroteia, Icaro Santos, Eric Andres, Sandra Medina, Cintia Ferrari, Carolina Loureno, Rosa Biagio and Patricia Moreira. Cajamar, Brazil and Paris, France.

718 Plexin C1, a neural guidance receptor, suppresses melanoma progression. Yulin Chen, Joanne Soong, Lei Xu, Sonali Mohanty and Glynis Scott. Rochester, NY.


721 The association of PTPN22 promoter variation and altered T cell cytokine production with vitiligo in Chinese Han population. Kai Li, Xia Li, Qiang Li, Ling Liu, Gang Wang, Qingsheng Mi, Chunying Li and Tianwen Gao. Xin, China.

722 Epidermal growth factor facilitates melanoma lymph node metastasis by influencing tumor lymphangiogenesis. Andreas Bracher, Stefanie Tauber, Ana Soler, Astrid M Fink, Andreas Steiner; Hubert Pehamberger, Peter Petzelbauer, Marion Gröger and Robert Loewe. Vienna, Austria.

723 A counter-intuitive role for apoptotic caspase 3 in treatment of melanoma and other cancers. Qian Huang, Fang Li, Xinjian Liu, Wenrong Li, Fei-Fei Liu, Brian O’Sullivan, Xiao-Jing Wang and Chuan-Yuan Li. Durham, NC, Toronto, Canada and Denver, CO.


726 The effect of 2-hexyldecanol on reducing hyperpigmentation and suppressing melanin synthesis via activation of ubiquitin-proteasome system. Tomohiro Hakozaki, Timothy Laughlin, Steven Zhao, Jiazheng Wang, Denny Deng, Beth Jewellmotz and Laurie Elstun. Cincinnati, OH.


729 Human melanoma cells resist to oxidative stress due to active EGFR/ AKT and overproduction of melanin. Kevin Sulak, David Calianese, Gabriella Bruin, Charles Best, Nicola Kouttab, Wenjun Wang, Aie Xu and Yinsheng Wan. Providence, RI and Hangzhou, China.

730 Reversal of the melanoma malignant phenotype by an endogenous cyclic peptide which mediates contact inhibition of growth. George Lipkin and Martin Rosenberg. New York, NY.

Pigmentation and Melanoma

All orals [designated with an asterisk (*)] listed below are presented in the Pigmentation and Melanoma Minisymposium on Saturday, May 12, 2012 from 12:30-4:00 p.m. in Raleigh Convention Center 306 B. Orals designated by two asterisks (**) will be presented during a Plenary Session.


733* A locked, dimeric CXCL12 variant effectively inhibits pulmonary metastasis of CXCR4-expressing melanoma cells due to enhanced serum stability. Tomonori Takekoshi, Joshua J Zarek, Brian F Volkman and Sam T Hwang. Milwaukee, WI.


738 Chronic downregulation of the Sema4D receptor, Plexin B1, results in c-Met activation in melanocytes. Joanne Soong, Yulin Chen and Glynis Scott. Rochester, NY.

739* MCIR determines melanocyte viability upon UV irradiation by protecting PTEN activity. Juxiang Cao, Fang Liu, James Shen, Stefania Celia Jimenez-Cervantes, Nick Leslie, George X Xu, Yongjun Wang and Ruta Cui. Boston, MA; Murcia, Spain; Shanghai, China; Dundee, United Kingdom and Philadelphia, PA.

740 Differential roles of IL-1α and IL-1β in tumor progression. Tian Tian, Qiushuang Jin, Robert C Fuhlbrigge and Thomas S Kupper. Boston, MA and Philadelphia, PA.


743* Kinetics and computational docking studies on the inhibition of tyrosinase induced by oxymatrine. Xiao-Xia Liu, Yong-Doo Park and Jun-Mo Yang. Jiaxing, China and Seoul, South Korea.


745 Soluble adenyyl cyclase is essential for stem cell factor induced proliferation and Ras signaling in melanocytes. Archana Vishwanath, Lonny Levin, Jochen Buck and Jonathan H Zipkin. New York, NY.


