

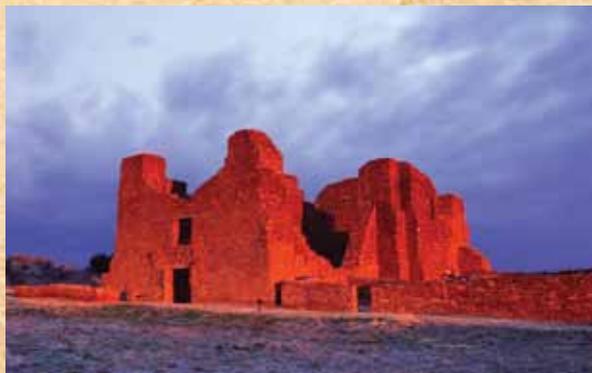
Meeting Program

2014

ANNUAL MEETING

SOCIETY FOR INVESTIGATIVE
DERMATOLOGY

ALBUQUERQUE
NEW MEXICO



MAY 7-10, 2014



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

CONNECT WITH THE SID!



#SIDABQ2014
www.sidnet.org

COMMERCIAL SUPPORT

As of April 15, 2014



2014 EXHIBITORS

CELLnTEC
DSM
Innocus
Genemarkers
Metabolon, Inc.
Midwest Med Books/Elsevier Inc.
National Institute of Arthritis and Musculoskeletal and Skin Diseases
Nature Publishing Group
Pfizer, Inc.
ZenBio, Inc.

FUTURE ANNUAL MEETINGS

74th Annual Meeting
May 6-9, 2015
Hilton Atlanta
Atlanta, Georgia

75th Annual Meeting
May 11-14, 2016
The Westin Kierland Resort & Spa
Scottsdale, Arizona

76th Annual Meeting
April 26 - 29, 2017
Oregon Convention Center
Portland, Oregon

OFFICERS

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Paul R. Bergstresser, MD

VICE PRESIDENT
Lynn A. Cornelius, MD

PRESIDENT-ELECT
S. Wright Caughman, MD

VICE PRESIDENT-ELECT
Alexa B. Kimball, MD/MPH

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Thomas S. Kupper, MD

SECRETARY -TREASURER
Russell P. Hall, MD

DEPUTY SECRETARY -TREASURER
Alice P. Pentland, MD

JID EDITOR
Barbara A. Gilchrist, MD

BOARD OF DIRECTORS

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RESIDENT/POST DOCTORAL FELLOWS
Anu Mathur, MD/PhD
Fang Liu, PhD

Welcome to Albuquerque



On behalf of the Society for Investigative Dermatology (SID), we welcome you to the 2014 Annual Meeting in Albuquerque, New Mexico. Albuquerque, New Mexico's economic center, and its state capital, Santa Fe, were founded by Spanish "conquistadores" beginning in the early 1600's. They encountered Native American villages that had been established hundreds of years earlier. These cultures, which are still thriving in the 21st Century, were the setting for the arrival of the modern atomic age in the 1940's and integral to present day New Mexico. Two of us (RH and PB) call Los Alamos and Albuquerque our original homes, respectively. We are pleased to present modern New Mexico as an outstanding place for our research community to share advances in cutaneous biology and dermatology and to expand scientific frontiers. We also invite you to appreciate the unique blend of cultures, the spectacular geography, the many historical sites and of course the exceptional cuisine that celebrates the Spanish, American Indian and Anglo cultures that still define New Mexico.

The SID scientific program incorporates research from multiple specialties and disciplines. We would like to thank the 2013-2014 Committee on Scientific Programs for their dedication in developing an outstanding program.

SID COMMITTEE ON SCIENTIFIC PROGRAMS

Co-Chairs

Jack Arbiser, MD/PhD & Mitchell Denning, PhD

Committee Members

Anthony Gaspari, MD, Sam Hwang, MD/PhD, My Mahoney, PhD, Sarah Millar, PhD, Paul T. Nghiem, MD/PhD, Abrar Qureshi, MD/PhD, Nicole Ward, PhD, Victoria P. Werth, MD

Since its founding in 1937, the SID 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 and to offer programming that reaches all members of the dermatology and cutaneous biology research communities

We have scheduled a variety of activities to highlight scientific advances made by our community, and social events that will celebrate our international scientific community and the culture and beauty of New Mexico.

Thank you for your support of the SID and enjoy the meeting.



Paul Bergstresser, MD
PRESIDENT



Russell Hall, MD
SECRETARY-TREASURER



Alice Pentland, MD
DEPUTY
SECRETARY-TREASURER

New for 2014!

ROUND TABLES

The SID Board of Directors invites you to take part in round table discussions during the Poster Sessions Thursday, Friday & Saturday. Experts on selected research topics will be available for informal discussions as attendees tour the posters.

FEATURED TOPICS

In-Vivo Imaging
Gene Mapping
Bioinformatics
Patch Clamping
Mouse Genetics
Stem Cell Isolation
Trans-epidermal Water Loss
Cell Sorting
Humanized Mouse Model
Immunophenotyping
Clinical Trial Design
Drug Design
Insilica Drug Discovery

MINISYMPOSIA MIXERS

The overall length of Minisymposia was shortened to three hours. At the end of each Minisymposium, a 45-minute mixer will be held. Presenters, moderators and attendees will be able to interact as they enjoy light refreshments and snacks. These mixers are designed to encourage informal discussion, mingling and networking among SID meeting attendees.

CITY OF ALBUQUERQUE

Office of the Mayor/ Chief Administrative Officer



February 12, 2014

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

Dear Attendees of the 2014 SID Annual Meeting,

Welcome to Albuquerque! As Mayor of this beautiful city, I am pleased to welcome you to the Annual Meeting of the Society for Investigative Dermatology (SID). The mission of SID to advance and promote the sciences relevant to skin health and disease through education, advocacy and scholarly exchange of scientific information is incredibly important, and I am pleased Albuquerque is able to host your annual gathering to further your great work.

When not in conference sessions, please make sure to enjoy the abundant activities our city has to offer. Whether exploring historic Old Town, spending time shopping at ABQ Uptown, visiting the famed BioPark Zoo facility, hiking or biking in the majestic Sandia Mountains, you are sure to have an enjoyable and memorable experience in Albuquerque. I am confident you will love what our city has to offer!

I hope that your time at the Annual SID Meeting is both productive and worthwhile. Thank you for visiting Albuquerque, and I hope to see you back again soon.

Best regards,

Richard J. Berry
Mayor

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CME Statement & Objectives

The Duke Department/Division of Dermatology presents the 2014 Society for Investigative Dermatology Annual Meeting. Jointly sponsored by:



COMMERCIAL SUPPORT STATEMENT

Commercial Support Acknowledgment: This CME activity is supported by educational grants. A complete list of supporters will be published in the course syllabus.

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-art 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
Chair, 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 relationships 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 to <http://continuingeducation.dcri.duke.edu/>, review the CME information (accreditation, learning objectives, faculty disclosures, etc.) and attend the CME activity. Participants should also complete the activity evaluation form and return it to the appropriate representative following the CME activity. Participants should also complete the activity evaluation form and return it to the Society for Investigative Dermatology via fax to 216.579.9333 or mail to:

Society for Investigative Dermatology / CME

526 Superior Avenue E, Suite 540
Cleveland, OH 44114

ACCREDITATION 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 26 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Tuesday, May 6, 2014

Pachyonychia Congenita Project (PC Project) 8:00 am – 5:00 pm
Aztec, Albuquerque Convention Center

Faculty Retreat 1:30 pm – 5:15 pm
San Miguel/Mesilla, Albuquerque Convention Center
By Invitation Only

Resident/Post-Doc Retreat 6:00 pm – 10:00 pm
San Miguel/Mesilla, Albuquerque Convention Center
By Invitation Only, Registration opens at 4:30 pm

Faculty Retreat Dinner 6:00 pm – 8:00 pm
Pecos, Albuquerque Convention Center
By Invitation Only

Wednesday, May 7, 2014

Pachyonychia Congenita Project (PC Project) 7:00 am – 9:30 am
Aztec, Albuquerque Convention Center

Resident Retreat for Future Academicians 7:30 am – 3:00 pm
San Miguel/Mesilla, Albuquerque Convention Center
By Invitation Only

PhD Post-Doc Retreat 7:30 am – 3:00 pm
San Miguel/Mesilla, Albuquerque Convention Center
By Invitation Only

SID Board of Directors Meeting 7:30 am – 2:15 pm
Fiesta, Hyatt Regency

Registration 8:00 am – 6:30 pm
Upper West Foyer, Albuquerque Convention Center

DEBRA of America Scientific Advisory Board 11:30 am – 3:00 pm
Dona Ana, Albuquerque Convention Center

Y C **Translational Symposium on Neurobiology** 12:00 pm – 3:00 pm
Kiva Auditorium, Albuquerque Convention Center

Y C **Irwin H. Blank Forum** 3:00 pm – 5:00 pm
Hot Topics in Research Dermatology & Cutaneous Genomics
Kiva Auditorium, Albuquerque Convention Center

Y C **State-of-the-Art Plenary Lecture 1** 5:00 pm – 5:30 pm
Organ Regeneration: Lessons from the Hair Follicle
Mayumi Ito, PhD
Kiva Auditorium, Albuquerque Convention Center

Y C **State-of-the-Art Plenary Lecture 2** 5:30 pm – 6:00 pm
Scleroderma: Toward Molecular Diagnosis and Rational Therapy
John Varga, MD
Kiva Auditorium, Albuquerque Convention Center

Y C **Albert M. Kligman / Phillip Frost Leadership Lecture** 6:00 pm – 6:30 pm
Learning from Leprosy: Patterns of Inflammation in Skin Disease
Robert L. Modlin, MD
Kiva Auditorium, Albuquerque Convention Center

Welcome Reception 6:30 pm – 8:30 pm
Upper West Foyer, Albuquerque Convention Center

Thursday, May 8, 2014

Society for Pediatric Dermatology 7:00 am – 8:00 am
Brazos, Albuquerque Convention Center

Registration 7:30 am – 5:00 pm
Upper West Foyer, Albuquerque Convention Center

Y C **Plenary Session I** 8:00 am – 9:00 am
Kiva Auditorium, Albuquerque Convention Center

Y C **Eugene M. Farber Lecture** 9:00 am – 9:30 am
Psoriasis: Getting to the Heart of the Matter
Joel M. Gelfand, MD
Kiva Auditorium, Albuquerque Convention Center

Y C **Naomi M. Kanof Lecture** 9:30 am – 10:00 am
Integrating OMICS –Data for Understanding Complex Disease
Mark R. Chance, PhD
Kiva Auditorium, Albuquerque Convention Center

American Skin Association Research Achievement Awards 10:00 am – 10:10 am
Kiva Auditorium, Albuquerque Convention Center

Poster Session I 10:00 am – 12:00 pm
NE Exhibit Hall, Albuquerque Convention Center

American Skin Association David Martin Carter Mentor Award 10:10 am – 10:15 am
Presented to Gerald S. Lazarus, MD
Kiva Auditorium, Albuquerque Convention Center

Y C **Clinical Scholars Plenary Session** 10:15 am – 12:15 pm
Kiva Auditorium, Albuquerque Convention Center

Round Tables
Topics displayed on tables in Poster Hall.

Journal Liaison Committee Meeting 10:45 am – 11:45 am
Suite E-F, Albuquerque Convention Center

International Society for Cutaneous Lymphoma Cutaneous T Cell Lymphoma Symposium 12:00 pm – 2:00 pm
Brazos, Albuquerque Convention Center

Satellite Symposium 12:00 pm – 2:00 pm
Academic-Industry Partnership Project
San Miguel/Mesilla, Albuquerque Convention Center

Academic/Industry Session
Pecos/Ruidoso, Albuquerque Convention Center
By Invitation Only - Speed Dating

Research in Cutaneous Surgery Symposium 12:00 pm – 2:00 pm
Ballroom B, Albuquerque Convention Center

ISID Committee Meeting 12:00 pm – 2:00 pm
Suite E-F

Y C **Wound Healing Symposium** 12:00 pm – 2:00 pm
Ballroom A, Albuquerque Convention Center

Y C **Concurrent Minisymposia** 2:00 pm – 5:00 pm
Adaptive Immunity
Ballroom B, Albuquerque Convention Center

Translational Research: Atopic Dermatitis
Kiva Auditorium, Albuquerque Convention Center

Carcinogenesis & Cancer Genetics
Ballroom A, Albuquerque Convention Center

Photobiology
Ballroom C, Albuquerque Convention Center

Tissue Regeneration & Wound Healing
San Miguel/Mesilla, Albuquerque Convention Center

Minisymposia Mixers 5:00 pm – 6:00 pm

Social Event 6:00 pm – 10:30 pm
Albuquerque Museum of Art & History
Ticketed Event: Pre-Registration Required

Meeting at a Glance

Friday, May 9, 2014

Society for Pediatric Dermatology Brazos, Albuquerque Convention Center	7:00 am – 8:00 am
Registration Upper West Foyer, Albuquerque Convention Center	7:30 am – 4:00 pm
Business Meeting for Members Kiva Auditorium, Albuquerque Convention Center	7:45 am – 8:30 am
Plenary Session II Kiva Auditorium, Albuquerque Convention Center	8:30 am – 9:30 am
Stephen Rothman Memorial Award Presented to Jouni Uitto MD/PhD Kiva Auditorium, Albuquerque Convention Center	9:30 am – 9:45 am
Herman Beerman Lecture <i>From Darwin to DNA: How Animals Adapt</i> Hopi Hoekstra, PhD Kiva Auditorium, Albuquerque Convention Center	9:45 am – 10:15 am
State-of-the-Art Plenary Lecture 3 <i>Epigenetic Mechanisms Controlling Epidermal Development & Differentiation</i> Vladimir Botchkarev, MD/PhD Kiva Auditorium, Albuquerque Convention Center	10:15 am – 10:45 am
State-of-the-Art Plenary Lecture 4 <i>Calcium & the Endoplasmic Reticulum in Keratinocyte Differentiation</i> Theodora M. Mauro, MD Kiva Auditorium, Albuquerque Convention Center	10:45 am – 11:15 am
Poster Session II NE Exhibit Hall, Albuquerque Convention Center	11:15 am – 1:15 pm
Round Tables Topics displayed on tables in Poster Hall.	
JID Connector Lunch Suite G, Albuquerque Convention Center	12:00 pm – 2:00 pm
Satellite Symposium <i>Research in Latin America</i> San Miguel/Mesilla, Albuquerque Convention Center	12:00 pm – 2:00 pm
Academic Dermatologists Luncheon Sponsored by the Women's Dermatology Society Aztec, Albuquerque Convention Center	12:00 pm – 2:00 pm
Committee on Scientific Programs Meetings Suite E-F, Albuquerque Convention Center, By Invitation Only	12:00 pm – 2:00 pm
American Acne and Rosacea Society Ballroom C, Albuquerque Convention Center	12:00 pm – 2:00 pm
American DermatoEpidemiology Network Ballroom B, Albuquerque Convention Center	12:00 pm – 2:00 pm
Concurrent Minisymposia Growth Factors, Cell Adhesion, Matrix Biology San Miguel/Mesilla, Albuquerque Convention Center	2:00 pm – 5:00 pm
Auto-Immunity & Inflammation Kiva Auditorium, Albuquerque Convention Center	
Genetic Diseases/Gene Regulation/Gene Therapy Ballroom B, Albuquerque Convention Center	
Human Clinical Research & Therapeutics Ballroom A, Albuquerque Convention Center	
Cutaneous & Hair Development Ballroom C, Albuquerque Convention Center	
Minisymposia Mixers	5:00 pm – 6:00 pm
JID Editorial Board Meeting & Reception Aztec, Albuquerque Convention Center, By Invitation Only	4:30 pm – 7:00 pm

continued

North American Hair Research Society Scientific Meeting Brazos, Albuquerque Convention Center	6:00 pm – 9:30 pm
National Psoriasis Foundation Suite A-B, Albuquerque Convention Center	6:00 pm – 9:00 pm
Trainee Dinner Dona Ana, Albuquerque Convention Center	7:00 pm – 9:00 pm

Saturday, May 10, 2014

SID Board of Directors Meeting Pecos/Ruidoso, Albuquerque Convention Center	7:00 am – 7:45 am
Registration Upper West Foyer, Albuquerque Convention Center	7:30 am – 12:00 pm
Plenary Session III Kiva Auditorium, Albuquerque Convention Center	8:00 am – 9:00 am
William Montagna Lecture <i>TGFbeta-Signaling in Skin Homeostasis, Diseases and Cancer: Paradoxes And Broken Dogmas</i> Xiao-Jing Wang, MD/PhD Kiva Auditorium, Albuquerque Convention Center	9:00 am – 9:30 am
Julius Stone Lecture <i>Role of Prostaglandins in Skin Cancer</i> Alice P. Pentland, MD Kiva Auditorium, Albuquerque Convention Center	9:30 am – 10:00 am
Poster Session III NE Exhibit Hall, Albuquerque Convention Center	10:00 am – 12:00 pm
Round Tables Topics displayed on tables in Poster Hall.	
Clinical Scholars Program Kiva Auditorium, Albuquerque Convention Center	10:00 am – 12:00 pm
Concurrent Minisymposia <i>Epidemiology & Health Services Research</i> Kiva Auditorium, Albuquerque Convention Center	12:30 pm – 3:30 pm
<i>Pigmentation and Melanoma</i> Ballroom A, Albuquerque Convention Center	
<i>Epidermal Structure and Barrier Function</i> Ballroom B, Albuquerque Convention Center	
<i>Innate Immunity & Microbiology</i> Ballroom C, Albuquerque Convention Center	

continued to next column

2014 Educational Tracks

The SID is pleased to offer two educational tracks within the 2014 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. 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 along with their peers, providing significant opportunities for networking.

Y

YOUNG INVESTIGATOR AND TRAINEE TRACK :

This track is intended to provide an overview of basic, clinical and translational science, along with providing opportunities to interact with senior faculty. The target audience includes medical and biomedical science students, research fellows, residents, PhD/ post-doctoral candidates, and junior faculty.

TRACK COMPONENTS:

- Irwin Blank Forum
- Clinical Scholars Sessions
- Round Table Discussions (during all Poster Sessions)
- Minisymposia Mixers-these informal Q&A sessions will occur after all May 8-9 Minisymposia. Mixers start at 5:00 pm to provide opportunities for interaction among meeting attendees. Light refreshments/snacks provided.
- Trainee Dinner-Note: Tickets are \$50 and space is limited.

C

THE CLINICAL SCHOLARS TRACK AND SESSIONS:

The Clinical Scholars Track is a multi-day program providing an overview of the latest developments in skin disease and health research, including laboratory discoveries with important clinical relevance. The Clinical Scholars Track is intended for physicians, researchers, educators, residents and medical students who may not be directly involved in bench research but who are interested in the clinical applications of cutting edge research. The program is comprised of abstract presentations (selected because of their potential clinical relevance) and lectures on scientific topics of clinical importance. Speakers are chosen for their ability to effectively communicate to a diverse audience.

TRACK COMPONENTS:

- Thursday May 8, 10:15 am - 12:15 pm:
Inflammation and Infection: Looking Through the Lenses of Atopic Dermatitis and the Microbiome
- Thursday May 8, 12:00 pm - 2:00 pm:
Wound Healing Symposium featuring presenters from the SID and Wound Healing Society covering the latest research and promising therapeutic advances
- Saturday May 10, 10:15 am - 12:15 pm:
Molecular and immune targets for cutaneous malignancies



Albuquerque Convention Center Maps

Society for Investigative Dermatology Annual Meeting

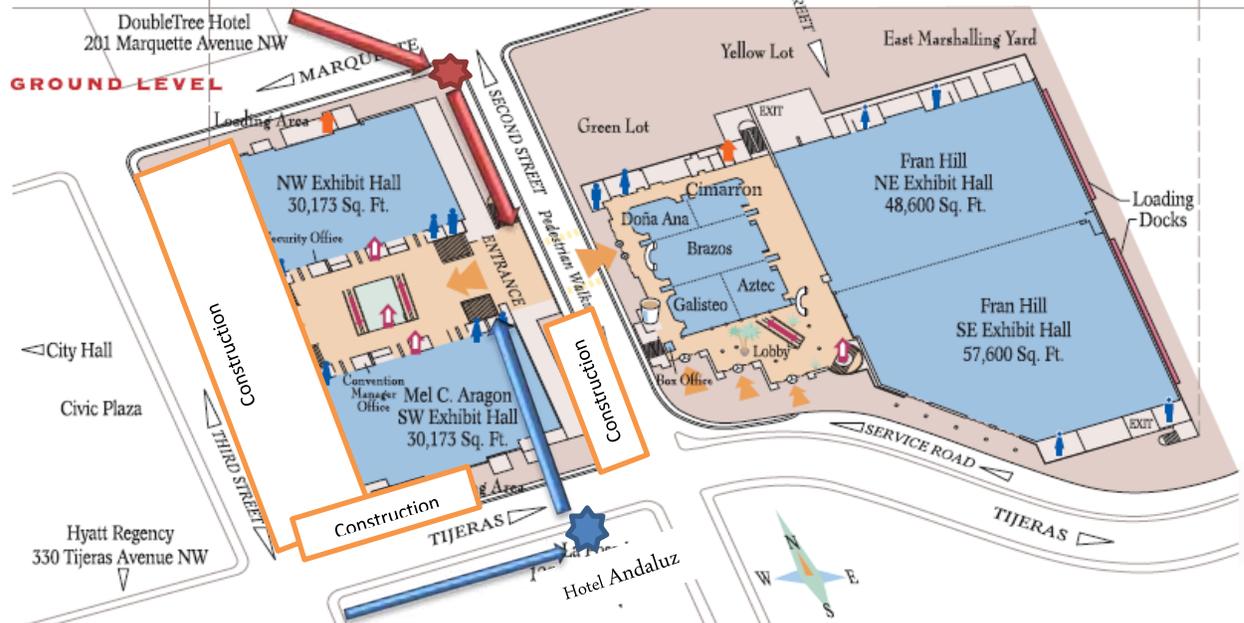
May 7 to 10, 2014

Access to West Building from Hyatt Regency, Hotel Andaluz and Doubletree Hotels

UPPER LEVEL



GROUND LEVEL



-  Entrance from Hyatt & Hotel Andaluz
-  Crossing Guard, Greeter and water station
-  Entrance from Doubletree
-  Greeter and water station

Meeting Information & Policies

REPRODUCTION AND PHOTOGRAPHY POLICY

Any photography, filming, taping, recording or reproduction in any medium of any of the programs, exhibits, or lectures (oral or posters) presented at the 2014 SID Annual Meeting is strictly forbidden. Failure to comply with this rule may lead to the removal of your meeting credentials.

ON-SITE REGISTRATION

On-site registration will take place at the SID Registration Counter at the Upper West Foyer registration area in the Albuquerque Convention Center during the following hours:

Wednesday, May 7, 2014
8:00 am - 6:30 pm

Thursday, May 8, 2014
7:30 am - 5:00 pm

Friday, May 9, 2014
7:30 am - 4:00 pm

Saturday, May 10, 2014
7:30 am - 12:00 pm

BADGES

Badges are issued at the SID Registration Counter (2nd Level registration area in the Albuquerque Convention Center). Meeting attendees are required to wear their badges at all times for entry to all sessions and other Meeting activities.

SPECIAL SERVICES FOR THE PHYSICALLY CHALLENGED

The Albuquerque Convention Center'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 by Thursday, May 1, 2014.

PLACEMENT SERVICES

The SID is pleased to offer a placement service to its members. A year-round 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 poster board will be available in the registration area for such postings.

TECHNICAL EXHIBITS

Exhibits will be on display during the following times in the Northeast Exhibit Hall of the Albuquerque Convention Center:

Thursday, May 8, 2014
10:00 am - 12:00 pm

Friday, May 9, 2014
11:15 am - 1:15 pm

Saturday, May 10, 2014
10:00 am - 12:00 pm

The SID welcomes representatives from the following organizations:

American Acne & Rosacea Society

American Behcet's Disease
Association

Basal Cell Carcinoma Nevus
Syndrome (BCCNS Life Support Network)

Foundation for Ichthyosis and
Related Skin Types

International Topical Steroid Awareness Network, Inc.

National Alopecia Areata Foundation

National Eczema Association

Pachyonychia Congenita Project
(PC Project)

Wednesday Sessions

PAGE	TITLE
9	Meeting-at-a-Glance
10-11	Translational Symposium on Neurobiology
12	Irwin H. Blank Forum
13-14	State-of-the-Art Plenary Lectures 1 and 2
15	Kligman/Frost Leadership Lecture
16	Welcome Reception





Wednesday Meeting-At-A-Glance

Wednesday, May 7, 2014

Pachyonychia Congenita Project (PC Project) 7:00 am - 9:30 am

Aztec, Albuquerque Convention Center

Resident Retreat for Future Academicians 7:30 am - 3:00 pm

San Miguel/Mesilla, Albuquerque Convention Center By Invitation Only

PhD Post-Doc Retreat 7:30 am - 3:00 pm

San Miguel/Mesilla, Albuquerque Convention Center By Invitation Only

SID Board of Directors Meeting 7:30 am - 2:15 pm

Fiesta, Hyatt Regency

Registration 8:00 am - 6:30 pm

Upper West Foyer, Albuquerque Convention Center

Translational Symposium on Neurobiology 12:00 pm - 3:00 pm

Kiva Auditorium, Albuquerque Convention Center

Irwin H. Blank Forum 3:00 pm - 5:00 pm

Hot Topics in Dermatology Research & Cutaneous Genomics

Kiva Auditorium, Albuquerque Convention Center

State-of-the-Art Plenary Lecture 1 5:00 pm - 5:30 pm

Organ Regeneration: Lessons from the Hair Follicle

Mayumi Ito, PhD

Kiva Auditorium, Albuquerque Convention Center

State-of-the-Art Plenary Lecture 2 5:30 pm - 6:00 pm

Scleroderma: Toward Molecular Diagnosis and Rational Therapy

John Varga, MD

Kiva Auditorium, Albuquerque Convention Center

Albert M. Kligman / Phillip Frost Leadership Lecture 6:00 pm - 6:30 pm

Learning from Leprosy: Patterns of Inflammation in Skin Disease

Robert L. Modlin, MD

Kiva Auditorium, Albuquerque Convention Center

Welcome Reception 6:30 pm - 8:30 pm

Upper West Foyer, Albuquerque Convention Center

ASSOCIATE MEETINGS

WEDNESDAY, MAY 7, 2014

Pachyonychia Congenita Project (PC Project)

7:00 am - 9:30 am

Aztec, Albuquerque Convention Center

Resident Retreat for Future Academicians

7:30 am - 3:00 pm

San Miguel/Mesilla, Albuquerque Convention Center
By Invitation Only

PhD Retreat

7:30 am - 3:00 pm

San Miguel/Mesilla, Albuquerque Convention Center
By Invitation Only

SID Board of Directors Meeting

7:30 am - 2:15 pm

Fiesta, Hyatt Regency

DEBRA of America Scientific Advisory Board

11:30 am - 3:00 pm

Dona Ana, Albuquerque Convention Center

Translational Symposium on Neurobiology

WEDNESDAY, MAY 7, 2014

12:00 pm – 3:00 pm

Kiva Auditorium, Albuquerque Convention Center

Introduction

12:00 pm - 12:05 pm

Suephy Chen, MD



Dr. Suephy Chen is currently Associate Professor and Vice Chair in the Department of Dermatology at Emory University where she is also Director of the Dermatology Clinical and Outcomes Research Unit . She is Staff Physician in the Department of Health Services Research and Development, Division of Dermatology, Atlanta VA Medical Center. Dr. Chen’s research interests include cost-effectiveness analyses, quality of life [utilities and health status measures; instrument development and application], evidence-based medicine (systematic reviews, meta-analyses, and diagnostic tests).

Atopic Dermatitis Project: A Convening Template

12:05 pm – 12:20 pm

Lisa Beck, MD



Dr. Beck is currently Professor of Dermatology and Medicine at University of Rochester Medical Center where she is Director of Translational Research. Dr. Beck’s research focuses on understanding the interplay between skin barrier and the innate as well as adaptive immune systems in patients with atopic dermatitis. She is a Section Editor for the Journal of Investigative Dermatology and a member of the SID Board of Directors and the NEA Research Advisory Board. Neuroscience: Earl Carstens, PhD (UC Davis)

Neurobiology of Itch in Health and Disease

12:20 pm - 12:45 pm

Earl Carstens, PhD



Dr. Carstens joined the faculty in the Dept. of Neurobiology, Physiology and Behavior at the University of California, Davis where he is currently a distinguished professor. His research interests over the years include pain modulation, chemesthesis, mechanisms of general anesthesia, and itch. His current research efforts investigate neural mechanisms of itch in health and disease.

Immunology and Neurogenic Inflammation of Itch

12:45 pm - 1:10 pm

Ethan Lerner, MD/PhD



Dr. Lerner is an investigative dermatologist who studies peripheral mechanisms of itch. After training in internal medicine at the University of Washington, he moved to Boston where he completed the dermatology residency at Harvard University. He then joined the faculty and runs a research group at the Cutaneous Biology Research Center at Massachusetts General Hospital. Dr. Lerner is particularly interested in the interplay between the skin and the nervous system.

Translational Symposium on Neurobiology (Cont.....)

Itch, Acupuncture and the Brain

Florian Pfab, MD



Dr. Pfab is Professor, Department of Dermatology and Allergy and Department of Preventive and Rehabilitative Sports Medicine, Technische Universität München. He is a Licensed Specialist in Dermatology, Allergology, Sports Medicine, Acupuncture and Manual Medicine (Chiropractics), and Head team physician FC Ingolstadt 04 (German 2nd division soccer team) and Physician of FC Bayern Munich (German 1st division soccer team).

1:10 pm - 1:35 pm

The Beginnings of a Standard Chronic Pruritus Clinical Protocol

Suephy Chen, MD, MS

1:35 pm - 1:55 pm

Itch as a Disease

Gil Yosipovitch, MD



Gil Yosipovitch, MD is Professor and Chair of The Department of Dermatology and Director of the Temple Itch Center at Temple University Medical School in Philadelphia, Pennsylvania.

1:55 pm - 2:15 pm

Regulatory Considerations in Translation

Jonathan K. Wilkin, MD



Jonathan K. Wilkin, MD, the founding director (retired) of the Division of Dermatology and Dental Products at the US Food and Drug Administration, remains active in regulatory matters after over 12 years of FDA service which included membership on the FDA's Dermatology Drugs Advisory Committee. Before going to the FDA, he was Director of Dermatology at the Ohio State University and Professor of Pharmacology and Medicine. He has over 130 publications in dermatology and clinical pharmacology.

2:15 pm - 2:35 pm

Panel Discussion and Conclusions

Ethan Lerner, MD/PhD

2:35 pm - 3:00 pm

ASSOCIATE MEETINGS

WEDNESDAY, MAY 7, 2014

Pachyonychia Congenita Project (PC Project)

7:00 am - 9:30 am

Aztec, Albuquerque Convention Center

Resident Retreat for Future Academicians

7:30 am - 3:00 pm

San Miguel/Mesilla,

Albuquerque Convention Center

By Invitation Only

PhD Retreat

7:30 am - 3:00 pm

San Miguel/Mesilla,

Albuquerque Convention Center

By Invitation Only

SID Board of Directors Meeting

7:30 am - 2:15 pm

Fiesta, Hyatt Regency

DEBRA of America Scientific Advisory Board

11:30 am - 3:00 pm

Dona Ana, Albuquerque Convention Center

Irwin H. Blank Forum

Hot Topics in Dermatology Research & Cutaneous Genomics

WEDNESDAY, MAY 7, 2014

3:00 pm – 5:00 pm

Kiva Auditorium, Albuquerque Convention Center

Introduction

Anand K. Ganesan, MD/PhD



Dr. Ganesan is the Joint Appointee, Biological Chemistry at the School of Medicine, University of California, Irvine. His research interests are functional genomics, melanogenesis and melanoma. He has identified a novel role for autophagy regulators in the biogenesis of the melanosome and also identified a novel role for RhoJ in regulating the DNA damage response in melanoma tumors. He maintains an active clinical practice focusing on patients with pigmentary disorders and melanoma.

Microbiome

Richard L. Gallo, MD/PhD



Dr. Gallo's work focuses on understanding innate immune defense mechanisms and the mutualistic interactions of microbes with the skin. His group discovered the existence of antimicrobial peptides (AMPs) in mammalian skin and was the first to show that AMPs are essential for immune defense of mammals. His lab has contributed landmark observations describing the mechanisms of action of these peptides and their role in human diseases such as atopic dermatitis, rosacea, psoriasis, wound repair and infections of the skin, gut, lung, brain and kidney.

Heidi Kong, MD/PhD



Dr. Kong is currently a tenure-track investigator. Her research focuses on the skin microbiome in healthy individuals and patients with dermatologic disorders, particularly individuals with atopic dermatitis and primary immunodeficiency disorders with atopic dermatitis-like skin conditions. Her interest is in the interface between cutaneous microbes and the host.

Melanoma Genomics

Roger Lo, MD/PhD



Dr. Roger Lo is a tenured Associate Professor of Medicine/Dermatology and Molecular and Medical Pharmacology at the David Geffen School of Medicine, University of California, Los Angeles and the Jonsson Comprehensive Cancer Center. He is the Director of the Melanoma Clinic in Dermatology.

Roundtable Discussion

ASSOCIATE MEETINGS

State-Of-The-Art Plenary Lecture 1

Wednesday, May 7, 2014

5:00 pm – 5:30 pm

Kiva Auditorium , Albuquerque Convention Center

Organ Regeneration: Lessons From The Hair Follicle



Mayumi Ito, PhD
New York University
New York, New York

Dr. Ito's research areas include tissue regeneration, stem cells, hair follicles, Melanocytes and how Epithelial stem cells in the hair follicle bulge contribute skin epidermal cells during wound healing.

NOTES

WEDNESDAY, MAY 7, 2014

Pachyonychia Congenita Project (PC Project)

7:00 am - 9:30 am
Aztec, Albuquerque Convention Center

Resident Retreat for Future Academicians

7:30 am - 3:00 pm
San Miguel/Mesilla,
Albuquerque Convention Center
By Invitation Only

PhD Retreat

7:30 am - 3:00 pm
San Miguel/Mesilla,
Albuquerque Convention Center
By Invitation Only

SID Board of Directors Meeting

7:30 am - 2:15 pm
Fiesta, Hyatt Regency

DEBRA of America Scientific Advisory Board

11:30 am - 3:00 pm
Dona Ana, Albuquerque Convention Center



State-Of-The-Art Plenary Lecture 2

Wednesday, May 7, 2014

5:30 pm – 6:00 pm

Kiva Auditorium, Albuquerque Convention Center

Scleroderma: Toward Molecular Diagnosis And Rational Therapy



John Varga, MD

Northwestern University
Chicago, Illinois

Dr. Varga's research focuses on fibrosis in scleroderma. As a practicing rheumatologist and laboratory investigator, his studies have been funded by the National Institutes of Health, the Department of Defense and the Scleroderma Foundation.

NOTES

Horizontal lines for taking notes.

Albert M. Kligman / Phillip Frost Leadership Lecture

Wednesday, May 7, 2014

6:00 pm – 6:30 pm

Kiva Auditorium, Albuquerque Convention Center

Learning from Leprosy: Patterns of Inflammation in Skin Disease



Robert L. Modlin, MD

UCLA School of Medicine

Los Angeles, California

Robert L. Modlin, M.D. completed his undergraduate studies at Johns Hopkins University, received his medical degree at the New York University School of Medicine, was a pediatrics intern at NYU, and a dermatology resident at Los Angeles County/University of Southern California School of Medicine. Since 1990, Dr. Modlin has been at UCLA, presently as the Klein Professor of Dermatology, Professor of Microbiology, Immunology, and Molecular Genetics, Chief of the Division of Dermatology and Vice Chair for cutaneous medicine and dermatologic research in the Department of Medicine.

Dr. Modlin's interest in leprosy began during his dermatology residency at the Los Angeles County/ University of Southern California Medical Center, learning from Dr. Thomas Rea. The goal of his research is centered on the study of leprosy as a model to learn about mechanisms of host defense in humans. As such, Dr. Modlin's laboratory has made fundamental insights into T cell subsets, cytokine patterns, antigen presentation, innate immunity and antimicrobial mechanisms in the human immune response to infection. He has been awarded three patents for this research. Dr. Modlin has published over 200 articles, including 14 papers in Science and Nature, and 6 in Nature Medicine. The Modlin lab's manuscripts identifying distinct T cell cytokine profiles in leprosy lesions and the identification of microbial lipoprotein as ligands for Toll-like receptor 2 have each been cited over 1000 times. A more recent exciting discovery is the elucidation of the mechanism by which vitamin D subsets contributes to innate immunity against tuberculosis in humans, providing a rationale for therapeutic intervention.



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.

ASSOCIATE MEETINGS

WEDNESDAY, MAY 7, 2014

Pachyonychia Congenita Project

(PC Project)

7:00 am – 9:30 am

Aztec, Albuquerque Convention Center

Resident Retreat for Future

Academicians

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By Invitation Only

PhD Retreat

7:30 am – 3:00 pm

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Albuquerque Convention Center

By Invitation Only

SID Board of Directors Meeting

7:30 am – 2:15 pm

Fiesta, Hyatt Regency

DEBRA of America Scientific

Advisory Board

11:30 am – 3:00 pm

Dona Ana, Albuquerque Convention Center



Welcome Reception

Wednesday, May 7, 2014

6:30 pm - 8:30 pm

Upper West Foyer, Albuquerque Convention Center

Join us for a Welcome Reception to kick off the 2014 SID Annual Meeting!

All attendees are invited, free of charge, to gather for drinks and hors d'oeuvres and mingle with colleagues at the Albuquerque Convention Center immediately following the last session of the evening.

(Beverage tokens will be distributed in meeting registration packets.).