747* Targeting protein trafficking pathways synergizes melanoma sensitivity to inhibition of the PI3K pathway and cytokotoxic agents. Zhi-ming Huang, Glenn Millhauser and Maria L Wei. San Francisco, CA and Santa Cruz, CA.

748 Insights into the etiology of Solar Lentigines through its MicroRNA and mRNA profile. Sheila Rocha, Nicole Pauloski, Jennifer Huertas, Brian Potter, William Lathrop, Kristopher Kalleberg, Carol Bosko and Helen Meldrum. Trumbull, CT.

749* Melanoma differs from other cancers in generating a subset of DC-HIL-* myeloid-derived suppressor cells (MDSC) that cause potent T cell suppression. Jinsung Chung, Kyoichi Tamura, Ponciano D Cruz and Kyoshi Ariizumi. Dallas, TX.


751 Proline-rich tyrosine kinase 2 (Pyk2), a focal adhesion kinase (FAK) homologue, induces apoptosis in human malignant metastatic melanoma. Stephanie K Chang, Anna Hindes, Lynn A Cornelius and Suephy C Chen. Atlanta, GA; Miami, FL.

752* CD74 expression on human melanoma serves as a marker of progression and a target for apoptosis induction. Keiji Tanase, Elizabeth A Grimm and Suhendan Ekmekcioglu. Houston, TX and Tokyo, Japan.

753 In vivo mutation analysis and treatment of Qq mutated vulval melanoma. Christian Posch, Alvaro Somoza, Michelle B Crosby, Homayoun Moslehi, Gary Green and Susana Ortiz-Urdia. San Francisco, CA; Vienna, Austria; Madrid, Spain and San Diego, CA.


755 Proline-rich tyrosine kinase 2 (Pyk2), a focal adhesion kinase (FAK) homologue, induces apoptosis in human malignant metastatic melanoma. Stephanie K Chang, Anna Hindes, Lynn A Cornelius and Tatiana Efimova. St. Louis, MO.

756 TENV-1, a small-molecule inhibitor of SIRT1, imparts anti-proliferative response in human melanoma cells via p53 activation. Chandra K Singh, Melissa J Wilking, Minakshi Nihal, Gary S Wood and Nihal Ahmad. Madison, WI.

757* BRAF mutation and FISH in the prognosis of cutaneous melanoma. Beatrice Nardone, Nazila Barahmani, Pedram Pouryazdanparast, Mary Martini, Alfred Rademaker, Dennis P West and Pedram Gerami. Chicago, IL.

758 Inhibition of melanosome transfer by targeting d-dopachrome tautomerase. L Shore, S Bocha, J Nip, J Santana, D Drennan, W Lathrop, D Marrero, J Bajor and C Bosko. Trumbull, CT.

759* Dermoscopic patterns serve to identify underlying growth promoting mechanisms of melanoma. Christian Posch, Alvaro Somoza, Michelle B Crosby, Homayoun Moslehi, Gary Green and Susana Ortiz-Urdia. San Francisco, CA; Vienna, Austria; Madrid, Spain and San Diego, CA.

760* Soluble adenylyl cyclase is a novel regulator of Ras signaling in melanocytes. Adam Widman and Jonathan H Zipkin. New York, NY.

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765* Fisetin inhibits human melanoma cell invasion through promotion of mesenchymal to epithelial transition and by targeting MAPK and NF-kB signaling pathways. Harish C Pal, Samriti Sharma, Craig A Elmets and Farukh Afaq. Birmingham, AL.

766 Proline-rich tyrosine kinase 2 (Pyk2), a focal adhesion kinase (FAK) homologue, induces apoptosis in human malignant metastatic melanoma. Stephanie K Chang, Anna Hindes, Lynn A Cornelius and Tatiana Efimova. St. Louis, MO.

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767* Side population cells from human melanoma tumors reveal diverse mechanisms for chemoresistance. Yuchun Loo, Lixia Z Ellis, Katsucissi Dallaglio, Weimien Liu, Moe Takeda, William A Robinson, Steven Robinson, Karl D Lewis, Martin D McCarter, Rene Gonzalez, David A Norris, Dennis R Roop, Natalie G Ahn and Mayumi Fujita. Aurora, CO and Boulder, CO.