Thursday Sessions

PAGE	TITLE
19	Meeting-at-a-Glance
20	Society for Pediatric Dermatology
21	Plenary Session I
22	Eugene M. Farber Lecture
23	Naomi M. Kanof Lecture
24-25	American Skin Association Achievement Award & David Martin Carter Mentor Award
26	Clinical Scholars Plenary Session Poster Session I
27	Satellite Symposium
28-29	Research in Cutaneous Surgery Minisymposium
30	Cutaneous T Cell Lymphoma Symposium
31	Wound Healing Symposium
32	Concurrent Minisymposium 1: Adaptive Immunity
33	Concurrent Minisymposium 2: Interdisciplinary Spotlight
34	Concurrent Minisymposium 3: Carcinogenesis & Cancer Genetics
35	Concurrent Minisymposium 4: Photobiology
36	Concurrent Minisymposium 5: Tissue Regeneration & Wound Healing
37	Minisymposia Mixers
38	Social Event





ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

Thursday Meeting-At-A-Glance

THURSDAY, MAY 8, 2014

Society for Pediatric Dermatology Brazos, Albuquerque Convention Center	7:00 am – 8:00 am
Registration Upper West Foyer, Albuquerque Convention Center	7:30 am – 5:00 pm
Plenary Session I Kiva Auditorium, Albuquerque Convention Center	8:00 am – 9:00 am
Eugene M. Farber Lecture <i>Psoriasis: Getting to the Heart of the Matter</i> Joel M. Gelfand, MD Kiva Auditorium, Albuquerque Convention Center	9:00 am – 9:30 am
Naomi M. Kanof Lecture <i>Integrating OMICS –Data for Understanding Complex Disease</i> Mark R. Chance, PhD Kiva Auditorium, Albuquerque Convention Center	9:30 am – 10:00 am
American Skin Association Research Achievement Awards Kiva Auditorium, Albuquerque Convention Center	10:00 am – 10:10 am
Poster Session I NE Exhibit Hall, Albuquerque Convention Center	10:00 am – 12:00 pm
American Skin Association David Martin Carter Mentor Award Presented to Gerald S. Lazarus, MD Kiva Auditorium, Albuquerque Convention Center	10:10 am – 10:15 am
Clinical Scholars Plenary Session Kiva Auditorium, Albuquerque Convention Center	10:15 am – 12:15 pm
Round Tables Topics displayed on tables in Poster Hall.	
Journal Liaison Committee Meeting Suite E-F, Albuquerque Convention Center	10:45 am – 11:45 am
International Society for Cutaneous Lymphoma <i>Cutaneous T Cell Lymphoma Symposium</i> Brazos, Albuquerque Convention Center	12:00 pm – 2:00 pm
Satellite Symposium Academic-Industry Partnership Project San Miguel/Mesilla, Albuquerque Convention Center	12:00 pm – 2:00 pm
Academic/Industry Session Pecos/Ruidoso, Albuquerque Convention Center By Invitation Only - Speed Dating	
Research in Cutaneous Surgery Symposium Ballroom B, Albuquerque Convention Center	12:00 pm – 2:00 pm
ISID Committee Meeting Suite E-F, Albuquerque Convention Center	12:00 pm – 2:00 pm
Wound Healing Symposium Ballroom A, Albuquerque Convention Center	12:00 pm – 2:00 pm
Concurrent Minisymposia Adaptive Immunity Ballroom B, Albuquerque Convention Center Translational Research: Atopic Dermatitis Kiva Auditorium, Albuquerque Convention Center Carcinogenesis & Cancer Genetics Ballroom A, Albuquerque Convention Center Photobiology Ballroom C, Albuquerque Convention Center Tissue Regeneration & Wound Healing San Miguel/Mesilla, Albuquerque Convention Center	2:00 pm – 5:00 pm
Minisymposia Mixers	5:00 pm – 6:00 pm
Social Event Albuquerque Museum of Art & History Ticketed Event: Pre-Registration Required	6:00 pm – 10:30 pm

Society for Pediatric Dermatology

7:00 am - 8:00 am

Brazos, Albuquerque Convention Center

Research in Cutaneous Surgery

Symposium

12:00 pm-2:00 pm

Ballroom B, Albuquerque Convention Center

International Society for Cutaneous

Lymphomas (ISCL)

Cutaneous T Cell Lymphoma Symposium

12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center

Pediatric Dermatology at the Society For Investigative Dermatology

THURSDAY, MAY 8, 2014

7:00 am – 8:00 am (BREAKFAST NOT INCLUDED)

Brazos, Albuquerque Convention Center

Welcome/Overview I: Pediatric Dermatology at SID

7:00 am – 7:15 am

Amy Paller, Northwestern University

Special Presentation: New genetic discoveries through exome sequencing

7:15 am – 7:40 am

David Kelsell, Queen Mary University of London



Abstract #472

7:40 am – 7:50 am

Disorders of keratinization: Genetic characterization of a large cohort via targeted and whole exome sequencing

Lynn Boyden, Yale University

Concluding Remarks and Networking

7:50 am – 7:55 am

Special thanks to the Society for Pediatric Dermatology and the Pediatric Dermatology Research Alliance for supporting these sessions

NOTES

Plenary Session I

PRESIDERS: PAUL BERGSTRESSER, MD AND S. WRIGHT CAUGHMAN, MD

THURSDAY, MAY 8, 2014

8:00 am – 9:00 am

Kiva Auditorium , Albuquerque Convention Center

1. **A novel desmosome-COP9 signalosome complex in epidermal differentiation.** Nicole A. Najor, Robert M. Harmon and Kathleen J. Green. Chicago, IL. 8:00 am, Poster #404
2. **Keratinocytes drive depigmentation in a mouse model of vitiligo via recruitment and activation of CD8+ T cells in the skin.** Jillian Richmond, Kingsley Essien, Joanna Groom, Andrew Luster and John Harris. Worcester, MA; Melbourne, Australia and Boston, MA. 8:12 am, Poster #065
3. **Higher-order chromatin folding and coordinated gene regulation at the Epidermal Differentiation Complex (EDC) locus in keratinocytes.** Joanne Yarker, Krzysztof Poterlowicz, Natalia Naumova, Bryan Lajoie, Andrei Mardaryev, Andrey Sharov, Job Dekker, Vladimir A. Botchkarev and Michael Fessing. Bradford, United Kingdom; Worcester, MA and Boston, MA. 8:24 am, Poster #444
4. **A lncRNA-MAF:MAFB transcription factor network regulates epidermal differentiation.** Vanessa Lopez-Pajares, Kun Qu, Jiajing Zhang, Dan Webster, Brook Barajas, Brian Zarnegar, Lisa Boxer, Markus Kretz and Paul Khavari. Palo Alto, CA. 8:36 am, Poster #255
5. **Induction of melanocytes from multilineage-differentiating stress-enduring (Muse) cells derived from human adipose tissue.** Takeshi Yamauchi, Kenichiro Tsuchiyama, Fumitaka Ogura, Shohei Wakao, Saaya Koike, Kenshi Yamasaki, Mari Dezawa and Setsuya Aiba. Sendai, Japan. 8:48 am, Poster #700

ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

Society for Pediatric Dermatology

7:00 am - 8:00 am

Brazos, Albuquerque Convention Center

Research in Cutaneous Surgery Symposium

12:00 pm-2:00 pm

Ballroom B, Albuquerque Convention Center

International Society for Cutaneous Lymphomas (ISCL)

Cutaneous T Cell Lymphoma Symposium

12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center



Eugene M. Farber Lecture

PSORIASIS: GETTING TO THE HEART OF THE MATTER

THURSDAY, MAY 8, 2014

9:00 am - 9:30 am

Kiva Auditorium, Albuquerque Convention Center

LECTURER BIO

Joel M. Gelfand, MD

University of Pennsylvania

Philadelphia, Pennsylvania



Dr. Gelfand's research program focuses on observational and interventional trials in patients with psoriasis, a chronic, immune mediated disease of the skin and joints. He has established large population-based and multi-centered clinic based cohorts of patients with psoriasis which are the focus of longitudinal studies evaluating cardiovascular risk and the comparative effectiveness of treatment modalities in this population. Dr. Gelfand has extensive experience in the design and execution of clinical trials and has established collaborations with investigators in translational medicine, nuclear medicine, oncology, cardiology, rheumatology, epidemiology, and biostatistics necessary for the success of multi-disciplinary studies. He has extensive experience mentoring pre- and post-doctoral fellows and candidates in the Master of Science in Epidemiology Program and junior faculty at PENN and institutions across the United States. Dr. Gelfand has protected time to mentor clinical scientists through his K24 award from NIAMS.



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.

Naomi M. Kanof Lecture

INTEGRATING-OMICS DATA FOR UNDERSTANDING COMPLEX DISEASE

THURSDAY, MAY 8, 2014

9:30 am – 10:00 am

Kiva Auditorium, Albuquerque Convention Center

LECTURER BIO

Mark R. Chance, PhD

Case Western Reserve University
Cleveland, Ohio



Dr. Chance is an internationally recognized expert in proteomics and structural biology with over 240 publications (H-index of 50) who has built multiple internationally recognized science and training programs over a 25-year career in academia. Currently, he is Director of the Center for Proteomics and Bioinformatics (CPB) at Case Western Reserve University (CWRU). The faculty, staff and users of the CPB, including its structural biology facilities at Brookhaven National Laboratories, currently publish 200 papers per year using technologies ranging from next generation sequencing to mass spectrometry to crystallography and in fields from cancer to infectious disease to vision research. Dr. Chance has been a leader in clinical and translational research within the Center for Translational Science Collaborative and the Case Comprehensive Cancer Center. His areas of interest include providing leadership as both a scientist and administrator to accelerate the development and translation of biomarkers and treatments for complex diseases.



LECTURESHIP 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.

ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Research in Cutaneous Surgery Symposium

12:00 pm–2:00 pm

Ballroom B, Albuquerque Convention Center

International Society for Cutaneous Lymphomas (ISCL)

Cutaneous T Cell Lymphoma Symposium

12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center



American Skin Association (ASA) Research Achievement Awards

THURSDAY, MAY 8, 2014

10:00 am - 10:10 am

Kiva Auditorium, Albuquerque Convention Center

Instituted in 1989 to identify established scientists in investigative dermatology and cutaneous biology, ASA's Research Achievement Awards recognize those who have greatly advanced work related to autoimmune and inflammatory skin diseases, melanoma and non-melanoma skin cancer, psoriasis, public policy and medical education, and vitiligo and pigment cell disorders.

American Skin Association is delighted to present its 2014 Research Achievement Awards to:

- | | |
|---------------------------------|---|
| Thomas S. Kupper, MD | Autoimmune and Inflammatory Skin Disorders Research |
| Richard L. Edelson, MD | Melanoma and Skin Cancer Research |
| John Y. Koo, MD | Psoriasis Research |
| Ponciano D. Cruz, MD | Public Policy and Medical Education |
| Barbara A. Gilchrest, MD | Vitiligo and Pigment Cell Biology Research |

American Skin Association David Martin Carter Mentor Award

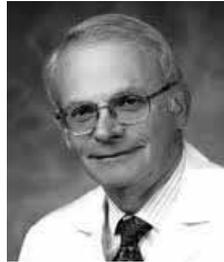
THURSDAY, MAY 8, 2014

10:10 am - 10:15 am

Kiva Auditorium, Albuquerque Convention Center

ASA's David Martin Carter Mentor Award honors a member of the dermatology community who embodies the characteristics of the late David Martin Carter, MD/PhD that made him an inspiration to many dermatologists/investigators, colleagues and medical students throughout the world.

American Skin Association is delighted to present its 2014 David Martin Carter Mentor Award to **Gerald S. Lazarus, MD.**



ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

Society for Pediatric Dermatology

7:00 am - 8:00 am

Brazos, Albuquerque Convention Center

**Research in Cutaneous Surgery
Symposium**

12:00 pm-2:00 pm

Ballroom B, Albuquerque Convention Center

**International Society for Cutaneous
Lymphomas (ISCL)**

Cutaneous T Cell Lymphoma Symposium

12:00 pm - 2:00 pm

Brazos, Albuquerque Convention Center



Clinical Scholars Program

THURSDAY, MAY 8, 2014

10:15 am – 12:15 pm

Kiva Auditorium, Albuquerque Convention Center

Inflammation and Infection: Looking Through the Lenses of Atopic Dermatitis and the Microbiome

PLENARY PRESENTATIONS

1. **The mTORC1 protein Raptor controls filaggrin levels through an Akt1/cathepsin H dependent mechanism.** Naeem, Aishath^{1,2}; Zhu, Yanan, Moffat, Miriam, Cookson, William, Harper, John, Di, Wei-Li, Reinheckel, Thomas, O'Shaughnessy, Ryan. *10:20 am, Poster #362, Presented by Ryan O'Shaughnessy, MD/PhD*
2. **Reduction of IL-31 expression during therapy of CTCL correlates with improved pruritus.** Skabytska, Yuliya¹; Wölbing, Florian¹; Günther, Claudia²; Köberle, Martin¹; Kaesler, Susanne¹; Guenova, Emmanuella³; Volz, Thomas¹; Biedermann, Tilo¹ *10:40 am, Poster #634, Presented by Yuliya Skabytska, PhD*

LECTURE

Atopic Dermatitis - Evolving pathogenic concepts and the translational revolution

Emma Guttman-Yassky, MD, PhD



Emma Guttman-Yassky, MD, PhD is an Associate Professor of Dermatology & Immunology at the Icahn School of Medicine at Mount Sinai in New York. She is the Director of the center for excellence in eczema and the occupational dermatitis clinic and the laboratory for inflammatory skin diseases. She earned her M.D. degree from Sackler School of Medicine at the Tel-Aviv University, and a Ph.D. degree from the Bar-Ilan University, Israel. After obtaining her Israeli Board certification in dermatology at Rambam/Technion, Dr. Guttman moved to the U.S. to pursue a two-year postdoctoral fellowship at The Rockefeller University in the Laboratory for Investigative Dermatology. Upon completion of her fellowship, she became board-certified by the American Board of dermatology after a second dermatology residency training at the Weill-

Cornell Medical College, in NY. Dr. Guttman's major clinical focus is atopic and contact dermatitis. Her research made paradigm-shifting discoveries on the immunologic basis of atopic dermatitis (AD) in humans, enriching the understanding of the pathophysiology of this common disorder and opening the door to new therapeutics. Dr. Guttman has developed the only comprehensive molecular maps of AD, defining skin differentiation and immune-circuits characterizing this disease. She has established the reversibility of the AD phenotype and defined a series of disease- and response- biomarkers that are now accelerating testing of new immune, pathway-specific drugs in this disease. Her research is the first to identify in humans a distinct population of T-cells that independently produce IL-22, conceptualizing AD as a Th2/Th22-polarized disease. She associated IL-22 as a potential link between the barrier and immune abnormalities characterizing AD, paving the path for potential new therapeutics. She was recently awarded an NIH/NIAMS (UM1) grant, for a study utilizing an anti-IL-22 antibody to explore the biological effects of blocking IL-22 in AD. She is the recipient of the Young Investigator Award (2011) from the AAD, the Dermatology Foundation's Physician-Scientist Career Development Award, the Fisher award of the American Contact Dermatitis Society.

Microbiome-Host Immune Interactions in Atopic Dermatitis

Elizabeth Grice, PhD



Elizabeth Grice, Ph.D., is an Assistant Professor of Dermatology in the Perelman School of Medicine at the University of Pennsylvania. She received her B.A. in Biology from Luther College, and her Ph.D. in Human Genetics from Johns Hopkins University. Dr. Grice then did her post-doctoral fellowship at the NIH/NHGRI under the direction of Dr. Julia Segre, where her work using culture-independent analysis of skin microbiota revealed the vast topographic and temporal diversity of bacteria colonizing the healthy human skin. She was awarded a K99-R00 Pathway to Independence Award from NIH/NIAMS to examine the role of microbiome-innate immune interactions in impaired wound healing. A major focus of her laboratory is mechanistic studies of the role of microbiota in impaired wound healing, and clinical studies to test association

of microbiota with impaired healing and development of infection-related complications in both diabetic foot ulcers and acute traumatic wounds. In addition, Dr. Grice's laboratory focuses on cutaneous immune-microbiota interactions, and how these interactions contribute to skin disease. Her laboratory's recent work demonstrated a role for complement in defining the composition and diversity of the skin microbiota.

Satellite Symposium

ACADEMIC-INDUSTRY PARTNERSHIP PROJECT (AIPP)

THURSDAY, MAY 8, 2014

12:00 pm – 2:00 pm

San Miguel/Mesilla, Albuquerque Convention Center

Introductions Kevin Cooper, MD 12:00 pm - 12:05 pm

Panel Discussion 12:05 pm – 12:40 pm
[Open to All Meeting Attendees]

Break/transition 12:40 pm – 12:45 pm

Speed Dating/Networking 12:45 pm – 2:00 pm
[Individual meetings scheduled in advance by the SID.]



Moderator: Kevin D. Cooper, MD

Dr. Kevin D. Cooper is the Professor and Chair of the Department of Dermatology at Case Western Reserve University (CWRU) and University Hospitals Case Medical Center (UHCMC) in Cleveland, Ohio. He is a Staff Physician for the Dermatology Service at the Cleveland Veterans Administration (VA) Hospital, and the Director of the NIH NIAMS Skin Diseases Research Center at CWRU, one of only six awarded in the country, allowing him to coordinate and advance skin disease research across the institutions. He also directs the UHCMC Murdough Family Center for Psoriasis, and the NIH NIAMS Psoriasis Center of Research Translation (CORT) at CWRU.



M. Joyce Rico, MD, Novan Therapeutics

Dr. M. Joyce Rico is the Chief Medical Officer at Novan Therapeutics, a clinical stage biotechnology company headquartered in Durham, NC. Dr. Rico is a board-certified dermatologist and served on the full-time faculty at the University of Miami, Duke University, and New York University, prior to joining Fujisawa-Astellas in 2000. Dr. Rico currently serves on the Board of Directors for the American Dermatologic Association and the Society for Investigative Dermatology.



Martin M. Okun, MD AbbVie

Dr. Okun was a dermatology resident at Washington University at St. Louis, and conducted postdoctoral research at the National Institutes of Health. He was a medical reviewer at the Food and Drug Administration, then practiced dermatology in Madison, Wisconsin. Since 2005, he has worked in medical affairs and clinical development at Abbott Labs and AbbVie. He has participated in the design and monitoring of Phase I through IV clinical trials in a variety of dermatologic indications, including psoriasis, pediatric psoriasis, and hidradenitis suppurativa.



Seth J. Orlow, MD/PhD

Dr. Orlow is the Weinberg Professor of Pediatric Dermatology, a Professor of Cell Biology and Pediatrics, and, since 2006, Chairman of the Ronald O. Perelman Department of Dermatology at NYU School of Medicine. An expert in the molecular and cellular biology of melanocytes and genetic and pediatric disorders of skin, hair and nails, Dr. Orlow is an author of over 185 peer-reviewed articles.



R. Rox Anderson, MD

Dr. Anderson is a Professor in Dermatology at Harvard Medical School, and Director of the Wellman Center for Photomedicine at Massachusetts General Hospital. He is an Adjunct Professor at M.I.T., where he teaches graduate courses in the Division of Health Sciences and Technology. Dr. Anderson conceived and co-developed the concept of microscopic target-selective laser therapy. He co-invented fractional laser treatment, the first use of laser microbeams for skin treatment. Based on the natural entity of neonatal cold-induced fat necrosis, Dr. Anderson recently led the development of selective cryolipolysis which uses cold cycles to preferentially remove adipose tissue. He co-invented the confocal laser scanning microscope for human skin imaging.



George Cotsarelis, MD

Dr. Cotsarelis serves as the Milton B. Hartzell Professor and Chair of the Department of Dermatology at the Perelman School of Medicine of the University of Pennsylvania. He is known for first isolating hair follicle stem cells and determining their roles in alopecia, wound healing and skin regeneration.

ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Research in Cutaneous Surgery Symposium

12:00 pm-2:00 pm

Ballroom B, Albuquerque Convention Center

International Society for Cutaneous Lymphomas (ISCL)

Cutaneous T Cell Lymphoma Symposium

12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center



Research in Cutaneous Surgery Symposium

THURSDAY MAY 8, 2014

12:00 pm – 2:00 pm

Ballroom B , Albuquerque Convention Center

The Research in Cutaneous Surgery Symposium is a forum for clinically relevant, patient-directed research in dermatologic surgery, including cancer surgery, laser surgery, and cosmetic surgery. With a primary emphasis on clinical research, the symposium aims to highlight clinical trials on procedure safety and effectiveness, as well as epidemiologic investigations. As research in cutaneous surgery is a growing field, the symposium also serves to bring together investigators to facilitate future collaborations. Pilot studies and early work are appropriate for submission. Those interested in directing an abstract to this session next year are encouraged to contact any of the co-moderators for more information.

Moderators: Murad Alam, Kira Minkis, & Jeremy Bordeaux

12:00 pm -12:09 pm

Botulinum toxin improves quality of life and may ameliorate pain associated with cutaneous leiomyomas

Haley Naik

12:09 pm – 12:18 pm

A novel single-fraction radiation approach for metastatic Merkel cell carcinoma is well tolerated and demonstrates strong efficacy linked to intact cellular immunity

Paul Nghiem

12:18 pm – 12:27 pm

Analysis of imiquimod 5% cream vs tazarotene 0.1% for the treatment of lentigo maligna

Nicholas Blickenstaff

12:27 pm – 12:36 pm

No treatment disparity in underinsured patients undergoing Mohs micrographic surgery for non-melanoma skin cancer at a single center

Joanna Walker

12:36 pm – 12:45 pm

Efficacy and safety of a low-level laser device in the treatment of male and female pattern hair loss

Joaquin Jimenez

12:45 pm – 12:54 pm

Similarity in survival in stage 4 basosquamous carcinoma and stage 4 squamous cell carcinoma: Results of a single-site retrospective cohort study

Alex Zhu

continued on next page

Research in Cutaneous Surgery Symposium (Cont.)

12:54 pm - 1:03 pm

Age-related variance in skin properties: A novel means to predict drug delivery windows after microneedle insertion?

Nicole K. Brogden

1:03 pm - 1:12 pm

Presence of dermal atypia in malignant melanoma in situ: effect on management and outcome

Lana Tong

1:12 pm - 1:21 pm

Atrophic acne scars can undergo spontaneous regression

Eugene Balagula

1:21 pm - 1:30 pm

Open-label pilot study of LDE225 in advanced basal cell carcinoma patients who have been treated previously with a non-LDE225 Smoothened inhibitor

Anne Lynn S. Chang

1:30 pm - 1:39 pm

Ecrrine syringometaplasia secondary to vemurafenib at sites of radiation recall

Keyoumars Soltani

1:39 pm - 1:48 pm

Dynamic thermal infrared imaging non-invasively detects skin cancer with high sensitivity and specificity

Stephen Myers

1:48 pm - 1:57 pm

Incidence and survival of primary dermatofibrosarcoma protuberans in the United States

Katie Kreicher

ASSOCIATE MEETINGS

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12:00 pm - 2:00 pm

Brazos, Albuquerque Convention Center





Cutaneous T Cell Lymphoma Symposium

**INTERNATIONAL SOCIETY FOR CUTANEOUS LYMPHOMAS (ISCL)
SCIENTIFIC & ANNUAL GENERAL MEETING**

THURSDAY, MAY 8, 2014

12:00 pm - 2:00 pm

Brazos, Albuquerque Convention Center

Presiders: Joan Guitart, MD; Sam Hwang, MD, PhD; Youn Kim, MD; and Gary Wood, MD
8 minutes for presentation + 2 minutes for Q&A and change of speaker

ISCL General Business Meeting with deli lunch; Presentation of Cutaneous Lymphoma Foundation's Young Investigator's Award

1. **Tolerability and encouraging clinical activity of SHP-141, a topical skin-restricted HDAC inhibitor, in a phase 1B study in cutaneous t-cell lymphoma.** Kim, Youn H.; Krathen, Michael S.; Duvic, Madeline; Wong, Henry; Porcu, Piereluigi; Tacastacas, Jocely; Korman, Neil J.; Guitart, Joan; Landau, Steven B.; Bradner, James E. *Poster #531*
2. **Resiquimod gel, a potent activator of the innate immune response, leads to systemic immune activation and regression of treated lesions in patients with CTCL: Results of a phase I trial.** Rook, Alain H.; Wysocka, Maria; Benoit, Bernice; Watanabe, Rei; Troxel, Andrea; Teague, Jessica; Elenitsas, Rosalie; Kim, Ellen; Surber, Christian; Clark, Rachael; Gelfand, Joel. *Poster #530*
3. **Epigenetically enhanced photodynamic therapy (ePDT) is superior to conventional PDT for inducing apoptosis in cutaneous T-cell lymphoma (CTCL).** Salva, Katrin; Nihal, Minakshi; Wu, Jianqiang; Wood, Gary S. *Poster #666*
4. **Rapamycin reprograms tumor cell metabolism in a murine model of cutaneous T-cell lymphoma.** Wu, Xuesong; Garner, Justine; Hwang, Sam T.; Schieke, Stefan M. *Poster #170*
5. **IL-10 is upregulated in advanced mycosis fungoides and is required for maximal tumor development in a murine model of CTCL.** Wu, Xuesong; Zhou, Youwen; Hwang, Sam. *Poster #534*
6. **Utility of high-throughput sequencing of T cell receptor gene rearrangement to improve diagnosis in cutaneous T cell lymphoma.** Rozati, Sima; Weng, Wen-Kai; Tavallae, Mahkam; Kim, Jinah; Rieger, Kerri; Armstrong, Randall; Kirsch, Ilan; Kim, Youn H. *Poster #550*
7. **High throughput TCR sequencing provides superior ability to diagnose, stage and follow patients with cutaneous T-cell lymphoma.** Teague, Jessica; Robins, Harlan; Kirsch, Lanny; Williamson, David; Watanabe, Rei; Kupper, Thomas S.; Clark, Rachael. *Poster #141*
8. **c-CBL ubiquitin E3 ligase is over-expressed in Sezary syndrome and its inhibition restores T-cell receptor signaling, upregulates FAS-Ligand expression and promotes activation-induced cell death.** Wu, Jianqiang; Wood, Gary S. *Poster #182*
9. **SATB1 over-expression promotes malignant cell proliferation in cutaneous CD30+ lymphoproliferative disease by repressing p21.** Wang, Yang; Gu, Xiaoguang; Zhang, Gaolei; Wang, Lin; Wang, Tingting; Zhao, Yun; Zhang, Xiuyan; Zhou, Youwen; Kadin, Marshall E.; Tu, Ping. *Poster #193*
10. **Large clonal T cell populations are observed in LyP lesions and may be associated with increased Th17 function as compared to mycosis fungoides.** Campbell, Laura; Watanabe, Rei; Kadin, Marshall; Teague, Jessica; Kupper, Thomas S.; Clark, Rachael. *Poster #138*

Wound Healing Symposium

THURSDAY, MAY 8, 2014

12:00 pm - 2:00 pm

Ballroom A, Albuquerque Convention Center

Introductions

12:00 pm – 12:05 pm

Rivkah Isseroff, MD, University of California – Davis
Katherine A. Radek, PhD, Loyola University

The Role of the Epidermis and TEWL in Scarring: New Insights Into Signaling

12:05 pm – 12:30 pm

Thomas Mustoe, MD, Northwestern University



Thomas A. Mustoe, MD, FACS, is board certified by the American Board of Plastic Surgery and by the American Board of Otolaryngology, having completed residencies in both specialties.

Modeling the Immunologic/Inflammatory process of Wound Healing Basic Science

12:30 pm – 12:55 pm

Luisa A. DiPietro, DDS/PhD, University of Illinois



Dr. Luisa A. DiPietro is Professor and Director of the Center for Wound Healing and Tissue Regeneration and an Associate Vice Chancellor for Research at the University of Illinois at Chicago.

Life in a Bad Neighborhood: Cell Survival Strategies in a Toxic Wound Environment

12:55 pm – 1:20 pm

Alan Wells, MD/DMSc, University of Pittsburgh



Dr. Alan Wells is Executive Vice-Chair and Thomas J. Gill, III Professor of the Department of Pathology, and a Professor of BioEngineering. In addition, Dr. Wells is the Medical Director of the University of Pittsburgh Medical Center (UPMC) Clinical Laboratories, and a Staff Pathologist at the Veterans Administration Medical Center in Pittsburgh, Pennsylvania. Within the University, he is a member of the McGowan Institute for Regenerative Medicine, the Center for Vascular Repair and Regeneration, the Center for Systems Biology and the University of Pittsburgh Cancer Institute.

Of Mice and Men: Preclinical Strategies to Push the Limits of the Translational Significance of Wound Healing Research

1:20 pm – 1:45 pm

Andrew Baird, PhD, University of California-San Diego



Andrew Baird is 2014-2015 President-Elect of the Wound Healing Society. He has spent the last 30 years leading basic and translational research programs in Research Institutes, Biotechnology and most recently in Academia, where he is currently a Professor of Surgery and Vice Chair of Research in the Department of Surgery University of California, San Diego.

Wrap-up / Q&A

1:45 pm – 2:00 pm

ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

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Cutaneous T Cell Lymphoma Symposium

12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center



Concurrent Minisymposium 1

ADAPTIVE IMMUNITY

THURSDAY, MAY 8, 2014

2:00 pm – 5:00 pm

Ballroom B, Albuquerque Convention Center

Presiders: Benjamin Chong, MD and Michael Rosenblum, MD/PhD

- 1. A novel population of T_{RM} with potent effector functions and a high proliferative capacity exists in human peripheral tissues.** Rei Watanabe, Ahmed Gehad, Chao Yang, Jessica Teague, Thomas S. Kupper and Rachael Clark. Boston, MA. 2:00 pm, Poster #041
- 2. Regulatory T cells prevent egress of activated T cells from lymph nodes after application of contact sensitizers via degradation of ATP.** Karsten Mahnke, Rainer M. Koch and Alexander H. Enk. Heidelberg, Germany. 2:12 pm, Poster #007
- 3. Reduction of IL-31 expression during therapy of CTCL correlates with improved pruritus.** Fiilberto Cedeno-Laurent, Elisha M. Singer, Bernice M. Benoit, Maria Wysocka, Gil Yosipovitch, Kim J. Ellen and Alain H. Rook. Philadelphia, PA. 2:24 pm, Poster #010
- 4. Programmed cell death1 (PD-1) regulates the effector function of autoimmune CD8 T cells via the ligands expressed on target epidermal cells.** Naoko Okiyama and Stephen I. Katz. Bethesda, MD. 2:36 pm, Poster #018
- 5. The extracellular ATP/ATPase axis is critical for skin-resident T cell immunity in UV-induced skin cancer.** Amanda S. MacLeod, Daniel Zelac, Ross Rudolph and Wendy L. Havran. La Jolla, CA. 2:48 pm, Poster #024
- 6. Identification of skin resident memory CD4+ T cells (T_{RM}) producing IL-17A after cutaneous candida infection.** Chang O. Park, Xiujun Fu, Xiaodong Jiang, Rei Watanabe, Rachael Clark, Robert C. Fuhlbrigge, Charles Lin and Thomas S. Kupper. Boston, MA. 3:00 pm, Poster #044
- 7. VEGF-A promotes IL-17A-producing $\gamma\delta$ T cell accumulation in mouse skin and serves as a chemotactic factor for plasmacytoid dendritic cells.** Takahiro Suzuki, Satoshi Hirakawa, Takatoshi Shimauchi, Taisuke Ito, Jun-ichi Sakabe, Michael Detmar and Yoshiki Tokura. Hamamatsu, Japan and Zurich, Switzerland. 3:12 pm, Poster #006
- 8. IFN-alpha diminishes the suppressive activity of human FOXP3+ regulatory T cells via cAMP deprivation.** Verena Raker, Nicole Bacher, Claudia Hofmann, Edith Graulich, Melanie Schwenk, Ria Baumgrass, Tobias Bopp, Ulrich Zechner, Luzie Merten, Christian Becker and Kerstin Steinbrink. Mainz, Germany and Berlin, Germany. 3:24 pm, Poster #012
- 9. Very early tumor-infiltrating dendritic cell change their characteristics from immunoinhibitory to immunostimulatory in association with tumor progression.** Takeshi Nakahara, Junna Oba and Masutaka Furue. Fukuoka, Japan. 3:36 pm, Poster #014
- 10. IL-37 induces tolerogenic dendritic cells and suppresses skin contact hypersensitivity.** Yuchun Luo, Xiangna Cai, Sucai Liu, Sen Wang, Suzhao Li, Claudia A. Nold-Petry, Marcel F. Nold, Philip Bufler, David A. Norris, Charles A. Dinarello and Mayumi Fujita. Aurora, CO; Melbourne, Australia and Munich Germany. 3:48 pm, Poster #028
- 11. Langerin-CD11b- cells are a murine, classical, Flt3L-dependent dermal DC.** Shamim A. Mollah, Joseph S. Dobrin, Rachel A. Feder, Sze-wah Tse, Ines Matos, Cheolho Cheong and Niroshana Anandasabapathy. New York, NY and Boston, MA. 4:00 pm, Poster #003
- 12. Keratinocyte death in severe cutaneous adverse drug reactions is mediated by necroptosis pathway of annexin A1/ FPR1 interaction.** Nao Saito, Teruki Yanagi, Satoru Shinkuma, Asuka Suto, Yasuyuki Fujita, Shotaro Suzuki, Toshifumi Nomura, Hideki Nakamura, Hiroshi Shimizu and Riichiro Abe. Sapporo, Japan. 4:12 pm, Poster #013

Concurrent Minisymposium 2

INTERDISCIPLINARY SPOTLIGHT: ATOPIC DERMATITIS

THURSDAY, MAY 8, 2014

2:00 pm – 5:00 pm

Kiva Auditorium, Albuquerque Convention Center

Presiders: Diana Bautista, PhD and Richard L. Gallo, MD/PhD

1. **Identification of host pathways influenced by the skin microbiota and their role in modulating cutaneous commensal microbiota.** Adam SanMiguel, Jacqueline Meisel, Christel Chehoud, Stavros Rafail, Brendan P. Hodkinson, John T. Seykora, John D. Lambris and Elizabeth A. Grice. Philadelphia, PA. 2:00 pm, Poster #636
2. **Defects in nicotinic receptor activation and chromogranin A promote epidermal innate immune dysregulation to increase *staphylococcus aureus* susceptibility.** Mari Kishibe, Tina M. Griffin and Katherine A. Radek. Maywood, IL. 2:12 pm, Poster #626
3. **A selective defect in IFN γ production possibly explains viral skin infections in atopic dermatitis.** Tali Czarnowicki, James Krueger, Juana Gonzalez and Emma Guttman. New York, NY. 2:24 pm, Poster #525
4. **Analysis for distinctive activation patterns of pain and itchy in the human brain cortex measured using near infrared spectroscopy (NIRS).** Chih-Hung Lee, Takashi Sugiyama, Aiko Kataoka, Ayako Kudo, Fukue Fujino, Yu-Wen Chen, Yuki Mitsuyama, Shinobu Nomura and Tohru Yoshioka. Kaohsiung, Taiwan; Taoyuan, Taiwan; Tokyo, Japan; Kanagawa, Japan and Kaohsiung, Taiwan. 2:36 pm, Poster #360
5. **Neural recruitment and activation is required for the development of atopic dermatitis: Novel insights into disease pathogenesis revealed by *in vivo* imaging.** Sarina Elmariah, Tuanlian Luo, Ehsan Azimi, Vemuri B. Reddy and Ethan A. Lerner. Boston, MA. 2:48 pm, Poster #090
6. **IL-31 controls skin barrier function through the IL-1 signaling network.** Kai Hänel, Philipp Amann, Christian Cornelissen, Yvonne Marquardt, Katharina Czaja, Juliane Lüscher-Firzclaff, Bernhard Luescher and Jens M. Baron. Aachen, Germany. 3:00 pm, Poster #359
7. **Immune suppression in severe atopic dermatitis is mediated by myeloid derived suppressor cells.** Yuliya Skabytska, Florian Wölbing, Claudia Günther, Martin Köberle, Susanne Kaesler, Emmanuella Guenova, Thomas Volz and Tilo Biedermann. Tübingen, Germany; Dresden, Germany and Zurich, Switzerland. 3:12 pm, Poster #634
8. **The mTORC1 protein Raptor controls filaggrin levels through an Akt1/cathepsin H dependent mechanism.** Aishath Naeem, Yanan Zhu, Miriam Moffat, William Cookson, John Harper, Wei-Li Di, Thomas Reinheckel and Ryan O'Shaughnessy. London, United Kingdom and Freiburg, Germany. 3:24 pm, Poster #362
9. **Severe atopic dermatitis in an African-American pediatric cohort is associated with a filaggrin low intragenic copy number variant.** Ashley Quiggle, Zane Goodwin, Twinkal C. Pansuriya, Monique Kumar-Gupta, Emily Beck, Emily Gurnee, Heather Ciliberto, Kara J. Gulewicz, Susan J. Bayliss and Cristina de Guzman Strong. St. Louis, MO. 3:36 pm, Poster #331
10. **Dupilumab improved all domains of Eczema Area and Severity Index (EASI) and 5-D pruritus scale in adults with atopic dermatitis in a phase 2 study.** Jennifer Hamilton, Haobo Ren, Steven P. Weinstein, Gianluca Pirozzi, Neil Graham and Allen Radin. Tarrytown, NY and Bridgewater, NJ. 3:48 pm, Poster #601
11. **Maximal use systemic exposure (MUSE) study evaluating AN2728, a novel boron-based small molecule, for the treatment of pediatric and adolescent subjects with mild-to-moderate atopic dermatitis.** Leon Kircik, Lee Zane and Adelaide A. Hebert. Louisville, KY; Palo Alto, CA and Houston, TX. 4:00 pm, Poster #612
12. **Healthcare utilization and cost in US adults with eczema.** Jonathan Silverberg and Nitin Garg. Chicago, IL. 4:12 pm, Poster #319

ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

Society for Pediatric Dermatology

7:00 am - 8:00 am

Brazos, Albuquerque Convention Center

Research in Cutaneous Surgery Symposium

12:00 pm-2:00 pm

Ballroom B, Albuquerque Convention Center

International Society for Cutaneous Lymphomas (ISCL)

Cutaneous T Cell Lymphoma Symposium

12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center



Concurrent Minisymposium 3

CARCINOGENESIS AND CANCER GENETICS

THURSDAY, MAY 8, 2014

2:00 pm – 5:00 pm

Ballroom A, Albuquerque Convention Center

Presiders: Anna Mandinova, MD/PhD and John Seykora, MD/PhD

1. **Senescence leads to epigenomic destabilization invoking hallmarks of reprogramming and pluripotency.** [Brian C. Capell](#), Gabriel L. Otte, Zhixun Dou, Parisha P. Shah, Greg Donahue, Jeff S. Pawlikowski, Tony McBryan, Taranjit Singh Rai, Peter D. Adams and Shelley L. Berger. Philadelphia, PA and Glasgow, United Kingdom. 2:00 pm, Poster #158
2. **BET bromodomain inhibition triggers apoptosis of NF1-associated malignant peripheral nerve sheath tumors through Bim induction.** Amish Patel, Chung-Ping Liao, Zhiguo Chen, Chiachi Liu, Yong Wang and [Lu Q. Le](#). Dallas, TX. 2:12 pm, Poster #183
3. **Firmocidin, a small molecule produced by *S. epidermidis*, provides antineoplastic and antibiotic function from the commensal skin microbiome.** [Teruaki Nakatsuji](#), Linnie L. Trzoss, William Fenical and Richard L. Gallo. San Diego, CA. 2:24 pm, Poster #173
4. **High-level Hedgehog signaling activity overrides resistance of hair follicle stem cells to neoplastic transformation.** [Marina Grachtchouk](#), Katelyn Fiehler, Dawn Wilbert, Joanna Pero and Andrzej Dlugosz. Ann Arbor, MI. 2:36 pm, Poster #227
5. **Development of a multiple gene RNA expression signature to differentiate malignant melanoma from benign melanocytic nevi.** M. Bryan Warf, Darl D. Flake, Loren E. Clarke, Alexander Gutin, Steven R. Tahan, Kathryn A. Kolquist, [Colleen Rock](#), Christopher R. Shea, Carola Berking and Benjamin B. Roa. Salt Lake City, UT; Boston, MA; Chicago, IL and Munich, Germany. 2:48 pm, Poster #181
6. **Tumor suppressor function of hairless in melanoma mediated by P-REX2.** [Liang Liu](#) and Angela Christiano. New York, NY. 3:00 pm, Poster #213
7. **ABC5 inhibition sensitizes Merkel cell carcinoma cells to chemotherapy-induced apoptosis.** [Sonja Kleffel](#), Nayoung Lee, Cecilia Lezcano, Kristine Sobolewski, Hansgeorg Mueller, Andrew DoRosario, Linda Wang, Markus H. Frank, George F. Murphy and Tobias Schatton. Boston, MA. 3:12 pm, Poster #178
8. **Merkel cell polyomavirus small T antigen is sufficient for rapid epithelial transformation *in vivo*.** [Monique E. Verhaegen](#), Doris M. Mangelberger, Tracy D. Vozheiko, Jack W. Weick, Ehab Nazzal, Dawn Wilbert, Paul W. Harms, Thomas L. Saunders and Andrzej Dlugosz. Ann Arbor, MI. 3:24 pm, Poster #224
9. **Keratinocyte-specific deletion of CXCR4 inhibits DMBA-TPA-mediated skin carcinogenesis.** [Wasakorn T. Kittipongdaja](#), Gyorgy Paragh, Xuesong Wu and Sam T. Hwang. Milwaukee, WI. 3:36 pm, Poster #179
10. **A subpopulation of epidermal squamous cell carcinoma stem cells drives formation of rapidly-growing and highly-vascularized aggressive tumors.** Gautam Adhikary, Dan Grun, Candace Kerr, Sivaprakasam Balasubramanian, Ellen Rorke, Mohan Vemuri, Shayne Boucher, Jackie Bickenbach, Thomas Hornyak, Wen Xu and [Richard Eckert](#). Baltimore, MD; Frederick, MD and Iowa City, IA. 3:48 pm, Poster #217
11. **EphB2 receptor tyrosine kinase regulates growth and invasion of cutaneous squamous cell carcinoma.** [Mehdi Farshchian](#), Liisa Nissinen, Elina Siljamäki, Atte Kivisaari, Markku Kallajoki, Pilvi Riihilä, Esko Veräjänkorva, Taina Pihlajaniemi, Ritva Heljasvaara, Reidar Grénman, Sirkku Peltonen, Juha Peltonen and Veli-Matti Kähäri. Turku, Finland and Oulu, Finland. 4:00 pm, Poster #166
12. **Identification and functional analysis of key genetic drivers of cutaneous squamous cell carcinoma.** [Vida Chitsazzadeh](#), Tri Nguyen, Aaron Joseph, Preethi Gunaratne, Cristian Coarfa, Xiaoping Su, Elsa R. Flores and Kenneth Y. Tsai. Houston, TX and Pasadena, TX. 4:12 pm, Poster #195