769 Interferon-gamma and tumor associated macrophages in human melanoma patients. Tatyan Petukhova, Thomas McCormick, Meg Gerstenblith, Jeremy Bordeaux, Julian Kim, Kord Honda and Kevin Cooper. Cleveland, OH.

770 Dual inhibition of Akt and mTOR by fisetin induces tumor regression in a 3-D melanoma model. Deeba N Sved, Vaqar Adhami, Jean-Christopher Chamcheu and Hasan Mukhtar. Madison, WI.

771 Neutrophilic dermatoses associated with vemurafenib. Roberto A Nova, Kord Honda, Henry B Koon and Meg R Gerstenblith. Cleveland, OH.


773 Detection of melanoma by systemic administration of fluorocobix and wide-field fluorescence imaging. Emilio Gonzalez-Gonzalez, Hyejun Ra, Maria Fernanda Lara Cabanas, Jashim Uddin, Lawrence J Marnett, Robyn P Hickerson, Roger L Kaspar and Christopher H Contag. Stanford, CA; Santa Cruz, California and Nashville, TN.

774 Inhibition of FICZ-induced pigmentation through an AhR antagonist towards NHEK. Earl C Goyarts, Lu Ming, Dan Yarosh and Nadine Pernodet. Alvaro Ondarza, Amalia Reyes-Herrera, Juan P Castanedo-Cázar, Bertha Torres-Alvarez, Keyla N Alvarado-Estrada and Raúl Rosales-Ibáñez. San Luis Potosí, Mexico.

775* The dichotomous effects of IL-17 and TNF on normal human melanocytes may contribute to both hyper- and hypo-pigmentation associated with skin inflammation. Claire Q Wang, Yemsratich T Akalu, Judilyn Fuentes-Duculan, Mayte Suarez-Farinás, Hiroshi Mitsui and James G Krueger. New York, NY.


778* A mouse model of vitiligo with spontaneous epidermal pigmentation. Jonathan Eby, Jared Klarquist, Hee-Kap Kang, Michael Nishimura, Shikhar Mehrotra and J Caroline Le Poole. Maywood, IL and Charleston, SC.


780* Deficiency in IL-23, but not IL-12, promotes the development of melanocytic tumors with regional lymph node involvement in C3H/HeN mice. Tahseen Nast, Taranum Jaleel, Barry Cochran, Laura Timares and Craig Elmets. Birmingham, AL.

781** Efforts to provide a comprehensive overview of genetic changes in canine melanoma as a means to identify genetic correlates for drug response. Aleksandar Sekulic, Victoria Zismann, Roe Froman, April Allen, Matthew Huentleman, Melissa Paoloni, Mark Neff, Barbara Davis, Allison Cox, Nick Duesbery, Jianfeng Xu, Michael Bittner, Craig Webb, Kevin Brown, Patrick LoKruso and Jeffrey Trent. Phoenix, AZ; Scottsdale, AZ; Grand Rapids, MI; Bethesda, MD; Medford, MA; Winston-Salem, NC and Detroit, MI.

782* Keratinocyte p53, skin tanning and melanoma. Tamara Terzian, Kayla Boortz, Regan Stiegmann, Victoria Gonzalez, Graeme Walker and Neil Box. Aurora, CO and Brisbane, Australia.

Tissue Regeneration, Stem Cells and Wound Healing

All orals [designated with an asterisk (*)] listed below are presented in the Tissue Regeneration, Stem Cells and Wound Healing Minisymposium on Saturday, May 12, 2012 from 12:30-4:00 p.m. in Raleigh Convention Center 306 C. Orals designated by two asterisks (**) will be presented during a Plenary Session.


785 Delayed wound healing due to increased interleukin-10 expression in mice with lymphatic dysfunction. Takayuki Kimura, Makoto Sugaya, Andrew Blauvelt, Hitoshi Okochi and Shinichi Sato. Tokyo, Japan and Portland, OR.