Concurrent Minisymposium 4

PHOTOBIOLOGY

THURSDAY, MAY 8, 2014

2:00 pm – 5:00 pm

Ballroom C, Albuquerque Convention Center

Presiders: Zalfa Abdel-Malek, PhD and Jeffrey Travers, MD/PhD

1. **UV-induced activation of the ATR-Chk1 pathway is mediated by 6-4PPs (not CPDs) via replication blockade.** Kaifeng Hung, Julia Sidorova, Paul Nghiem and Masaaki Kawasumi. Seattle, WA. 2:00 pm, *Poster #656*
2. **IGF-1 receptor regulates repair of UVB-induced DNA damage in human keratinocytes.** Mathew Loesch, David H. Southern, Sunil S. Tholpady, Jeffrey B. Travers and Dan F. Spandau. Indianapolis, IN. 2:12 pm, *Poster #682*
3. **Melatonin and its metabolites protect human keratinocytes against UVB-induced oxidative stress and induce DNA repair.** Zorica Janjetovic, Sherie Hanna, Zachary P. Nahmias, Stuart G. Jarrett, Tae-Kang Kim and Andrzej T. Slominski. Memphis, TN and Lexington, KY. 2:24 pm, *Poster #664*
4. **A novel mediator of UVA-induced cutaneous photooxidative stress: The endogenous arylhydrocarbon receptor ligand 6-formylindolo[3,2-b]carbazole (FICZ) is a nanomolar photosensitizer in epidermal keratinocytes and reconstructed human skin.** Rebecca Justiniano, Sophia L. Park, Christopher M. Cabello, Joshua D. Williams, Shuxi Qiao and Georg T. Wondrak. Tucson, AZ. 2:36 pm, *Poster #675*
5. **Toll-like receptor-4 cooperates with inflammasome to mediate ultraviolet radiation induced cutaneous inflammation and tumor development.** Iman A. Tamimi, Israr Ahmad, Eva Simanyi, Heba M. Rihan, Craig A. Elmets and Nabiha Yusuf. Birmingham, AL. 2:48 pm, *Poster #677*
6. **Tumor necrosis factor alpha (TNF- α) dependent augmentation of ultraviolet B-induced apoptosis and inflammation as well as a profound defect in contact hypersensitivity responses are seen in mice lacking epidermal peroxisome proliferator activated receptor gamma (PPAR γ).** Raymond L. Konger, Jeffrey B. Travers and Ravi Sahu. Indianapolis, IN. 3:00 pm, *Poster #685*
7. **Central role of MC1R in the photobiological response of human melanocytes.** Zalfa A. Abdel-Malek, Viki Swope, Ana Luisa Kadekaro, Renny Starner, Leonid Koikov, Anne vonKoschembahr, Joshua Jameson, Natalie Hone, Dorothy Supp, Pamela Cassidy and Sancy Leachman. Cincinnati, OH and Portland, OR. 3:12 pm, *Poster #673*
8. **High-fat diet stimulates the growth of UV radiation-induced skin tumors by enhancing DNA hypermethylation and silencing of tumor suppressor genes in mouse skin and tumors.** Ram Prasad, Mudit Vaid, Tripti Singh and Santosh K. Katiyar. Birmingham, AL. 3:24 pm, *Poster #652*
9. **Evidence that CS proteins epigenetically regulate tubulin acetylation and thereby autophagy.** Marc Majora, Maren Schneider, Ingo Uthe and Jean Krutmann. Duesseldorf, Germany. 3:36 pm, *Poster #661*
10. **MiRNA-23a targets AMBRA1 to inhibit autophagy and plays a role in ultraviolet induced premature senescence.** Bingrong Zhou, Jia-an Zhang and Dan Luo. Nanjing, China. 3:48 pm, *Poster #649*
11. **microRNA-21 and microRNA- 29 act in concert with the TGF- β pathway to down-regulate synthesis of type I collagen in response to UV irradiation in human skin fibroblasts.** Tianyuan He, Taihao Quan, Zhaoping Qin, John J. Voorhees and Gary J. Fisher. Ann Arbor, MI. 4:00 pm, *Poster #667*
12. **Downregulation of miR-15b is associated with increased sirtuin 4 (SIRT4) expression in photoaging of human skin.** Susanne Grether-Beck, Fabian Kuck, Heidi Brenden, Ingo Felsner, Nina Graffmann, Maren Schneider, Antja Lindecke, Hakima Ezzahoini, Sandra Weinhold, Karl Köhrer, Markus Urberg, Alessandra Marini, Roland Piekorz and Jean Krutmann. Düsseldorf, Germany. 4:12 pm, *Poster #660*

ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

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7:00 am - 8:00 am

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12:00 pm-2:00 pm

Ballroom B, Albuquerque Convention Center

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12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center



Concurrent Minisymposium 5

TISSUE REGENERATION AND WOUND HEALING

THURSDAY, MAY 8, 2014

2:00 pm – 5:00 pm

San Miguel/Mesilla, Albuquerque Convention Center

Presiders: Kurt Lu, MD and Todd Ridky, MD/PhD

- Differential expression of Dsg2 is important in epidermal structure and function.** F. Cooper, A. Overmiller, A. Loder, D. Brennan-Crispi, K. P. McGuinn and M. G. Mahoney. Philadelphia, PA. 2:00 pm, Poster #784
- CCBE1 is required for VEGFC-induced lymphangiogenesis in the skin.** David R. Enis and Mark L. Kahn. Philadelphia, PA. 2:12 pm, Poster #789
- Generation of induced pluripotent stem cells from revertant mosaic keratinocytes.** Noriko Umegaki-Arago, Anna M. Pasmooij, Munenari Itoh, Jane E. Cerise, Zongyou Guo, Antoni Gostynski, Marcel F. Jonkman and Angela Christiano. New York, NY and Groningen, Netherlands. 2:24 pm, Poster #783
- Thy-1 (CD 90) – A crucial surface marker controlling the balance between fibroblast proliferation and differentiation.** Manuela Schmidt, Danny Gutknecht, Jan C. Simon, Beate Eckes, Ulf Anderegg and Anja Saalbach. Cologne, Germany. 2:36 pm, Poster #773
- The levels of SNAI2 expression controls epidermal stem and progenitor cell fate.** George Sen, Devendra Mistry and Yifang Chen. La Jolla, CA. 2:48 pm, Poster #768
- Characterization of the basal cell layer of squamous epithelia and their stem cell niche: The role of TGFbeta.** Gregoire LeBras, Holli Loomans, Kiara A. Clay, Claudia D. Andl and Thomas Andl. Nashville, TN. 3:00 pm, Poster #775
- New approach to personalized medicine: Use of predictive biomarkers for healing outcomes in diabetic foot ulcers.** Shailee Patel, Olivera Stojadinovic, David J. Margolis, Irena Pastar, Natalie Yin, Robert Kirsner and Marjana Tomic-Canic. Miami, FL and Philadelphia, PA. 3:12 pm, Poster #754
- The role of AKR1C3-mediated metabolism of prostaglandin D2 in keloid fibrosis.** Alon Mantel, Austin Newsome, Theresa Joseph, Erika Clark and Meena Katdare. Hampton, VA and Norfolk, VA. 3:24 pm, Poster #781
- Macrophage-mediated regulation of adipogenesis during skin wound repair.** Brett Shook and Valerie Horsley. New Haven, CT. 3:36 pm, Poster #779
- Integrin $\alpha 3 \beta 1$ in the epidermis regulates fibulin-2 expression, epidermal adhesion and assembly of the basement membrane during cutaneous wound healing.** Whitney M. Longmate, Ruby Monichan, Mon-Li Chu, Takeshi Tsuda, My G. Mahoney and C. M. DiPersio. Albany, NY; Philadelphia, PA and Wilmington, DE. 3:48 pm, Poster #787
- Epidermal nicotinic acetylcholine receptor activation impairs toll-like receptor 2 responses during wound infection.** Mari Kishibe, Tina M. Griffin and Katherine A. Radek. Maywood, IL. 4:00 pm, Poster #769
- Wounds with skin iron overload have increased susceptibility to and persistence of bacterial invasion.** Marie S. Tuttle, Christine Ammons, Daniel Sprockett, Pooja Mude and Kurt Q. Lu. Cleveland, OH. 4:12 pm, Poster #753

Minisymposia Mixers

THURSDAY, MAY 8, 2014

5:00 pm – 6:00 pm

Join the presenters of today's session for informal discussion immediately following the last talk in today's symposium. Moderators will guide additional questions and answers from the audience and speakers in a relaxed setting...complete with snacks and beverages. The mixers will take place in the same room as the completed session.

ASSOCIATE MEETINGS

THURSDAY, MAY 8, 2014

Society for Pediatric Dermatology

7:00 am - 8:00 am

Brazos, Albuquerque Convention Center

**Research in Cutaneous Surgery
Symposium**

12:00 pm-2:00 pm

Ballroom B, Albuquerque Convention Center

**International Society for Cutaneous
Lymphomas (ISCL)**

Cutaneous T Cell Lymphoma Symposium

12:00 pm – 2:00 pm

Brazos, Albuquerque Convention Center



Social Event

THURSDAY, MAY 8, 2014

6:00 pm – 10:30 pm

Albuquerque Museum of Art & History

Celebrate the SID's 2014 Annual Meeting amidst the Albuquerque Museum of Art & History vast collection historical artifacts, works of art, and photographs. The Museum has exhibits on the city's origins as a Spanish colonial village, which will give you a whole new perspective on our city. The Albuquerque Museum of Art and History also includes artworks in all traditions, from the works of indigenous peoples to Spanish colonial art to cutting-edge modern installations. Prepare for a night of delicious food (Southwest flavor), music (outdoor amphitheater) and fun! (Tethered hot air balloon rides!).



Friday Sessions

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48	State-of-the-Art Plenary Lecture 3
49	State-of-the-Art Plenary Lecture 4
	Poster Session II
50-51	Research in Latin America
52	American Acne and Rosacea Society
53	American DermatoEpidemiology Network (ADEN) Session
54	Concurrent Minisymposium 6: Growth Factors, Cell Adhesion, Matrix Biology
55	Concurrent Minisymposium 7: Auto-Immunity & Inflammation
56	Concurrent Minisymposium 8: Genetic Diseases/ Gene Regulation/Gene Therapy
57	Concurrent Minisymposium 9: Human Clinical Research & Therapeutics
58	Concurrent Minisymposium 10: Cutaneous & Hair Development
59	Minisymposia Mixers
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62	Trainee Dinner





Friday Meeting-At-A-Glance

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology Brazos, Albuquerque Convention Center	7:00 am – 8:00 am
Registration Upper West Foyer, Albuquerque Convention Center	7:30 am – 4:00 pm
Business Meeting for Members Kiva Auditorium, Albuquerque Convention Center	7:45 am – 8:30 am
Plenary Session II Kiva Auditorium, Albuquerque Convention Center	8:30 am – 9:30 am
Stephen Rothman Memorial Award Presented to Jouni Uitto MD/PhD Kiva Auditorium, Albuquerque Convention Center	9:30 am – 9:45 am
Herman Beerman Lecture <i>From Darwin to DNA: How Animals Adapt</i> Hopi Hoekstra, PhD Kiva Auditorium, Albuquerque Convention Center	9:45 am – 10:15 am
State-of-the-Art Plenary Lecture 3 <i>Epigenetic Mechanisms Controlling Epidermal Development & Differentiation</i> Vladimir Botchkarev, MD/PhD Kiva Auditorium, Albuquerque Convention Center	10:15 am – 10:45 am
State-of-the-Art Plenary Lecture 4 <i>Calcium & the Endoplasmic Reticulum in Keratinocyte Differentiation</i> Theodora M. Mauro, MD Kiva Auditorium, Albuquerque Convention Center	10:45 am – 11:15 am
Poster Session II NE Exhibit Hall, Albuquerque Convention Center	11:15 am – 1:15 pm
Round Tables Topics displayed on tables in Poster Hall.	
JID Connector Lunch Suite G, Albuquerque Convention Center	12:00 pm – 2:00 pm
Satellite Symposium <i>Research in Latin America</i> San Miguel/Mesilla, Albuquerque Convention Center	12:00 pm – 2:00 pm
Academic Dermatologists Luncheon Sponsored by the Women's Dermatology Society Aztec, Albuquerque Convention Center	12:00 pm – 2:00 pm
Committee on Scientific Programs Meetings Suite E-F, Albuquerque Convention Center, By Invitation Only	12:00 pm – 2:00 pm
American Acne and Rosacea Society Ballroom C, Albuquerque Convention Center	12:00 pm – 2:00 pm
American DermatoEpidemiology Network Ballroom B, Albuquerque Convention Center	12:00 pm – 2:00 pm

Continued on next page

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology
7:00 am – 8:00 am
Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon
12:00 pm – 2:00 pm
Sponsored by the
Women's Dermatology Society
Aztec, Albuquerque Convention Center

American Acne and Rosacea Society
12:00 pm- 2:00 pm
Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network
12:00 pm- 2:00 pm
Ballroom B, Albuquerque Convention Center

**North American Hair Research Society
Scientific Meeting**
6:00 pm – 9:30 pm
Brazos, Albuquerque Convention Center

**National Psoriasis Foundation
Scientific Advisory Committee Meeting**
6:00 pm – 9:00 pm
Suite A-B, Albuquerque Convention Center

Cont. Friday Meeting-At-A-Glance

continued

Concurrent Minisymposia Growth Factors, Cell Adhesion, Matrix Biology San Miguel/Mesilla, Albuquerque Convention Center	2:00 pm – 5:00 pm
Auto-Immunity & Inflammation Kiva Auditorium, Albuquerque Convention Center	
Genetic Diseases/Gene Regulation/Gene Therapy Ballroom B, Albuquerque Convention Center	
Human Clinical Research & Therapeutics Ballroom A, Albuquerque Convention Center	
Cutaneous & Hair Development Ballroom C, Albuquerque Convention Center	
Minisymposia Mixers	5:00 pm - 6:00 pm
JID Editorial Board Meeting & Reception Aztec, Albuquerque Convention Center, By Invitation Only	4:30 pm -7:00 pm
North American Hair Research Society Scientific Meeting Brazos, Albuquerque Convention Center	6:00 pm – 9:30 pm
National Psoriasis Foundation Suite A-B, Albuquerque Convention Center	6:00 pm - 9:00 pm
Trainee Dinner Dona Ana, Albuquerque Convention Center	7:00 pm - 9:00 pm

Pediatric Dermatology at the Society For Investigative Dermatology

FRIDAY, MAY 9, 2014,

7:00 am – 8:00 am (BREAKFAST NOT INCLUDED)

Brazos, Albuquerque Convention Center

Introduction and Welcome

Megha M. Tollefson, MD, Mayo Clinic

7:00 am – 7:05 am



Abstract #474

Site-specific genome editing using TALENs for correction of dominant dystrophic epidermolysis bullosa

Satoru Shinkuma, Columbia University

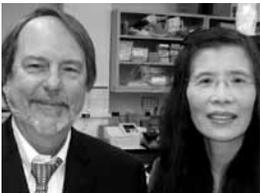
7:05 am - 7:15 am

Special Presentation:

Recombinant type VII collagen for recessive dystrophic epidermolysis bullosa

David Woodley and Mei Chen, University of Southern California

7:15 am - 7:40 am



Abstracts #300 and 698

Dermoscopic and Genetic Insights into Nevogenesis: Results from the Study of Nevi in Children (SONIC)

Michael Marchetti, Memorial Sloan-Kettering Cancer Center

7:40 am - 7:50 am

Discussion and Concluding Remarks

Special thanks to the Society for Pediatric Dermatology and the Pediatric Dermatology

7:50 am – 7:55 am

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon

12:00 pm – 2:00 pm

Sponsored by the

Women's Dermatology Society

Aztec, Albuquerque Convention Center

American Acne and Rosacea Society

12:00 pm- 2:00 pm

Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm- 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society

Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



Business Meeting for Members

FRIDAY, MAY 9, 2014

7:45 am - 8:30 am

Kiva Auditorium , Albuquerque Convention Center

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 2013 Business Meeting and discuss SID affairs.

Election of New Officers

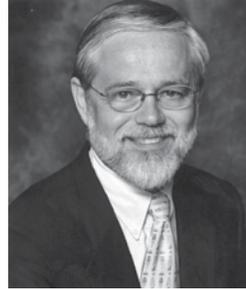
After conducting its annual request for nominations for new officers, the Committee on Nominations received a total of 25 nominees for office. After consideration of multiple factors including demographics, strategic planning, initiatives, commitment and prior service and/or participation in SID activities, the Committee recommends the following candidates to the Board of Directors: Mark Udey, MD (President-elect); Anthony Gaspari, MD (Vice President-elect), John Seykora, MD, and Cheng-Ming Chung, MD/PhD (Board Members); and Lisa Liu, MD/PhD (Resident/Post-Doc Board Member).

Appointment of Honorary Members

The SID is pleased to appoint the following Honorary Members:



Barbara Gilchrest, MD
Boston University
Boston, MA



Eugene Bauer, MD
Dermira, Inc.
Redwood City, CA



Kenneth Kraemer, MD
NCI
Bethesda, MD



John Hanifin, MD
Oregon Health and Science University
Portland, OR

Plenary Session II

PRESIDERS: JACK ARBISER, MD/PhD AND MITCHELL DENNING, PhD

FRIDAY, MAY 9, 2014

8:30 am – 9:30 am

Kiva Auditorium, Albuquerque Convention Center

1. **Platelet-activating factor mediates ultraviolet B radiation systemic immunosuppression via mast cell products and IL-33.** Jesus A. Ocana, Ravi Sahu, Raymond L. Konger and Jeffrey B. Travers. Indianapolis, IN. 8:30 am, Poster #668
2. **Unexpected complexity in smoothened variants associated with drug resistant basal cell carcinoma.** Kavita Sarin, Scott Atwood, Jiang Li, Anne Lynn S. Chang, Anthony Oro and Jean Tang. Palo Alto, CA. 8:42 am, Poster #206
3. **Health care utilization prior to diagnosis as a predictor of melanoma-specific mortality.** Melody J. Eide, Gordon Jacobsen, Richard Krajenta and Christine C. Johnson. Detroit, MI. 8:54 am, Poster #309
4. **MyD88 deficiency affords immune maintenance after UV-irradiation through elevated PARP-dependent DNA repair.** Erin Harberts, Rita Fischelevich, Juan Liu and Anthony A. Gaspari. Baltimore, MD. 9:06 am, Poster #646
5. **Double stranded RNA and TLR3 initiates hair follicle neogenesis after wounding.** Amanda M. Nelson, Adiya S. Katseff, Tabetha S. Ratliff, Sydney R. Resnik, Alexander J. Whittam, LLoyd Miller and Luis Garza. Baltimore, MD and Hershey, PA. 9:18 am, Poster #765

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon

12:00 pm – 2:00 pm

Sponsored by the

Women's Dermatology Society

Aztec, Albuquerque Convention Center

American Acne and Rosacea Society

12:00 pm- 2:00 pm

Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm- 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



Stephen Rothman Memorial Award

FRIDAY, MAY 9, 2014

9:30 am - 9:45 am

Kiva Auditorium, Albuquerque Convention Center

2014 Stephen Rothman Award Recipient



Jouni Uitto MD/PhD

Professor

Jefferson Medical College,
Philadelphia, PA

Presented annually for distinguished service to investigative cutaneous medicine Jouni Uitto, MD, PhD, has been Professor of Dermatology and Cutaneous Biology, and Biochemistry and Molecular Biology, and Chair of the Department of Dermatology and Cutaneous Biology at Jefferson Medical College, in Philadelphia, Pennsylvania, since 1986. He is also Director of the Jefferson Institute of Molecular Medicine at Thomas Jefferson University. He received his MD and PhD degrees from the University of Helsinki, Finland, and completed his residency training in dermatology at Washington University School of Medicine in St. Louis, Missouri. Dr. Uitto is internationally recognized for his research on connective tissue biology and molecular genetics in relation to cutaneous diseases.



AWARD HISTORY

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.

Herman Beerman Lecture

FROM DARWIN TO DNA: HOW ANIMALS ADAPT

FRIDAY, MAY 9, 2014

9:45 am – 10:15 am

Kiva Auditorium, Albuquerque Convention Center



Hopi E. Hoekstra, PhD
Harvard University
Boston, Massachusetts

Dr. Hoekstra is currently the Professor of Organismic and Evolutionary Biology and of Molecular and Cellular Biology at Harvard. Her area of interest resides in the molecular basis of evolutionary change– from morphology to behavior – using wild mice as a study system. Her work spans a diverse array of fields including ecology, evolution, genomics, development, behavior and neurobiology. Research in Dr. Hoekstra’s lab is known for its highly integrative approach.



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.

NOTES

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

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Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm- 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society

Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



State-Of-The-Art Plenary Lecture 3
EPIGENETIC MECHANISMS CONTROLLING EPIDERMAL
DEVELOPMENT AND DIFFERENTIATION

FRIDAY, MAY 9, 2014

10:15 am – 10:45 am

Kiva Auditorium, Albuquerque Convention Center



Vladimir Botchkarev, MD/PhD

University of Bradford/Boston University
Bradford, West Yorkshire/Boston, Massachusetts

Dr. Botchkarev's research focuses on delineation of epigenetic mechanisms that control skin development, regeneration and carcinogenesis. Epigenetic regulation is a driving force of tissue development, phenotypic plasticity and evolutionary adaptation. Dr. Botchkarev's research is focused on understanding how signaling/transcription factor and epigenetic regulatory mechanisms are integrated in the control of lineage-specific differentiation programs in healthy and diseased skin.

NOTES

State-Of-The-Art Plenary Lecture 4

CALCIUM AND THE ENDOPLASMIC RETICULUM IN KERATINOCYTE DIFFERENTIATION

FRIDAY, MAY 9, 2014

10:45 am – 11:15 am

Kiva Auditorium, Albuquerque Convention Center



Theodora M. Mauro, MD
University of California San Francisco
San Francisco, California

Dr. Mauro’s clinical programs have encompassed general inpatient and outpatient medical dermatology, skin cancer treatment in the SFVAMC skin cancer surgery clinic, and wound healing in the UCSF clinic that specializes in treating leg ulcers. Her research interests include calcium, ion channels, keratinocyte, epidermis, non-melanoma skin cancer, SPCA1, SERCA1, Hailey-Hailey Disease, Darier Disease, NHE1, epidermal barrier, stratum corneum, aging and wound healing. As Service Chief and Vice-Chairman, Dr.Mauro has supervised the development of the SFVAMC Dermatology Service which has been named a regional referral center for Mohs surgery. The SFVAMC Dermatology Service has developed a regional teledermatology service that handles dermatology consults from Eureka, Ukiah, Reno and Hawaii.

NOTES

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology
7:00 am – 8:00 am
Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon
12:00 pm – 2:00 pm
Sponsored by the
Women’s Dermatology Society
Aztec, Albuquerque Convention Center

American Acne and Rosacea Society
12:00 pm- 2:00 pm
Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network
12:00 pm- 2:00 pm
Ballroom B, Albuquerque Convention Center

North American Hair Research Society Scientific Meeting
6:00 pm – 9:30 pm
Brazos, Albuquerque Convention Center

National Psoriasis Foundation Scientific Advisory Committee Meeting
6:00 pm – 9:00 pm
Suite A-B, Albuquerque Convention Center



Satellite Symposium

RESEARCH IN LATIN AMERICA

FRIDAY, MAY 9, 2014

12:00 pm - 1:45 pm

San Miguel/Mesilla, Albuquerque Convention Center

Welcome and Introductions

12:00 pm - 12:05 pm

Luis Diaz, MD, Chair, Department of Dermatology, University of North Carolina, Chapel Hill, NC, Chair



Dr. Diaz’s professional career has been dedicated to education, patient care, and research. His full-time university career in the U.S. spans three decades at major research institutions including the University of Michigan, Johns Hopkins, the Medical College of Wisconsin, and the University of North Carolina, where he is currently the Chairman of Dermatology. As an educator, he has trained several generations of clinicians and biomedical scientists from the U.S. and abroad. Identifying a need for future clinician-investigators, he has led a national effort to attract talented residents to academic dermatology.

Tropical Diseases and Leishmaniasis

12:05 pm - 12:45 pm

Jesus G. Valenzuela, PhD, Chief, Vector Molecular Biology Section, National Institute of Allergy and Infectious Diseases, Bethesda, MD



Dr. Valenzuela received his PhD in biochemistry from the University of Arizona in 1995. He joined the Laboratory of Parasitic Diseases in 1996, became a research fellow in 1999, and became a tenure-track investigator in the Laboratory of Malaria and Vector Research in October 2002. Dr. Valenzuela became a senior investigator in October 2009.

Q&A

12:45 pm – 12:55 pm

Itch Prevalence and Characteristics in Hispanic Geriatric Population: A Comprehensive Study Using a Validated Itch Questionnaire.

12:55 pm – 1:07 pm

Presented by Rodrigo Valdes-Rodriguez, MD, Department of Dermatology, Temple University, Philadelphia, PA. *Poster #302*



Dr. Valdes-Rodriguez is a Mexican-trained and certified Dermatologist, currently pursuing a postdoctoral fellowship in the Department of Dermatology at Temple University School of Medicine, under the guidance of Dr. Gil Yosipovitch. Dr. Valdes has published several publications on chronic itch and psoriasis and his interests include, chronic pruritus, skin manifestations of rheumatologic disease and advancing research and understanding of dermatologic disease within Latin American populations.

Q & A

1:07 pm - 1:10 pm

Satellite Symposium (Cont.)

RESEARCH IN LATIN AMERICA

Sensitive Skin in Mexico: Prevalence, Biophysical Response and Its Relationship with TRPV1 1:10 pm – 1:22 pm

Presented by Adriana Rodriguez-Arambula, MD, PGY-4 Dermatology Resident, Hospital Central "Dr. Ignacio Morones Prieto," San Luis Potosi, S.L.P. Mexico.



Q&A 1:22 pm – 1:25 pm

Anetoderma, an Example of Primary Thrombophilia. 1:25 pm – 1:37 pm

Presented by Benjamin Moncada, MD, Department of Dermatology, University of San Luis Potosi, San Luis Potosi, Mexico. *Poster #555*



University of Chicago. Board Certified ABD Dermatology. Joined American Board of Dermatology & American Board of Pathology: Certified: Dermatopathology. Membership: American Academy of Aermatology, Society for Investigative Dermatol-ogy, International Society of Dermatology, American College of Physician, National Academy of Medicine (Mexico) National System of Researchers Grade II (Mexico) Publications pub-med 74. Full professor of medical school, University of San Luis Potosí Mexico. Past presedent of Mexican Academy of Dermatology and Mexican Board of Dermatology

Q&A 1:37 pm – 1:40 pm

Wrap up, Co-Chairs 1:43 pm -1:45 pm

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon

12:00 pm – 2:00 pm

Sponsored by the

Women's Dermatology Society

Aztec, Albuquerque Convention Center

American Acne and Rosacea Society

12:00 pm- 2:00 pm

Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm- 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society

Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



American Acne and Rosacea Society (AARS)

3RD ANNUAL SYMPOSIUM AGENDA



FRIDAY, MAY 9, 2014

12:00 pm – 2:00 pm

Ballroom C, Albuquerque Convention Center

12:00 pm Welcome and Red Hot Updates from AARS

Diane Thiboutot, AARS Past-President, Penn State University, Hershey, PA, USA

12:10 pm Lipoproteins and Bovine Milk Peptides Stimulate Lipogenesis and Inflammatory

Response Raja Sivamani, Depts. of Dermatology and Surgery, University of California San Francisco, San Francisco, CA, USA

12:25 pm DRM01, A Novel Acetyl Coenzyme A Carboxylase (ACC) Inhibitor, Reduces Sebum Production

David Hunt; Hans Hofland, Research, Dermira, Inc., Redwood City, CA, USA

12:40 pm Histological Analysis of Acne Samples Reveals Different Macrophage Populations within the Pilosebaceous Unit

Daniel Torocsik, Department of Dermatology, University of Debrecen, Debrecen, Hungary. Mentor: Lajos Kemeny, Department of Dermatology, University of Szeged, Szeged, Hungary

12:55 pm Different Propionibacterium Acnes Strains Have Variable Pathogenicity

Yu Yang, Department of Medicine, Division of Dermatology, David Geffen School of Medicine, UCLA, Los Angeles, CA, USA, Mentor: Jenny Kim

1:10 pm Interleukin-37 Is a Potent Inhibitor of Inflammatory Responses Induced by Propionibacterium Acnes and Ultraviolet B Radiation in Human Keratinocytes

Andrew Park, Department of Medicine, Division of Dermatology, David Geffen School of Medicine, UCLA, Los Angeles, CA, USA, Mentor: Jenny Kim

1:25 pm Opposing Effects of Epigenetic Influences in Skin Immunity

James Sanford, Department of Dermatology, Biomedical Sciences Graduate Program, University of California San Diego, San Diego, CA, USA, Mentor: Richard Gallo

1:40 pm Acne Core Outcomes Research Network (ACORN): Standardizing Outcome Measures in Acne Trials

Diane Thiboutot, AARS Past-President, Penn State University, Hershey, PA, USA

1:55 pm Closing Comments

Diane Thiboutot, AARS Past-President, Penn State University, Hershey, PA, USA

Visit www.acneandrosacea.org for more information about the AARS and its membership!

American DermatoEpidemiology Network (ADEN) Session



FRIDAY, MAY 9, 2014

12:00 pm – 2:00 pm

Ballroom B, Albuquerque Convention Center

1. **Appearance-based video education is more effective than health-based video education in promoting sunscreen use among adolescents: A randomized controlled trial.** William Tuong, April W Armstrong. Sacramento, CA and Aurora, CO. Abstract # 283
2. **Sildenafil use and increased risk of incident melanoma in US men: A prospective cohort study.** Wenqing Li, Abrar Qureshi, Kathleen Robinson and Jiali Han. Boston, MA. Abstract # 307
3. **Adults with previous nonmelanoma skin cancer still suffer from sunburns despite improvements in sun-protection practices.** Alexander H Fischer, Anna L. Chien, Timothy Wang and Sewon Kang. Baltimore, MD. Abstract # 310
4. **Factors associated with being clear/almost clear of psoriasis in patients receiving adalimumab, etanercept, or methotrexate as part of routine clinical care.** Yuan Hong, Kristina Callis Duffin, Junko Takeshita, Daniel B Shin, Gerald G Krueger, Andrew D Robertson,, Andrea B Troxel, Abby S Van Voorhees and Joel M Gelfand. Philadelphia, PA; Salt Lake City, UT and Portland, OR. Abstract # 289
5. **Longitudinally followed nevi in children and adolescents show significant size changes.** Xinyuan Wu, Maira Fonseca, Michael Armando Marchetti, Stephen Dusza, Ashfaq Marghoob, Alan C Geller and Allan C Halpern. New York, NY and Boston, MA. Abstract # 300
6. **Development and validation of chemotherapy-induced dermatology distress scale.** Juhee Cho, Danbee Kang, Eun-Kyung Choi, Im-Ryung Kim, Jung Hee Yoon and Soo Jung Park. Seoul, Republic of Korea. Abstract # 317
7. **Melanoma thickness and survival trends in the United States, 1989 to 2009.** Waqas Rahim Shaikh, Stephen W Dusza, Susan A Oliveria, Alan C Geller, Allan C Halpern and Martin A Weinstock. NY, NY; Providence, RI and Boston, MA. Abstract # 321
8. **Treatment recommendations for melanocytic lesions vary among pathologists.** Kachiu Cecilia Lee, Martin A Weinstock, Paul Frederick, Michael Piepkorn, Alice Zhao, Jason P Lott and Joann Elmore. Providence, RI; Seattle, WA and New Haven, CT. Abstract # 325
9. **Severe atopic dermatitis in an African-American pediatric cohort is associated with a filaggrin low intragenic copy number variant.** Zane Goodwin, Ashley Quiggle, Twinkal C Pansuriya, Monique Kumar-Gupta, Emily Beck, Emily Gurnee, Heather Ciliberto, Kara Jill Gulewicz, Susan J Bayliss and Cristina de Guzman Strong. St. Louis, MO. Abstract # 331
10. **Initial findings for the effectiveness of using IVIG to treat Stevens-Johnson syndrome and toxic epidermal necrolysis.** Melissa McEnery-Stonelake, Arash Mostaghimi and Daniela Kroshinsky. Worcester, MA and Boston, MA. Abstract # 346

About ADEN:

We are all dermatologists interested in applying epidemiology and epidemiologic principles to problems in dermatology. The goal of ADEN is to promote:

- The role of epidemiology in dermatology
- The role of evidence based medicine
- The mentorship of dermatologists in training
- Interactions among investigators, patient support groups, large dermatology practices, pharmaceutical industry, and data management organizations.

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon

12:00 pm – 2:00 pm

Sponsored by the

Women's Dermatology Society

Aztec, Albuquerque Convention Center

American Acne and Rosacea Society

12:00 pm- 2:00 pm

Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm- 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society

Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



Concurrent Minisymposium 6

GROWTH FACTORS, CELL ADHESION AND MATRIX BIOLOGY

FRIDAY, MAY 9, 2014

2:00 pm – 5:00 pm

San Miguel/Mesilla, Albuquerque Convention Center

Presiders: Aimee Payne, MD/PhD and Edel O'Toole, PhD

- 1. Smad7 levels play a causal role in anti-fibrosis.** Gangwen Han, Bin Fan, Qinghong Zhang and Xiao-Jing Wang. Aurora, CO. 2:00 pm, Poster #494
- 2. Type VII collagen binds pro-fibrogenic TGF beta isoforms: Implications for scarring in RDEB patients and scarless wound healing.** Jon Cogan, Lauren Moy, Kaitlyn Kim, David T. Woodley and Mei Chen. Los Angeles, CA. 2:12 pm, Poster #502
- 3. Structural and non-structural activities of COMP in the dermis.** Jan-Niklas Schulz, Anja Niehoff, Wilhelm Bloch, Katrin Blumbach, Manuel Koch, Beate Eckes and Thomas Krieg. Cologne, Germany. 2:24 pm, Poster #490
- 4. Inducible basal keratinocyte-specific knockout of the LAMA3 gene: More than another model for epidermolysis bullosa.** Monique M. Aumailley, Gundula Grimberg, Monika Pesch and Haiyan Qu. Cologne, Germany. 2:36 pm, Poster #499
- 5. An alternate endocytic motif mediates VE-cadherin degradation by Kaposi's sarcoma-associated herpes virus.** Benjamin A. Nanes and Andrew P. Kowalczyk. Atlanta, GA. 2:48 pm, Poster #486
- 6. Novel evidence that SERCA activity is required for maturation and exocytic transport of newly synthesized desmosomal cadherins in keratinocytes: Ifor Darier's disease.** Ning Li, Moonhee Park, Zhi Liu and Luis A. Diaz. Chapel Hill, NC. 3:00 pm, Poster #488
- 7. Targeting Fyn in Ras-transformed cells induces F-Actin to promote adherens junction-mediated cell-cell adhesion.** Sarah Fenton, Kelli A. Hutchens and Mitchell Denning. Maywood, IL. 3:12 pm, Poster #484
- 8. Contact-dependent activation of EphA2 is required for keratinocyte differentiation and recruitment of the phosphoinositol phosphatase SHIP2.** Bethany E. Perez White, Nihal Kaplan and Spiro Getsios. Chicago, IL. 3:24 pm, Poster #503
- 9. Desmoglein-2 activates mitogenic signaling by modulating scaffolding proteins in lipid rafts.** K. P. McGuinn, D. Brennan-Crispi, F. Cooper, J. K. Wahl and M. G. Mahoney. Philadelphia, PA. 3:36 pm, Poster #510
- 10. Combination of pemphigus foliaceus IgG monoclonal antibodies (mAbs) promotes desmoglein 1 clustering.** Kenji Yoshida, Ken Ishii, Atsushi Shimizu, Mariko Yokouchi, John R. Stanley and Akira Ishiko. Tokyo, Japan and Philadelphia, PA. 3:48 pm, Poster #496
- 11. Amphiregulin supports G2/M progression via FoxM1 and inhibits differentiation in human keratinocytes.** Stefan W. Stoll, William R. Swindell, Andrew Johnston and James T. Elder. Ann Arbor, MI. 4:00 pm, Poster #508
- 12. Deletion of the glucocorticoid receptor inhibitor FKBP51 unexpectedly prevents development of glucocorticoid-induced cutaneous atrophy via Akt activation.** Gleb Baida, Pankaj Bhalla, Hanying Chen, Weinian Shou, Edwin Sanchez and Irina Budunova. Chicago, IL; Indianapolis, IN and Toledo, OH. 4:12 pm, Poster #505

Concurrent Minisymposium 7

AUTO-IMMUNITY AND INFLAMMATION

FRIDAY, MAY 9, 2014

2:00 pm – 5:00 pm

Kiva Auditorium, Albuquerque Convention Center

Presiders: Daniel Kaplan, MD/PhD and James Krueger, MD/PhD

- Successful biologic therapy for bullous pemphigoid.** Kenneth K. Yu, Ashley B. Crew, Kelly Messingham, Janet A. Fairley and David T. Woodley. Los Angeles, CA and Iowa City, IA. 2:00 pm, Poster #154
- A role for ST18 in the pathogenesis of pemphigus vulgaris.** D. Vodo, S. Geller, E. Ben-Asher, T. Olender, I. Goldberg, J. Nosgorodsky, A. Alkelai, P. Tatarsky, S. Baum, A. Barzilai, S. Ibrahim, D. Zillikens, D. Lancet, E. Sprecher and O. Sarig. Tel Aviv, Israel; Rehovot, Israel; Luebeck, Germany and Sheba, Israel. 2:12 pm, Poster #058
- Development of a novel animal model to study the role of eosinophils in autoimmune blistering disease bullous pemphigoid.** Lan Lin, Kelly Messingham, Peng Geng, Lin Lin, Bin-Jin Hwang, Ning Li, Janet Fairley, James Lee, Russell P. Hall, Luis A. Diaz, Beverly Koller and Zhi Liu. Chapel Hill, NC; Iowa City, IA; Scottsdale, AZ and Durham, NC. 2:24 pm, Poster #087
- Proinflammatory microvesicles in patients with cutaneous lupus erythematosus.** Minglin Liu, Honghui Xu, Muhammad Bashir, Meena Sharma, Kevin Williams, Cynthia Anyanwu Joyce Okawa and Victoria Werth. Philadelphia, PA. 2:36 pm, Poster #073
- Ruxolitinib prevents cutaneous lupus erythematosus in MRL/lpr mice.** Emilie S. Chan, Leal C. Herlitz and Ali Jabbari. New York, NY. 2:48 pm, Poster #072
- Treatment with anti-IFN γ and anti-CXCR3 antibodies prevent the onset of alopecia areata in mice.** Luzhou Xing, Zhenpeng Dai, Ali Jabbari, Angela Christiano and Raphael Clynes. New York, NY. 3:00 pm, Poster #098
- A quantitative increase in regulatory T cells controls development of vitiligo.** Shilpak Chatterjee, Jonathan Eby, Amir A. Al-khami, Myroslawa Soloshchenko, Hee-Kap Kang, Navtej Kaur, Osama S. Naga, Anuradha Murali, Michael I. Nishimura, Caroline LePoole and Shikhar Mehrotra. Charleston, SC and Maywood, IL. 3:12 pm, Poster #140
- Oxidative stress-induced CXCL16 production mediated CD8+ T cells trafficking in vitiligo.** Shuli Li, Sen Guo, Qiong Shi, Rui Ge, Jingjing Ma, Gang Wang, Tianwen Gao and Chunying Li. Shaanxi, China. 3:24 pm, Poster #048
- Mast cells are key mediators of cathelicidin initiated skin inflammation in a rosacea model.** Yumiko Muto, Zhenping Wang, Matthieu Vandenberghe, Richard L. Gallo and Anna Di Nardo. San Diego, CA. 3:36 pm, Poster #135
- Epidermal Rac1 hyperactivation is a key feature of human psoriasis.** M. C. Winge, B. Ohyama, E. A. Waterman, C. Dei, N. Ehsani-Chimeh, W. Li, A. Truong, D. Wu, T. Makino, M. Davidson, D. Starcevic, N. Nguyen, A. Kislak, B. Homey, A. W. Armstrong, T. Hashimoto, E. Engleman, M. Bradley and M. P. Marinkovich. Stanford, CA; Stockholm, Sweden; Kurume, Japan; Dusseldorf, Germany and Denver, CO. 3:48 pm, Poster #103
- Langerhans cells' critical role in modulating photodamage-induced inflammation and immunosuppression.** Tahseen H. Nasti, Jessika A. Davis, M. Apperson, Yuko Tsuruta, Craig A. Elmetts and Laura Timares. Birmingham, AL. 4:00 pm, Poster #150
- Unique miRNAs appear at different times during the course of a delayed-type hypersensitivity (DTH) reaction in human skin.** Nicholas Gulati, M. Løvendorf, J. R. Zibert, W. R. Levis, N. Renwick and J. G. Krueger. New York, NY; Ballerup, Denmark and Hellerup, Denmark. 4:12 pm, Poster #050

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon

12:00 pm – 2:00 pm

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12:00 pm – 2:00 pm

Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm – 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society

Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



Concurrent Minisymposium 8

GENETIC DISEASES, GENE REGULATION AND GENE THERAPY

FRIDAY, MAY 9, 2014

2:00 pm – 5:00 pm

Ballroom B, Albuquerque Convention Center

Presiders: Raymond Cho, MD/PhD and Angela Christiano, PhD

1. **Meta-analysis of genome-wide association studies in alopecia areata reveals new susceptibility loci.** L. Petukhova, R. C. Betz, S. Ripke, H. Huang, A. Menelaou, S. Redler, T. Becker, S. Heilmann, M. Duvic, M. Hordinsky, D. Norris, V. Price, J. Mackay-Wiggan, G. M. DeStefano, M. Bohm, U. Blume-Peytavi, H. Wolff, G. Lutz, R. Kruse, B. Blaumeiser, D. Altshuler, M. Nothen, P. I. W de Bakker, M. Daly and A. M. Christiano. New York, NY; Bonn, Germany; Boston, MA; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA; Münster, Germany; Berlin, Germany; Düsseldorf, Germany; Wesseling, Germany; Paderborn, Germany; Antwerp, Belgium and Utrecht, Netherlands. *2:00 pm, Poster #455*
2. **Somatic activating mutations in HRAS and NRAS cause cutaneous skeletal hypophosphatemic syndrome.** Young H. Lim, Diana Ovejero, Jeffrey Sugarman, Lawrence Eichenfield, Moise Levy, Michael Collins and Keith A. Choate. New Haven, CT; Bethesda, MD; San Francisco, CA; San Diego, CA and Austin, TX. *2:12 pm, Poster #467*
3. **Widespread genomic blocks of hypomethylation in nonmalignant epidermis related to age and sun exposure.** Amy Vandiver, Rafa Irizzary, Kasper Hansen, Luis Garza, Arni Runarsson, Xin Li, Anna L. Chien, Sherry G. Leung, Sewon Kang and Andrew P. Feinberg. Baltimore, MD and Boston, MA. *2:24 pm, Poster #448*
4. **Genetic basis of congenital wound disorders: Aplasia cutis congenital.** Alexander Marneros. Boston, MA. *2:36 pm, Poster #451*
5. **Cole disease results from mutations in ENPP1.** O. Eytan, F. Morice-Picard, O. Sarig, J. Noursbeck, K. Ezzedine, O. Isakov, Q. Li, A. Ishida-Yamamoto, N. Shomron, T. Goldsmith, N. Adir, J. Uitto, S. J. Orlow, A. Taieb and E. Sprecher. Tel Aviv, Israel; Bordeaux, France; Philadelphia, PA; Asahikawa, Japan; Haifi, Israel and New York, NY. *2:48 pm, Poster #416*
6. **Desmoglein 1 deficiency reveals a direct role for desmosomal dysfunction in allergic cutaneous reactions.** L. Samuelov, O. Sarig, R. Harmon, D. Rapaport, E. Warshauer, A. Ishida-Yamamoto, O. Isakov, J. Koetsier, R. Bergman, S. Peleg, C. Goh, N. Wilson, F. Smith, E. Pohler, M. Simpson, D. F. Murrell, J. Salas, A. Shani, A. Paller, I. McLean, A. Irvine, M. Horowitz, J. McGrath, K. Green and E. Sprecher. Tel Aviv, Israel; Chicago, IL; Asahikawa, Japan; Haifa, Israel; Dundee, United Kingdom; London, United Kingdom; Sydney, Australia; Monterrey, Mexico and Dublin, Ireland. *3:00 pm, Poster #417*
7. **Krt85^{whnt}: A new spontaneous mouse mutation affecting nail growth and development.** Heather Fairfield, Pat Ward-Bailey, John P. Sundberg, Christopher Potter and C. H. Pratt. Bar Harbor, ME. *3:12 pm, Poster #462*
8. **Analysis of CARD14 polymorphisms in pityriasis rubra pilaris: Activation of NF-κB.** Q. Li, H. J. Chung, J. Andrews, H. Sabaawy, E. Sprecher and J. Uitto. Philadelphia, PA; New Brunswick, NJ and Tel Aviv, Israel. *3:24 pm, Poster #465*
9. **Corrected patient-specific, iPSC-derived epithelial sheets for dystrophic epidermolysis bullosa.** Vittorio Sebastiano, Hanson Zhen, Pei Wang, Bahareh Haddad, Elizaveta Bashkirova, Mohamed Ameen, Zurab Sibrashvili, Sandra Melo, Jiang Li, Seung Kim, Alfred Lane, Marius Wernig and Anthony Oro. Stanford, CA. *3:36 pm, Poster #453*
10. **Correction of structural defect of the hair shaft through allele-specific silencing of a dominant mutant form of Krt75.** Ying Liu, Lianfeng Zhang, Dennis R. Roop, Chuan Qin and Jiang Chen. Beijing, China; Aurora, CO and Stony Brook, NY. *3:48 pm, Poster #426*
11. **Sirolimus normalizes skin and dramatically reduces internal tumors in a mouse model of tuberous sclerosis complex (TSC).** Peter Klover, Rajesh Thangapazham, Jiro Kato, Ji-an Wang, Shaowei Li, Stasia A. Anderson, Victoria Hoffmann, Elizabeth McCart, Neera Nathan, Joel Moss and Thomas N. Darling. Bethesda, MD. *4:00 pm, Poster #454*
12. **Topically delivered nanoparticle-siRNA conjugates down-regulate GM3 synthase and reverse the impaired wound healing in diabetic mice.** Mark Seeger, Pratik Randeria, Heather Wilson, Xiaoqi Wang, Chad A. Mirkin and Amy S. Paller. Evanston, IL and Chicago, IL. *4:12 pm, Poster #423*

Concurrent Minisymposium 9

HUMAN CLINICAL RESEARCH AND THERAPEUTICS

FRIDAY, MAY 9, 2014

2:00 pm – 5:00 pm

Ballroom A, Albuquerque Convention Center

Presiders: Andrew Blauvelt, MD and Alexa Kimball, MD/MPH

1. **DC-HIL⁺ myeloid-derived suppressor cells (MDSC) may down-regulate severity of psoriasis.** Lauren Cao, Jin-Sung Chung, Ponciano D. Cruz, Benjamin F. Chong, Heidi Jacobs and Kiyoshi Ariizumi. Dallas, TX. 2:00 pm, Poster #562
2. **Antibody titers to Merkel cell polyomavirus oncoproteins predict Merkel cell carcinoma recurrence with high sensitivity and specificity.** Kelly G. Paulson, Aaron E. Lisberg, Astrid Blom, Christopher Lewis, Ata S. Moshiri, Will Simonson, Jayasri G. Iyer, Shailender Bhatia, Lola Yelistratova, Denise Galloway, Chihiro Morishima, Mark Wener and Paul Nghiem. Seattle, WA. 2:12 pm, Poster #535
3. **Trajectories of water, sebum transepidermal water loss and melanin changes due to breast cancer chemotherapy.** Danbee Kang, Hyeokgon Park, Eunjo Kim, Haekwang Lee, Dong-Youn Lee and Juhee Cho. Seoul, Republic of Korea and Yongin, Republic of Korea. 2:24 pm, Poster #568
4. **IL-37, an inhibitor of innate inflammation and adaptive immunity, is elevated in the blood of melanoma patients and is related with poor prognosis.** Yuchun Luo, Sucaí Liu, Justin Lee, Steven E. Robinson, William A. Robinson, David A. Norris, Charles A. Dinarello and Mayumi Fujita. Aurora, CO and Denver, CO. 2:36 pm, Poster #577
5. **An open-label, phase 2 trial of itraconazole for basal cell carcinoma.** Daniel J. Kim, James Kim, Katrina Spaunhurst, Javier Montoya, Rita Khodosh, Teresa Fu, Anita Gilliam, Monserrat Molgo, Philip A. Beachy and Jean Y. Tang. Stanford, CA; Dallas, TX; Santiago, Chile and Palo Alto, CA. 2:48 pm, Poster #582
6. **Cyclosporine A treatment in atopic dermatitis results in suppression of Th2/Th22 inflammation and epidermal pathology.** Saakshi Khattri, Avner Shemer, Mariya Rozenblit, Mayte Suarez-Farinas, Nikhil Dhingra, Jim G. Krueger and Emma Guttman-Yassky. New York, NY and Tel Aviv, Israel. 3:00 pm, Poster #518
7. **Patient-centered, direct-access online care model for follow-up management of atopic dermatitis: A randomized controlled trial.** April W. Armstrong, Mary Ann Johnson, Steven Lin, Thomas Nesbitt, Richard Kravitz and Fu-Tong Liu. Aurora, CO. 3:12 pm, Poster #561
8. **Impact of ixekizumab on blood neutrophil levels and the incidence of infections caused by candida albicans or staphylococcus aureus.** Andrew Blauvelt, D. K. Braun, Gregory S. Cameron, David Shrom and Michael P. Heffernan. Portland, OR and Indianapolis, IN. 3:24 pm, Poster #519
9. **Time course classification of response to treatment in psoriatic patients.** Joel M. Corrêa da Rosa, Suyan Tian, Carrie Brodmerkel, A. B. Gottlieb, James Krueger and Mayte Suarez-Farinas. New York, NY; Changchun, China; Spring House, PA and Boston, MA. 3:36 pm, Poster #592
10. **A single application of acyclovir mucoadhesive buccal tablet reduces recurrence of herpes labialis in a randomized double-blind phase 3 study: Exploratory results.** Stephen K. Tyring, Thomas O. Bieber, Olivier Chosidow, Mark Bloch, Michael Lewis, Matthew Davis and Pierre Attali. Houston, TX; Bonn, Germany; Creteil, France; Darlinghurst, Australia; Cardiff, United Kingdom; Rochester, NY and Paris, France. 3:48 pm, Poster #520
11. **Rosacea is associated with chronic systemic inflammatory diseases in a skin severity-dependent manner.** Barbara M. Rainer, Alexander H. Fischer, Dimitre Luz, Sewon Kang and Anna L. Chien. Baltimore, MD. 4:00 pm, Poster #576
12. **Reduced sweat gland function underlies slowed reepithelialization in elderly skin.** Laure Rittié, Jeffrey S. Orringer, E. A. Farr, M. J. Karshner, John J. Voorhees and Gary J. Fisher. Ann Arbor, MI. 4:12 pm, Poster #579

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

Society for Pediatric Dermatology

7:00 am – 8:00 am

Brazos, Albuquerque Convention Center

Academic Dermatologists Luncheon

12:00 pm – 2:00 pm

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American Acne and Rosacea Society

12:00 pm – 2:00 pm

Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm – 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society

Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



Concurrent Minisymposium 10

CUTANEOUS AND HAIR DEVELOPMENT

FRIDAY, MAY 9, 2014

2:00 pm – 5:00 pm

Ballroom C, Albuquerque Convention Center

Presiders: Valentina Greco, PhD and Bruce Morgan, PhD

- 1. Wnt10a regulates proliferation of multiple epithelial stem and progenitor populations.** Mingang Xu and Sarah Millar. Philadelphia, PA. 2:00 pm, Poster #265
- 2. Wnt/ β -catenin activation regulates epithelial growth non-cell autonomously within the hair follicle stem cell niche.** Peggy Myung, Elizabeth Deschene, Panteleimon Rompolas, Giovanni Zito, Thomas Yang, Makoto Taketo, Ichiko Saotome and Valentina Greco. New Haven, CT and Kyoto, Japan. 2:12 pm, Poster #232
- 3. Regulation of ear morphogenesis by macroenvironmental signals from hair follicles.** Raul Ramos, Tsai-Chi Hsi, Ji Won Oh, Christian F. Guerrero-Juarez and Maksim Plikus. Irvine, CA. 2:24 pm, Poster #274
- 4. Inducible gene expression in the dermal papilla *in vivo* to study anagen initiation.** Bruce Morgan. Boston, MA. 2:36 pm, Poster #278
- 5. Master regulators involved in human dermal papilla induction of hair follicles.** Etienne Wang, Claire Higgins, James Chen, Colin Jahoda and Angela Christiano. New York, NY and Durham, United Kingdom. 2:48 pm, Poster #250
- 6. Reprogramming regular skin fibroblasts into hair inducing dermal papilla cells.** Carlos Clavel, Amelie Rezza, Rachel Sennett and Michael Rendl. New York, NY. 3:00 pm, Poster #260
- 7. Hedgehog signaling creates a perineural stem cell niche essential for maintaining sensory touch domes in skin.** Ying Xiao, Jonathan S. Williams and Isaac Brownell. Bethesda, MD. 3:12 pm, Poster #246
- 8. Intraflagellar transport 27 (*Ift27*) is essential for hedgehog signaling but dispensable for ciliogenesis during hair follicle formation.** Ning Yang, Li Li, John P. Sundberg, Gregory J. Pazour and Jiang Chen. Stony Brook, NY; Beijing, China; Bar Harbor, ME and Worcester, MA. 3:24 pm, Poster #266
- 9. Apical cues induce asymmetric division of epidermal basal cells through PIP3-PDK1 pathway.** Teruki Dainichi, Matthew S. Hayden, Yoshiki Miyachi, Kenji Kabashima and Sankar Ghosh. Kyoto, Japan and New York, NY. 3:36 pm, Poster #231
- 10. ATP-dependent chromatin remodeler Brg1 regulates the establishment of the topological lineage-specific interactome for the Loricrin gene in keratinocytes during epidermal development.** Andrei Mardaryev, V. Rapisarda, K. Poterlowicz, V. Emelianov, I. Malashchuk, J. Yarker, J. Rudolf, T. Sharova, A. Sharov, M. Fessing and Vladimir A. Botchkarev. Bradford, United Kingdom and Boston, MA. 3:48 pm, Poster #238
- 11. Chromatin organizer and AT-rich binding protein Satb1 controls re-organization of lineage-specific differentiation programs during keratinocyte reprogramming towards the induced pluripotent state.** Tatyana Y. Sharova, Mohammed Ahmed, Hye-Jung Han, Krzysztof Poterlowicz, Gustavo Mostoslavsky, Terumi Kohwi-Shigematsu, Vladimir A. Botchkarev and Andrey Sharov. Boston, MA; San Francisco, CA and Bradford, United Kingdom. 4:00 pm, Poster #254
- 12. Squamous epithelial organization and quiescent stem cells: The concept of the “reserve cell layer”.** Thomas Andl, Gregoire LeBras, Holli Loomans, Kiara A. Clay and Claudia D. Andl. Nashville, TN. 4:12 pm, Poster #273

Minisymposia Mixers

FRIDAY, MAY 9, 2014

5:00 pm – 6:00 pm

Join the presenters of today's session for informal discussion immediately following the last talk in today's symposium. Moderators will guide additional questions and answers from the audience and speakers in a relaxed setting...complete with snacks and beverages. The mixers will take place in the same room as the completed session.

ASSOCIATE MEETINGS

FRIDAY, MAY 9, 2014

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12:00 pm- 2:00 pm

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North American Hair Research Society

Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation

Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



North American Hair Research Society Scientific Meeting and Annual General Meeting



FRIDAY, MAY 9, 2014

6:00 pm - 9:30 pm

Brazos, Albuquerque Convention Center

Presiders: Wilma F. Bergfeld, MD, President, and Andrzej Dlugosz, MD, Chair,
Scientific Program Committee

Poster Viewing & Reception

6:00 pm - 6:45pm

1. **Sonic hedgehog signaling is essential for touch dome Merkel cell development.** Xiao, Ying; Williams, Jonathan S.; [Brownell, Isaac](#). *Poster #277*
2. **Wnt-dependent initiation and maintenance of postnatal hair growth by hair-inducing dermal papilla cells.** [Zhou, Linli](#); Yang, Yongguang; Taketo, Makoto; Millar, Sarah E.; Zhang, Yuhua. *Poster #261*
3. **Impact of Dlx3 deficiency in isthmus/infundibulum for hair shaft development.** Kim, Jin-Chul; Duverger, Olivier; Hwang, Joonsung; [Morasso, Maria](#). *Poster #244*
4. **Complex changes in the apoptotic and cell differentiation programs during initiation of the hair follicle response to chemotherapy.** [Sharova, Tatyana Y.](#); Poterlowicz, Krzysztof; Botchkareva, Natalia V.; Kondratiev, Nikita A.; Aziz, Ahmar; Spiegel, Jeffrey H.; Botchkarev, Vladimir A.; Sharov, Andrey. *Poster #252*
5. **Hair cycles of transplanted human hairs in immunocompromised mice.** [Oh, Ji Won](#); Kim, Moonkyu; Plikus, Maksim; Kim, Jung-Chul. *Poster #276*
6. **Sexually-dimorphic responses to pharmacologic inhibition of HSP90 by subpopulations of stem cells in the hair.** Krishnaswami, Suguna; [Adase, Chris](#); Gutierrez, Josue; Yu, Benjamin D. *Poster #280*
7. **The JAK 1/2 inhibitor baricitinib prevents and reverses alopecia areata in C3H/HeJ mice.** Dai, Zhenpeng; Xing, Luzhou; Jabbari, Ali; Christiano, Angela; [Clynes, Raphael](#). *Poster #131*
8. **Mouse models of cicatricial alopecia.** [Potter, Christopher](#); Pratt, C. H.; Hama, Hiroko; Wolk, Kendra; Silva, Kathleen A.; Kennedy, Victoria E.; Everts, Helen B.; King, Lloyd E.; Sundberg, John P. *Poster #272*
9. **Gaining insight in the pathogenesis of alopecia areata through next generation T cell receptor sequencing.** [O'Malley, John T.](#); de Jong, Annemieke; Jabbari, Ali; Dai, Zhenpeng; Kurban, Mazen; Christiano, Angela; Clynes, Raphael. *Poster #39*
10. **IL-2 blockade prevents the onset of alopecia areata in C3H/HeJ mice.** [Dai, Zhenpeng](#); Xing, Luzhou; Jabbari, Ali; Christiano, Angela; Clynes, Raphael. *Poster #133*
11. **Functional genomics defines an association of the ligand-independent CTLA4 isoform with alopecia areata.** [Christiano, Angela](#); Bian, Li; Gros, Marilyn; Petukhova, Lynn; Dai, Zhenpeng; Clynes, Raphael. *Poster #137*
12. **Screening for autoantigen epitopes involved in the development of alopecia areata.** [Wang, Eddy H.](#); Breitkopf, Trisia; Akhoundsadegh, Noushin; Dutz, Jan P.; Shapiro, Jerry; McElwee, Kevin J. *Poster #248*

continued on next page

North American Hair Research Society Scientific Meeting and Annual General Meeting (Cont.)

Keynote Speaker

6:45 pm – 7:15 pm

Uncovering cellular and signaling mechanisms of skin regeneration using two-photon microscopy

Valentina Greco, PhD

Assistant Professor, Yale Medical School, Departments of Genetics and Dermatology, Yale Stem Cell Center, Yale Cancer Center

Oral Presentations

7:15 pm – 8:30 pm

12 minutes for presentation + 3 minutes for Q&A and change of speaker

- ABCA5 is a novel regulator of hair growth.** DeStefano, Gina M.; Kurban, Mazen; Anyane-Yeboah, Kwame; Dall'Armi, Claudia; Di Paolo, Gilbert; Feenstra, Heather; Silverberg, Nanette; Rohena, Luis; Jobanputra, Vaidehi; Fantauzzo, Katherine; Kiuru, Maija; Tadin-Strapps, Marija; Sobrino, Antonio; Vitebsky, Anna; Warburton, Dorothy; Levy, Brynn; Salas-Alanis, Julio C.; Lopez-Cepeda, Larissa D.; Christiano, Angela. *Poster #450*
- Loss of nuclear membrane protein SUN2 leads to transient alopecia and hair follicle structure defects.** Stewart, Rachel; Zubek, Amanda; Rosowski, Kathryn; Schreiner, Sarah; King, Megan; Horsley, Valerie. *Poster #230*
- Integration of microRNA-mRNA Expression profiles reveals regulatory networks controlling hair cycle progression.** Poterlowicz, Krzysztof; Alam, Majid; Aunin, Eerik; Fessing, Michael; Botchkareva, Natalia V. *Poster #241*
- Fibroblast growth factor signaling in wound-induced hair follicle neogenesis.** Holler, Phillip; Kwon, Oshang; Zhang, Zhikun; Ornitz, David M.; Cotsarelis, George. *Poster #788*
- Keratin 79 marks a novel population of migratory keratinocytes that mediates the formation and regeneration of the hair follicle canal / infundibulum.** Veniaminova, Natalia A.; Vagnozzi, Alicia N.; Reiter, Jeremy F.; Wong, Sunny. 8:15pm – 8:30 pm, *Poster #235*

ASSOCIATE MEETINGS

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12:00 pm – 2:00 pm

Ballroom C, Albuquerque Convention Center

American DermatoEpidemiology Network

12:00 pm – 2:00 pm

Ballroom B, Albuquerque Convention Center

North American Hair Research Society Scientific Meeting

6:00 pm – 9:30 pm

Brazos, Albuquerque Convention Center

National Psoriasis Foundation
Scientific Advisory Committee Meeting

6:00 pm – 9:00 pm

Suite A-B, Albuquerque Convention Center



NOTES

**TICKETED EVENT:
PRE-REGISTRATION IS REQUIRED**

NO CME CREDIT

Trainee Dinner Session

FRIDAY, MAY 9, 2014

7:00 pm – 9:00 pm

Dona Ana, Albuquerque Convention Center

Johan Gudjonsson, MD/PhD, Host

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.

Saturday Sessions

PAGE	TITLE
65	Meeting-at-a-Glance
66	Plenary Session III
67	William Montagna Lecture
68	Julius Stone Lecture
69	Clinical Scholars Program Poster Session III
70	Concurrent Minisymposium 11: Epidemiology & Health Services Research
71	Concurrent Minisymposium 12: Pigmentation and Melanoma
72	Concurrent Minisymposium 13: Epidermal Structure and Barrier Function
73	Concurrent Minisymposium 14: Innate Immunity & Microbiology





Plenary Session III

PRESIDERS: ANTHONY GASPARI, MD AND MY MAHONEY, PhD

SATURDAY, MAY 10, 2014

8:00 am – 9:00 am

Kiva Auditorium, Albuquerque Convention Center

1. **The extracellular matrix controls dendritic cell migration by TLR4 recognition of hyaluronan.** Jun Muto, Aaron F. Carlin, Margaret Kim, Andrea Garcia, Ajit Varki and Richard L. Gallo. San Diego, CA. 8:00 am, Poster #011
2. **A direct role for Δ Np63 in regulating the pruritogenic cytokine IL-31 and alarmin IL-33, in the pathogenesis of atopic dermatitis.** Rose-Anne Romano and Satrajit Sinha. Buffalo, NY. 8:12 am, Poster #084
3. **Integrin α V is necessary for generation of human epidermis.** Elizabeth J. Kennedy and Todd W. Ridky. Philadelphia, PA. 8:24 am, Poster #478
4. **APCDD1 is a novel dual WNT/BMP inhibitor in the skin and the developing nervous system and coordinates activation of WNT and BMP signaling pathways.** Victor Luria, Alin Vonica, Neha Bhat, Keith Phan, Lacrimioara Lancu, Anne O'Donnell, Bruce Riley, Samantha Butler and Angela Christiano. New York, NY; Boston, MA; Rochester, NY; College Station, TX; Los Angeles, CA and Stuttgart, Germany. 8:36 am, Poster #476
5. **Distinct allergen-dependent immune polarization suggested by molecular analyses of patch-tested skin to common sensitizers.** Nikhil Dhingra, Avner Shemer, Joel Correa da Rosa, Mariya Rozenblit, Mayte Suarez-Farinas, Judilyn Fuentes-Duculan, Tali Czarnowicki, James Krueger and Emma Guttman-Yassky. New York, NY and Tel-Aviv, Israel. 8:48 am, Poster #543

Julius Stone Lecture

ROLE OF PROSTAGLANDINS IN SKIN CANCER

SATURDAY, MAY 10, 2014

9:30 am - 10:00 am

Kiva Auditorium, Albuquerque Convention Center

LECTURER BIO

Alice P. Pentland, MD

University of Rochester

Rochester, New York



Dr. Pentland's research interest has been in understanding photocarcinogenesis, with areas of focus in photobiology, arachidonic acid metabolism, keratinocyte biology, and their translation into dermatological clinical research. She possesses deep expertise in the design and execution of bench research, and strong expertise in the design and execution of clinical trials. As Professor and Chair of Dermatology, Dr. Pentland is also an active clinical dermatologist. Highly collaborative in research activities, she has generated long-term funded collaborative relationships at the University of Rochester with other clinical and basic research departments, as well as with investigators in computer science, optics and engineering.



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.

Clinical Scholars Program

SATURDAY, MAY 10, 2014

10:00 am – 12:00 pm

Kiva Auditorium, Albuquerque Convention Center

Molecular and Immune Targets for Cutaneous Malignancies

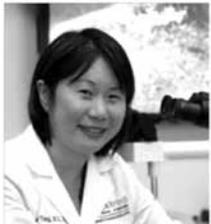
Plenary Presentations

- 1. Characterization of the basal cell layer of squamous epithelia and their stem cell niche: the role of TGFbeta.** LeBras, Gregoire, Loomans, Holli, Clay, Kiara A.; Andl, Claudia D., Andl, Thomas. *10:05 am, Poster #775, Presented by Thomas Andl, PhD*
- 2. CD155/TIGIT interaction is an immune checkpoint regulating antimelanoma immune responses.** Takashi Inozume, Tomonori Yaguchi, Junpei Furuta, Kazutoshi Harada, Yutaka Kawakami, Shinji Shimada. *10:25 am, Poster #693, Presented by Takashi Inozume*

Lecture

30 years in the making: Targeting the Hedgehog signaling pathway for advanced basal cell carcinomas

Jean Tang, MD/PhD



Dr. Tang is an Associate Professor of Dermatology at Stanford University. Her research focuses on identifying new therapies and risk factors for skin cancer using preclinical models, clinical trials and epidemiologic methods. She is the recipient of the Damon Runyon Clinical Investigator Award, V Foundation Award, and Harrington Scholar-Innovator Award.

Merkel cell carcinoma: using the host immune response against a polyomavirus to track and attack an often-lethal skin cancer

Paul T. Nghiem, MD/PhD



Dr. Nghiem is the Michael Piepkorn Endowed Chair in Dermatology Research at UW and a Professor of Dermatology and Pathology at the University of Washington and the Fred Hutchinson Cancer Research Center in Seattle. He leads a multi-disciplinary team that cares for patients with complex skin cancers and follows a cohort of over 1,000 patients with Merkel cell carcinoma. Another focus in his lab is on how cells respond to UV damage (and how caffeine can protect against skin cancer, possibly when used topically). He currently has 5 grants from the NIH and other sources.

Horizontal lines for taking notes.



Concurrent Minisymposium 11

EPIDEMIOLOGY AND HEALTH SERVICES RESEARCH

SATURDAY, MAY 10, 2014

12:30 pm – 3:30 pm

Kiva Auditorium, Albuquerque Convention Center

Presiders: Suephy Chen, MD and Martin A. Weinstock, MD/PhD

- 1. Validation and comparison of quality of life (QoL) measures for topical 5-fluorouracil treatment.** Hyemin Pomerantz, Mary-Margaret Chren, Robert Lew and Martin A. Weinstock. Providence, RI; San Francisco, CA and Boston, MA. 12:30 pm, Poster #286
- 2. Non-melanoma skin cancer and NSAID use in women with a history of skin cancer in the Women's Health Initiative (WHI).** Mina S. Ally, Ashley Wysong, Christina Gamba, Susan Swetter, Marcia Stefanick and Jean Tang. Redwood City, CA and Stanford, CA. 12:42 pm, Poster #297
- 3. Non-melanoma skin cancer is associated with increased risk of fractures.** Eric Anderson, Marcia Stefanick, Manisha Desai, Jessica Kubo, Ashley Wysong and Jean Tang. Stanford, CA. 12:54 pm, Poster #308
- 4. Underestimating disease burden: Trends in basal cell carcinoma incidence rates.** Maryam M. Asgari, Howard Moffett, Tom Ray and Charles Quesenberry. Oakland, CA. 1:06 pm, Poster #347
- 5. Association of melanoma incidence with biopsy and excision rates, 2008-2010.** Martin A. Weinstock, Hyemin Pomerantz, Tracy Onega, Qianfei Wang, Anna Tosteson, Jason Lott, Linda Titus, Loretta Pearson and Joann Elmore. Providence, RI; Hanover, NH; Seattle, WA and New Haven, CT. 1:18 pm, Poster #332
- 6. Citrus consumption is associated with risk of malignant melanoma.** Shaowei Wu, Jiali Han, Diane Feskanich, Meir J. Stampfer, Walter C. Willett and Abrar A. Qureshi. Boston, MA; Indianapolis, IN and Providence, RI. 1:30 pm, Poster #341
- 7. Greater utilization of high-cost care settings by patients with hidradenitis suppurativa.** Joslyn Kirby, Jeffrey J. Miller and Douglas Leslie. Hershey, PA. 1:42 pm, Poster #291
- 8. Eczema remains active with age.** Katrina Abuabara, Ole Hoffstad, Andrea B. Troxel and David J. Margolis. Philadelphia, PA. 1:54 pm, Poster #285
- 9. Hotspots of CTCL cases in Houston and Texas: A comparison of the MD Anderson and Texas cancer registries.** Ivan Litvinov, Michael T. Tetzlaff, Elham Rahme, Pamela Gangar, Michelle A. Jennings, David Risser, Denis Sasseville and Madeleine Duvic. Montreal, Canada; Houston, TX and Austin, TX. 2:06 pm, Poster #301
- 10. Psoriasis patient preferences for health-related benefit-risk tradeoffs using choice-format conjoint analysis.** April W. Armstrong, Julie Wu and Elizabeth Brezinski. Aurora, CO and Sacramento, CA. 2:18 pm, Poster #312
- 11. Existing self-report tools are not suitable for measuring adherence to topical therapies in psoriasis.** Rachael J. Thorneloe, Pauline Nelson, Chris Bundy, Christopher E. Griffiths, Darren M. Ashcroft and Lis Cordingley. Manchester, United Kingdom. 2:30 pm, Poster #320
- 12. Ranking the most disabling skin diseases in the United States of America in 2010.** Robert Dellavalle, Chante Karimkhani and Lindsay N. Boyers. Aurora, CO; Denver, CO; New York, NY and Washington, DC. 2:42 pm, Poster #342

Concurrent Minisymposium 12

PIGMENTATION AND MELANOMA

SATURDAY, MAY 10, 2014

12:30 pm – 3:30 pm

Ballroom A, Albuquerque Convention Center

Presiders: Julide Celebi, MD and Andrzej Slominski, MD/PhD

- Honokiol Bis-Dichloroacetate (Honokiol DCA) demonstrates activity in vemurafenib-resistant melanoma *in vivo*.** [Michael Bonner](#), Isabella Karlsson, Monica Rodolfo, Rebecca S. Arnold, Elisabetta Vergani and Jack Arbiser. Atlanta, GA; Decatur, GA and Milan, Italy. 12:30 pm, Poster #713
- Targeting ALDH1 to decrease tumorigenicity, growth and metastasis of human melanoma.** Lili Yue, Zhi-Ming Huang, Stephen Fong, Stanley Leong, James G. Jakowatz, Alexandra Char-ruyer, Maria L. We and [Ruby Ghadially](#). San Francisco, CA and Irvine, CA. 12:42 pm, Poster #720
- CD271 expression is inversely correlated with melanoma aggressiveness in 3-dimensional tumor models.** [Annalisa Saltari](#), Francesca Truzzi, Roberta Lotti, Paolo Morandi, Tiziana Petrachi, Alessandra Marconi and Carlo Pincelli. Modena, Italy. 12:54 pm, Poster #725
- Breaking TRAIL resistance in organotypic 3D melanoma.** Hanna Vörsmann, [Stefan Beissert](#) and Dagmar Kulms. Stuttgart, Germany and Dresden, Germany. 1:06 pm, Poster #702
- TLR2 and TLR3 agonists utilize Rab11a and Rab27a to transfer melanosome to keratino-cytes.** [Saaya Koike](#), Kenshi Yamasaki, Takeshi Yamauchi, Kenichiro Tsuchiyama and Setsuya Aiba. Sendai, Japan. 1:18 pm, Poster #694
- Meiotic cohesion REC8 as a driver of chromosomal instability in melanoma.** [Mark Eller](#), Scott Lindsey, Samantha L. Schneider, Julia Escandon and James M. Grichnik. Miami, FL. 1:30 pm, Poster #715
- CD155/TIGIT interaction is an immune checkpoint regulating antimelanoma immune responses.** [Takashi Inozume](#), Tomonori Yaguchi, Junpei Furuta, Kazutoshi Harada, Yutaka Kawakami and Shinji Shimada. Yamanashi, Japan and Tokyo, Japan. 1:42 pm, Poster #693
- Melanoma arises from common nevi after loss of p15-mediated proliferation arrest.** [Andrew McNeal](#), Kevin Liu, Vihang Nakhate, Christopher Natale, Brian C. Capell, Tzvete Dentchev, Shelly Berger, John Seykora and Todd W. Ridky. Philadelphia, PA. 1:54 pm, Poster #716
- The effect of combination therapies of thioridazine and vemurafenib on melanoma.** [Yasmine Tameze](#), Simone Degan, Quoqiang Zhang, Jane Jin, Jesse Wilson, Christina Gainey, Warren Warren and Jennifer Y. Zhang. Durham, NC. 2:06 pm, Poster #729
- The metabolic state determines resistance to BRAF/MEK-inhibition.** [Hans R. Widlund](#). Boston, MA. 2:18 pm, Poster #747
- Investigation on crosstalk between cAMP signaling and BRAF(V600E) in melanoma.** [Carlos L. Rodriguez](#), Nityanand Maddodi and Vijayasradhi Setaluri. Madison, WI. 2:30 pm, Poster #748
- Selective inhibition of protein trafficking increases melanoma sensitivity to vemurafenib and blocks the development of resistance by down-regulating receptor tyrosine kinase signaling pathways.** Zhi-ming Huang, Jillian Miller, Ann Lazar, Glenn Millhauser and [Maria L. Wei](#). San Francisco, CA and Santa Cruz, CA. 2:42 pm, Poster #751



Concurrent Minisymposium 13

EPIDERMAL STRUCTURE AND BARRIER FUNCTION

SATURDAY, MAY 10, 2014

12:30 pm – 3:30 pm

Ballroom B, Albuquerque Convention Center

Presiders: Cristina de Guzman Strong, PhD and Theodora Mauro, MD

- 1. The protein arginine methyltransferase PRMT1 acts with the CSNK1a1 kinase to enforce the epidermal progenitor state *in vivo*.** Xiaomin Bao, Brian Zarnegar, Angela Mah, Kun Qu, Shiyong Tao and Paul Khavari. Stanford, CA and Palo Alto, CA. 12:30 pm, Poster #382
- 2. Palmitoylation of plakophilin is required for desmosome assembly.** Brett J. Roberts and James K. Wahl. Lincoln, NE. 12:42 pm, Poster #390
- 3. Ndel1 promotes keratin assembly at desmosomes.** Yong-Bae Kim and Terry Lechler. Durham, NC. 12:54 pm, Poster #371
- 4. ZNF750 binding to KLF4 and specific epigenetic regulators controls epidermal differentiation.** Lisa D. Boxer, Brook Barajas, Jiajing Zhang, Brian Zarnegar and Paul Khavari. Stanford, CA and Palo Alto, CA. 1:06 pm, Poster #392
- 5. An *in vivo* transgenic approach to dissect the isoform-specific activity of the transcription factor p63.** Satrajit Sinha and Rose-Anne Romano. Buffalo, NY. 1:18 pm, Poster #372
- 6. Transcriptional mechanisms link epithelial plasticity to adhesion and differentiation of epidermal progenitor cells.** Briana Lee, Alvaro Villarreal-Ponce and Xing Dai. Irvine, CA. 1:30 pm, Poster #401
- 7. Dlx3-PKC interplay drives skin differentiation by controlling cell cycle in keratinocytes.** Elisabetta Palazzo, Meghan D. Kellett, Anna Gormley, Paul W. Bible, Valentina Pietroni, Nadezda Radoja, Miroslav Blumenberg, Jin-Chul Kim, Christophe Cataisson and Maria Morasso. Bethesda, MD and New York, NY. 1:42 pm, Poster #380
- 8. Building a better tight junction barrier by targeting epidermal Eph receptors.** Rosa Ventrella, Bethany E. Perez White, Kim Xia, Nihal Kaplan, Han Peng, Robert M. Lavker and Spiro Getsios. Chicago, IL. 1:54 pm, Poster #381
- 9. Transcriptomic profile pattern matching provides evidence of the importance of mitogenic signaling in the early response to epidermal barrier damage.** Robert L. Binder, Michael K. Robinson, Kevin J. Mills, Scott M. Hartman, Raghu Kainkaryam, Jun Xu, Teresa Dicolandrea, John M. Dunavent, Jay P. Tiesman, Charles C. Bascom and Robert J. Isfort. Mason, OH. 2:06 pm, Poster #367
- 10. Loss of keratin K2 expression causes aberrant aggregation of K10, hyperkeratosis and inflammation.** Heinz Fischer, Lutz Langbein, Julia Reichelt, Silke Praetzel-Wunder, Maria Buchberger, Mino Ghannadan, Erwin Tschachler and Leopold Eckhart. Vienna, Austria; Heidelberg, Germany and Newcastle upon Tyne, United Kingdom. 2:18 pm, Poster #400
- 11. 3D *in vitro* model of a functional epidermal permeability barrier from hESC and iPSC.** Anastasia Petrova, Anna Celli, Matthew Arno, Debra Crumrine, Melanie Hupe, Aleksandra Cvoro, Laureen Jacquet, Liani Devito, Richard Sun, Lillian Adame, Robert Vaughan, John A. McGrath, Dusko Illic and Theodora Mauro. San Francisco, CA; London, United Kingdom and Houston, TX. 2:30 pm, Poster #408
- 12. Epidermal class A scavenger receptors are critical for penetration of topically-delivered siRNA-nanoparticles and gene suppression.** Qian Song, William Briley, Suguna Narayan, Xiaoqi Wang, Chad A. Mirkin and Amy S. Paller. Chicago, IL and Evanston, IL. 2:42 pm, Poster #366

Concurrent Minisymposium 14

INNATE IMMUNITY AND MICROBIOLOGY

SATURDAY, MAY 10, 2014

12:30 PM – 3:30 PM

Ballroom C, Albuquerque Convention Center

Presiders: Lloyd Miller, MD/PhD and Esther von Stebut, MD

1. **Chronic skin inflammation via Toll-like receptors increases a risk of secondary amyloidosis.** Shin Morizane, Tetsuya Takiguchi, Kazuko Ikeda and Keiji Iwatsuki. Okayama, Japan. 12:30 pm, Poster #633
2. **Cathelicidin is required for normal TLR9 function by dendritic cells.** Yukinobu Nakagawa and Richard L. Gallo. San Diego, CA. 12:42 pm, Poster #621
3. **Global regulation of TLR4-induced inflammatory gene networks by physiologic stress signals in macrophages.** Philip O. Scumpia, Giovanni Botten, Kevin R. Doty, Robert Modlin and Stephen Smale. Los Angeles, CA. 12:54 pm, Poster #643
4. **S1P mediates TLR2 and TLR4 antimicrobial activity in human mast cell independently from vitamin D.** Zhenping Wang, Matthieu Vandenberghe, Yumiko Muto and Anna Di Nardo. La Jolla, CA. 1:06 pm, Poster #638
5. **The phytoestrogen, genistein, stimulates cathelicidin expression by a novel estrogen receptor β -dependent mechanism, independent of vitamin D3 receptor.** Kyungho Park, Young Il Kim, Jong Youl Kim, Ho Seong Seo, Yuko Oda, Taj Mann, Walter M. Holleran, Peter Elias and Yoshikazu Uchida. San Francisco, CA and Jeongeup, Republic of Korea. 1:18 pm, Poster #629
6. **Local adipogenesis is essential for protection against skin infection.** Lingjuan Zhang, Raul Ramos, Christian F. Guerrero-Juarez, Maksim V. Plikus and Richard L. Gallo. San Diego, CA and Irvine, CA. 1:30 pm, Poster #628
7. **An ER stress-initiated sphingolipid metabolite, ceramide-1-phosphate, regulates epithelial innate immunity through stimulation of β -defensin production.** Young Il Kim, Kyungho Park, Jong Youl Kim, Ho Seong Seo, Kyong-Oh Shin, Yong-Moon Lee, Walter M. Holleran, Peter Elias and Yoshikazu Uchida. San Francisco, CA; Jeongeup, Republic of Korea and Cheongju, Republic of Korea. 1:42 pm, Poster #619
8. **Heat-inactivated modified vaccinia virus triggers Type I IFN production and inflammasome activation via cGAS/STING and AIM2-mediated cytosolic DNA sensing pathways.** Peihong Dai, Weiyi Wang, Hua Cao, Katherine A. Fitzgerald, Gabriel Nunez, Taha Merghoub, Stewart Shuman and Liang Deng. New York, NY; Worcester, MA and Ann Arbor, MI. 1:54 pm, Poster #645
9. **G2A attenuates *Propionibacterium acnes* induction of inflammatory cytokines via regulation of MAPK signaling and is regulated by 13-cis-retinoic acid.** Andrew J. Park, Min Qin, Lisa D. Hisaw, Aslan Pirouz, George W. Agak, Laura Marinelli, Hermes J. Garban and Jenny Kim. Los Angeles, CA. 2:06 pm, Poster #627
10. **Intradermal administration of norepinephrine and adenosine triphosphate increases the mast cell content of skin.** Lori L. Stohl, Wanhong Ding, Garrett Desman, AlReem Al-Nabti, Sarah Coates and Richard D. Granstein. New York, NY. 2:18 pm, Poster #620
11. **Skin-specific expression of IL-33 causes atopic dermatitis-like inflammation with activation of group 2 innate lymphoid cells in mice.** Yasutomo Imai, Koubun Yasuda, Hitoshi Mizutani, Tomohiro Yoshimoto, Kenji Nakanishi and Kiyofumi Yamanishi. Nishinomiya, Japan; Milwaukee, WI and Tsu, Japan. 2:30 pm, Poster #618
12. **The cutaneous microbiota in atopic dermatitis changes with topical corticosteroid and bleach bath treatment.** Mercedes E. Gonzalez, Julie V. Schaffer, Seth J. Orlow, Zhan Gao, Huilin Li, Alexander V. Alekseyenko and Martin J. Blaser. New York, NY. 2:42 pm, Poster #624



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Abstract Presentation Information

ORAL PRESENTATIONS

Oral presentations and lectures will take place at the Albuquerque 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 MS Office 2013 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 (Tijeras, Albuquerque Convention Center).

POSTER PRESENTATIONS

All posters will be displayed until Saturday, May 10 at 12:00 p.m. in NE Exhibit Hall. Posters will be viewed in three sessions as outlined below. Presenters should be at their posters for the entire discussion session. Posters may not be removed early. The SID is not responsible for posters left unclaimed as of 3:00 p.m. on Saturday, May 10. Unclaimed posters will not be returned.