786 Patterntable epithelial-mesenchymal interaction for skin appendage regeneration. Chih-Chieh Chan, Meng-Wei Lin, Sabrina Fan, Jung-Yi Chan, Tsung-Hua Tsai and Sung-Jan Lin. Taipei, Taiwan and New Taipei City, Taiwan.


789 Stat3 controls cell migration by directly regulating Tcf3. Qi Miao, Yadai Nishino, Jeffrey M Howard, Amy Ku, Tim M Shaver, Gloria E Garcia, Diep N Le, Kristen L Meebrey, Thomas F Westbrook, Valeria Poli and Hoang Nguyen. Houston, TX and Turin, Italy.


792 Phloridzin from Acantopanax senticosus protects human epidermal stem cells from mechanical stress through the inhibition of JNK activation. Eunsun Jung, Jienny Lee, Jongsung Lee and Deokhoon Park. Seongnam, South Korea.


794 Targeting OGT to promote healing in diabetic wounds. Chih-Chieh Chan, Meng-Wei Lin, Sabrina Fan, Jung-Yi Chan, Tsung-Hua Tsai and Sung-Jan Lin. Taipei, Taiwan and New Taipei City, Taiwan.

795 Growth dynamic of keratinocyte clones. John J Wille, Mark R Pittelkow and Nell Swanson. Chesterfield, NJ and Rochester, MN.

796 Skin-derived precursors as a source of progenitors for cutaneous nerve regeneration. Zhangyou Chen, Sanjay Pradhan, Chia-Liu Liu and LuQ Le. Dallas, TX.


798 A facilitative role for caspase 3 & caspase 7 in wound healing and tissue regeneration. Fang Li, Qian Huang, Jiang Chen, DennisR Roop and Chuan-Yuan Li. Durham, NC and Aurora, CO.

799 Age-Dependent differences in putative epidermal stem cell activity assessed in human skin equivalents. Brad Jarrold, Akira Date and Rosemarie Osborne. Kobe, Japan.

801 Direct reprogramming of human fibroblasts into dopaminergic neurons. Xinjian Liu, Fang Li, Elizabeth A Stublefield, Barbara Blanchard, Toni Richards, Gaynor A Larson, Qian Huang, Timothy A Benke, John R Sladek and Chuan-Yuan Li. Durham, NC and Durham, CO.

802* Epidermal Wnt ligands are required for adult hair follicle regeneration. Peggy Myung, Makoto Takeo, Mayumi Ito and Radhika Attt. Cleveland, OH and New York, NY.

803 Cutaneous wounds in mice lacking functional hyaluronan synthases Has1 and Has3 display phenotypic features associated with tissue fibrosis. Judith A MacK, Hannah M Stubbbs and Edward V Maitlin. Cleveland, OH.

804 Defining the function of adipocyte lineage cells during skin wound healing. Barbara Schmidt. New Haven, CT.

805 Corneocyte interaction with provisional clots/scabs in human acute incisional wounds. Marcia L Usui, Robert A Underwood, Philip Fleckman and John E Olerud. Seattle, WA.

806 A new, proprietary orphan extract gel improves the appearance of posturgical dermal scars. Z Draelos, L Baumann, E Avakian, S Plaum and B Hardas. Durham, NC; Miami Beach, FL and Greensboro, NC.


808 Adult human dermal fibroblast cell migration accelerates to fast speeds on micron size fibers compared to slow speeds on 2D surfaces. Sisl Qin, Richard A Clark, Ryan Lindeborg and Miriam H Rafaelovich. Stony Brook, NY and Dana Point, CA.


811* Nestin-expressing multi-potent stem cells originate in the bulge of the hair follicle and migrate to the dermal papilla. Asisada Uchugonova, Jennifer Duong, Nan Zhang, Karsten Koenig and Robert M Hoffman. San Diego, CA and Saarbruecken, Germany.

812 Non-invasive in vivo tomography of nestin-expressing multi-potent stem cells in the mouse whisker. Asisada Uchugonova, Robert M Hoffman, Martin Weinigel and Karsten Koenig. San Diego, CA; Saarbruecken, Germany and Jena, Germany.