INSTALL ALL POSTERS

Wednesday, May 7, 2014 • 8:00 am - 4:00 pm

POSTER SESSION I

Odd Poster numbers 001-263 & Even poster numbers 264-526
Thursday, May 8, 2014 • 10:00 am - 12:00 pm

POSTER SESSION II

Even Poster numbers 002-262 & Odd Poster numbers 529-791
Friday, May 9, 2014 • 11:15 am - 1:15 pm

POSTER SESSION III

Odd Poster numbers 265-527 & Even Poster numbers 528-790
Saturday, May 10, 2014 • 10:00 am - 12:00 pm

DISMANTLE ALL POSTERS

Saturday, May 10, 2014 • 12:15 pm - 3:00 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

Tijeras, Albuquerque Convention Center will be available to all presenters.

Wednesday, May 7, 2014	7:00 am – 8:00 pm
Thursday, May 8, 2014	7:00 am – 5:00 pm
Friday, May 9, 2014	7:00 am – 5:00 pm
Saturday, May 10, 2014	7:00 am – 3:00 pm

Abstract Presentation Information

Adaptive Immunity

All orals [designated with an asterisk (*)] listed below are presented in the Adaptive Immunity Minisymposium on Thursday, May 8, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, Ballroom B. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 001** Calcitonin gene-related peptide (CGRP) biases Langerhans cell (LC) antigen presentation towards a Th17 response through actions on endothelial cells. Richard D Granstein, Lori L Stohl, Michela Manni, John A Wagner and Wanhong Ding. New York, NY.
- 002** Norepinephrine (NE) polarizes Langerhans cell (LC) antigen presentation to T cells towards a Th17 response via actions on a murine endothelial cell (EC) line. Wanhong Ding, Lori L Stohl, Michela Manni, John A Wagner and Richard David Granstein. New York, NY.
- 003*** Langerin-CD11b- cells are a murine, classical, Flt3L-dependent dermal DC. Niroshana Anandasabapathy, Shamim A Mollah, Joseph S Dobrin, Rachel A Feder, Sze-wah Tse, Ines Matos and Cheolho Cheong. New York, NY and Boston, MA.
- 004** Altered dendritic cell composition during the priming phase of vaccinia immunization. Niroshana Anandasabapathy, Sze-Wah Tse. Boston, MA.
- 005** Role of macrophage migration inhibitory factor (MIF) in pollen-induced allergic conjunctivitis and pollen dermatitis in mice. Tadamichi Shimizu, Yuka Nagata, Yoko Yoshihisa, Kenji Matsunaga and Nobuyuki Kitaichi. Toyama, Japan and Sapporo, Japan.
- 006*** VEGF-A promotes IL-17A-producing $\gamma\delta$ T cell accumulation in mouse skin and serves as a chemotactic factor for plasmacytoid dendritic cells Takahiro Suzuki, Satoshi Hirakawa, Takatoshi Shimauchi, Taisuke Ito, Junichi Sakabe, Michael Detmar and Yoshiki Tokura. Hamamatsu, Japan and Zurich, Switzerland.
- 007*** Regulatory T cells prevent egress of activated T cells from lymph nodes after application of contact sensitizers via degradation of ATP. Karsten Mahnke, Rainer M Koch and Alexander H Enk. Heidelberg, Germany.
- 008** Antigen presentation of dendritic cells via DEC205 is regulated by Casein kinase II. Karsten Mahnke, Rainer M Koch and Alexander H Enk. Heidelberg, Germany.
- 009** The AhR-agonist 4-n-nonylphenol exerts immunosuppressive features by primarily modulating dendritic cells. Thomas Schwarz, Agatha Schwarz, Anika Bruhs and Jean Krutmann. Kiel, Germany and Düsseldorf, Germany.
- 010*** Reduction of IL-31 expression during therapy of CTCL correlates with improved pruritus. Filberto Cedeno-Laurent, Elisha M Singer, Bernice M Benoit, Maria Wysocka, Gil Yosipovitch, Kim J Ellen and Alain H Rook. Philadelphia, PA.
- 011**** The extracellular matrix controls dendritic cell migration by TLR4 recognition of hyaluronan. Jun Muto, Aaron F Carlin, Margaret Kim, Andrea Garcia, Ajit Varki and Richard L Gallo. San Diego, CA.
- 012*** IFN-alpha diminishes the suppressive activity of human FOXP3+ regulatory T cells via cAMP deprivation Verena Raker, Nicole Bacher, Claudia Hofmann, Edith Graulich, Melanie Schwenk, Ria Baumgrass, Tobias Bopp, Ulrich Zechner, Luzie Merten, Christian Becker and Kerstin Steinbrink. Mainz, Germany and Berlin, Germany.
- 013*** Keratinocyte death in severe cutaneous adverse drug reactions is mediated by necroptosis pathway of annexin A1/ FPR1 interaction. Riichiro Abe, Nao Saito, Teruki Yanagi, Satoru Shinkuma, Asuka Suto, Yasuyuki Fujita, Shotaro Suzuki, Toshifumi Nomura, Hideki Nakamura and Hiroshi Shimizu. Sapporo, Japan.
- 014*** Very early tumor-infiltrating dendritic cell change their characteristics from immunoinhibitory to immunostimulatory in association with tumor progression. Takeshi Nakahara, Junna Oba and Masutaka Furue. Fukuoka, Japan.
- 015** Psoriasisiform phenotype in K5.Stat3C transgenic mice depends on the IL-23/Th17 axis through interleukin 36 receptor-mediated TLR signaling. Kenaro Ohko, Kimiko Nakajima and Shigetoshi Sano. Nankoku, Kochi, Japan.
- 016** High expression of TSLP receptors in circulating CD4+ T cells in atopic dermatitis. Kazuki Tatsuno, Toshiharu Fujiyama, Hayato Yamaguchi and Yoshiki Tokura. Hamamatsu, Japan.
- 017** Two distinct subsets of skin-infiltrating memory T cells, T_{RM} and T_{EM1} define cutaneous immune responses against systemically-administered soluble antigens. Gyohei Egawa, Yoshiki Miyachi and Kenji Kabashima. Kyoto, Japan.
- 018*** Programmed cell death1 (PD-1) regulates the effector function of autoimmune CD8 T cells via the ligands expressed on target epidermal cells Naoko Okiyama, Stephen I Katz. Bethesda, MD.
- 019** New insights into epidermal and dermal compartments of lesional and non-lesional atopic dermatitis skin using laser capture microdissection. Hitokazu Esaki, David A Ewald, Mayte Suarez-Farinas, Hiroshi Mitsui, James Krueger and Emma Guttman. New York, NY and Ballerup, Denmark.
- 020** Epigenetic modulation via histone deacetylase (HDAC) 6 inhibition impairs CD8 T cell functions during skin inflammation. Gaku Tsujii, Naoko Okiyama, Vadim Villarreal and Stephen I Katz. Bethesda, MD.
- 021** EpCAM expressed by epidermal Langerhans cells modulates topical immunization to proteins. Takeshi Ouchi, Mark C Udey. Bethesda, MD.
- 022** Early defect in cutaneous immune responses to varicella zoster virus challenge in old individuals. Arne Akbar, Milica Vukmanovic-Stejic, Judilyn Fuentes-Duculan, Daisy Sandhu, Toni Sobande, Mayte Suarez-Farinas, Elaine Agius, James Krueger and Malcolm Rustin. London, United Kingdom and New York, NY.
- 023** Platelet-activating Factor-receptor agonists generated by chemotherapy thwart host anti-tumor immunity. Ravi Sahu, Jesus Alex Ocana, M. Ferracini, Raymond Lloyd Konger and Jeffrey B. Travers. Indianapolis, IN.
- 024*** The extracellular ATP/ATPase axis is critical for skin-resident T cell immunity in UV-induced skin cancer. Amanda S MacLeod, Daniel Zelac, Ross Rudolph and Wendy L Havran. La Jolla, CA.
- 025** Gene profiling of epidermal Langerhans stimulated with TSLP. Shoko Miyamoto, Michio Shibata and Junichi Hosoi. Yokohama, Japan.
- 026** Langerhans cells are extinguisher of over reaction to environmental stress. Junichi Hosoi, Shoko Miyamoto, Kaori Inoue and Hirofumi Aoki. Yokohama, Japan.
- 027** Propionibacterium acnes promotes Th17 and Th17/Th1 responses in acne patients. Lars E French, Magdalena Kistowska, Barbara Meier, Tatiana Proust, Laurence Feldmeyer, Antonio Cozzio, Thomas Kuendig and Emmanuel Contassot. Zürich, Switzerland and Lausanne, Switzerland.
- 028*** IL-37 induces tolerogenic dendritic cells and suppresses skin contact hypersensitivity. Yuchun Luo, Xiangna Cai, Sucai Liu, Sen Wang, Suzhao Li, Claudia A Nold-Petry, Marcel F Nold, Philip Bufler, David A Norris, Charles A Dinarello and Mayumi Fujita. Aurora, CO; Melbourne, Australia and Munich, Germany.
- 029** A cutaneous CD30+ T-cell lymphoma spontaneously resolving and recurring on the same skin sites. Ciara Haddadeen, Chester Lai, Shin-Young Cho, Adam Fityan, Andrew Bates, Jeffrey Theaker and Eugene Healy. Southampton, United Kingdom.
- 030** IL-17 regulates Th17-mediated inflammatory and antimicrobial defense responses induced by *Propionibacterium acnes*. George W Agak, Yang Yu, Min Qin, Andrew J Park, Jean-Phillip Okhovat, Weidong Zhu, Stephan Krutzik, Hermes J Garban and Jenny Kim. Los Angeles, CA.
- 031** Proteomic analysis of CRH-treated regulatory T cells in atopic dermatitis. Shan Jin, Ji Yoen Noh, Jin Young Kim, Jung U Shin, Chang Ook Park, Nara Lee and Kwang Hoon Lee. Seoul, Republic of Korea and Daejeon, Republic of Korea.

- 032 Maintenance of cutaneous immune reactions by regulatory T cells in a newly developed murine model of graft-versus-host like skin disease.** [Saeko Nakajima](#), Gyohei Egawa, Wataru Amano, Jun-ichi Sakabe, Yoshiki Tokura, Yoshiki Miyachi and Kenji Kabashima. Kyoto, Japan and Hamamatsu, Japan.
- 033 Interferon- γ -induced signaling pathways in cancer cell growth arrest** [Martin Röcken](#), Thomas Wieder, Ellen Brenner, Kilian Braungart, Matthias Hahn, Sonja Assmann, Susanne Weidemann and Heidi Braumüller. Tübingen, Germany.
- 034 Periostin contributes to a Th2-dominant environment of cutaneous T-cell lymphoma via thymic stromal lymphopoietin expression.** [Naomi Takahashi](#), Makoto Sugaya, Hiraku Suga, Tomomitsu Miyagaki, Hanako Ohmatsu, Makiko Kawaguchi, Hildeki Fujita, Yoshihide Asano, Yayoi Tada, Takafumi Kadono and Shinichi Sato. Tokyo, Japan.
- 035 Naive T cells give rise equally to TCR-identical T_{RM} and T_{CM} after skin antigen exposure** [Olivier Gaide](#), Ryan O Emerson, Xiaodong Jiang, Suzanne Nizza, Cindy Desmarais, Harlan Robins, Rachael Clark and Thomas S. Kupper. Boston, MA and Seattle, WA.
- 036 Characterization of cutaneous Th17 CD4+ T_{RM} with heterogeneous migratory properties after candida infection of skin** [Chang Park](#), Xiujun Fu, Xiaodong Jiang, Rei Watanabe, Rachael Clark, Robert C. Fuhlbrigge, Charles Lin and Thomas S. Kupper. Boston, MA.
- 037 Diverse T cell patterns characterize the different forms of cutaneous graft-versus-host disease** [Marie-Charlotte Brüggen](#), Irene Klein, Hildegard Greinix, Wolfgang Bauer, Zoya Kuzmina, Werner Rabitsch, Peter Kalhs, Robert Knobler, Georg Stingl and Georg Stary. Vienna, Austria.
- 038 Fine tuning of T cell trafficking by skin resident commensals** [Thomas S. Kupper](#), Chang Ook Park, V. Yeliseyev, Xiaodong Jiang, Suzanne Nizza, Tian Tian, Lynn Bry and Robert C. Fuhlbrigge. Boston, MA.
- 039 Gaining insight in the pathogenesis of alopecia areata through next generation T cell receptor sequencing.** [John Thomas O'Malley](#), Annemieke de Jong, Ali Jabbari, Zhenpeng Dai, Mazen Kurban, Angela Christiano and Raphael Clynes. New York, NY.
- 040 Kinetics of extracorporeal photopheresis induced global monocyte activation** [Amit Mittal](#), Kristina Liu, Julia Lewis, David Khalil, Hao Feng, Eve Robinson, Renata Filler, Robert Tigelaar, Richard Edelson and Michael Girardi. New Haven, CT.
- 041* A novel population of T_{RM} with potent effector functions and a high proliferative capacity exists in human peripheral tissues.** [Rei Watanabe](#), Ahmed Gehad, Chao Yang, Jessica Teague, Thomas S. Kupper and Rachael Clark. Boston, MA.
- 042 Human tissue tropic T_{CM}: Recirculating tissue tropic T cells with impressive effector functions** [Ahmed Gehad](#), Jessica Teague, Rei Watanabe, Victor Huang, Thomas S. Kupper and Rachael Clark. Boston, MA.
- 043 The role of IRF4 in Th2 polarisation in the skin.** [Marta Ewa Polak](#), Chuin Y Ung, Joanna Masapust, Tom C Freeman, Michael R Ardern-Jones and Eugene Healy. Southampton, United Kingdom and Edinburgh, United Kingdom.
- 044* Identification of skin resident memory CD4+ T cells (T_{RM}) producing IL-17A after cutaneous candida infection.** [Chang Ook Park](#), Xiujun Fu, Xiaodong Jiang, Rei Watanabe, Rachael Clark, Robert C. Fuhlbrigge, Charles Lin and Thomas S. Kupper. Boston, MA.
- 045 CD1a autoreactive T cells recognize natural skin lipids.** [Annemieke de Jong](#), Tan-Yun Cheng, Shouxiang Huang, Stephanie Gras, Richard W Birkinshaw, Anne G Kasmir, Ildiko Van Rhijn, Victor Peña-Cruz, Daniel T Ruan, John D Altman, Jamie Rossjohn and D. Branch Moody. Boston, MA; Atlanta, GA; Clayton, Australia; Utrecht, Netherlands and New York, NY.
- 046 The fine tuning of T cell trafficking by skin resident commensals.** [Chang Ook Park](#), Vladimir Yeliseyev, Xiaodong Jiang, Suzanne Nizza, Tian Tian, Lynn Bry, Robert C. Fuhlbrigge and Thomas S. Kupper. Boston, MA.

Auto-Immunity & Inflammation

All orals [designated with an asterisk (*)] listed below are presented in the Auto-immunity and Inflammation Minisymposium on Friday, May 9, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, Kiva Auditorium. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 047 Psoriasis drug failure rates of biologics compared to conventional systemic therapies** [Adriane A Levin](#), Shiu-chung Au and Alice B Gottlieb. Boston, MA.
- 048* Oxidative stress-induced CXCL16 production mediated CD8+ T cells trafficking in vitiligo.** [Chunying Li](#), Shuli Li, Sen Guo, Qiong Shi, Rui Ge, Jingjing Ma, Gang Wang and Tianwen Gao. Xi, China.
- 049 CCR6 antagonist confers protection against psoriasisform-like disease in mice by limiting the infiltration of CCR6-positive leukocytes into the epidermis.** [Joanne Tan](#), Karen Ebsworth, Rob Berahovich, Manmohan Leleti, Penglie Zhang, Daniel J Dairaghi, Thomas S Schall and Matthew J Walters. Mountain View, CA.
- 050* Unique miRNAs appear at different times during the course of a delayed-type hypersensitivity (DTH) reaction in human skin** [Nicholas Gulati](#), M. Løvendorf, J. R Zibert, W. R Levis, N. Renwick and J. G Krueger. New York, NY; Ballerup, Denmark and Hellerup, Denmark.
- 051 Physiological modeling offers a valuable tool in early drug development for acne targets.** [Eunhye Grace Kang](#), Steve Frey, Katherine Kudrycki, Rukmini Kumar, Marybeth Dalessandro, Akanksha Gupta, Xuying Wang, Valeriu Damian-Iordache, Thomas Wilde, Christina Friedrich and Elizabeth K Hussey. Research Triangle Park, NC; Philadelphia, PA and San Carlos, CA.
- 052 In vivo treatment with ROR γ t antagonist attenuated psoriasis-like skin lesions in mouse through inhibition of pathogenic IL-17.** [Mikiro Takaishi](#), Masayuki Ishizaki, Keisuke Suzuki, Takashi Isobe, Takaichi Shimozato and Shigetoshi Sano. Nankoku, Japan and Tokyo, Japan.
- 053 Propionibacterium acnes activates the NLRP3 inflammasome in human SZ95 sebocytes.** [Myung Im](#), Zheng Jun Li, In Kyu Chang, Young Lee, Young Joon Seo, Chang Deok Kim, Jeung Hoon Lee and Christos C. Zouboulis. Daejeon, Republic of Korea and Dessau, Germany.
- 054 Pemphigus vulgaris clusters with autoimmune thyroid disease, rheumatoid arthritis, and type I diabetes** [Anupama Parameswaran](#), Kristopher Attwood, Ryan Sato, Kristina Seiffert-Sinha and Animesh A. Sinha. Buffalo, NY.
- 055 Anti-desmoglein 1 and -3 profiles as predictors of disease variation in pemphigus vulgaris** [Kristina Seiffert-Sinha](#), Sahar Y Naseer and Animesh A. Sinha. Buffalo, NY.
- 056 Ethnic variations in HLA DR14 alleles predispose to differential clinical phenotypes in pemphigus vulgaris** [Sahar Y Naseer](#), Kristina Seiffert-Sinha and Animesh A. Sinha. Buffalo, NY.
- 057 The natural history of pediatric chronic cutaneous lupus.** [Lisa Michelle Arkin](#), Leah Ansell, Megan Curran, Annette Wagner, Alfred Rademaker, Marisa Klein-Gitelman and Amy S. Paller. Philadelphia, PA and Chicago, IL.
- 058* A role for ST18 in the pathogenesis of pemphigus vulgaris.** [D. Vodo](#), S. Geller, E. Ben-Asher, T. Olender, I. Goldberg, J. Nosgorodsky, A. Alkelai, P. Tatarsky, S. Baum, A. Barzilai, S. Ibrahim, D. Zillikens, D. Lancet, E. Sprecher and O. Sarig. Tel Aviv, Israel; Rehovot, Israel; Luebeck, Germany and Sheba, Israel.
- 059 Desmoglein-specific IgA in pemphigus vulgaris are clonally distinct from IgG4 and can cross-react with human pathogens.** [Christoph Ellebrecht](#), Eric M Mukherjee, Eun-Jung Choi and Aimee Sue Payne. Philadelphia, PA.

Abstract Presentation Information

- 060** **Transcriptional analysis reveals different immune regulation between scalp and skin psoriasis with potential therapeutic implications.** Juan Ruano, Mayte Suarez-Farinas, Avner Shemer, Jan Marcusson, Emma Guttman and James Krueger. Córdoba, Spain; New York, NY; Tel Hashomer, Israel and Bergen, Norway.
- 061** **Role of plasmacytoid dendritic cells in psoriasiform skin inflammation.** Daniel Popkin. Cleveland, OH.
- 062** **Psoriasis, psoriatic arthritis, and risk of gout in U.S. men and women.** Joseph F Merola, Shaowei Wu, Jiali Han, Hyon K Choi and Abrar A. Qureshi. Boston, MA and Indianapolis, IN.
- 063** **Increased expression of interferon regulatory factor-8 in psoriasis.** Tomoya Watanabe, Yukie Yamaguchi, Tomohiko Tamura and Michiko Aihara. Yokohama, Japan.
- 064** **Phosphorylation of Stat3 involved in the pathogenesis of dysfunctional regulatory T cells in psoriasis** Luting Yang, Bing Li and Gang Wang. Xi, China.
- 065**** **Keratinocytes drive depigmentation in a mouse model of vitiligo via recruitment and activation of CD8+ T cells in the skin.** Jillian Richmond, Kingsley Essien, Joanna Groom, Andrew Luster and John Harris. Worcester, MA; Melbourne, Australia and Boston, MA.
- 066** **Dupilumab, a fully human anti-IL4R α mAb: Efficacy evaluation in a novel murine model with human IL-4 and IL4R α gene replacements.** Li-Hsien Wang, Xia Liu, Wen Zhang, Yajun Tang, Feng Luo, Tammy Huang, Calvin Lin, Joel Martin, David Valenzuela, Nicholas Papadopoulos, Neil Graham and Andrew Murphy. Tarrytown, NY.
- 067** **Importance of SIRT6 in supporting human dermal fibroblasts health.** Earl C Goyarts, Kelly Dong, Ed Pelle, Nadine Pernodet and Dan Yarosh. Melville, NY.
- 068** **Serum autoantibodies and cutaneous autoimmunity in chronic graft-versus-host disease** Rena C Zuo, Zoya Kuzmina, Haley B Naik, Steven Z Pavletic and Edward West Cowen. Bethesda, MD.
- 069** **A novel 6-hour method to study IL-17A and IL-22 in unstimulated cells from fresh biopsies of psoriatic patients** Marika Sarfati, S. Mashiko, M. Rubio, N. Baba, Caroline Jack and Robert Bissonnette. Montreal, Canada.
- 070** **The effects of different inducer on angiogenesis and the Chinese herbs interventions.** Xin Liu, Ping Li. Beijing, China.
- 071** **Psoriasiform eruptions in the setting of Kawasaki disease: A unique phenotype?** Wynnis Tom, Jane Burns, Adriana Tremoulet, Antoanella Calame and Ellen Haddock. San Diego, CA.
- 072*** **Ruxolitinib prevents cutaneous lupus erythematosus in MRL/lpr mice.** Emilie S Chan, Leal C Herlitz and Ali Jabbari. New York, NY.
- 073*** **Proinflammatory microvesicles in patients with cutaneous lupus erythematosus.** Minglin Liu, Honghui Xu, Muhammad Bashir, Meena Sharma, Kevin Williams, Cynthia Anyanwu, Joyce Okawa and Victoria Werth. Philadelphia, PA.
- 074** **Autoantibodies directed against thyroid peroxidase may contribute to blister formation in pemphigus vulgaris** Thomas Sajda, Kristina Seiffert-Sinha and Animesh A. Sinha. Buffalo, NY.
- 075** **Interleukin-36 α is the dominant source of interleukin-36 receptor dependent psoriasis-like phenotypes in the imiquimod induced skin inflammation model.** Liselotte E. Jensen, Katelynn A Milora, Hangfei Fu, Jianhua Fang and Ornella Dubaz. Philadelphia, PA.
- 076** **IL-6 plays a critical role in melanocyte destruction in autologous transplantation.** Fuquan Lin, Maioni Zhou, Yinsheng Wan and Aie Xu. Hangzhou, China and Providence, RI.
- 077** **Novel approaches to vitiligo treatment via modulation of mTORC1 and NF- κ B pathways in human skin melanocytes.** Jerry Wan, Fuquan Lin, Aie Xu, Joseph DeGiorgis and Yinsheng Wan. Providence, RI and Hangzhou, China.
- 078** **The retinoid-related orphan receptor ROR α promotes semaphorin 3A expression in human keratinocytes.** Yayoi Kamata, Mitsutoshi Tominaga, Yoshie Umehara and Kenji Takamori. Urayasu, Japan.
- 079** **CD4+Bcl-6+ T follicular helper cells in skin lesions of patients with bullous pemphigoid** Erle Dang, Gang Wang. Xi'an, China.
- 080** **N-linked glycosylation on laminin γ 1 influences recognition of anti-laminin γ 1 pemphigoid autoantibodies.** Xiaoguang Li, Hua Qian, Hiroshi Koga, Atsunari Tsuchisaka, Norito Ishii, Taihei Hayakawa, Yoshiaki Hirako and Takashi Hashimoto. Fukuoka, Japan and Nagoya, Japan.
- 081** **Anti-inflammatory activity of alkylamides from *Echinacea purpurea* in keratinocytes *in vitro* and in mouse models of inflammatory skin diseases** Michael Soeberdt, Attila Oláh, Ulrich Knie, Dieter Metze, Tamas Biro and Christoph Abels. Bielefeld, Germany; Debrecen, Hungary and Münster, Germany.
- 082** **A role of IRF7 in the pathogenesis of SLE.** Fumi Miyagawa, Hideo Asada. Kashihara, Japan.
- 083** **The role of magnetic resonance imaging in the diagnosis of early eosinophilic fasciitis prior to the development of cutaneous findings.** Loren Gorcey, Alisa Nicole Femia, Allyson B Eastham, Glenn Gaviola and Ruth A Vleugels. New York, NY and Boston, MA.
- 084**** **A direct role for Δ Np63 in regulating the pruritogenic cytokine IL-31 and alarmin IL-33, in the pathogenesis of atopic dermatitis.** Rose-Anne Romano, Satrajit Sinha. Buffalo, NY.
- 085** **RNA-Seq profiling increases the atopic dermatitis transcriptome and identifies pro-inflammatory genes with potential therapeutic implications.** Mayte Suarez-Farinas, Mariya Rozenblit, Hiroshi Mitsui, Joel Mauricio Correa da Rosa, James Krueger and Emma Guttman-Yassky. New York, NY.
- 086** **Circulating central and effector memory T-cells in atopic dermatitis display pathologic, high level activation irrespective of IgE levels** Juana Gonzalez, Tali Czarnowicki, James Krueger and Emma Guttman. New York, NY.
- 087*** **Development of a novel animal model to study the role of eosinophils in autoimmune blistering disease bullous pemphigoid.** Lan Lin, Kelly Messingham, Peng Geng, Lin Lin, Bin-Jin Hwang, Ning Li, Janet Fairley, James Lee, Russell P Hall, Luis A. Diaz, Beverly Koller and Zhi Liu. Chapel Hill, NC; Iowa City, IA; Scottsdale, AZ and Durham, NC.
- 088** **TNF- α and IL-17 can induce inflammatory changes in human aortic endothelial cells, potentially promoting early stages of atherogenesis in psoriasis.** Maria Vittoria Cannizzaro, Hiroshi Mitsui, Juana Gonzalez, Judithyn Fuentes-Duculan, Mayte Suarez-Farinas and James Krueger. New York, NY and Rome, Italy.
- 089** **Environmental factors transmitted by the aryl hydrocarbon receptor influence the severity of psoriatic inflammation.** Paola Di Meglio, Joao H Duarte, Helena Ahlfors, Nick D Owens, Ying Li, Federica Villanova, Isabella Tosi, Keiji Hirota, Frank O Nestle, Ulrich Mrowietz and Brigitta Stockinger. London, United Kingdom and Kiel, Germany.
- 090***** **Neural recruitment and activation is required for the development of atopic dermatitis: Novel insights into disease pathogenesis revealed by *in vivo* imaging.** Sarina Elmariah, Tuanlian Luo, Ehsan Azimi, Vemuri B Reddy and Ethan A. Lerner. Boston, MA.
- 091** **Bullous pemphigoid eosinophils express surface Fc ϵ RI and exhibit BP180-specific degranulation.** Heather M Holahan, Kelly Messingham, Colleen Fullenkamp, Rupasree Srikantha and Janet A Fairley. Iowa City, IA.
- 092** **Profiling a vast natural collection for dermatological uses.** William Kinney, Michael Goetz, Jose Fernandez, Maxwell Stock and Edwardo Perez. Doylestown, PA and Monmouth, NJ.
- 093** **CD14+ HLA-DR^{low} myeloid derived suppressor cells are numerically increased yet functionally impaired in psoriasis.** David C Soler, Andrew Young, Lori Fiessinger, Thomas McCormick and Kevin D Cooper. Cleveland, OH.
- 094** **Treatment of blood monocytes with substance P may lead to an up-regulation of inflammatory cytokines *in vitro*: A mechanism underlying the pathogenesis of atopic dermatitis** Valerie Yanofsky, Alan R Shalita and Wei-Li Lee. Brooklyn, NY.
- 095** **Differential cytokine profiles offer multi-dimensional view on immune pathways involved in pemphigus vulgaris** Canting Guo, Kristina Seiffert-Sinha and Animesh A. Sinha. Buffalo, NY.

- 096 **Autoantibodies against BP180 (Collagen XVII) in Parkinson's disease and dementia.** Joseph Helfenberger, Kelly Messingham, Nandakumar Narayanan, Julie McKillip and Janet A Fairley. Iowa City, IA.
- 097 **PCR array study of atopic dermatitis-relevant genes in IL-4 transgenic mice before and after onset of the skin lesion.** Lei Bao, Huayi Zhang, Girish C Mohan, Kui Shen and Lawrence S Chan. Chicago, IL.
- 098* **Treatment with anti-IFN γ and anti-CXCR3 antibodies prevent the onset of alopecia areata in mice** Luzhou Xing, Zhenpeng Dai, Ali Jabbari, Angela Christiano and Raphael Clynes. New York, NY.
- 099 **IL-23 cytokine is induced by TNF α and IL-17A in psoriatic keratinocytes.** Yuanguang Liu, Benjamin Ebst. Portland, OR.
- 100 **Chronic spontaneous urticaria – The Saskatchewan experience and questionnaire survey.** Natasha Gattley, Bahar Bahrani and Peter Hull. Saskatoon, Canada.
- 101 **Compound 48/80-treated keratinocytes mimics neurogenic inflammation of atopic dermatitis: A new role of compound 48/80 as an inducer of neurogenic inflammation.** Seung Chul Lee, Ho June Lee and Jee Young Choi. Gwangju, Republic of Korea.
- 102 **Eccrine sweat contains IL-1 α , IL-1 β and IL-31 and activates epidermal keratinocytes as a danger signal.** Xiuju Dai, Hidenori Okazaki, Yasushi Hanakawa, Masamoto Murakami, Mikiko Tohyama, Yuji Shirakata and Koji Sayama. Toon, Japan.
- 103* **Epidermal Rac1 hyperactivation is a key feature of human psoriasis.** M. CG Winge, B. Ohyama, E. A Waterman, C. Dei, N. Ehsani-Chimeh, W. Li, A. Truong, D. Wu, T. Makino, M. Davidson, D. Starcevic, N. Nguyen, A. Kislak, B. Homey, A. W Armstrong, T. Hashimoto, E. Engleman, M. Bradley and M. P Marinkovich. STA, CA; STO, Sweden; KUR, Japan; DUS, Germany and DV, CO.
- 104 **Identification of aa502-533 as bullous pemphigoid-specific T lymphocyte epitopes** Jieyu Zhang, Gang Wang. Xi'an, China.
- 105 **Novel skin microperfusion demonstrates that psoriasis lesional skin contains higher protein levels of IL-17A and IL-17AF, but not IL-17F compared to non-lesional skin.** Christian Loesche, M. A Valentin, B. Aigner, M. Bodenlenz, F. Polus, G. Bruin, F. Kolbinger, C. Calonder and F. Sinner. Basel, Switzerland and Graz, Austria.
- 106 **The anti IL-17A IgG1 antibody distributes in dermal interstitial fluid as demonstrated by using dermal open flow microperfusion after a single 300 mg subcutaneous administration; assessment in healthy volunteers and patients with moderate-to-severe plaque psoriasis.** Gerard Bruin, C. Dragatin, B. Aigner, F. Polus, C. Calonder, C. Froeliger, K. Tiffner, M. Bodenlenz, J. Mader, S. Korsatko, M. Ratzer, T. Pieber, Christian Loesche and F. Sinner. Basel, Switzerland and Graz, Austria.
- 107 **Regulatory T cells dysfunction is due to decreased Foxo1 activity in psoriasis patients.** Bing Li, Liang Jin, Erle Dang, Chao Gao, Ting LYang and Gang Wang. Xi an, China.
- 108 **Impaired function of CD19+CD24hiCD38hi regulatory B cells in pemphigus patients.** Haiqin Zhu, Renchao Xu, Yayuan Chen, Huijie Yuan, Hua Cao, Xiaojin Zhao, Jie Zheng, Ying Wang and Meng Pan. Shanghai, China.
- 109 **Altered manifestations of skin disease in patients with nerve damage.** Ethan A. Lerner, Ehsan Azimi and Sarina Elmariah. Boston, MA.
- 110 **Ficin, a plant protease, induces itch and edema by different mechanisms.** Vemuri B Reddy, Ehsan Azimi, Sarina Elmariah, Tuanlian Luo and Ethan A. Lerner. Boston, MA.
- 111 **The role of Mas-related G-protein coupled receptors in substance P signaling.** Ehsan Azimi, Vemuri B Reddy, Tuanlian Luo, Sarina Elmariah and Ethan A. Lerner. Boston, MA.
- 112 **Anti-Dsg3 IgG autoantibodies from mucosal pemphigus vulgaris are pathogenic to oral mucosa of humanized Dsg3 mice** Donna Aline Culton, Suzanne K McCray, Moonhee Park, Ning Li, Daniel C Zedek, Grant J Anhalt, Zhi Liu and Luis A. Diaz. Chapel Hill, NC and Baltimore, MD.
- 113 **Evaluating morbidity and association with autoimmune thyroiditis of chronic urticaria in children.** Elena Netchiporouk, Moshe Ben-Shoshan. Montreal, Canada.
- 114 **Genetic deletion of S100A9 fails to abrogate psoriasiform inflammation in the KC-Tie2 mouse model due to IL-12/23 compensation.** Yi Fritz, Sean Dawes, Doina Diaconu, Jackelyn Golden, Yunmei Wang, Daniel Simon, Thomas McCormick and Nicole L Ward. Cleveland, OH.
- 115 **CCL7 augments TNF-alpha-dependent inflammation in lesional psoriatic skin.** Patrick M Brunner, Baerbel Reininger, Irene Klein, Pavel Uhrin and Georg Stingl. Vienna, Austria.
- 116 **IL-33 deficiency exacerbates the atopic dermatitis-like phenotype in STAT6VT transgenic mice** Matthew J Turner, Sonia C DaSilva-Arnold, Leroy J Seymour, Qiaofang Yi, Joshua R Bradish, Mark H Kaplan and Jeffrey B. Travers. Indianapolis, IN.
- 117 **Proteomics identifies novel psoriasis-related proteins in a mouse model and translation to human disease.** Nicole L Ward, Kathleen Lundberg, Yi Fritz, Andrew Johnston, Alex Foster, Jaymie Baliwag, Johann Eli Gudjonsson, Daniel Schlatter, Thomas McCormick and Mark R Chance. Cleveland, OH and Ann Arbor, MI.
- 118 **Histological analysis of acne samples reveals different macrophage populations within the pilosebaceous unit** Daniel Töröcsik, Daniel Torocsik, Karolina Cseri, Dóra Kovács, Éva Remenyik and Róza Ádány. Debrecen, Hungary.
- 119 **CARD14 expression in dermal endothelial cells in psoriasis** Jamie Lynn Harden, Steven M Lewis, Katherine C Pierson, Mayte Suarez-Farinas, Tim Lentini, Francesca Ortenzio, Lisa C Zaba, Raphaela Goldbach-Mansky, Anne M Bowcock and Michelle A Lowes. New York, NY; Bethesda, MD and London, United Kingdom.
- 120 **M1 macrophage genes are enriched in discoid lupus skin.** Benjamin Franklin Chong, Lin-chiang Tseng, Song Zhang, Nancy Olsen and Chandra Mohan. Dallas, TX; Hershey, PA and Houston, TX.
- 121 **IL-17A regulates inflammation in Dlx3-deficient murine skin** Jin-Chul Kim, Yoichi Ogawa, Ulrich Siebenlist, Mark C Udey and Maria Morasso. Bethesda, MD.
- 122 **Signal transducer and activator of transcription (STAT) 3 is a negative regulator of interleukin 9 production by T cells.** Matthew R Olson, Jeffrey B. Travers and Mark H Kaplan. Indianapolis, IN.
- 123 **Overlapping transcriptome signatures between atherosclerotic plaque and psoriasis skin.** Johann Eli Gudjonsson, William R Swindell, Nicole L Ward and Andrew Johnston. Ann Arbor, MI and Cleveland, MI.
- 124 **S100A8/A9 promotes concomitant inflammation and proliferation via distinctive receptor oligomerization – potential relevance to atopic dermatitis.** Toshihiko Hibino, Mami Yamamoto-Tanaka, Masakiyo Sakaguchi, Masashi Miyai, Akira Motoyama and Ryoji Tsuboi. Yokohama, Japan; Okayama, Japan and Tokyo, Japan.
- 125 **The effect of excimer laser on immunoprofiling in psoriasis.** Argentina Leon, Mona Malakouti, Gabrielle Brown, Ethan Levin, Robert Sanchez-Rodriguez, Michael David Rosenblum, Maya Debbaneh, Eric Sorenson, Eva Wang, Rishu Gupta, Monica Huyhn, Daniel Butler and John Koo. San Francisco, CA.
- 126 **Upregulation of co-stimulatory molecules on CD4+ T cells in the patients with pemphigus.** Zhicui Liu, Huijie Yuan, Weihong Zeng, Jie Zheng, Ying Wang and Meng Pan. Shanghai, China.
- 127 **TRPM8 agonist menthoxypropanediol reduces NGF expression and neurite outgrowth in a coculture model of sensory neurons and dermal fibroblasts.** Gitta Neufang, Dennis Roggenkamp, Anne C Worthmann, Melanie Sulzberger and Ludger Kolbe. Hamburg, Germany.
- 128 **IL-6 deletion attenuates severity of psoriasis-like skin inflammation in K5-IL-17C mice.** Philip Klenotic, Andrew Johnston, Doina Diaconu, Thomas McCormick and Nicole L Ward. Cleveland, OH and Ann Arbor, MI.
- 129 **Transcriptional snapshot of the early consequences of EGFR ablation in the epidermis.** Francesca Mascia, Derek Schloemann, Aleksandra Michalowski and Stuart Yuspa. Bethesda, MD.
- 130 **A meta-analysis derived atopic dermatitis (MADAD) transcriptome.** David Adrian Ewald, Joel Correa-Da Rosa, Thomas Litman, James Krueger, Emma Guttman and Mayte Suarez-Farinas. New York, NY and Ballerup, Denmark.

Abstract Presentation Information

- 131** **The JAK 1/2 inhibitor baricitinib prevents and reverses alopecia areata in C3H/HeJ mice** Raphael Clynes, Zhenpeng Dai, Luzhou Xing, Ali Jabbari and Angela Christiano. New York, NY.
- 132** **Higher prevalence of autoimmune disease observed in a cohort of patients with vitiligo** Liza Gill, Allison Zarbo, Prescilia Isedeh and Iltefat Hamzavi. Detroit, MI and East Lansing, MI.
- 133** **IL-2 blockade prevents the onset of alopecia areata in C3H/HeJ mice** Zhenpeng Dai, Luzhou Xing, Ali Jabbari, Angela Christiano and Raphael Clynes. New York, NY.
- 134** **Mass spectrometry-based proteomic analysis of pemphigus vulgaris anti-desmoglein 3 autoantibodies** Jing Chen, Christoph Matthias Hammers, Chenyan Lin and John R Stanley. Philadelphia, PA.
- 135*** **Mast cells are key mediators of cathelicidin initiated skin inflammation in a rosacea model.** Anna Di Nardo, Yumiko Muto, Zhenping Wang, Matthieu Vandenberghe and Richard L Gallo. San Diego, CA.
- 136** **IKK16 inhibits activation NF- κ B and reduces expression of proinflammatory chemokines in keratinocytes.** Luowei Li, Brittany Flower and Stuart H Yuspa. Bethesda, MD.
- 137** **Functional genomics defines an association of the ligand-independent CTLA4 isoform with alopecia areata.** Angela Christiano, Li Bian, Marilyn Gros, Lynn Petukhova, Zhenpeng Dai and Raphael Clynes. New York, NY.
- 138** **Large clonal T cell populations are observed in LyP lesions and may be associated with increased Th17 function as compared to mycosis fungoides.** Laura Campbell, Rei Watanabe, Marshall Kadin, Jessica Teague, Thomas S. Kupper and Rachael Clark. Boston, MA and Providence, RI.
- 139** **Quality of life style in Veteran patients with psoriasis.** Chen Ning Young, Wasim Nasir, Gregory Messenger, Christofer Hatzis and Boyd Savoy. Detroit, MI.
- 140*** **A quantitative increase in regulatory T cells controls development of vitiligo.** Shikhar Mehrotra, Shilpak Chatterjee, Jonathan Eby, Amir A Al-khami, Myroslawa Soloshchenko, Hee-Kap Kang, Navtej Kaur, Osama S Naga, Anuradha Murali, Michael I Nishimura and Caroline LePoole. Charleston, SC and Maywood, IL.
- 141** **High throughput TCR sequencing provides superior ability to diagnose, stage and follow patients with cutaneous T-cell lymphoma** Jessica Teague, Harlan Robins, Lanny Kirsch, David Williamson, Rei Watanabe, Thomas S. Kupper and Rachael Clark. Boston, MA and Seattle, WA.
- 142** **Successful treatment of discoid lupus erythematosus with tacrolimus 0.3% solution** Sarika Ramachandran, Jerry Shapiro and Andrew G Franks. New York, NY.
- 143** **Psoriatic monocytes and skin express increased tissue factor and thrombin generation.** David C Soler, Andrew Young, Sarah Churton, Fang Chao, Alvin H Schmaier, Thomas McCormick, Kevin D Cooper and Neil Korman. Cleveland, OH.
- 144** **Cost analysis of rituximab as an alternative first line adjuvant therapy to mycophenolate mofetil for moderate-to-severe pemphigus vulgaris.** Betty Jiang, Evan Myers, Russell P Hall and Adela R Cardones. Durham, NC.
- 145** **CCL22 to activate Treg migration and suppress depigmentation in mice** Caroline Le Poole, Jonathan Eby, Sean Tully, Wendy Bindeman, Shilpak Chatterjee, Hee-Kap Kang and Shikhar Mehrotra. Maywood, IL and Charleston, SC.
- 146** **Monocyte aggregates and intermediate (CD14++CD16+) monocytes that are associated with cardiac events are increased in human psoriatic blood.** Jackelyn B Golden, Sarah G Groft, Nicole L Ward, Thomas McCormick and Kevin D Cooper. Cleveland, OH.
- 147** **DRM02, a novel PDE4 inhibitor, demonstrates activity in multiple skin inflammation models.** Hans E.J. Hofland, David Hunt. Redwood City, CA.
- 148** **Dermal mast cells and fibrosis: Correlation to keloid pathology.** Theresa Thekkudan, Alon Mantel, Geetaram Sahu, Jian Tao, Ernst J Reichenberger, Robert A Frazier and Meena Katdare. Hampton, VA; Farmington, CT and Norfolk, VA.
- 149** **25(OH)D modifies host immune response following skin exposure to nitrogen mustard.** Kurt Quoc Lu, Liemin Au, Jeffrey Meisch and Lopamudra Das. Cleveland, OH.
- 150*** **Langerhans cells' critical role in modulating photodamage-induced inflammation and immunosuppression.** Tahseen H Nasti, Jessika A Davis, M. Apperson, Yuko Tsuruta, Craig A Elmets and Laura Timares. Birmingham, AL.
- 151** **IgG1 and IgG4 subclass autoantibody responses against keratinocyte cadherins in Fogo Selvagem** Christopher R Stamey, Mike Maldonado, Donna Aline Culton, Phillip Prisayanh, Bahjat F Qaqish, Valeria Aoki, Gunter Hans Filho, Evandro A Rivitti and Luis A. Diaz. Chapel Hill, NC; Sao Paulo, Brazil and Campo Grande, Brazil.
- 152** **A novel role of skin activated macrophages in mediating myelosuppression.** Kurt Quoc Lu, Jeffrey Meisch, Liemin Au and Lopamudra Das. Cleveland, OH.
- 153** **Anti-bullous pemphigoid autoantigen BP180 antibodies exist in sera and cerebrospinal fluid samples of patients with stroke and dementia.** Jinbo Chen, Yiqun Duan, Liuqing Chen, Dongsheng Li, Bilin Dong, Li Xu, Xin Qiu and Jing Rao. Wuhan, China.
- 154*** **Successful biologic therapy for bullous pemphigoid.** Kenneth K. Yu, Ashley B Crew, Kelly Messingham, Janet A Fairley and David Timothy Woodley. Los Angeles, CA and Iowa City, IA.
- 155** **Standardized clinical characterization of the neutrophilic dermatoses in adult-onset autoinflammatory syndromes: A key step toward clarifying disease subtypes and response to cytokine blockade.** Marlys S Fassett, Kieron S Leslie, Lindy P Fox, Kanade Shinkai, Michael D Rosenblum and Anna K Haemel. San Francisco, CA.
- 156** **Bicyclic monoterpene diol blocks keratinocyte proliferation induced by calcitonin gene-related peptide: Possible implication in skin inflammation.** S. Rabinovich, C. Huan, S. A Glick, A. R Shalita and Wei-Li Lee. Brooklyn, NY.
- 157** **Autoimmune urticaria – An indirect immunofluorescence method.** Bahar Bahrani, Natasha Gattey and Peter Hull. Saskatoon, Canada.

Carcinogenesis and Cancer Genetics

All orals [designated with an asterisk (*)] listed below are presented in the Carcinogenesis and Cancer Genetics Minisymposium on Thursday, May 8, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, Ballroom A. Orals designated by two asterisks (***) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 158*** **Senescence leads to epigenomic destabilization invoking hallmarks of reprogramming and pluripotency.** Brian C Capell, Gabriel L Otte, Zhixun Dou, Parisha P Shah, Greg Donahue, Jeff S Pawlikowski, Tony McBryan, Taranjit Singh Rai, Peter D Adams and Shelley L Berger. Philadelphia, PA and Glasgow, United Kingdom.
- 159** **Peritumoral regulatory T cells and CD8+ T cells in cutaneous squamous cell carcinomas influence tumor immunity and metastatic potential.** Chester Laj, Rannik Behar, Marta Polak, Mike Ardern-Jones, Jeff Theaker, Aymen Al-Shamkhani and Eugene Healy. Southampton, United Kingdom.
- 160** **Identification of cancer stem cell population in leukemia cutis cases** Priscilla Sugianto, Uma Sundram. Stanford, CA.
- 161** **The aryl hydrocarbon receptor (AHR) is a new target for prevention and treatment of cutaneous squamous cell carcinomas.** Thomas Haarmann-Stemann, Katrin Frauenstein, Julia Tigges, Kerstin Fischer, Ellen Fritsche, Charlotte Esser and Jean Krutmann. Duesseldorf, Germany.

- 162** Cytoskeletal protein Flii is elevated in human cSCCs and overexpression of Flii in mice leads to higher incidence and severity of tumour formation. [Zlatko Kopecki](#), Gink Yang, Jessica Jackson, Elisabeth Melville, Vera Martin, Matthew Caley, Charlotte Proby, Dodie Pouniotis, Dedee Murrell, Ian Darby, Edel A. O'Toole and Allison J Cowin. Adelaide, Australia; London, United Kingdom; Dundee, United Kingdom; Melbourne, Australia and Sydney, Australia.
- 163** Mapping cytogenetic abnormalities in cutaneous T-cell lymphoma with FISH [Emily C Newsom](#), Henry Heng and Jessica Kado. Detroit, MI.
- 164** Autophagy addiction as a mechanism of vemurafenib resistance in melanoma and its successful blockade with hydroxychloroquine [Joshua Arbesman](#), Keman Zhang and Barbara Bedogni. Cleveland, OH.
- 165** Proteomic analysis and functional studies of baicalin on proteins associated with skin cancer. [Qihong Qian](#), Wei Min, Lingbing Jiang, Xiuqing Yu and Dan Luo. Suzhou, China and Nanjing, China.
- 166*** EphB2 receptor tyrosine kinase regulates growth and invasion of cutaneous squamous cell carcinoma. [Mehdi Farshchian](#), Liisa Nissinen, Elina Siljamäki, Atte Kivisaari, Markku Kallajoki, Pilvi Riihilä, Esko Veräjänkorva, Taina Pihlajaniemi, Ritva Heljasvaara, Reidar Grénman, Sirkku Peltonen, Juha Peltonen and Veli-Matti Kähäri. Turku, Finland and Oulu, Finland.
- 167** UV-induced mutations in mitochondrial DNA induce CCL20 up-regulation promoting tumorigenic phenotypes. [Jana Jandova](#), James Sligh. Tucson, AZ.
- 168** Chronic allergic contact dermatitis acts as a potent tumor promoter in the skin [Shadmehr Demehri](#), Trevor J Cunningham, Eva A Hurst, Andras Schaffer, David M Sheinbein and Wayne M Yokoyama. St. Louis, MO.
- 169** The chemokine receptor 4 (CXCR4) in primary cutaneous melanoma - Correlation of expression with established prognosticators, BRAF status and expression of its ligand CXCL12. [Brendon Mitchell](#), Dominick Leone, John K Feller, Philip Bondzie, Shi Yang, Hee Y Park and Meera Mahalingam. Boston, MA.
- 170** Rapamycin reprograms tumor cell metabolism in a murine model of cutaneous T-cell lymphoma. [Stefan M Schieke](#), Xuesong Wu, Justine Garner and Sam T Hwang. Milwaukee, WI.
- 171** Characterization of sAC mutations identified in human cancers. [Caren Waintraub](#), Lavoisier Ramos-Espiritu, Antonietta Bacchicocchi, Ruth Halaban and Jonathan Hale Zippin. New York, NY and New Haven, CT.
- 172** Targeting macrophage migration inhibitory factor in ultraviolet light-induced squamous cell carcinogenesis. [Priyadharsini Nagarajan](#), Kathleen Tober, Abhay Satoskar and Tatiana Oberszyn. Columbus, OH.
- 173*** Firmocidin, a small molecule produced by *S. epidermidis*, provides antineoplastic and antibiotic function from the commensal skin microbiome [Teruaki Nakatsuji](#), Lynn L Trzoss, William Fenical and Richard L Gallo. San Diego, CA.
- 174** Ectopic expression of cancer testis antigens in cutaneous T-cell lymphoma (CTCL) patients. [Ivan Litvinov](#), Brendan Cordeiro, Hanieh Zargham, Kevin Pehr, Marc Andre Dore, Martin Gilbert, Youwen Zhou, Thomas S. Kupper and Denis Sasseville. Montreal, Canada; Quebec City, Canada; Vancouver, Canada and Boston, MA.
- 175** Analysis of signal transducers and activators of transcription (STAT) mRNA and protein expression in cutaneous T-cell lymphoma (CTCL) patients and patient-derived cell lines. [Brendan Cordeiro](#), Ivan Litvinov, Hanieh Zargham, Marc-Andre Doré, Kevin Pehr, Martin Gilbert, Youwen Zhou, Thomas S. Kupper and Denis Sasseville. Montreal, Canada; Quebec City, Canada; Vancouver, Canada and Boston, MA.
- 176** DBC1 modulates Δ Np63 α function in squamous cell carcinoma. [Matthew Robert Ramsey](#), Rebeca F Cardoso, James G Rheinwald and Leif W Ellisen. Boston, MA.
- 177** TOX expression and role in CTCL. [Laura Young McGirt](#), Catherine A Necessary, Devin A Baerenwald, Vanessa E Johnson, John A Zic, Jeffrey P Zwerner and Christine M Eischen. Charlotte, NC and Nashville, TN.
- 178*** ABCB5 inhibition sensitizes Merkel cell carcinoma cells to chemotherapy-induced apoptosis [Sonja Kleffel](#), Nayoung Lee, Cecilia Lezcano, Kristine Sobolewski, Hansgeorg Mueller, Andrew DoRosario, Linda Wang, Markus H Frank, George F Murphy and Tobias Schatton. Boston, MA.
- 179*** Keratinocyte-specific deletion of CXCR4 inhibits DMBA-TPA-mediated skin carcinogenesis. [Wasakorn Ten Kittipongdaja](#), Gyorgy Paragh, Xuesong Wu and Sam T Hwang. Milwaukee, WI.
- 180** Sox11 works as a tumor promoter gene in mutagen-induced skin tumorigenesis [Amy Ku](#), Qi Miao and Hoang Nguyen. Houston, TX.
- 181*** Development of a multiple gene RNA expression signature to differentiate malignant melanoma from benign melanocytic nevi. [Colleen Rock](#), M. Bryan Warf, Darl D Flake, Loren E Clarke, Alexander Gutin, Steven R Tahan, Kathryn A Kolquist, Christopher R Shea, Carola Berking and Benjamin B Roa. Salt Lake City, UT; Boston, MA; Chicago, IL and Munich, Germany.
- 182** c-CBL ubiquitin E3 ligase is over-expressed in Sezary syndrome and its inhibition restores T-cell receptor signaling, upregulates FAS-Ligand expression and promotes activation-induced cell death. [Jianqiang Wu](#), Gary S Wood. Madison, WI.
- 183*** BET bromodomain inhibition triggers apoptosis of NF1-associated malignant peripheral nerve sheath tumors through Bim induction. [Lu Q. Le](#), Amish Patel, Chung-Ping Liao, Zhiguo Chen, Chiachi Liu and Yong Wang. Dallas, TX.
- 184** Characterization of a new signaling pathway within myeloid-derived suppressor cells (MDSC) responsible for their potent T cell suppressor function [Jin-Sung Chung](#), Takahiro Teshima, Ponciano D Cruz and Kiyoshi Ariizumi. Dallas, TX.
- 185** Human epidermis resists malignant transformation by neoplasia-associated FGFR3 activating mutations. [Todd William Ridky](#), Elizabeth Jean Kennedy, Seung Ja Oh, Andrew McNeal and Stephen Prouty. Philadelphia, PA.
- 186** MyD88 signaling in both keratinocytes and T-cells contribute to skin carcinogenesis. [Christophe Cataisson](#), Rosalba Salcedo, Kelly Shibuya, Shruti Naik, Lisa Wright, Giorgio Trinchieri and Stuart H Yuspa. Bethesda, MD and Frederick, MD.
- 187** Identification of novel susceptibility genes in trichothiodystrophy and xeroderma pigmentosum patients by use of exome sequencing. [Christiane Kuschal](#), John J DiGiovanna, Deborah Tamura, Sikandar G Khan, Daniel Edelman, Paul Meltzer, Daniel Soppet, Robert Stephens and Kenneth H Kraemer. Bethesda, MD and Frederick, MD.
- 188** MicroRNAs associated with metastasis of Merkel cell carcinoma. [Matthew Stephen Ning](#), Kiara A Clay and Thomas Andl. Nashville, TN.
- 189** MMP-10 is induced by Cyclosporine A (CsA) in SCC *in vitro* and is preferentially overexpressed at the invasive front of TSCC [Miriam P. Herschman](#), Hiroshi Mitsui, James Krueger, Miroslav Blumenberg, Diane Felsen and John A Carucci. New York, NY.
- 190** Z-RNA in human melanoma tissue sections. [Domenico Carbone](#), Claude E. Gagna and W. Clark Lambert. Newark, NJ and Old Westbury, NY.
- 191** Stat1-signaling in cancer cells critically affects development and metastasis. [Ellen Brenner](#), Heidi Braumüller, Thomas Wieder and Martin Röcken. Tuebingen, Germany.
- 192** Comparative proteomics analysis of polo-like kinase 1 inhibition by BI 6727 (Volasertib) in human melanoma. [Brian D Cholewa](#), Molly C Pellitteri-Hahn, Cameron O Scarlett and Nihal Ahmad. Madison, WI.
- 193** SATB1 over-expression promotes malignant cell proliferation in cutaneous CD30+ lymphoproliferative disease by repressing p21. [Yang Wang](#), Xiaoguang Gu, Gaolei Zhang, Lin Wang, Tingting Wang, Yun Zhao, Xiuyan Zhang, Youwen Zhou, Marshall E Kadin and Ping Tu. Beijing, China; Chengdu, China; Suzhou, China; Vancouver, Canada and Providence, RI.
- 194** Langerhans cells promote clonal expansion of UV-induced p53 mutant keratinocytes independently of T cells [Christina Bürgler](#), Julia Lewis and Michael Girardi. New Haven, CT.

Abstract Presentation Information

- 195*** **Identification and functional analysis of key genetic drivers of cutaneous squamous cell carcinoma.** [Vida Chitsazzadeh](#), Tri Nguyen, Aaron Joseph, Preethi Gunaratne, Cristian Coarfa, Xiaoping Su, Elsa R Flores and Kenneth Y Tsai. Houston, TX and Pasadena, TX.
- 196** **Melanocytic model to examine the role of REC8 in chromosomal instability.** [Julia Escandon](#), Mark Eller, Ramiro Verdun and James Michael Grichnik. Miami, FL.
- 197** **MicroRNA-135b inhibits tumor progression by down-regulation of leucine zipper tumor suppressor 1 in cutaneous squamous cell carcinoma.** [Zelmira Lazarova](#), Edit B Olasz, Marcy Neuburg, Lauren Seline, Ashley Schock, Nathan Duncan, Argelia Lopez, Jozef Lazar, Michael J Flister, Yan Lu, Pengyuan Liu, Catherine A Harwood and Charlotte M Proby. Milwaukee, WI; London, United Kingdom and Dundee, United Kingdom.
- 198** **Mammalian SIRT2 suppresses skin tumorigenesis and keratin 19 expression.** [Yu-Ying He](#), Mei Ming, Lei Qiang and Baozhong Zhao. Chicago, IL.
- 199** **Regulation of cell proliferation and migration by p62 through stabilization of Twist1 in human SCC and melanoma cells.** [Yu-Ying He](#), Lei Qiang, Baozhong Zhao, Mei Ming, Ning Wang, Tong-Chuan He, Seungming Hwang and Andrew Thorburn. Chicago, IL and Aurora, CO.
- 200** **Recurrent point mutations in KNSTRN and disruption of multiple notch signaling genes in cutaneous squamous cell carcinoma.** [Carolyn Lee](#), Aparna Bhaduri, Angela Mah, Alexander Ungewickell, Cody Aros, Christie Nguyen, Zurab Sibrashvili, Whitney Johnson, Aaron Straight, Jinah Kim, Sumaira Aasi and Paul Khavari. Palo Alto, CA.
- 201** **Mechanism of chemical cooperative carcinogenesis by epidermal Langerhans cells** [Michael Girardi](#), Julia Lewis, Renata Filler and Christina Bürgler. New Haven, CT.
- 202** **Tumor necrosis factor-alpha is linked to protein kinase C ϵ -mediated sensitivity to the development of cutaneous squamous cell carcinomas.** [Ajit K Verma](#), Anupama Singh, Ashok Singh, Sam Bauer and Deric L Wheeler. Madison, WI.
- 203** **Chemical adduct-associated mutational strand bias in p53 sequences from human skin cancers** [Jason Weed](#), Julia Lewis and Michael Girardi. New Haven, CT.
- 204** **Human basal cell carcinoma demonstrate telogen arrest.** [Girish Khandubhai Patel](#), Antisar Ben Ketah, Simon Reed and Paul E Bowden. Cardiff, United Kingdom.
- 205** **Tumor necrosis factor-alpha and ultraviolet radiation, which are linked to development of cutaneous squamous cell carcinomas, modulate differential epidermal microRNAs expression.** [Ashok Singh](#), Anupama Singh, Bilal B Hafeez, Mohanpreet S Brar and Ajit K Verma. Madison, WI.
- 206**** **Unexpected complexity in smoothened variants associated with drug resistant basal cell carcinoma.** [Kavita Sarin](#), Scott Atwood, Jiang Li, Anne Lynn S. Chang, Anthony Oro and Jean Tang. Palo Alto, CA.
- 207** **Elevated expression of YB-1 in UVB exposed keratinocytes, human basal and squamous cell carcinomas.** [Deeba N Syed](#), Rahul K Lall, Mohammad Imran Khan and Hasan Mukhtar. Madison, WI.
- 208** **A retrospective study of 4919 cases of solitary skin lesions.** [Yuehua Men](#), Qian Zhang, Baoyuan Zhang and Chunlei Zhang. Beijing, China.
- 209** **The RNA-binding protein Pumilio 1 suppresses apoptosis to maintain epidermal homeostasis and is aberrantly expressed in squamous cell carcinoma** [Sean R Christensen](#), Ronghua Hu and Haifan Lin. New Haven, CT.
- 210** **DNA repair determines regional mutation rates in human cancer.** [Raymond Jaihyum Cho](#), Christina Zheng, Elizabeth Purdon, Homayoun Moslehi, Nicholas Wang, Zachary Sanborn, Hiva Fassahi, Swapna Vemula, Agne Najoukas, Dennis H. Oh, James Cleaver, Bari Cunningham, Isaac Neuhaus, Philip LeBoit, Alan Lehmann, Paul Spellman and Sarah Arron. Portland, OR; Berkeley, CA; San Francisco, CA; Santa Cruz, CA; London, United Kingdom; San Diego, CA and Sussex, United Kingdom.
- 211** **A role for Dsg2 in hedgehog mediated carcinogenesis** [D. Brennan-Crispi](#), C. Hossain, J. Sahu, F. Cooper, K. McGuinn, N. A Riobo and M. G Mahoney. Philadelphia, PA.
- 213*** **Tumor suppressor function of hairless in melanoma mediated by P-REX2.** [Liang Liu](#), Angela Christiano. New York, NY.
- 214** **Loss of p63 from hair follicle stem cells accelerates skin SCC formation.** [Velmurugan Balaiya](#), Senthilnath Lakshmana Chetty, Merlin Ariefdjohan and Maranke I Koster. Aurora, CO.
- 215** **C-Myc plays an important role in CYLD mutant-driven skin abnormalities.** [Jennifer Y Zhang](#), Jane Jin, Sally Wang and George Mosiolas. Durham, NC and Thessaloniki, Greece.
- 216** **Myeloid cell-specific p38 δ mitogen-activated protein kinase (MAPK) targeting protects male but not female mice against skin tumor development** [Tatiana Efimova](#), Alexi Kiss and Aaron C Koppel. St. Louis, MO.
- 217*** **A subpopulation of epidermal squamous cell carcinoma stem cells drives formation of rapidly-growing and highly-vascularized aggressive tumors** [Richard Eckert](#), Gautam Adhikary, Dan Grun, Candace Kerr, Sivaprakasam Balasubramanian, Ellen Rorke, Mohan Vemuri, Shayne Boucher, Jackie Bickenbach, Thomas Hornyak and Wen Xu. Baltimore, MD; Frederick, MD and Iowa City, IA.
- 218** **Arsenic poisoning and associated tumorigenesis involves Yap-regulated disruption of epidermal tight/adherens junctions and Shh activation in murine skin.** [Mohammad Athar](#), Changzhao Li, Ritesh K Srivastava, Zhiping Weng, Craig A Elmets, David J Robbins and David R Bickers. Birmingham, AL; Miami, FL and New York, NY.
- 219** **Mitochondrial DNA is essential for epidermal proliferation and is mutated in tumor progression** [Christine Lynn Montealeon](#), Suresh Sharma, Craig Cameron and Todd William Ridky. Philadelphia, PA and University Park, PA.
- 220** **Ionizing radiation induces senescence and silences IGF-1 expression in normal human fibroblasts; Its implications for exposure of astronauts to space radiation.** [Dan F Spandau](#), David H Southern, Marc S Mendonca and Joseph R Dynlacht. Indianapolis, IN.
- 221** **IL-1 β deficiency, coupled with IL-1 α sufficiency, leads to robust T cell mediated tumor immunity.** [Tian Tian](#), Robert C. Fuhlbrigge and Thomas S. Kupper. Boston, MA.
- 222** **TOX profoundly disrupts cellular proliferation and apoptosis in cutaneous T cell lymphoma.** [Yuanshen Huang](#), Yang Wang, Ming-Wan Su, Xiaoyan Jiang and Youwen Zhou. Vancouver, Canada and Beijing, China.
- 223** **Vitamin D3 enhances the response of resistant squamous carcinoma cell lines to photodynamic therapy.** [Angeles Juarranz](#), Omar Kourani, Nerea Salazar, Alejandra Damian, Alicia Zamarron, Silvia Lucena, Salvador Gonzalez and Yolanda Gilaberte. Madrid, Spain; New York, NY and Huesca, Spain.
- 224*** **Merkel cell polyomavirus small T antigen is sufficient for rapid epithelial transformation *in vivo*** [Monique Elise Verhaegen](#), Doris M Mangelberger, Tracy D Vozheiko, Jack W Weick, Ehab Nazzal, Dawn Wilbert, Paul W Harms, Thomas L Saunders and Andrzej Dlugosz. Ann Arbor, MI.
- 225** **Divergent inositol-requiring enzyme 1 mase activities dictate the senescence response of mouse keratinocytes to oncogenic RAS and are linked to tumor progression.** [Adam Glick](#), Nicholas Blazanin, Christian John, Bokai Zhu and Jeffrey Peters. University Park, PA.
- 226** **Treatment of melanoma using talimogene laherparepvec and vemurafenib combination therapy in murine model** [Ellen H de Moll](#), Yichun Fu, Courtney Beers, Nina Bhardwaj, Mark G Lebwohl and Yvonne Saenger. NY, NY; Thousand Oaks, CA and New York, NY.
- 227*** **High-level Hedgehog signaling activity overrides resistance of hair follicle stem cells to neoplastic transformation.** [Marina Grachtchouk](#), Katelyn Fiehler, Dawn Wilbert, Joanna Pero and Andrzej Dlugosz. Ann Arbor, MI.

- 228 **Genomic landscape of MCPyV+ and MCPyV- Merkel cell carcinomas.** [Jaehyuk Choi](#), Gerald Goh, Trent Walradt, Astrid Blom, Ata S Moshiri, Paul Nghiem and Richard Lifton. New Haven, CT; Chevy Chase, MD and Seattle, WA.
- 229 **The mechanism underlying p53's anti-BCC function in Ptch1+/- mice.** [Grace Ying Wang](#), Carla Wood, Hiroe Hu, Joy Wang, Eileen Libove and Ervin H Epstein. Oakland, CA.

Cutaneous and Hair Development

All orals [designated with an asterisk (*)] listed below are presented in the Cutaneous and Hair Development Minisymposium on Friday, May 9, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, Ballroom C. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 230 **Loss of nuclear membrane protein SUN2 leads to transient alopecia and hair follicle structure defects.** [Amanda Zubek](#), Rachel Stewart, Kathryn Rosowski, Sarah Schreiner, Megan King and Valerie Horsley. New Haven, CT.
- 231* **Apical cues induce asymmetric division of epidermal basal cells through PIP3-PDK1 pathway.** [Teruki Dainichi](#), Matthew S Hayden, Yoshiki Miyachi, Kenji Kabashima and Sankar Ghosh. Kyoto, Japan and New York, NY.
- 232* **β -catenin activation regulates epithelial growth non-cell autonomously within the hair follicle stem cell niche.** [Peggy Myung](#), Elizabeth Deschene, Panteleimon Rempel, Giovanni Zito, Thomas Yang, Makoto Taketo, Ichiko Saotome and Valentina Greco. New Haven, CT and Kyoto, Japan.
- 233 **Association between Interleukin 18 polymorphisms and alopecia areata in Koreans.** [Bark-Lynn Lew](#), Young-Jun Oh and Woo-Young Sim. Seoul, Republic of Korea.
- 234 **Effect of miR-203 silencing in cultured human keratinocytes and reconstructed epidermis.** [Catherine Serre](#), Christophe Capallere, Florian Labarrade, Laurine Bergeron, Christelle Plaza, Valère Busuttill, Jean marie Botto and Nouha Domloge. Sophia Antipolis, France.
- 235 **Keratin 79 marks a novel population of migratory keratinocytes that mediates the formation and regeneration of the hair follicle canal / infundibulum.** [Sunny Wong](#), Natalia A Veniaminova, Alicia N Vagnozzi and Jeremy F Reiter. Ann Arbor, MI and San Francisco, CA.
- 236 **Interest of adenosine triphosphate in chronic hair loss treatment.** [Marguerite Lévêque](#), Nathalie Castex-Rizzi and Sandrine Bessou-Touya. Toulouse, France.
- 237 **3D sebocyte spheroids induce terminal differentiation markers and lipogenesis offering an improved model for drug testing.** [Sarah Compton](#), Rebecca L Wolf and Ben Buehrer. Research Triangle Park, NC.
- 238* **ATP-dependent chromatin remodeler Brg1 regulates the establishment of the topological lineage-specific interactome for the Loricrin gene in keratinocytes during epidermal development.** [Andrei Mardaryev](#), V. Rapisarda, K. Poterlowicz, V. Emelianov, I. Malashchuk, J. Yarker, J. Rudolf, T. Sharov, A. Sharov, M. Fessing and Vladimir A. Botchkarev. Bradford, United Kingdom and Boston, MA.
- 239 **Transcriptional modulation by a hair growth promoting formulation in inter-follicular- and hair follicle-associated human keratinocytes: Comparative analysis by genome-wide expression profiling** [Harry Frank Abts](#), Thomas Hengl, Kristina Riegel, Saskia Krischok and Kim Schlingzig. Frankfurt a.M., Germany.
- 240 **Cell interaction and growth in a 3-D heterotypic hair-follicle spheroid model mimicking diffuse hair-loss** [Thomas Hengl](#), Saskia Krischok, Kristina Riegel, Nariman Ansari, Ernst H.K. Stelzer and Harry Frank Abts. Frankfurt a.M., Germany.
- 241 **Integration of microRNA-mRNA Expression profiles reveals regulatory networks controlling hair cycle progression.** [Natalia V Botchkareva](#), Krzysztof Poterlowicz, Majid Alam, Eerik Aunin and Michael Fessing. Bradford, United Kingdom.
- 242 **Age-associated changes in gene expression programs in human hair follicle.** [Natalia V Botchkareva](#), Ankit Patel, Krzysztof Poterlowicz, Gillian Westgate and Nilofer Farjo. Bradford, United Kingdom and Manchester, United Kingdom.
- 243 **Prostaglandin I2 (prostacyclin) is playing a role in regulating rat hair follicle growth.** [Karzan Ghafur Khidhir](#). Al-Sulaimaniyah, Iraq.
- 244 **Impact of Dlx3 deficiency in isthmus/infundibulum for hair shaft development** [Maria Morasso](#), Jin-Chul Kim, Olivier Duverger and Joonsung Hwang. Bethesda, MD.
- 245 **SULT1A1 activity assay predicts minoxidil response in the treatment of androgenetic alopecia.** [John McCoy](#), Andy Goren, Janet Roberts and Torello Lotti. Irvine, CA and Rome, Italy.
- 246* **Hedgehog signaling creates a perineural stem cell niche essential for maintaining sensory touch domes in skin.** [Ying Xiao](#), Jonathan S Williams and Isaac Brownell. Bethesda, MD.
- 247 **Dietary vitamin A dose dependently regulates bone morphogenetic protein 4 and wingless-related MMTV integration site signaling to alter the hair cycle** [Live Suo](#), John Paul Sundberg and Helen B Everts. Columbus, OH; Bar Harbor, ME and Nashville, TN.
- 248 **Screening for autoantigen epitopes involved in the development of alopecia areata.** [Eddy Hsi Chun Wang](#), Trisia Breitkopf, Noushin Akhoundsadegh, Jan Peter Dutz, Jerry Shapiro and Kevin J McElwee. Vancouver, Canada.
- 249 **Microanatomy of psoriasis: Sebaceous gland atrophy contributes to downregulation of lipid metabolism genes.** [James T Elder](#), Laure Rittié, Trilokraj Tejasvi, Lam C Tsoi, William R Swindell and Rajan P Nair. Ann Arbor, MI.
- 250* **Master regulators involved in human dermal papilla induction of hair follicles.** [Etienne Wang](#), Claire Higgins, James Chen, Colin Jahoda and Angela Cristiano. New York City, NY and Durham, United Kingdom.
- 251 **Atoh1 overexpression is sufficient to direct the keratinocyte lineage to the Merkel cell fate.** [Stephen Ostrowski](#), Alexa Bolock, Christy Smolak, Margaret Wright and Stephen Maricich. Cleveland, OH and Pittsburgh, PA.
- 252 **Complex changes in the apoptotic and cell differentiation programs during initiation of the hair follicle response to chemotherapy.** [Tatyana Y Sharova](#), Krzysztof Poterlowicz, Natalia V Botchkareva, Nikita A Kondratiev, Ahmar Aziz, Jeffrey H Spiegel, Vladimir A. Botchkarev and Andrey Sharov. Boston, MA and Bradford, United Kingdom.
- 253 **Low-level laser treatment in a rat model of chemotherapy-induced alopecia** [Shadi Damanpour](#), Keyvan Nouri, Joaquin Jimenez and Tongyu Cao Wikramanayake. Miami, FL.
- 254* **Chromatin organizer and AT-rich binding protein Satb1 controls re-organization of lineage-specific differentiation programs during keratinocyte reprogramming towards the induced pluripotent state.** [Andrey Sharov](#), Tatyana Y Sharova, Mohammed Ahmed, Hye-Jung Han, Krzysztof Poterlowicz, Gustavo Mostoslavsky, Terumi Kohwi-Shigematsu and Vladimir A. Botchkarev. Boston, MA; San Francisco, MA and Bradford, United Kingdom.
- 255** **A lncRNA-MAF:MAFB transcription factor network regulates epidermal differentiation.** [Vanessa Lopez-Pajares](#), Kun Qu, Jiajing Zhang, Dan Webster, Brook Barajas, Brian Zarnegar, Lisa Boxer, Markus Kretz and Paul Khavari. Palo Alto, CA.
- 256 **Various skin abnormalities and greatly reduced adipose depots in Mpl3 knockout mice** [Tongyu Cao Wikramanayake](#), Angel G Leiva, Anne L Chen, Priyadarshini Devarajan, Zhibin Chen, Shadi Damanpour, Jessica A Hall, Antonio C Bianco, Jie Li, Evangelos Badiavas, Julia Zaias, Mariya Miteva, Paolo Romanelli and Keyvan Nouri. Miami, FL.
- 257 **Transfer of alopecia areata to C3H/HeJ mice using cultured lymph node derived cells.** [Eddy Hsi Chun Wang](#), Kevin J McElwee. Vancouver, Canada.

Abstract Presentation Information

- 258 **Genome-wide analysis of P300 binding reveals enrichment of layer-specific enhancers within exons of epidermal gene clusters.** [Benjamin D Yu](#), Shantanu Kumar, Suguna Krishnaswami, Andrew Grainger, Chris Adase and Craig Ricker. La Jolla, CA.
- 259 **Roles of mesenchymal pdgf signaling during hair follicle formation.** [Amelie Rezza](#), Rachel Sennett, Carlos Clavel and Michael Rendl. New York, NY.
- 260* **Reprogramming regular skin fibroblasts into hair inducing dermal papilla cells** [Carlos Clavel](#), Amelie Rezza, Rachel Sennett and Michael Rendl. New York, NY.
- 261 **Wnt-dependent initiation and maintenance of postnatal hair growth by hair-inducing dermal papilla cells.** [Linli Zhou](#), Yongguang Yang, Makoto Taketo, Sarah E Millar and Yuhang Zhang. Cincinnati, OH.
- 262 **Histone deacetylase 3 is essential for stepwise differentiation of the epidermis.** [Fang Liu](#), Matthew Leboeuf, Mitch Lazar and Sarah Millar. Philadelphia, PA.
- 263 **Lipoproteins and bovine milk peptides stimulate lipogenesis and inflammatory response in human sebocytes.** [Raja K Sivamani](#), Waqas Burney, Gokulesh Killer, Shreya Sharma, Dave Dallas, Bruce German and Rivkah Isseroff. Sacramento, CA and Davis, CA.
- 264 **Expansion of specialized epidermis induced by hormones and mechanical strain.** [John G. Foley](#), Teresa Easwaran, Carlos Offutt, Hsin-Jung Wu, Dan F Spandau and Sachiko Koyama. Bloomington, IN and Indianapolis, IN.
- 265* **Wnt10a regulates proliferation of multiple epithelial stem and progenitor populations.** [Mingang Xu](#), Sarah Millar. Philadelphia, PA.
- 266* **Intraflagellar transport 27 (Ift27) is essential for hedgehog signaling but dispensable for ciliogenesis during hair follicle formation.** [Ning Yang](#), Li Li, John Paul Sundberg, Gregory J Pazour and Jiang Chen. Stony Brook, NY; Beijing, China; Bar Harbor, ME and Worcester, MA.
- 267 **Acne vulgaris disease progression is associated with perturbation of cellular differentiation at the hair follicle canal / infundibulum.** [Ugochukwu Amadi](#), Yolanda Rosi Helfrich and Sunny Wong. Ann Arbor, MI.
- 268 **Since human facial sebaceous glands contain prostamide F2 α receptors these may play a role in sebaceous gland physiology in health and disease.** [Mohammad Shalbaf](#), Jenny W Wang, David Woodward and Valerie Randall. Bradford, United Kingdom and Irvine, CA.
- 270 **Cxcr4 is transiently expressed in both mesenchymal and epithelial compartments of the nascent hair follicle but is not required for follicle formation.** [Rachel Sennett](#), Amelie Rezza, Carlos Clavel and Michael Rendl. New York, NY.
- 271 **Expression of Tlr4 is enhanced by co-expression of CD34 and CD49f in murine keratinocyte stem cells.** [Yong Li](#), Ashok Singh, Jacqueline Akech, Mindy Wang, Nyssa Readio, Kelly Johnson, Bing Li and Rebecca Jane Morris. Austin, MN and Hayward, CA.
- 272 **Mouse models of cicatricial alopecia.** [Christopher Potter](#), C. Herbert Pratt, Hiroko Hama, Kendra Wolk, Kathleen A Silva, Victoria E Kennedy, Helen B Everts, Lloyd E King and John Paul Sundberg. Bar Harbor, ME; Charleston, SC; Columbus, OH and Nashville, TN.
- 273* **Squamous epithelial organization and quiescent stem cells: The concept of the "reserve cell layer"** [Claudia D Andl](#), Thomas Andl, Gregoire LeBras, Holli Loomans and Kiara A Clay. Nashville, TN.
- 274* **Regulation of ear morphogenesis by macroenvironmental signals from hair follicles.** [Raul Ramos](#), Tsai-Chi Hsi, Ji Won Oh, Christian F Guerrero-Juarez and Maksim Plikus. Irvine, CA.
- 275 **Skin microbiome – metabolome interplay in the pathogenesis of frontal fibrosing alopecia** [Pratima Karnik](#), Selam Shah, Roopa Subbaiah, Mary C Consolo, Paradi Mirmirani and Vera H Price. Cleveland, OH.
- 276 **Hair cycles of transplanted human hairs in immunocompromised mice.** [Ji Won Oh](#), Moonkyu Kim, Maksim Plikus and Jung-Chul Kim. Irvine, CA and Daegu, Republic of Korea.
- 277 **Sonic hedgehog signaling is essential for touch dome Merkel cell development.** [Isaac Brownell](#), Ying Xiao and Jonathan S Williams. Bethesda, MD.
- 278* **Inducible gene expression in the dermal papilla *in vivo* to study anagen initiation.** [Bruce Morgan](#). Boston, MA.
- 279 **Endoplasmic reticulum (ER) chaperone GRP78 is required for epidermal self-renewal and differentiation during skin morphogenesis.** [Krzysztof Kobiela](#), Yvonne Leung and Amy S Lee. Los Angeles, CA.
- 280 **Sexually-dimorphic responses to pharmacologic inhibition of HSP90 by subpopulations of stem cells in the hair.** [Chris Adase](#), Suguna Krishnaswami, Josue Gutierrez and Benjamin D Yu. La Jolla, CA.

Epidemiology & Health Services Research

All orals [designated with an asterisk (*)] listed below are presented in the Epidemiology and Health Services Research Minisymposium on Saturday, May 10, 2014, from 12:30-3:30 pm in the Albuquerque Convention Center, Kiva Auditorium. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 281 **Incidence and survival of primary dermatofibrosarcoma protuberans in the United States.** [Kathryn L Kreicher](#), David E Kurlander, Jill S Barnholtz-Sloan, Haley R Gittleman and Jeremy S Bordeaux. Cleveland, OH.
- 282 **Intake of antihypertensives suspected, according to published reports, of triggering pemphigus by pemphigus patients: The large-scale problem** [Marian Dmochowski](#), Pawel Pietkiewicz, Justyna Gornowicz-Porowska and Monika Bowszyc-Dmochowska. Poznan, Poland.
- 283 **Appearance-based video education is more effective than health-based video education in promoting sunscreen use among adolescents: A randomized controlled trial** [William Tuong](#), April W Armstrong. Sacramento, CA and Aurora, CO.
- 284 **Palmoplantar psoriasis is associated with greater impairment of health-related quality of life compared to moderate to severe plaque psoriasis: Results from the Dermatology Clinical Effectiveness Research Network (DCERN).** [Jina Chung](#), Kristina Callis Duffin, Junko Takeshita, Daniel Shin, Gerald G Krueger, Andrew D Robertson, Andrea Troxel, Abby S Van Voorhees, Emily Edson-Heredia and Joel Gelfand. Philadelphia, PA; Salt Lake City, UT; Portland, OR and Indianapolis, IN.
- 285* **Eczema remains active with age.** [Katrina Abuabara](#), Ole Hoffstad, Andrea B Troxel and David J Margolis. Philadelphia, PA.
- 286* **Validation and comparison of quality of life (QoL) measures for topical 5-fluorouracil treatment** [Hyemin Pomerantz](#), Mary-Margaret Chren, Robert Lew and Martin A Weinstock. Providence, RI; San Francisco, CA and Boston, MA.
- 287 **Positive predictive value of the diagnostic code for hidradenitis suppurativa in an electronic database improves as number of codes increases.** [Grace Eunhae Kim](#), Julia Shlyankevich and Alexa B. Kimball. Boston, MA.
- 288 **Patient-reported outcomes differ between psoriasis patients with clear and almost clear skin in the routine clinical practice setting: Results from the Dermatology Clinical Effectiveness Research Network.** [Junko Takeshita](#), Kristina Callis Duffin, Daniel B Shin, Gerald G Krueger, Andrew D Robertson, Andrea B Troxel, Abby S Van Voorhees and Joel M Gelfand. Philadelphia, PA; Salt Lake City, UT and Portland, OR.
- 289 **Factors associated with being clear/almost clear of psoriasis in patients receiving adalimumab, etanercept, or methotrexate as part of routine clinical care.** [Yuan Hong](#), Kristina Callis Duffin, Junko Takeshita, Daniel B Shin, Gerald G Krueger, Andrew D Robertson, Andrea B Troxel, Abby S Van Voorhees and Joel M Gelfand. Philadelphia, PA; Salt Lake City, UT and Portland, OR.