813 Hair follicle nestin-expressing stem cells form the hair follicle sensory nerve and fuse with the trigeminal nerve in 3-dimensional histoculture. Sumiyuki Mii, Jennifer Duong, Fang Liu, Yasuyuki Amoh, Norimitsu Saito, Kensei Katsuoka, A R Moosa and Robert M Hoffman. San Diego, CA; Kanagawa, Japan and Shanghai, China.

814 Differential IL6 and TNFα production in human mesenchymal stem cells following TLR2 ligation. Mohan R Dasu, Sandra R Ramirez, Jan Nolita and Rivkah R Isseroff. Davis, CA and Sacramento, CA.

815* Dissociated human dermal papilla cells induce hair neogenesis when incorporated into dermal-epidermal composites grafted to nude mice. R Thangapazham, P Klover, J Wang, Y Zheng, A Devine, S Li, L Sperling, G Cotesarales and T N Darling. Bethesda, MD and Philadelphia, PA.

816 Retrospective evaluation of the safety of large skin flap and graft surgery in the outpatient setting. Adam R Schmitt and Jeremy S Bordeaux. Cleveland, OH.

817* Differentiation of human induced pluripotent stem cells into dermal fibroblasts. Munenori Itoh and Angela M Christiano. New York, NY and Tokyo, Japan.

818 Withdrawn.

819* Differentiation-associated silencing of the Nanog locus is accompanied by changes in its nuclear positioning in human embryonic stem cells. Mohammed I Ahmed, Neill J Harrison, Andrei Mardaryey, Michael Y Fessing, Krysztof Poterolowicz, Peter W Andrews and Vladimir A Botchkarev. Bradford, United Kingdom; Boston, MA and Sheffield, United Kingdom.

820 Cell-based regenerative medicine by nestin+ stem cells: Stimulation of reepithelialization, angiogenesis, and granulation tissue formation in wounded human skin. Stephan Tiede, Janin Lehmann, Tian Liao, Sabine Nagel, Anna Petschnik, Sandra Danner, Charli Kruse and Ralf Paus. Lübeck, Germany and Manchester, United Kingdom.

821 Plantaricin A promotes in vitro proliferation and migration of human keratinocytes and increases the expression of TGF-B1, FG7, VEGF-A and IL-8 genes. Barbara Marzani, Daniela Pinto, Maria De Angelis, Marco Gobetti, Anna Benedusi and Giammara Giuliani. Milan, Italy and Bari, Italy.


828 Creation of duolucrescent reporter mouse as a tool to trace follicular stem cells. Jin-Bon Hong, Sung-Jan Lin, Shu-Wha Lin, June-Tai Wu and You-Tzung Chen. Taipei, Taiwan.

829 Engineered microniches promote keratinocyte stem cell clustering in a bioengineered skin model. Amanda L Clement and George D Pins. Worcester, MA.

830 Identification of novel mutations in the candidate keratinocyte stem cell regulatory gene, Bone Morphogenetic Protein S. Ashok Singh, Carol S Tremus and Rebecca J Morris. Austin, MN and Research Triangle Park, NC.

831 Impedance spectroscopy—a tool for the characterization of skin equivalents. Jan Hansmann, Florian Groeber and Heike Walles. Stuttgart, Germany.

832 Development of induced pluripotent stem cell-based therapy for pseudoxanthoma elasticum. Shunsuke Takahagi, Qiujie Jiang, Ganna Bilousova, Dennis R Roop and Jouni Uitto. Worcester, MA.


836 Intracrine steroidogenesis modulates wound healing responses in human fibroblasts and keratinocytes. Elena Pomari, Lorenzo Colombo, M Massironi and M Julie Thornton. Bradford, United Kingdom and Padova, Italy.

838* Molecular mechanisms that controls keratinocyte specification. Ana Tadeu, Mei Zhong, Wei Zheng and Valerie Horsley. New Haven, CT.


840 Transcriptional effects of cyclosporine A on hair follicle stem cells. Jill Goldstein and Valerie Horsley. New Haven, CT.

841* CD133+ keratinocytes are a subpopulation of CD34+ cells, are enriched in label retaining cells and possess multipotential differentiation ability. Alexandra Charruyer, Lili Yue, Lauren R Strachan, Maria L Mancianti and Ruby G&hldiacute;l&her;ly. San Francisco, CA and Berkeley, CA.


843 Long term repopulating stem cells from aged mice are not significantly changed in number but are less proliferative, while there is an increase in progenitor proliferation. Malik Tahir, Yimy A Villa, Alexandra Charruyer and Ruby G&hldiacute;l&her;ly. San Francisco, CA.

844 Anisotropic skin layer compliance varies with skin cell orientation during healing. Leah A Pagnonzi, Cheung Chang, Divya Bhatnagar, Mariam Rafailovich and Richard A Clark. Stony Brook, NY.

845 ALDH isozymes are markers of human melanoma stem cells and potential therapeutic targets. Yuchun Luo, Kattussia Dallaglio, Ying Chen, William A Robinson, Steven E Robinson, Martin D McCarter, Rene Gonzalez, David C Thompson, David A Norris, Dennis R Roop, Vasilis Vasiliou and Mayumi Fujita. Aurora, CO.


847* Fgf9 secreted by gamma delta T cells is a critical component of hair follicle neogenesis in wounding. Denise Gay, Oh Sang Kwon, Zhikun Zhang, Michelle Burrows, Chang Deok Kim, Sheena Baratono, Maxim Plikus, Mayumi Ito, Zaixin Yang, Fen Wang, Ornitz M David and George Cotsarelis. Philadelphia, PA; New York, NY; Houston, TX; St Louis, MO and Daejeon, South Korea.

848* Reprogramming of dermal fibroblasts to epithelial precursors using one defined factor. Joyce Teng. Erin McMillan, Alexandra Bryant, Emily Gebhardt and B Jack Longley. Madison, WI.

849* The role of miRNA-21 in inhibition of epithelialization and wound closure. Aron G Nusbaum, Irena Pastar, Olivera Sto&agrave;dinovic, Aly Azeem Kahn, Christina Leslie, Harold Brem, Robert Kirchner, Joaquin J Jimenez and Mariana Tomic-Canic. Miami, FL; New York, NY and Mineola, NY.

850 Bioengineered human extracellular matrix for wound healing. Michael Zimer, Gail K Naughton, Jerry Cooley and Jonathan Mansbridge. San Diego, CA and Charlotte, NC.

851 Pro-migratory effects of stromal cell-derived factor 1 on human mesenchymal stem cells under stress-induced environment. Chuong M Nguyen, Jan A Nolta and Rivkah R Isseroff. Sacramento, CA and Davis, CA.


853 Improved, defined, animal origin-free (dAOF) primary isolation and serial propagation of human keratinocytes, human corneal epithelial cells and other clinically-relevant cell types. Paul W Cook. Rolf W Winter and Jeffrey R Brown. Vancouver, WA.

854 High glucose alters Toll-like receptor-mediated keratinocyte migratory responses. Hsiyia Yang, Thi Dinh La, Mohan R Dasu and Rivkah Isseroff. Davis, CA.

855 Can skin be copied?: Assembled full-thickness microscopic skin columns survive proliferate and migrate within synthetic matrices in vitro. Evelyn Cheung, Min Yao, Walfrz Franco, Martin Purschke, Joshua Tam, William Farinelli, Ying Wang and R Rox Anderson. Boston, MA.

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Conflict of Interest Disclosure Key

A - Advisory Board
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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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W. Bullough
H. D. Chen
L. H. Chiu
E. Christophers
R. Degos
R. Dobson
R. Eady
A. Eisen
A. Elmofy
E. Epstein
J. Fernandez
I. Freedberg
R. Freinkel
I. Gigli
L. Goldsmith
R. Goltz
M. Greaves
H. Green
G. Hambrick, Jr.
F. Hu
Y. Ishibashi
S. Jablonska
R. Jordan
S. Katz
A. Kligman
A. Ku kita
C. Lapière
G. Lazarus
A. Lerner
J. Leyden
W. Lobitz, Jr.
I. Magnus
Y. Mishima
T. Nishikawa
S. Ofuji

SID Awards
Stephen Rothman Memorial
Award Recipients
Presented for distinguished service to investigative cutaneous medicine.