- 290 **Buying indoor UV tanning with university debit cards** Lindsay Nicole Boyers, Chante Karimkhani, Lori Crane, Nancy Asdigian, Adrienn Hollonds and Robert Dellavalle. Washington, DC; Denver, CO and New York, NY.
- 291* **Greater utilization of high-cost care settings by patients with hidradenitis suppurativa.** Joslyn Kirby, Jeffrey J Miller and Douglas Leslie. Hershey, PA.
- 292 **Representation of the top three most disabling skin diseases in the *cochrane database of systematic reviews*** Cory A Dunnick, Chante Karimkhani, Lindsay Nicole Boyers and Robert Dellavalle. New York, NY; Washington D.C., DC; Aurora, CO and Denver, CO.
- 293 **Langerhans cell histiocytosis and hematological malignancy: A Mayo Clinic experience.** Rie Takahashi, Mark Pittelkow. Rochester, MN and Scottsdale, AZ.
- 294 **Clinical manifestations in Behçet's disease: A retrospective chart review** Parastoo Davari, Roy S Rogers and Nasim Fazel. Sacramento, CA and Scottsdale, AZ.
- 295 **The prevalence of pigmentary disorders among women in Shanghai, China is high.** Amit Pandya, Alice Wu, Joanna L Chan, Hattie Jill Feetham, Weiwei Dai, Thao Duong, S Tyler Hollmig and Linda S Hynan. Dallas, TX and Fort Worth, TX.
- 296 **Indoor air pollution from cooking with coal or firewood accelerates skin aging in northern Chinese women.** Andrea Vierkoetter, Miaozhu Li, Chuan Ma, Binwei Deng, Mary S Matsui, Jean Krutmann and Zhiwen Li. Duesseldorf, Germany; Shanghai, China; Peking, China and Melville, NY.
- 297* **Non-melanoma skin cancer and NSAID use in women with a history of skin cancer in the Women's Health Initiative (WHI)** Mina Sarah Ally, Ashley Wysong, Christina Gamba, Susan Swetter, Marcia Stefanick and Jean Tang. Redwood City, CA and Stanford, CA.
- 298 **Female gender and acne disease are jointly and independently associated with the risk of major depression and suicide: A national population-based study.** Chien-Hui Hong, Yi-Chien Yang, Hung-Pin Tu, Wei-Chiao Chang, Hung-Chun Fu, Ji-Chen Ho, Hung-Yi Chuang and Chih-Hung Lee. Kaohsiung, Taiwan; Taipei, Taiwan and Taoyuan, Taiwan.
- 299 **The presence of T-cell clonality at presentation with mycosis fungoides is not influenced by patient gender or age.** Yevgeniy Balagula, Stephen Dusza, John George Zampella, Ronald Sweren and Ginette A Hinds. Baltimore, MD and New York, NY.
- 300 **Longitudinally followed nevi in children and adolescents show significant size changes.** Xinyuan Wu, Maira Fonseca, Michael Armando Marchetti, Stephen Dusza, Ashfaq Marghoob, Alan C Geller and Allan C Halpern. New York, NY and Boston, MA.
- 301* **Hotspots of CTCL cases in Houston and Texas: A comparison of the MD Anderson and Texas cancer registries.** Ivan Litvinov, Michael T Tetzlaff, Elham Rahme, Pamela Gangar, Michelle A Jennings, David Risser, Denis Sasseville and Madeleine Duvic. Montreal, Canada; Houston, TX and Austin, TX.
- 302 **Itch prevalence and characteristics in hispanic geriatric population: A comprehensive study using a validated itch questionnaire.** Rodrigo Valdes-Rodriguez, Nicholas K Mollanazar, Jorge González-Muro, Leigh A Nattkemper, Bertha Torres-Alvarez, Tita Gonzalez-Marquez, Francisco J López-Esqueda, Yiong-Huak Chan and Gil Yosipovitch. Philadelphia, PA; San Luis Potosi, Mexico and Singapore, Singapore.
- 303 **Feasibility, validity, and reliability of pediatric pruritus-specific outcome measures** Aimen Ismail, Jade Fettig, Kuang-Ho Chen and Suephy C. Chen. Birmingham, AL; Cleveland, OH and Atlanta, GA.
- 304 **Ethnic differences and environmental factors in skin aging.** Miaozhu Li, Andrea Vierkoetter, Anan Ding, Mary S Matsui, Binwei Deng, Juan Zhang, Jingze Tan, Yajun Yang, Tamara Schikowski, Li Jin, Jean Krutmann and Sijia Wang. Shanghai, China; Düsseldorf, Germany and Melville, NY.
- 305 **Adiponectin deficiency may cause decreased ATP synthesis and lower pH, leading to abnormal muscle contraction and skin sensitivity in sensitive skin.** Jin-Ho Chung, Eun Ju Kim, Dong Hun Lee, Yeon Kyung Kim, Min-Young Kim, Jung Yun Kim, Kyeong Hyeon Kim and Hee Chul Eun. Seoul, Republic of Korea.
- 306 **The epidemiology of concomitant hidradenitis and psoriasis: Experience of a tertiary care center.** Mital Patel, Jeffrey Cohen, Janice Lin, Joseph F Merola, Abrar A. Qureshi and Ruth Ann Vleugels. Boston, MA.
- 307 **Sildenafil use and increased risk of incident melanoma in US men: A prospective cohort study.** Wenqing Li, Abrar Qureshi, Kathleen Robinson and Jiali Han. Boston, MA.
- 308* **Non-melanoma skin cancer is associated with increased risk of fractures.** Eric Anderson, Marcia Stefanick, Manisha Desai, Jessica Kubo, Ashley Wysong and Jean Tang. Stanford, CA.
- 309** **Health care utilization prior to diagnosis as a predictor of melanoma-specific mortality.** Melody J. Eide, Gordon Jacobsen, Richard Krajenta and Christine C Johnson. Detroit, MI.
- 310 **Adults with previous nonmelanoma skin cancer still suffer from sunburns despite improvements in sun-protection practices** Alexander H Fischer, Anna L. Chien, Timothy Wang and Sewon Kang. Baltimore, MD.
- 311 **Sleep disordered breathing and risk of incident psoriasis in US women** Jeffrey Marcus Cohen, Chandra L Jackson, Tricia Li and Abrar Qureshi. Boston, MA.
- 312* **Psoriasis patient preferences for health-related benefit-risk tradeoffs using choice-format conjoint analysis** April W. Armstrong, Julie Wu and Elizabeth Brezinski. Aurora, CO and Sacramento, CA.
- 313 **Development of a geographically-adjusted tool to more accurately estimate self-reported cumulative ultraviolet exposure: A two-part study.** Anne Lynn S. Chang, Gefei Zhu and Angela Li. Redwood City, CA.
- 314 **Lupus patients with cutaneous hypersensitivity to hydroxychloroquine may tolerate chloroquine.** Alisa Nicole Femia, Joseph F Merola and Ruth Ann Vleugels. New York, NY and Boston, MA.
- 315 **Dermoscopic patterns of nevi have a distinct anatomical distribution in adolescents.** Maira Fonseca, Mark Burnett, Stephen Dusza, Michael Marchetti, Alan Geller, Ashfaq Marghoob and Allan Halpern. New York, NY and Boston, MA.
- 316 **Patterns of dermatological changes due to chemotherapy and its impact on quality of life among breast cancer patients.** Danbee Kang, Juhee Cho, Eun-Kyung Choi, Im-Ryung Kim, Dong-Youn Lee, Won Ho Gil, Jeong Eon Lee and Seok-Jin Nam. Seoul, Republic of Korea.
- 317 **Development and validation of chemotherapy-induced dermatology distress scale.** Juhee Cho, Danbee Kang, Eun-Kyung Choi, Im-Ryung Kim, Jung Hee Yoon and Soo Jung Park. Seoul, Republic of Korea.
- 318 **Increased risk of incident depression in psoriasis patients.** Erica Dommasch, Tricia Li, Yanping Li and Abrar A. Qureshi. Boston, MA.
- 319*** **Healthcare utilization and cost in US adults with eczema.** Jonathan Silverberg, Nitin Garg. Chicago, IL.
- 320* **Existing self-report tools are not suitable for measuring adherence to topical therapies in psoriasis** Rachael Jane Thorneloe, Pauline Nelson, Chris Bundy, Christopher E Griffiths, Darren M Ashcroft and Lis Cordingley. Manchester, United Kingdom.
- 321 **Melanoma thickness and survival trends in the United States, 1989 to 2009.** Waqas Rahim Shaikh, Stephen W Dusza, Susan A Oliveria, Alan C Geller, Allan C Halpern and Martin A Weinstock. NY, NY; Providence, RI and Boston, MA.
- 322 **No treatment disparity in underinsured patients undergoing Mohs micrographic surgery for non-melanoma skin cancer at a single center.** Joanna L Walker, Kachiu Cecilia Lee and Antonio Cruz. Providence, RI.
- 323 **An analysis of personality styles and coping behaviors in chronic pruritus.** Seema P. Kini, Sarah Booker, KuangHo Chen and Suephy C. Chen. Atlanta, GA.
- 324 **Tele dermatology programs in the veterans health administration** Shoshana Landow, Dennis H. Oh and Martin A Weinstock. Providence, RI and San Francisco, CA.
- 325 **Treatment recommendations for melanocytic lesions vary among pathologists.** Kachiu Cecilia Lee, Martin A Weinstock, Paul Frederick, Michael Piepkorn, Alice Zhao, Jason P Lott and Joann Elmore. Providence, RI; Seattle, WA and New Haven, CT.

Abstract Presentation Information

- 326 **Subjective component of SCORAD provides unique information when assessing atopic dermatitis.** Radhika Nakrani, Martin Glatz, Christiana Booher, Seth M Steinberg and Heidi H Kong. Bethesda, MD.
- 327 **Variations in incidence and survival of cutaneous melanoma by race in the united states.** Jeremy Bordeaux, Sean Michael Dawes, Haley Gittleman and Jill S Barnholtz-Sloan. Cleveland, OH.
- 328 **Rosacea has an increased association with skin cancer.** Pezhman Shoureshi, Douglas Y Rowland and Jeremy Bordeaux. Cleveland, OH.
- 329 **Hidradenitis suppurativa is a disease of significant co-morbidity burden: Results from a case-control analysis of a large patient database.** Julia Shlyankevich, Allison J Chen, Grace Eunhae Kim and Alexa B. Kimball. Boston, MA and Providence, RI.
- 330 **Smoking increases the of CLASI in subjects with moderate to severe systemic lupus Erythematosus.** Victoria Werth, Munther A Khamashta, Gabor G Illei, Stephen Yoo, Liangwei Wang and Warren Greth. Philadelphia, PA; London, United Kingdom and Gaithersberg, MD.
- 331*** **Severe atopic dermatitis in an African-American pediatric cohort is associated with a filaggrin low intragenic copy number variant.** Zane Goodwin, Ashley Quiggle, Twinkal C Pansuriya, Monique Kumar-Gupta, Emily Beck, Emily Gurnee, Heather Ciliberto, Kara Jill Gulewicz, Susan J Bayliss and Cristina de Guzman Strong. St. Louis, MO.
- 332* **Association of melanoma incidence with biopsy and excision rates, 2008-2010** Martin A Weinstock, Hyemin Pomerantz, Tracy Onega, Qianfei Wang, Anna Tosteson, Jason Lott, Linda Titus, Loretta Pearson and Joann Elmore. Providence, RI; Hanover, NH; Seattle, WA and New Haven, CT.
- 333 **Assessment of preferences and need for a psoriasis patient decision aid.** Francesca S Ortenzio, Rhonda Kost, Donna Brassil, Jaehwan Kim, Andrew D Robertson, James G Krueger, Jonathan N Tobin and Michelle A Lowes. New York, NY and Portland, OR.
- 334 **Methylisothiazolinone (MI), a new and frequent contact allergen: Relevance and outcomes from clinical practice** Sherry H Yu, James S Taylor, Debora Murray and Apra Sood. Cleveland, OH.
- 335 **Presence of dermal atypia in malignant melanoma in situ: effect on management and outcome.** Lana X Tong, Jennifer Y. Lin. Boston, MA.
- 336 **Gallstones and risk of incident psoriasis and psoriatic arthritis in U.S. women.** Abrar Qureshi, Lana X Tong, Shaowei Wu and Edward L Giovannucci. Boston, MA.
- 337 **The epidemiology of Lyme disease in the state of Massachusetts, 2001-2011** Elnaz F. Firoz, Abrar Qureshi. Boston, MA.
- 338 **Ecematous response to squaric acid sensitization not required for scalp treatment initiation in alopecia areata** Priyanka Vedak, Daniela Kroshinsky. Boston, MA.
- 339 **Annual percentage change of incidence rate of Merkel cell carcinoma has declined in the United States.** Xiaofei Zhou, Yanwen Chen, Jill S Barnholtz-Sloan and Jeremy Bordeaux. Cleveland, OH.
- 340 **Prevalence of psoriasis phenotypic subsets among U.S. men and women.** Joseph F Merola, Tricia Li and Abrar A. Qureshi. Boston, MA.
- 341* **Citrus consumption is associated with risk of malignant melanoma.** Shaowei Wu, Jiali Han, Diane Feskanich, Meir J Stampfer, Walter C Willett and Abrar A. Qureshi. Boston, MA; Indianapolis, IN and Providence, MA.
- 342* **Ranking the most disabling skin diseases in the United States of America in 2010.** Robert Dellavalle, Chante Karimkhani and Lindsay Nicole Boyers. Aurora, CO; Denver, CO; New York, NY and Washington, DC.
- 343 **Looking for a journal with the most social media impact: JID tops facebook while JAMA Dermatology tops twitter** Ryan Gamble, Chante Karimkhani and Robert Dellavalle. New York, NY; Aurora, CO and Denver, CO.
- 344 **Representation of the most disabling skin diseases in the USA in The National Institute of Arthritis and Musculoskeletal and Skin Diseases grants** Chante Karimkhani, Lindsay Nicole Boyers, David J Margolis and Robert Dellavalle. New York, NY; Washington D.C., DC; Philadelphia, PA; Aurora, CO and Denver, CO.
- 345 **Increased news coverage of the risks of indoor tanning after the California indoor tanning ban for minors** Jonathan E Mayer, Alan C Geller, Susan M Swetter and Samantha Guild. Boston, MA; Palo Alto, CA; Richmond, CA and New York, NY.
- 346 **Initial findings for the effectiveness of using IVIG to treat Stevens-Johnson syndrome and toxic epidermal necrolysis** Melissa McEnery-Stonelake, Arash Mostaghimi and Daniela Kroshinsky. Worcester, MA and Boston, MA.
- 347* **Underestimating disease burden: Trends in basal cell carcinoma incidence rates.** Maryam Mandana Asgari, Howard Moffett, Tom Ray and Charles Quesenberry. Oakland, CA.

Epidermal Structure & Barrier Function

All orals [designated with an asterisk (*)] listed below are presented in the Epidermal Structure and Barrier Function Minisymposium Saturday, May 10, 2014, from 12:30-3:30 pm in the Albuquerque Convention Center, Ballroom B. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 348 **Fatty acid profile of sebum in seborrheic dermatitis.** Jiun Wen Guo, Tzu Kai Lin, Kai Che Wei, Jui Chen Tsai and Hamm Ming Sheu. Tainan, Taiwan and Kaohsiung, Taiwan.
- 349 **Nanostructured films downregulate expression of tight junction proteins in primary cultured human keratinocytes** Jubin Ryu, Jessica Allen, Lillian Adame, Richard Sun, Theodora Mauro and Tejal Desai. San Francisco, CA.
- 350 **Selective matrix-hyaluronan interaction with CD44 and RhoGTPase signaling promotes keratinocyte functions and overcomes age-related epidermal dysfunction.** Lilly Bourguignon, Gabriel Wong, Weiliang Xia, MaoQiang Man, Walt Holleran and Peter Elias. San Francisco, CA.
- 351 **miRs-103/107 confer “stemness” to keratinocytes.** Robert M Lavker, Jong K Park, Julia Katsnelson, Wending Yang and Han Peng. Chicago, IL.
- 352 **Role of epidermal basement membrane in skin barrier function.** Shunsuke Iriyama, Yuko Hachiya and Makoto Tsunenaga. Yokohama, Japan.
- 353 **Diaper dermatitis management: A global and innovative strategy for a new generation of skin care.** Caroline Baudouin, Nadège Lachmann, Johan Rocheteau, Bernard Chadoutaud, Evelyne Boy, Sophie Leclere-Bienfait, Stéphanie Brédif, Clarence de Belilovsky and Philippe Msika. Epéron, France and Toulouse, France.
- 354 **Skin barrier dysfunction and relatively low antimicrobial peptide expression in cutaneous T-cell lymphoma.** Makoto Sugaya, Hiraku Suga, Tomomitsu Miyagaki, Hanako Ohmatsu, Makiko Kawaguchi, Naomi Takahashi, Hldeki Fujita, Yoshihide Asano, Yayoi Tada, Takafumi Kadono and Shinichi Sato. Tokyo, Japan.
- 355 **Regulation of skin water flow: Evaluation of a vegetable extract, from *in vitro* efficacy to clinical evidence using Raman Spectroscopy.** Caroline Baudouin, Stéphanie Brédif, Nadège Lachmann, Johan Rocheteau, Sophie Leclère-Bienfait, Sébastien Debrock and Philippe Msika. Epéron, France.
- 356 **Development of an original reconstructed tissue model reproducing nipple epithelium to evaluate anti-inflammatory and repairing efficacy of a nursing balm.** Caroline Baudouin, Stéphanie Brédif, Marisa Meloni and Philippe Msika. Epéron, France and Milano, Italy.
- 357 **Distribution of corneodesmosomes on superficial corneocytes differs between infants and adults: A new look at the stratum corneum maturation.** Caroline Baudouin, Marek Haftek, Nadège Lachmann, Joachim Fluhr, Rawad Abdayem and Philippe Msika. Lyon, France; Epéron, France and Berlin, Germany.

- 358** **Low environmental humidity induces the change of skin structure and fluctuation of genes in a skin equivalent model.** Sung Hoon Lee, Jin Young Lee, Lee Kyoung Kwon, John Hwan Lee and Hae Kwang Lee. Yongin, Republic of Korea.
- 359***** **IL-31 controls skin barrier function through the IL-1 signaling network.** Jens M Baron, Kai Hänel, Philipp Amann, Christian Cornelissen, Yvonne Marquardt, Katharina Czaja, Juliane Lüscher-Firzlaff and Bernhard Luescher. Aachen, Germany.
- 360***** **Analysis for distinctive activation patterns of pain and itchy in the human brain cortex measured using near infrared spectroscopy (NIRS).** Chih-Hung Lee, Takashi Sugiyama, Aiko Kataoka, Ayako Kudo, Fukue Fujino, Yu-Wen Chen, Yuki Mitsuyama, Shinobu Nomura and Tohru Yoshioka. Kaohsiung, Taiwan; Taoyuan, Taiwan; Tokyo, Japan and Kanagawa, Japan.
- 361** **Assessment of skin barrier function at different anatomic sites** Nidhin Raj, Majella E Lane, Antony V Rawlings, Rainer Voegeli, Simon Gibbons and Michael Munday. London, United Kingdom and Basel area, Switzerland.
- 362***** **The mTORC1 protein Raptor controls filaggrin levels through an Akt1/cathepsin H dependent mechanism.** Ryan O'Shaughnessy, Aishath Naeem, Yanan Zhu, Miriam Moffat, William Cookson, John Harper, Wei-Li Di and Thomas Reinheckel. London, United Kingdom and Freiburg, Germany.
- 363** **Tight junction barriers are functionally organized in hair follicles and sebaceous glands** T. Atsugi, M. Yokouchi, M. Ohyama, M. Amagai and A. Kubo. Tokyo, Japan.
- 364** **Stratifin: "A talkative protein" essential for the communication between keratinocytes and fibroblasts.** Alexia Lebleu, Laura Labourasse, Catherine, Gondran, Gilles Oberto, Yolene Ferreira, Nicolas Esselin, Karine Cucumel, Jean marie Botto and Nouha Domloge. Sophia Antipolis, France.
- 365** **Analysis of TEWL measurement variability on the thigh and arm. *In vivo* study.** Yolene Ferreira, Gilles Oberto, Arlette Berghi, Karine Cucumel and Nouha Domloge. Sophia Antipolis, France.
- 366*** **Epidermal class A scavenger receptors are critical for penetration of topically-delivered siRNA-nanoparticles and gene suppression.** Qian Song, William Briley, Suguna Narayan, Xiaoqi Wang, Chad A Mirkin and Amy S Paller. Chicago, IL and Evanston, IL.
- 367*** **Transcriptomic profile pattern matching provides evidence of the importance of mitogenic signaling in the early response to epidermal barrier damage** Robert L Binder, Michael K Robinson, Kevin J Mills, Scott M Hartman, Raghu Kainkaryam, Jun Xu, Teresa Dicolandrea, John M Dunavent, Jay P Tiesman, Charles C Bascom and Robert J Isfort. Mason, OH.
- 368** **VEGF reverses keratin expression profile of keratinocytes via STAT3, p38 MAPK and Erk1/2 signaling pathways** Man Jiang, Gang Wang. Xi'an, China.
- 369** **Post-translational modification of SerpinB3/SCCA1 by mesotrypsin in psoriatic skin.** Atsushi Takeda, Yayoi Kamata, Kaori Kuroda, Takeshi Nakamura, Hideki Maejima, Akira Watarai, Norimitsu Saito, Kensei Katsuoka and Kazuhiro Ishihara. Sagamihara, Japan and Urayasu, Japan.
- 370** **A new model of "fragile skin" *in vitro* on human keratinocytes and reconstructed epidermis.** Florence Galliano, Helene Hernandez-Pigeon, Cédric Carrasco, Helene Duplan, Nathalie Castex-Rizzi and Sandrine Bessou-Touya. Toulouse, France.
- 371*** **Ndel1 promotes keratin assembly at desmosomes.** Terry Lechler, Yong-Bae Kim. Durham, NC.
- 372*** **An *in vivo* transgenic approach to dissect the isoform-specific activity of the transcription factor p63.** Satrajit Sinha, Rose-Anne Romano. Buffalo, NY.
- 373** **Pigmented skin displays a higher threshold for the development of inflammation.** Mao-Qiang Man, Tzu-Kai Lin, Juan-Luis Santiago, John Paul Sundberg, Kathleen A Silva, Carolyn Cheung, Melanie Hupe and Peter Elias. San Francisco, CA; Tainan, Taiwan; Barcelona, Spain and Bar Harbor, ME.
- 374** **snRNAs released by UV damage induce expression of skin barrier repair genes and are influenced by apoptosis and necroptosis.** Andrew W Borkowski, Michael R Williams and Richard L Gallo. La Jolla, CA.
- 375** **Topical application of recombinant filaggrin restores the skin barrier function in filaggrin-deficient mice.** Maria A Parker, Trevor J McFarland, Matthew Hartzell and John T Stout. Portland, OR and Houston, TX.
- 376** **Abnormal barrier function in uninvolved skin supports epidermal pathogenesis of psoriasis.** Peter M Elias, Li Ye, George Man, Shunpeng Song, Chengzhi Lv and Mao-Qiang Man. Liaoning, China and San Francisco, CA.
- 377** **Hesperidin prevents glucocorticoid-induced abnormalities in epidermal barrier function by stimulating mitogenesis, differentiation and acidification.** Theodora Mauro, George Man, Peggy Kim, Melanie Hupe, Yongjiao Zhai, Richard Sun, Debra Crumrine, Carolyn Cheung, Almudena Nuno-Gonzalez, Peter M Elias and Mao-Qiang Man. San Francisco, CA and Madrid, Spain.
- 378** **Topical hesperidin enhances epidermal function in aged murine skin.** Kenneth Feingold, George Man, Theodora Mauro, Peggy Kim, Melanie Hupe, Debra Crumrine, Zongjiao Zhai, Carolyn Cheung, Peter M Elias and Mao-Qiang Man. San Francisco, CA.
- 379** **Structural and functional impairment of epidermis and sebaceous glands is associated with keratosis pilaris** Jeffrey Sugarman, Robert Gruber, Debra Crumrine, Melanie Hupe, Elizabeth Mauldin, Jacob Thyssen, Matthias Schmuth and Peter Elias. San Francisco, CA; Innsbruck, Austria; Philadelphia, PA and Copenhagen, Denmark.
- 380*** **Dlx3-PKC interplay drives skin differentiation by controlling cell cycle in keratinocytes** Meghan D Kellett, Elisabetta Palazzo, Anna Gormley, Paul W Bible, Valentina Pietroni, Nadezda Radoja, Miroslav Blumenberg, Jin-Chul Kim, Christophe Cataisson and Maria Morasso. Bethesda, MD and New York, NY.
- 381*** **Building a better tight junction barrier by targeting epidermal Eph receptors** Rosa Ventrella, Bethany Elena Perez White, Kim Xia, Nihal Kaplan, Han Peng, Robert M Lavker and Spiro Getsios. Chicago, IL.
- 382*** **The protein arginine methyltransferase PRMT1 acts with the CSNK1a1 kinase to enforce the epidermal progenitor state *in vivo*** Xiaomin Bao, Brian Zarnegar, Angela Mah, Kun Qu, Shiyong Tao and Paul Khavari. Stanford, CA and Palo Alto, CA.
- 383** **A novel selective inhibitor of CYP26A1 potentiates the effect of a nanomolar concentration of retinoic acid in keratinocyte and reconstructed epidermis.** Philippe Diaz, Charles M Keyari, Brian Buttrick, Sevda Cordier-Diricoc, Fanny Astruc-Diaz, Nicolas Guilloteau, Valerie Hamon, François-Xavier Bernard and Nina Isoherranen. Missoula, MT; Seattle, WA and Gençay, France.
- 384** **Characterization of biological effects induced by air pollution particulate matter from Shanghai (China) in normal human epidermal keratinocytes in culture.** Mei Yu, Caroline Qu, Luk Van Overloop, Daniel Yarosh and Lieve Declercq. Shanghai, China; Oevel, Belgium and Melville, NY.
- 385** **Stratum corneum barrier integrity and cohesion is not directly related to pigmentation of humans living in South Africa** Rainer Voegeli, Anthony V Rawlings and Beverley Summers. Kaiseraugst, Switzerland; Northwich, United Kingdom and Medunsa, South Africa.
- 386** **Strategies to overcome the skin barrier function for the targeted delivery of ibuprofen** Avnish Patel, Majella Lane. London, United Kingdom.
- 387** **Decreased stratum corneum transglutaminase activity in capsaicin positive, self-perceived sensitive skin** Anthony V Rawlings, Dominik Imfeld, Stephan Doppler and Rainer Voegeli. Northwich, United Kingdom and Kaiseraugst, Switzerland.

Abstract Presentation Information

- 388 Does filaggrin deficiency alter epidermal tight junctions and tissue inflammation?** Anna De Benedetto, Lisa A Beck, Sade Fridy, Takeshi Yoshida, I-Hsin Kuo, Michiko Oyoshi, Donald Y Leung and Raif Geha. Rochester, NY; Boston, MA and Denver, CO.
- 389 Acute barrier perturbation causes ER Ca2+ release, sustained cytosolic Ca2+ increase, and desmosome remodeling.** Anna Celli, Richard Sun, Debra Crumrine, Nandou Lu and Theodora Mauro. San Francisco, CA and Trumbull, NJ.
- 390* Palmitoylation of plakophilin is required for desmosome assembly** Brett J Roberts, James K Wahl. Lincoln, NE.
- 391 Infrared spectroscopic imaging of lateral diffusion in isolated human stratum corneum.** Carol R Flach, Qihong Zhang, Guangru Mao, Russel M Walters, Mary C Mack Correa and Richard Mendelsohn. Newark, NJ and Skillman, NJ.
- 392* ZNF750 binding to KLF4 and specific epigenetic regulators controls epidermal differentiation** Lisa D Boxer, Brook Barajas, Jiajing Zhang, Brian Zarnegar and Paul Khavari. Stanford, CA and Palo Alto, CA.
- 393 Altered expression of epidermal barrier and inflammatory proteins in psoriatic skin biopsies.** Takeshi Yoshida, Jeffrey Swan, Iwona Juskiewicz, Anthony L Almudevar, Anna De Benedetto, Glynis Scott, Christopher Ritchlin, Nana Duffy, Francisco Tausk, Jan Moynihan and Lisa A Beck. Rochester, NY.
- 394 Topical application of L-carnitine salts and their ability to influence factors that affect aging.** Smitha Rao. South Plainfield, NJ.
- 395 A multi-combined *in vitro* approach on skin substitutes to highlight the fence property of efficacy barrier creams.** Frédéric Crepel, M-Florence Galliano, Cédric Carrasco, Corinne Jean jean, Christine Coutanceau, Sandrine Bessou-Touya and Helene Duplan. Toulouse, France and Lavaur, France.
- 396 Penetration of topical formulation into a skin model measured by stimulated raman spectroscopy.** Harish Mahalingam, Natalie L Garrett, Julian Moger, Sandip Shah, Joe Veltri and Michael Donaldson. New Jersey, NJ; Exeter, United Kingdom and Uxbridge, United Kingdom.
- 397 Overcoming the skin barrier: Enhancement of topical delivery of hexamidine diisethionate** Nicola Parisi, Paul J Matts, Rebecca Lever, Jonathan Hadgraft and Majella E Lane. London, United Kingdom and Egham, United Kingdom.
- 398 Decreased PPARalpha signaling due to alterations in skin lipid composition in a mouse model of spontaneous AD.** Stefan Blunder, Ralph Rühl, Franz Radner, Matthias Schmutz and Sandrine Dubrac. Innsbruck, Austria; Debrecen, Hungary and Graz, Austria.
- 399 Tight junction – disrupting peptides synthesized from the first extracellular loop of human Claudin 1 have an amyloid structure.** Benjamin L Miller, Elizabeth A Anderson, Anna De Benedetto and Lisa A Beck. Rochester, NY.
- 400* Loss of keratin K2 expression causes aberrant aggregation of K10, hyperkeratosis and inflammation.** Leopold Eckhart, Heinz Fischer, Lutz Langbein, Julia Reichelt, Silke Praetzel-Wunder, Maria Buchberger, Minoo Ghannadan and Erwin Tschachler. Vienna, Austria; Heidelberg, Germany and Newcastle upon Tyne, United Kingdom.
- 401* Transcriptional mechanisms link epithelial plasticity to adhesion and differentiation of epidermal progenitor cells.** Xing Dai, Briana Lee and Alvaro Villarreal-Ponce. Irvine, CA.
- 402 Combined treatment with sodium butyrate and PD153035 enhances keratinocyte differentiation** Sandra Leon Carrion, Carrie Sutter and Thomas R Sutter. Memphis, TN.
- 403 Epigenomic maps in faithful tissue context of skin cell types.** Michelle Longmire, Lisa Zaba, Jiajing Zhang and Howard Y Chang. Redwood City, CA and Chevy Chase, MD.
- 404** A novel desmosome-COP9 signalosome complex in epidermal differentiation.** Nicole Ann Najor, Robert M Harmon and Kathleen J Green. Chicago, IL.
- 405 Aquaporin 3 (AQP3) re-expression drives AQP3-knockout keratinocytes towards differentiation.** Vivek Choudhary, Lawrence Olala, Ismail Kaddour-Djebbar, Zhiqiang Pan, Sara Chen and Wendy B Bollag. Augusta, GA.
- 406 DRM01, a novel acetyl coenzyme A carboxylase (ACC) inhibitor, reduces sebum production.** David Hunt, Hans E.J. Hofland. Redwood City, CA.
- 407 Human epidermal equivalent (HEE) cultures model barrier defects when the lipid barrier is selectively abrogated.** Theodora Mauro, Richard Sun, Anna Celli, Debra Crumrine and Melanie Hupe. San Francisco, CA.
- 408* 3D *in vitro* model of a functional epidermal permeability barrier from hESC and iPSC.** Theodora Mauro, Anastasia Petrova, Anna Celli, Matthew Arno, Debra Crumrine, Melanie Hupe, Aleksandra Cvorovic, Laureen Jacquet, Liani Devito, Richard Sun, Lillian Adame, Robert Vaughan, John A McGrath and Dusko Ilic. San Francisco, CA; London, United Kingdom and Houston, TX.
- 409 Calmodulin-like 5 is a downstream effector of the TINCR long noncoding RNA and is required for late epidermal differentiation** Bryan Sun, Jenny Zhang, Kun Qu, Vanessa Lopez-Pajares and Paul A Khavari. Stanford, CA and Palo Alto, CA.

Genetic Diseases/Gene Regulation/ Gene Therapy

All orals [designated with an asterisk (*)] listed below are presented in the Genetic Diseases, Gene Regulation and Gene Therapy Minisymposium on Friday, May 9, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, Ballroom B. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 410 Initial findings from whole exome sequencing of pediatric morphea lesional tissue.** Yvonne E. Chiu, Beth A Drolet, Dawn Siegel and Elizabeth A Worthey. Milwaukee, WI.
- 411 The effect of laser radiation on expression of S100A8 and S100A9 genes in keratinocytes.** Andrey Lavrov, Irina Korsunskaya, Alexandr Melerzanov, Elena Petersen, Marat Minnibaev, Vladimir Sobolev, Anna Soboleva and Alexandr Gersen. Moscow, Russian Federation.
- 412 Ichthyosis hystrix Lambert type and Curth–Macklin type are one entity with palms and soles unaffected (KRT10 mutation) / affected (KRT1 mutation).** Wen-Hui Wang, Long Zhang, Ting-ting Sun and Lin-feng Li. Beijing, China.
- 413 Increased prevalence of headaches in PHACE syndrome.** JiaDe Yu, Beth A Drolet and Dawn Siegel. Milwaukee, WI.
- 414 Differential gene expression analysis in chronic cutaneous lupus reveals overlapping and distinct genetic elements between cutaneous and systemic disease** Rama Dey-Rao, Jason R Smith, Selwyn Chow and Animesh A. Sinha. Buffalo, NY.
- 415 Haploinsufficiency for a skin-specific isoform of SMARCAD1 causes autosomal dominant adermatoglyphia and perturbs the expression of epidermal differentiation-associated genes.** J. Nousbeck, O. Sarig, L. Magal, E. Warshauer, B. Burger, P. Itin and E. Sprecher. Tel Aviv, Israel and Basel, Switzerland.
- 416* Cole disease results from mutations in ENPP1.** O. Eytan, F. Morice-Picard, O. Sarig, J. Nousbeck, K. Ezzedine, O. Isakov, Q. Li, A. Ishida-Yamamoto, N. Shomron, T. Goldsmith, N. Adir, J. Uitto, S. J Orlov, A. Taieb and E. Sprecher. Tel Aviv, Israel; Bordeaux, France; Philadelphia, PA; Asahikawa, Japan; Haifa, Israel and New York, NY.

- 417*** **Desmoglein 1 deficiency reveals a direct role for desmosomal dysfunction in allergic cutaneous reactions.** [L. Samuelov](#), O. Sarig, R. Harmon, D. Rapaport, E. Warshauer, A. Ishida-Yamamoto, O. Isakov, J. Koetsiers, R. Bergman, S. Peleg, C. Goh, N. Wilson, F. Smith, E. Pohler, M. Simpson, D. F Murrell, J. Salas, A. Shani, A. Paller, I. McLean, A. Irvine, M. Horowitz, J. McGrath, K. Green and E. Sprecher. Tel Aviv, Israel; Chicago, IL; Asahikawa, Japan; Haifa, Israel; Dundee, United Kingdom; London, United Kingdom; Sidney, Australia; Mexico, Mexico and Dublin, Ireland.
- 418** **A novel mutation in TP63 causes a mild ectodermal dysplasia.** [T. Goldsmith](#), L. Magal, O. Eytan, M. Solomon, S. Israeli, E. Warshauer, M. Grafi-Cohen, D. Aberdam, H. van Bokhoven, H. Zhou, O. Sarig, E. Sprecher and J. Nussbeck. Tel Aviv, Israel; Tel Hashomer, Israel; Paris, France and Nijmegen, Netherlands.
- 419** **Genome wide association study of psoriasis in India.** [Rajan P Nair](#), Lam C Tsoi, Manju Ghosh, Madhulika Kabra, Trilokraj Tejasvi, Philip E Stuart, Matthew S Zawistowski, John J Voorhees, Goncalo R Abecasis, Vinod Kumar Sharma and James T Elder. Ann Arbor, MI and New Delhi, India.
- 420** **Mutations in SERPINB7, encoding a serine protease inhibitor, cause Nagashima-type palmoplantar keratosis** [Akiharu Kubo](#), Aiko Shiohama, Takashi Sasaki, Kazuhiko Nakabayashi, Jun Kudoh, Kenichiro Hata, Akihiro Umezawa, Yoshiki Tokura, Akira Ishiko, Hironori Niizeki, Kenji Kabashima, Yoshihiko Mitsuhashi and Masayuki Amagai. Tokyo, Japan; Hamamatsu, Japan and Kyoto, Japan.
- 421** **Genome-wide approach to discover novel mouse models for cutaneous disorders.** [John Paul Sundberg](#), Steven Murray, Janan Eppig, Kathleen A Silva, Victoria E Kennedy, Dale Begley, James Denegre, Lloyd E King, Paul N Schofield and Soheil S Dadras. Bar Harbor, ME; Nashville, TN; Cambridge, United Kingdom and Farmington, CT.
- 422** **Deletion of mouse Col17a1 exon 50 results in a remarkably normal phenotype alone but greatly accelerates Lamc2^{zeb} induced junctional epidermolysis bullosa** [John Paul Sundberg](#), Thomas James Sproule, Benjamin E Low, Elisabeth B Adkins, Kathleen A Silva, Deepak Reyon, J. Keith K Joung, Michael V Wiles and Derry C Roopenian. Bar Harbor, ME; Boston, MA and Charlestown, MA.
- 423*** **Topically delivered nanoparticle-siRNA conjugates down-regulate GM3 synthase and reverse the impaired wound healing in diabetic mice** [Mark Seeger](#), Pratik Randeria, Heather Wilson, Xiaoqi Wang, Chad A Mirkin and Amy S Paller. Chicago and Evanston, IL.
- 424** **A meta-analysis of genome-wide association studies identifies novel loci associated with bullous pemphigoid in Han Chinese population.** [Jinping Gao](#), Yujun Sheng, Yang Li, Yong Cui, Liangdan Sun, Sen Yang and Xuejun Zhang. Hefei, China and Shanghai, China.
- 425** **The common variants shared between schizophrenia and psoriasis in Han Chinese population.** [Xianyong Yin](#), Nathan Wineinger, Sen Yang, Nicholas J Schork and Xuejun Zhang. Hefei, China; San Diego, CA and La Jolla, CA.
- 426*** **Correction of structural defect of the hair shaft through allele-specific silencing of a dominant mutant form of Krt75** [Ying Liu](#), Lianfeng Zhang, Dennis R Roop, Chuan Qin and Jiang Chen. Beijing, China; Aurora, CO and Stony Brook, NY.
- 427** **Genetic basis of pseudoxanthoma elasticum: The Chinese mutation profile in ABC6 and ENPP1 genes** [Q. Jiang](#), Z. S Wu, L. Jin, C. X Shao, Y. Zhou, J. Uitto and G. Wang. Philadelphia, PA and Xi, China.
- 428** **Bone abnormalities in trichothiodystrophy: Central osteosclerosis is a prognostic marker for increased risk of early death.** [John J DiGiovanna](#), Alexandra B Barsell, Rina Allawh, Michael Xiong, Deborah Tamura, Michael Collins, Seth M Steinberg, Sikandar G Khan, Suvimol Hill and Kenneth H Kraemer. Bethesda, MD; Washington, DC and Providence, RI.
- 429** **Novel mouse models for pseudoxanthoma elasticum: Genetic and dietary modulation of the ectopic mineralization phenotypes** [J. Uitto](#), Q. Li, H. Guo, D. Chou, A. Berndt and J. P Sundberg. Philadelphia, PA; Pittsburgh, PA and Bar Harbor, ME.
- 430** **Phase I clinical trial of genetically corrected autologous epidermal keratinocytes for recessive dystrophic epidermolysis bullosa** [Zurab Sijrashvili](#), Ngon T Nguyen, Emily Gorell, Phuong Khuu, Louise Furukawa, H. P Lorenz, Thomas H Leung, Douglas R Keene, Paul Khavari, M. Peter Marinkovich and Alfred T Lane. Stanford, CA and Portland, OR.
- 431** **A novel trinucleotide deletion in 2B domain of KRT10 presents with a mild epidermolytic ichthyosis phenotype** [Haris Mirza](#), Brittany Craiglow, Jing Zhou, Corey Saraceni, Bruce Ragsdale, Richard Torbeck, Leonard M Milstone, Paul Rehder and Keith A Choate. New Haven, CT; San Louis, CA; New York, NY and Camarillo, CA.
- 432** **Mutations in TTDN1 are associated with a unique trichothiodystrophy phenotype.** [Elizabeth R Heller](#), Sikandar G Khan, Deborah Tamura, John J DiGiovanna and Kenneth H Kraemer. Bethesda, MD.
- 433** **The role of core clock gene bmal1 in propionibacterium acnes-induced inflammation in sebocytes** [Jennifer Nobe](#), Min Qin, Andrew Park, Hermes J Garban and Jenny Kim. Los Angeles, CA.
- 434** **Transcriptonal analysis of androgenetic alopecia provides insights into the genetic basis of disease** [Ankit Gor](#), Rama Dey-Rao and Animesh A. Sinha. Buffalo, NY.
- 435** **Identification of the promoter region in human IL-33 gene, and analysis of its regulation in keratinocytes, endothelial cells and fibroblasts.** [Hidetoshi Tsuda](#), Mayumi Komine, Tomoyuki Ohshio, Shin-ichi Tominaga and Mamitaro Ohtsuki. Shimotsuke, Japan.
- 436** **Different Z-DNAs in human melanoma: Stages 0 to IV.** [Claude E. Gagna](#), Alexia E Skiadas, Peter C Lambert, David Dursunian, Muhammad Malik, Akshay Sharma and W. Clark Lambert. Old Westbury, NY; Newark, NJ and St. Georges, Grenada.
- 437** **Bioinformatics of Z-RNA in human melanoma.** [Alexia E Skiadas](#), Claude E. Gagna and W. Clark Lambert. Old Westbury, NY and Newark, NJ.
- 438** **Polymorphisms of NFκB1 (-94 del/insATTG), NFκB1A (2758 A>G) and SUMO (rs237025 G>A) genes in psoriasis.** [Ahmad Alrobaee](#), Abdullateef Al-Zolbani, Ahmad Ali and Ahmad Settin. Buraydah, Saudi Arabia.
- 439** **Sequencing-based approach identified three new psoriasis susceptibility loci for psoriasis.** [Yujun Sheng](#), Jinping Gao, Yang Li, Liangdan Sun, Yong Cui, Sen Yang and Xuejun Zhang. Hefei, China.
- 440** **A B-lymphoproliferative disorder is associated with severe skin erosions in AEC syndrome.** [Caterina Missero](#), Maria Rosaria Mollo, Luisa Cirillo, Anna Sirico and Dario Antonini. Napoli, Italy.
- 441** **A novel nonsense PTCH1 mutation in a Chinese family with nevoid basal cell carcinoma syndrome.** [Wei Jiang](#), Di Gao and Ershun Huang. Beijing, China.
- 442** **A genome-wide association study of pemphigus vulgaris.** [Jinping Gao](#), Yujun Sheng, Yang Li, Yong Cui, Liangdan Sun, Sen Yang and Xuejun Zhang. Hefei, China and Shanghai, China.
- 443** **Significant association of X gene variants on development of dermatomyositis in the Han Chinese population.** [Yang Li](#), Chang-e Zhang, Yu-jun Sheng, Jin-ping Gao, Liang-dan Sun, Yong Cui, Sen Yang and Xue-jun Zhang. Hefei, China.
- 444**** **Higher-order chromatin folding and coordinated gene regulation at the Epidermal Differentiation Complex (EDC) locus in keratinocytes.** [Michael Fessing](#), Joanne Yarker, Krzysztof Poterlowicz, Natalia Naumova, Bryan Lajoie, Andrei Mardaryev, Andrey Sharov, Job Dekker and Vladimir A. Botchkarev. Bradford, United Kingdom; Worcester, MA and Boston, MA.
- 445** **An organotypic psoriasis tissue model for evaluation of drug therapeutics.** [Michael Allen Bachelor](#), Seyoum Ayeahunie, Cristy Hedin, AnnMarie Cataldo, Maureen Spratt, Patrick J. Hayden and Mitchell Klausner. Ashland, MA.
- 446** **Exome array analysis identifies 14 new susceptibility loci for psoriasis.** [Xue-jun Zhang](#), Yun-jun Sheng, Yang Li, Liangdan Sun, Yong Cui and Sen Yang. Hefei, China.