1967  Marion Sulzberger
1968  Donald Pillsbury
1969  Harvey Blank
1970  Thomas Fitzpatrick
1971  Aaron Lerner
1972  William Montagna
1973  Rudolf Baer
1974  Hermann Pinkus
1975  Eugene Van Scott
1976  Albert Kligman
1977  Irvin Blank
1978  George Odland
1979  Clayton Wheeler, Jr.
1980  Clarence Livingood
1981  Isadore Bernstein
1982  J. Lamar Callaway
1983  Richard Stoughton
1984  A Gedeon Matoltsy
1985  Herman Beerman
1986  Otto Braun-Falco
1987  Walter Shelley
1988  John Strauss
1989  Walter Lobitz, Jr.
1990  Walter Lever
1991  Robert Goltz
1992  Irwin Freedberg
1993  Arthur Eisen
1994  Ruth Freinkel
1995  Howard Baden
1996  Irma Gigli
1997  Stephen Katz
1998  Klaus Wolff
1999  Lowell Goldsmith
2000  Richard Dobson
2001  Robert Briggsman
2002  Eugene Bauer
2003  Georg Stingl
2004  Stuart Yspa
2005  John Voorhees
2006  Thomas Lawley
2007  Barbara Gilchrest
2009  Luis Diaz
2010  Dennis Roop
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2011  John Stanley
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<td>Brian Strom</td>
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<td>William Kelley</td>
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<td>Leea Peltonen</td>
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<td>Douglas Lowy</td>
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<td>1987</td>
<td>David Lane</td>
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**Naomi M. Kanof Clinical Investigator Award**

_This award is given to workers about the importance of clinical investigation. It honors an individual who has made significant contributions to our understanding of clinical medicine._

1987  Jouni Uitto
1986  Georg Stingl
1985  Eugene Bauer
1984  Gerald Lazarus
1983  Douglas Lowy
1982  John Parrish
1981  Stephen Katz
1980  Irwin Freedberg
1979  Lawrence Lichtenstein
1978  Chester Stinson
1977  William Haseltine
1976  John H. Kaliner
1975  A. Alvin Feinstein

**Herman Beerman Lectureship**

_This lecture is given by a distinguished medical scholar, traditionally from fields other than dermatology._

1961  Rene Dubos
1962  Hans Selye
1963  Rupert Billingham
1964  Curt Stern
1965  Albert Szent-Gyorgyi
1966  Jerome Gross
1967  Joseph Ornstein
1968  John Buettner-Janusch
1969  Henry Kunkel
1970  Norman Wessells
1971  Aiden Breathnach
1972  Frank Dixon
1973  H. Hugh Fudenberg
1974  Charles Cochrane
1975  David Katz
1976  Bert O'Malley
1977  Russell Ross
1978  Hilary Koprowski
1979  Michael Brown
1980  Philip Leder
1981  Pedro Cuatrecasas
1982  Frank Ruddle
1983  Lawrence Lichtenstein
1984  Robert Gallo
1985  Thomas Waldmann
1986  Torsten Wiesel
1987  Leroy Hood
1988  Joseph Goldstein
1989  Pierre Chambon
1990  Ronald Herberman
1991  K. Frank Austen
1992  Bert Vogelstein
1993  Charles Janeway, Jr.
1994  Solomon Snyder
1995  Eric Lander
1996  Irving Weissman
1997  Michael Karin
1998  Gunter Blobel
1999  Philippa Marrack
2000  Robert Langer
2001  William Haseltine
2002  Ronald DePinho
2003  Thomas Jessell
2004  Robert Weinberg
2005  Timothy Ley
2006  Amita Sehgal
2007  Stuart Schreiber
2009  Daniel Kastner
2010  Raymond Schinazi
2011  Jennifer Lippincott-Schwartz

**Eugene M. Farber Psoriasis Research Award**

_This award is presented at the Annual Meeting to young investigators whose focus is on psoriasis research._

2003  David Jones
2004  Edmund Lee
2005  Shigetoshi Sano
2006  Helen Young
2007  Rajan Nair
2008  Enno Christophers
2009  James T. Elder
2010  James Krueger
2011  Kevin Cooper
2012  Ross Breslau
2013  Tony Means
2014  Shomei Tsuboi
2015  Martin Hausen
2016  David Williams
2017  Toshiyuki Inaba
2018  Shigenobu Hori
2019  June Cheng
2020  John McGrath
2021  Ei-ichiro Abe

**Sidney Kimmel Cancer Center/ Albert M. Kligman / Phillip Frost Leadership Lecture & Award**

_This award is made to an individual in acknowledgment of significant contributions to the understanding of structure and function of skin in the past five years._

2008  Jouni Uitto
2009  Stephen Katz
2010  John R. Stanley
2011  Peter Elias
2012  John R. Stanley
2013  Peter Elias
2014  John R. Stanley
2015  Peter Elias
2016  John R. Stanley
2017  Peter Elias
2018  John R. Stanley
2019  Peter Elias
2020  John R. Stanley
2021  Peter Elias
2022  John R. Stanley
2023  Peter Elias
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2100  John R. Stanley
2101  Peter Elias
2102  John R. Stanley
2103  Peter Elias
2104  John R. Stanley
2105  Peter Elias
2106  John R. Stanley
2107  Peter Elias
2108  John R. Stanley
2109  Peter Elias
2110  John R. Stanley
2111  Peter Elias
2112  John R. Stanley
2113  Peter Elias
2114  John R. Stanley
2115  Peter Elias
2116  John R. Stanley
2117  Peter Elias
2118  John R. Stanley
2119  Peter Elias
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2142  John R. Stanley
2143  Peter Elias
2144  John R. Stanley
2145  Peter Elias
2146  John R. Stanley
CALL FOR APPLICATIONS

CHANEL
RECHERCHE ET TECHNOLOGIE
RESEARCH AND TECHNOLOGY

CE.R.I.E.S. RESEARCH AWARD

The CE.R.I.E.S. Research Award of €40,000 C is intended to honour a scientific researcher with a proven track record in fundamental or clinical research work, for a one year period, on the subject of:

PHYSIOLOGY OR BIOLOGY OF HEALTHY
SKIN AND/OR ITS REACTIONS
TO ENVIRONMENTAL FACTORS

The awardee will be selected by an international jury consisting of the members of the Scientific Advisory Board of the CE.R.I.E.S.

Previous CE.R.I.E.S. Research Award Winners:

2012  To be determined
2011  Joke A. Bouwstra - Ph.D., Leiden, Netherlands
2010  Howard Y. Chang, M.D., Ph.D., Stanford, USA
2009  Sabine Werner, Ph.D., Zurich, Switzerland
2008  Paul A. Khavari, M.D., Ph.D., Stanford, USA
2007  Richard L. Gallo, M.D., Ph.D., San Diego, USA
2006  Irwin McLean, Ph.D., DSc, FRSE, Dundee, Scotland, UK
2005  Masayuki Amagai, M.D., Ph.D. Tokyo, Japan
2004  Thomas Schwarz, M.D. Kiel, Germany
2003  Angela M. Christiano, Ph.D., New York, USA
2002  Dennis R. Roop, Ph.D., Houston, USA
2001  Fiona M. Watt, D. Phil., London, UK
2000  Michael Karin, Ph.D., San Diego, USA
1999  Jonathan Rees, M.D., Edinburgh, UK
1998  Jean Krutmann, M.D., Düsseldorf, Germany
1997  Jens-Michael Schröder, Ph.D., Kiel, Germany
1996  Akira Takashina, M.D., Ph.D., Dallas, USA

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Requests for application forms must be addressed to:
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