Abstract Presentation Information

- 447 **Downregulation of DNA repair by an antimycotic drug leads to a phenotype resembling Xeroderma pigmentosum and to increased skin cancer.** [York Kamenisch](#), Sara Giovannini, Nikita Kobert, Lisa Weibel, Lars French, Martin Röcken and Mark Berneburg. Tübingen, Germany; Regensburg, Germany and Zürich, Switzerland.
- 448* **Widespread genomic blocks of hypomethylation in nonmalignant epidermis related to age and sun exposure** [Amy Vandiver](#), Rafa Irizzary, Kasper Hansen, Luis Garza, Arni Runarsson, Xin Li, Anna L. Chien, Sherry G Leung, Sewon Kang and Andrew P Feinberg. Baltimore, MD and Boston, MA.
- 449 **Intravenously administered type VII collagen derived from genetically engineered Chinese ovarian hamster cells reverses the DEB disease phenotype in C7-knockout mice: Implications for available DEB therapy.** [Mei Chen](#), Yingping Hou, Timmy Wu, Robert Gao, Elizabeth Hong, Jon Cogan, Douglas Keene, Nan Liu, Yan Huang, Omar Francone, Lin Guey and David Timothy Woodley. Los Angeles, CA; Portland, OR and Lexington, MA.
- 450 **ABCA5 is a novel regulator of hair growth.** [Gina Marie DeStefano](#), Mazen Kurban, Kwame Anyane-Yebo, Claudia Dall'Armi, Gilbert Di Paolo, Heather Feenstra, Nanette Silverberg, Luis Rohena, Vaidehi Jobanputra, Katherine Fantauzzo, Maija Kiuru, Marija Tadin-Strapps, Antonio Sobrino, Anna Vitebsky, Dorothy Warburton, Brynn Levy, Julio C Salas-Alanis, Larissa D Lopez-Cepeda and Angela Christiano. NY, NY; Monterrey, Mexico and Mexico, Mexico.
- 451* **Genetic basis of congenital wound disorders: Aplasia cutis congenita.** [Alexander Marneros](#). Boston, MA.
- 452 **Identification of alopecia areata relevant copy number variants.** [Li Bian](#), Lynn Petukhova, Jane Cerise and Angela Christiano. NY, NY.
- 453* **Corrected patient-specific, iPSC-derived epithelial sheets for dystrophic epidermolysis bullosa.** [Anthony Oro](#), Vittorio Sebastiano, Hanson Zhen, Pei Wang, Bahareh Haddad, Elizaveta Bashkirova, Mohamed Ameen, Zurab Siphashvili, Sandra Melo, Jiang Li, Seung Kim, Alfred Lane and Marius Wernig. Stanford, CA.
- 454* **Sirolimus normalizes skin and dramatically reduces internal tumors in a mouse model of tuberous sclerosis complex (TSC).** [Thomas N Darling](#), Peter Klover, Rajesh Thangapazham, Jiro Kato, Ji-an Wang, Shaowei Li, Stasia A Anderson, Victoria Hoffmann, Elizabeth McCart, Neera Nathan and Joel Moss. Bethesda, MD.
- 455* **Meta-analysis of genome-wide association studies in alopecia areata reveals new susceptibility loci.** [L. Petukhova](#), R. C Betz, S. Ripke, H. Huang, A. Menelaou, S. Redler, T. Becker, S. Heilmann, M. Duvic, M. Hordinsky, D. Norris, V. Price, J. Mackay-Wiggan, G. M DeStefano, M. Bohm, U. Blume-Peytavi, H. Wolff, G. Lutz, R. Kruse, B. Blaumeiser, D. Altshuler, M. Nothen, P. I W de Bakker, M. Daly and A. M Christiano. NY, NY; Bonn, Germany; Boston, MA; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA; Münster, Germany; Berlin, Germany; Düsseldorf, Germany; Wesseling, Germany; Paderborn, Germany; Antwerp, Belgium and Utrecht, Netherlands.
- 456 **Network-based modeling of skin and hair autoimmune susceptibility in alopecia areata.** [James C Chen](#), Jane Cerise, Ali Jabbari and Angela Christiano. New York, NY.
- 457 **Analysis of chemotactic molecules in bone marrow-derived mesenchymal stem cells and the skin: Ccl27-Ccr10 axis as a basis for targeting to cutaneous tissues.** [Olga Igoucheva](#), Vitali Alexeev and Jouni Uitto. Philadelphia, PA.
- 458 **A spontaneous mutation in the c-terminus of desmoplakin results in mice with a sparse, wavy coat.** [C. Herbert Pratt](#), Heather Fairfield, Christopher Potter, Ian Greenstein, Belinda Harris and John Paul Sundberg. Bar Harbor, ME.
- 459 **A novel missense mutation in HOXC13 leads to pure hair and nail ectodermal dysplasia** [Donald A Glass](#), Nnenna G Agim, Jonathan C Cohen and Helen H Hobbs. Dallas, TX.
- 460 **Adipose-derived stem cells as a potential therapy for collagen VI-related congenital muscular dystrophy.** [Olga Igoucheva](#), Vitali Alexeev and Mon-Li Chu. Philadelphia, PA.
- 461 **Ichthyosis with confetti mutant allele causes neonatal lethality in a murine model.** [Yin Lu](#), Haris Mirza, Rong-Hua Hu, Jing Zhou, Debra Crumrine, Peter Elias, Richard Lifton and Keith Choate. New Haven, CT and San Francisco, CA.
- 462* **Krt85^{whnl}: A new spontaneous mouse mutation affecting nail growth and development.** [Heather Fairfield](#), Pat Ward-Bailey, John Paul Sundberg, Christopher Potter and C. Herbert Pratt. Bar Harbor, ME.
- 463 **Targeted resequencing of the costimulatory locus identifies all variants carried on GWAS defined risk haplotypes in alopecia areata.** [Tarek Yamany](#), Lynn Petukhova, Esther Drill, Li Bian, J. D Broadbent, Peter Nagy and Angela Christiano. NY, NY.
- 464 **Genome-wide serum miRNA expression profiles identify serum miRNAs as potential biomarkers for human psoriatic arthritis.** [Qing-Sheng Mi](#), Ling Han, Matthew Weiland, Congcong Yin, Chuanjian Lu, Rajan P Nair, Li Zhou, Henry W Lim and James T Elder. Detroit, MI; Guangzhou, China and Ann Arbor, MI.
- 465* **Analysis of CARD14 polymorphisms in pityriasis rubra pilaris: Activation of NF-κB** [Q. Li](#), H. J Chung, J. Andrews, H. Sabaawy, E. Sprecher and J. Uitto. Philadelphia, PA; New Brunswick, NJ and Tel Aviv, Israel.
- 466 **Genome-wide target gene analysis reveals both cell autonomous and paracrine effects of JunB in epidermal growth and inflammation.** [Xiaoling Zhang](#), Joseph Wu, Jane Jin, Xiaoxia Qin, Olivier Fedrigo and Jennifer Y Zhang. Durham, NC.
- 467* **Somatic activating mutations in HRAS and NRAS cause cutaneous skeletal hypophosphatemic syndrome.** [Young H. Lim](#), Diana Ovejero, Jeffrey Sugarman, Lawrence Eichenfield, Moise Levy, Michael Collins and Keith A Choate. New Haven, CT; Bethesda, MD; San Francisco, CA; San Diego, CA and Austin, TX.
- 468 **AP1 factors are required for normal embryonic skin development and absence of expression produces a collodion baby disease phenotype** [Christie Young](#), Wen Xu, Richard Eckert and Ellen Rorke. Baltimore, MD.
- 469 **Suppressing AP1 factor signaling in suprabasal epidermis produces a keratoderma phenotype** [Ellen Rorke](#), Gautam Adhikary, Christie Young, Dennis Roop and Richard Eckert. Baltimore, MD and Aurora, CO.
- 470 **Identification of novel and common regulatory variants in an adult atopic dermatitis cohort with baseline skin defects.** [Cristina de Guzman Strong](#), Twinkal Pansuriya, Kara Jill Gulewicz, Avner Shemer, Wendell Jones, Ashley Quiggle, Zane Goodwin, James Krueger and Emma Guttman. St. Louis, MO; Tel Aviv, Israel and New York, NY.
- 471 **Genetic variants in the moyamoya susceptibility gene, RNF213, in PHACE syndrome.** [Dawn Siegel](#), Mohit Maheshawri, Beth A Drolet and Elizabeth A Worthey. Milwaukee, WI.
- 472 **Disorders of keratinization: Genetic characterization of a large cohort via targeted and whole exome sequencing** [Lynn M Boyden](#), Brittany G Craiglow, Ronghua Hu, Jing Zhou, Erin Loring, Leonard Milstone, Richard P Lifton, Amy S Paller and Keith A Choate. New Haven, CT and Chicago, IL.
- 473 **Whole exome sequencing powered genetic discovery in mosaic disease.** [Jonathan L Levinsohn](#), Joyce M Teng, Brittany Craiglow, T. Andrew Burrow, Jennifer McNiff, Anne Lucky, Richard Antaya and Keith Choate. New Haven, CT; Stanford, CA and Cincinnati, OH.
- 474 **Site-specific genome editing using TALENs for correction of dominant dystrophic epidermolysis bullosa.** [Satoru Shinkuma](#), Angela Christiano. New York, NY.
- 475 **Gene expression profiling in pachyonychia congenita skin.** [Yu-An Cao](#), Robyn P Hickerson, Maren Mayer, Brandon Seegmiller, Manuel Flores, Madelyn Low, Tycho Speaker, Annaleen Vermeulen, Devin Leake, Mary Schwartz, Leonard Milstone and Roger Kaspar. Santa Cruz, CA; Lafayette, CO; Salt Lake City, UT and New Haven, CT.

- 476** **APCDD1 is a novel dual WNT/BMP inhibitor in the skin and the developing nervous system and coordinates activation of WNT and BMP signaling pathways.** [Victor Luria](#), Alin Vonica, Neha Bhat, Keith Phan, Lacrimioara Iancu, Anne O'Donnell, Bruce Riley, Samantha Butler and Angela Christiano. New York, NY; Boston, MA; Rochester, NY; College Station, TX; Los Angeles, CA and Stuttgart, Germany.
- 477 **Genetic epidemiology analysis of primary hyperhidrosis.** [Youwen Zhou](#), Guohong Zhang, Yuanshen Huang and Mingwan Su. Vancouver, Canada.

Growth Factors, Cell Adhesion and Matrix Biology

All orals [designated with an asterisk (*)] listed below are presented in the Growth Factors, Cell Adhesion and Matrix Biology Minisymposium on Friday, May 9, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, San Miguel/Mesilla Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 478** **Integrin α v is necessary for generation of human epidermis.** [Elizabeth Jean Kennedy](#), Todd William Ridky. Philadelphia, PA.
- 479 **An *in vitro* method for identifying agents with lipofilling-like activity: Assessment of lipid accumulation, tissue source, age and gene expression.** [Dale G Kern](#), Jin Namkoong, Helen E Knaggs, Remona Gopaul, Deb Bevis, R. E Kilkuskie, Elizabeth A Lehigh, Anna J Langerveld and William P Pfund. Provo, UT; Portage, MI and Kalamazoo, MI.
- 480 **Robust human dermal fibroblast growth and matrix production requires exposure of cryptic residues in the first type III repeat of fibronectin.** [Richard August Clark](#), Fubao Lin, Jamie Ward and Jia Zhu. Stony Brook, NY.
- 481 **Anti-aging effect of dedifferentiated *Argania spinosa* cells on dermal fibroblasts cultured on MMP-1 damaged collagen.** [Patrick Bogdanowicz](#), Marie-José Haure, Nicolas Steward, Thien Nguyen, Nathalie Castex-Rizzi and Sandrine Bessou-Touya. Toulouse, France.
- 482 **Epidermal hyperplasia observed in psoriasis vulgaris may involve expansive growth of keratinocytes: Possible role of CD44, Syndecan-1 and versican.** [E. Arciniegas](#), L. M Carrillo, E. Paez, H. Rojas and R. Ramirez. Caracas, Venezuela, Bolivarian Republic of.
- 483 **Presence of MUC1 in the epidermal thickening in psoriasis vulgaris.** [L. M Carrillo](#), E. Arciniegas, E. Paez, E. Reales, M. Chopite, H. Rojas and R. Ramirez. Caracas, Venezuela, Bolivarian Republic of.
- 484* **Targeting Fyn in Ras-transformed cells induces F-Actin to promote adherens junction-mediated cell-cell adhesion** [Sarah Fenton](#), Kelli A Hutchens and Mitchell Denning. Maywood, IL.
- 485 **Stress hormone can down-regulate key extracellular matrix proteins which may negatively impact skin health.** [Ying Chen](#), Yong Zhuang and Qian Zheng. Suffern, NY.
- 486* **An alternate endocytic motif mediates VE-cadherin degradation by Kaposi's sarcoma-associated herpes virus.** [Benjamin A Nanes](#), Andrew P Kowalczyk. Atlanta, GA.
- 487 **The 3'UTR of α 6 integrin regulates α 6 β 4 integrin expression and localization.** [Jonathan Jones](#), Susan B Hopkinson. Pullman, WA.
- 488* **Novel evidence that SERCA activity is required for maturation and exocytic transport of newly synthesized desmosomal cadherins in keratinocytes: Ifor Darier's disease.** [Ning Li](#), Moonhee Park, Zhi Liu and Luis A. Diaz. Chapel Hill, NC.
- 489 **Expression of lysyl oxidase and its isoforms, lysyl oxidase like-peptide 2 and 4, may play a role in keloid pathogenesis: Development of an *in vivo* model system** [J. Andrews](#), Q. Li, H. J Chung, J. Rosenbloom and J. Uitto. Philadelphia, PA.
- 490* **Structural and non-structural activities of COMP in the dermis.** [Thomas Krieg](#), Jan-Niklas Schulz, Anja Niehoff, Wilhelm Bloch, Katrin Blumbach, Manuel Koch and Beate Eckes. Cologne, Germany.
- 491 **Increased intracellular collagen degradation mediated by caveolae/endo180 endocytic machinery promotes collagen deficiency in aged human skin** [Yong Li](#), Wei Xia, John J Voorhees and Gary J Fisher. Ann Arbor, MI.
- 492 **Use of a 3D model of aged dermis for elucidation of skin rejuvenation pathways.** [Marian Guelakis](#), Helen Meldrum and Jian-Ming Lee. Trumbull, CT.
- 493 **Retinoic acid prevents human keratinocytes from cellular senescence via regulating IGFBP-6.** [Hyangtae Choi](#), Jin Young Lee, John Hwan Lee and Hae Kwang Lee. Yongin, Republic of Korea.
- 494* **Smad7 levels play a causal role in anti-fibrosis.** [Gangwen Han](#), Bin Fan, Qinghong Zhang and Xiao-Jing Wang. Aurora, CO.
- 495 **A rhamnose derivative to protect the dermal epidermal junction from aging.** [Jean-françois Nicolay](#), Mathilde Frechet, Lionel Valenti, Pierre-Gilles Markioli and Jean-Paul Bliiaux. Monaco, Monaco.
- 496* **Combination of pemphigus foliaceus IgG monoclonal antibodies (mAbs) promotes desmoglein 1 clustering.** [Kenji Yoshida](#), Ken Ishii, Atsushi Shimizu, Mariko Yokouchi, John R Stanley and Akira Ishiko. Tokyo, Japan and Philadelphia, PA.
- 497 **Reduced autophagy in skin aging and positive regulation by a saponin-rich asparagus extract** [Dominik Imfeld](#), Rainer Voegeli, Patricia Boya and Esther Seco. Kaiseraugst, Switzerland and Madrid, Spain.
- 498 **A novel truncated KIT in mastocytosis mast cells** [I Ja Chan](#), Michael D Tharp. Chicago, IL.
- 499* **Inducible basal keratinocyte-specific knockout of the LAMA3 gene: More than another model for epidermolysis bullosa.** [Monique Marie Aumailley](#), Gundula Grimberg, Monika Pesch and Haiyan Qu. Cologne, Germany.
- 500 **Loss of the laminin-332 α 3IIIa domain impairs keratinocyte migration *in vitro*** [Jennifer Yu Wang](#), Haritha K Duggireddy Lakshmireddy and M. P Marinkovich. Stanford, CA.
- 501 **The absence of functional type VII collagen in RDEB patients causes faculty regulation of TGF-beta and profound skin scarring.** [Xinyi Wang](#), Yingping Hou, Justing Wang, David Timothy Woodley and Mei Chen. Los Angeles, CA.
- 502* **Type VII collagen binds pro-fibrogenic TGF beta isoforms: Implications for scarring in RDEB patients and scarless wound healing.** [Lauren Moy](#), Jon Cogan, Kaitlyn Kim, David Timothy Woodley and Mei Chen. Los Angeles, CA.
- 503* **Contact-dependent activation of EphA2 is required for keratinocyte differentiation and recruitment of the phosphoinositol phosphatase SHIP2.** [Bethany Elena Perez White](#), Nihal Kaplan and Spiro Getsios. Chicago, IL.
- 504 **E-cadherin phosphorylation promotes cell-cell adhesion and inhibits motility in A431D epidermoid carcinoma cells.** [Abbye Elizabeth McEwen](#), Meghan T Maher, Rigen Mo and Cara J Gottardi. Chicago, IL.
- 505* **Deletion of the glucocorticoid receptor inhibitor FKBP51 unexpectedly prevents development of glucocorticoid-induced cutaneous atrophy via Akt activation.** [Irina Budunova](#), Gleb Baida, Pankaj Bhalla, Hanying Chen, Weinian Shou and Edwin Sanchez. Chicago, IL; Indianapolis, IN and Toledo, OH.
- 506 **Notch signaling may be involved in the abnormal differentiation of epidermal keratinocytes in psoriasis.** [Tomotaka Mabuchi](#), Susumu Takekoshi, Tami Ota, Tatsuya Takagi, Kanae Kitatani, Kentaro Toriumi, Tomoko Kojima, Masayuki Kato, Norihiro Ikoma and Akira Ozawa. Isehara, Japan.
- 507 **Expression and regulation of the scavenger receptor OLR1/LOX1 in mammalian skin.** [Florian Gruber](#), Ionela M Naglereiter, Masomeh Parvardeh, Marie S Narzt, Minoo Ghannadan-Schuch, Susanne Karner, Michael Mildner and Erwin Tschachler. Vienna, Austria.

Abstract Presentation Information

- 508* **Amphiregulin supports G2/M progression via FoxM1 and inhibits differentiation in human keratinocytes.** [Stefan W Stoll](#), William R Swindell, Andrew Johnston and James T Elder. Ann Arbor, MI.
- 509 **Regulation of ECM proteins by microRNA.** [Raaj P Khusial](#), Uma Santhanam. Suffern, NY.
- 510* **Desmoglein-2 activates mitogenic signaling by modulating scaffolding proteins in lipid rafts** [K. P McGuinn](#), D. Brennan-Crispi, F. Cooper, J. K Wahl and M. G Mahoney. Philadelphia, PA.
- 511 **Role of new α -catenin homologue - Catulin in skin development and wound healing.** [Agnieszka Kobiela](#), Keerthi Boddupally and Christine Cao. Los Angeles, CA.
- 512 **The effects of matrix laminin-511 in the growth of human squamous cell carcinoma in animal model.** [Jie Li](#), Ling Tang and Mina Zarei. Miami, FL.
- 521 **Off-target effects of BRAF inhibitors: Roles in SCC induction and the relationship to paradoxical ERK signaling.** [Lili Du](#), Charles H Adelman, Grace Ching, Vida Chitsazadeh, Sandra S Ojeda, Harina Vin, Tamer Kaoud, Scarlett B Ferguson, Kevin N Dalby and Kenneth Tsai. Houston, TX and Austin, TX.
- 522 **Risk of rash associated with panitumumab in cancer patients: A systematic review of the literature and meta-analysis.** [Beatrice Nardone](#), Shenhong Wu, Adam Picker, Dennis P West and Mario E Lacouture. Chicago, IL; Stony Brook, NY; Northport, NY and New York, NY.
- 523 **Interventions for management of Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) in the human immunodeficiency virus (HIV) population: A systematic literature review.** [Monica Rani](#), Kirsten C Webb, Beatrice Nardone, Dennis P West and Toby Maurer. Chicago, IL and San Francisco, CA.
- 524 **Cutaneous ATLL is a diagnostic challenge and has heterogenous clinical and histologic features** [Michael Armando Marchetti](#), Melissa Pulitzer, Patricia Myskowski, Stephen Dusza, Matthew Lunning, Steven Horwitz, Alison Moskowitz and Christiane Querfeld. New York, NY and Omaha, NE.
- 525*** **A selective defect in IFN γ production possibly explains viral skin infections in atopic dermatitis** [Tali Czarnowicki](#), James Krueger, Juana Gonzalez and Emma Guttman. New-York, NY and New York, NY.
- 526 **"Iceberg" hemangioma: A segmental scalp lesion marking extensive multifocal extracutaneous involvement.** [Melinda Bernabe Chu](#), Elaine C Siegfried, Alan Wild, Martin Reis, Ilona Frieden and Beth A Drolet. St. Louis, MO; San Francisco, CA and Milwaukee, WI.
- 527 **A unique presentation of necrobiotic xanthogranuloma associated with a peripheral T-cell lymphoma treated with lenalidomide.** [Jonathan Cappel](#), Rokea el-Azhary. Rochester, MN.
- 528 **Association of PD-1, PD-1 ligands, and other features of the tumor immune microenvironment with response to anti-PD-1 therapy** [Janis Marie Taube](#), Alison Klein, Julie R Brahmer, Haiying Xu, Xiaoyu Pan, Jung Kim, Lieping Chen, Drew M Pardoll, Suzanne L Topalian and Robert A Anders. Baltimore, MD and New Haven, CT.
- 529 **Decreased expression of caveolin-1 contributes to the pathogenesis of psoriasis.** [Yukie Yamaguchi](#), Yuko Watanabe, Noriko Koumitsu, Tomoya Watanabe and Michiko Aihara. Yokohama, Japan.
- 530 **Resiquimod gel, a potent activator of the innate immune response, leads to systemic immune activation and regression of treated lesions in patients with CTCL: Results of a phase I trial.** [Alain H Rook](#), Maria Wysocka, Bernice Benoit, Rei Watanabe, Andrea Troxel, Jessica Teague, Rosalie Elenitsas, Ellen Kim, Christian Surber, Rachael Clark and Joel Gelfand. Philadelphia, PA and Boston, MA.
- 531 **Tolerability and encouraging clinical activity of SHP-141, a topical skin-restricted HDAC inhibitor, in a phase 1B study in cutaneous t-cell lymphoma.** [Youn H Kim](#), Michael S Krathen, Madeline Duvic, Henry Wong, Pierluigi Porcu, Jocelyn Tacastacas, Neil J Korman, Joan Guitart, Steven B Landau and James E Bradner. Palo Alto, CA; Houston, TX; Columbus, OH; Cleveland, OH; Chicago, IL; Boston, MA and Cambridge, MA.
- 532 **In pemphigus vulgaris patients ongoing disease and relapse is associated with persistence of the same non-tolerant B-cell clones which are eliminated in long-term clinical and serologic remission** [Christoph Matthias Hammers](#), Jing Chen, Chenyan Lin, Stephen Kacir, Aimee Sue Payne, Donald L Siegel and John R Stanley. Philadelphia, PA.
- 533 **Botulinum toxin improves quality of life and may ameliorate pain associated with cutaneous leiomyomas.** [Haley B Naik](#), Seth M Steinberg, Heidi H Kong and Edward West Cowen. Bethesda, MD.
- 534 **IL-10 is upregulated in advanced mycosis fungoides and is required for maximal tumor development in a murine model of CTCL.** [Xuesong Wu](#), Youwen Zhou and Sam Hwang. Milwaukee, WI and Vancouver, Canada.

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 9, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, Ballroom A. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 513 **Efficacy and safety of adalimumab treatment in psoriasis with psoriatic arthritis: Result from post-marketing surveillance in Japan.** [Akihiko Asahina](#), Hideshi Torii, Mamitaro Ohtsuki, Jungo Sawa, Yuji Yamaguchi and Hidemi Nakagawa. Kanagawa, Japan; Tokyo, Japan and Tochigi, Japan.
- 514 **Similarity in survival in stage 4 basosquamous carcinoma and stage 4 squamous cell carcinoma: Results of a single-site retrospective cohort study.** [Gefei A Zhu](#), Christina Danial, Andy Liu, Shufeng Li and Anne L Chang. Redwood City, CA.
- 515 **Free dermatoplasty combining with vacuum sealing drainage with or without Pelnac used for the treatment of extensive follicular occlusion triad in the gluteal and perianal regions.** [Dao-Feng Ben](#), Ting Li and Zhao-Fan Xia. Shanghai, China.
- 516 **The effect of conditioned media of adipose-derived stem cells on wound healing after ablative fractional carbon dioxide laser resurfacing.** [Dan Luo](#), Jia-an Zhang and Bingrong Zhou. Nanjing, China.
- 517 **Leukemia cutis patients with AML demonstrate comparable survival to the general AML population and long-term survival when treated with stem cell transplantation.** [Sherrie J. Divito](#), Cara Joyce and Arturo Saavedra. Boston, MA and New Orleans, LA.
- 518* **Cyclosporine A treatment in atopic dermatitis results in suppression of Th2/Th22 inflammation and epidermal pathology.** [Mariya Rozenblit](#), Saakshi Khattri, Avner Shemer, Mayte Suarez-Farinas, Nikhil Dhingra, Jim G Krueger and Emma Guttman-Yassky. New York, NY and Tel-Aviv, Israel.
- 519* **Impact of ixekizumab on blood neutrophil levels and the incidence of infections caused by candida albicans or staphylococcus aureus.** [Andrew Blauvelt](#), D. K Braun, Gregory S Cameron, David Shrom and Michael P Heffernan. Portland, OR and Indianapolis, IN.
- 520* **A single application of acyclovir mucoadhesive buccal tablet reduces recurrence of herpes labialis in a randomized double-blind phase 3 study: Exploratory results.** [Pierre Attali](#), Stephen K Tyring, Thomas o Bieber, Olivier Chosidow, Mark Bloch, Michael Lewis and Matthew Davis. Houston, TX; Bonn, Germany, Germany; Creteil, France; Darlinghurst, Australia; Cardiff, United Kingdom; Rochester, NY and Paris, France.

- 535* **Antibody titers to Merkel cell polyomavirus oncoproteins predict Merkel cell carcinoma recurrence with high sensitivity and specificity** [Ata S Moshiri](#), Kelly G Paulson, Aaron E Lisberg, Astrid Blom, Christopher Lewis, Will Simonson, Jayasri G Iyer, Shailender Bhatia, Lola Yelistratova, Denise Galloway, Chihiro Morishima, Mark Wener and Paul Nghiem. Seattle, WA.
- 536 **Long-term prospective study of skin condition changes by daily topical applications of retinol: Results of 1-year follow up.** [Hyeokgon Park](#), Sunyoung Park, Eunjoo Kim, Hyerim Kim, Sueim Jang, Joon-young Hwang, Jiyeong Kim, Haekwang Lee and Johnhwan Lee. Yongin, Republic of Korea.
- 537 **Polyphenols extracted from apples improve acne lesions by inhibition of sebum production.** [Jong-Kyung Youm](#), Kyung-Eun Lee, Han-Kon Kim, Minyoung Jung, Eung Ho Choi and Weon Ju Lee. Seongnam, Republic of Korea; Wonju, Republic of Korea and Daegu, Republic of Korea.
- 538 **Circulating central memory T cells are negatively correlated with lesional Foxp3+ regulatory T cells in psoriasis patients.** [Emi Nishida](#), Saori Kasuya, Akiko Nishioka, Takuya Furuhashi and Akimichi Morita. Nagoya, Japan.
- 539 **Acne Core Outcomes Research Network (ACORN): Standardizing outcome measures in acne trials.** [Diane Thiboutot](#), Jerry Tan, Meg Chren, Anne Eady and Alison Layton. Hershey, PA; Windsor, Canada; San Francisco, CA and Harrogate, United Kingdom.
- 540 **IL-17A induces inflammation-associated gene products in blood monocytes and treatment with ixekizumab reduces their expression in psoriasis patient blood.** [Claire Q Wang](#), Mayte Suarez-Farinas, Kristin E Nograles, Claudia A Mimoso, David Shrom, Ernst R Dow, Michael P Heffernan, Robert W Hoffman and James Krueger. New York, NY and Indianapolis, IN.
- 541 **The role of VEGFR-3 in the regression of benign lymphoendothelioma following treatment with sirolimus** [Katherine M Hunt](#), Jennifer Herrmann. Birmingham, AL.
- 542 **Gene expression profiling of T-cell signaling in cutaneous T-cell lymphoma and the effect of extracorporeal photopheresis.** [Betty Yang](#), Madeleine Duvic, Lisa Shiue, Meghali Goswami, Timothy Langridge and Xiao Ni. Houston, TX.
- 543** **Distinct allergen-dependent immune polarization suggested by molecular analyses of patch-tested skin to common sensitizers.** [Nikhil Dhingra](#), Avner Shemer, Joel Correa da Rosa, Mariya Rozenblit, Mayte Suarez-Farinas, Judilyn Fuentes-Duculan, Tali Czarnowicki, James Krueger and Emma Guttman-Yassky. New York, NY and Tel-Aviv, Israel.
- 544 **A combination of PPAR α activator and ceramide improves red face originated from variable skin diseases.** [Jong-Kyung Youm](#), Youn-Hwa Nho, Han-Kon Kim, Yujung Jung, Su-Nam Kim, Ye Seul Kim and Sang Hoon Lee. Seongnam, Republic of Korea; Gangneung, Republic of Korea and Bucheon, Republic of Korea.
- 545 **Successful treatment of recalcitrant necrobiotic xanthogranuloma using intravenous immunoglobulin and electron beam radiation** [Vinod Easwaran Nambudiri](#), Theodore Lo, Artur Zembowicz and Samuel Moschella. Boston, MA and Burlington, MA.
- 546 **Improvement in CDASI activity score is associated with a better quality of life in patients with dermatomyositis.** [Elizabeth S Robinson](#), Rui Feng and Victoria Werth. Philadelphia, PA.
- 547 **Video patient education about systemic corticosteroids is more effective than verbal education: A randomized controlled trial.** [Christina Correnti](#), Leslie Cassidy, Suephy C. Chen and Benjamin Stoff. Atlanta, GA and Atl, GA.
- 548 **FAS: Potential lipogenesis target in acne.** [Steve Frey](#), Akanksha Gupta, Xuying Wang, Sarah Compton, Jean-Louis Klein, John Moore and Ben Buehrer. Research Triangle Park, NC.
- 549 **The role of galectin-12 in sebaceous gland function.** [Wei-Chen Hsieh](#), Ri-Yao Yang, Christos C. Zouboulis and Fu-tong Liu. Taipei, Taiwan; Sacramento, CA and Dessau, Germany.
- 550 **Utility of high-throughput sequencing of T cell receptor gene rearrangement to improve diagnosis in cutaneous T cell lymphoma.** [Sima Rozati](#), Wen-Kai Weng, Mahkam Tavallae, Jinah Kim, Kerri Rieger, Randall Armstrong, Ilan Kirsch and Youn H Kim. Stanford, CA and Seattle, WA.
- 551 **Evaluation of a novel emollient balm containing Aquaphilus dolomiae extract in atopic dermatitis children: Effect on clinical parameters, skin barrier and microflora.** [Anne-Marie Schmitt](#), Pascale Bianchi, Cecile Villeneuve, Jennifer Theunis, Christiane Casas, Annalisa Patrizi, Adeline Bacquey, Chloe Phulpin, Daniel Redoules and Valerie Mengeaud. Toulouse, France and Bologna, Italy.
- 552 **Transcript analysis of interferon pathway associated genes in genital human papillomavirus infection treated with 16-weeks of topical sinecatechins: An open-label, mechanism of action study.** [Marigdalia K. Ramirez-Fort](#), Lars E French, Hung Q Doan, Shiu-chung Au, Peter L Rady, Harrison Nguyen and Stephen K Tying. Houston, TX; Boston, MA and Zürich, Switzerland.
- 553 **Increased insula functional connectivity by MRI in the brain of mice with induced psoriasiform dermatitis.** [Xiping Liu](#), Yasutomu Imai and Samuel T Hwang. Milwaukee, WI.
- 554 **A clustering of Asian pemphigus vulgaris patients in Iowa** [Megan H. Noe](#), Julie McKillip and Janet A Fairley. Iowa City, IA.
- 555 **Anetoderma, an example of primary thrombophilia.** [Benjamin Moncada](#), Elsa A Arenas, Diana V Hernandez and Guillermo J Ruiz-Arguelles. San Luis Potosi, Mexico and Puebla, Mexico.
- 556 **Low-dose methotrexate as an alterative treatment option for refractory cutaneous lupus erythematosus.** [Janice Lin](#), Victoria Sharon, Mital Patel, Joseph F Merola, Abrar A. Qureshi and Ruth Ann Vleugels. Boston, MA and Sacramento, CA.
- 557 **Matrilin-2 is upregulated in the peritumoral stroma of basal cell carcinomas** [Zhengke Wang](#), Fang Xiong and Satori Iwamoto. Providence, RI and Providence, MA.
- 558 **Novel topical cream delivers safe and effective alternative to traditional psoriasis phototherapy.** [Andy Goren](#), Antonio Salafia, John McCoy and Torello Lotti. Irvine, CA and Rome, Italy.
- 559 **Computerized planimetry as a tool to measure area of individual lupus lesions: A reliable and responsive method.** [Lauren Goldlust Okon](#), Rui Feng and Victoria Werth. Philadelphia, PA.
- 560 **Age-related variance in skin properties: A novel means to predict drug delivery windows after microneedle insertion?** [Nicole Brogden](#), Patrick Kinn, Grant Holdren and Kim Brogden. Iowa City, IA.
- 561* **Patient-centered, direct-access online care model for follow-up management of atopic dermatitis: A randomized controlled trial** [April W. Armstrong](#), Mary Ann Johnson, Steven Lin, Thomas Nesbitt, Richard Kravitz and Fu-Tong Liu. Aurora, CO.
- 562* **DC-HIL* myeloid-derived suppressor cells (MDSC) may down-regulate severity of psoriasis** [Lauren Cao](#), Jin-Sung Chung, Ponciano D Cruz, Benjamin Franklin Chong, Heidi Jacobe and Kiyoshi Ariizumi. Dallas, TX.
- 563 **Characterization of cutaneous T-cell lymphoma using *in-vivo* reflectance confocal microscopy.** [Silvia Elena Mancebo](#), Miguel Cordova, Sarah Jawed, Anna Skripnik, Patricia L Myskowski, Klaus Busam, Milind Rajadhyaksha and Christiane Querfeld. New York, NY.
- 564 **Expression of the T cell-inhibitory DC-HIL receptor by myeloid-derived suppressor cells (MDSC) is induced by DC-HIL-bearing melanoma cells** [Jake E Turrentine](#), Jin-Sung Chung, Takahiro Teshima, Atsuko Kodama, Travis Vandergriff, David Harker, Kiyoshi Ariizumi and Ponciano D Cruz. Dallas, TX.
- 565 **Combination treatment with romidepsin and nitrogen mustard demonstrates synergy in cutaneous T-cell lymphoma.** [Brittany O Dulmage](#), Sara Story and Larisa J Geskin. Pittsburgh, PA and New York, NY.

Abstract Presentation Information

- 566 **Metastatic Merkel cell carcinoma presenting as a subcutaneous breast nodule: An uncommon presentation of a rare cutaneous malignancy** [Vinod Easwaran Nambudiri](#), Alice Watson, Manisha Thakuria, Marina Vivero, Chris Fletcher, Andrea Ng, Sara Russell, Guilherme Rabinowitz and Nicole Leboeuf. Boston, MA.
- 567 **A proof-of-concept study with pharmacokinetics demonstrating anti-pruritic activity of oral nalbuphine in hemodialysis patients with uremic pruritus.** [Thomas Sciascia](#), Amale Hawi, Jolene Berg, Harry Alcorn, Carey Hines, Frank Terschan and Gretchen Zunkel. New Haven, CT; Minneapolis, MN and Richmond, VA.
- 568* **Trajectories of water, sebum transepidermal water loss and melanin changes due to breast cancer chemotherapy.** [Danbee Kang](#), Hyeokgon Park, Eunjoo Kim, Haekwang Lee, Dong-Youn Lee and Juhee Cho. Seoul, Republic of Korea and Yongin, Republic of Korea.
- 569 **Sensitive skin in Mexico: Prevalence, biophysical response and its relationship with TRPV1.** [Adriana Rodríguez-Arámula](#), Adriana Ehnis-Pérez Duarte, Diana Hernández-Blanco, Juan P Castanedo-Cázares and Bertha Torres-Alvarez. San Luis Potosi, Mexico.
- 570 **Childhood eczema is associated with injury requiring medical attention.** [Nitin Garg](#), Jonathan Silverberg. Chicago, IL.
- 571 **A self-diagnosis system for herpes zoster.** [Chung-Jung Chen](#), De-Zhang Peng, Yi-Chi Lin, Fu-Cheng Fan and Yi-Hua Liao. Xindian, Taiwan and Taipei, Taiwan.
- 572 **Sleep disturbances in adults with eczema are associated with poor overall health.** [Anna Fishbein](#), Jonathan Silverberg, Nitin Garg, Phyllis Zee and Amy S. Paller. Chicago, IL.
- 573 **Calcipotriol and clobetasol propionate cooperate in suppression of chemokine production in cultured human epidermal keratinocytes.** [Masaru Karakawa](#), Mayumi Komine, Hajime Nakayama, Akimasa Adachi, Tomoyuki Oshio, Hidetoshi Tsuda and Mamitaro Ohtsuki. Shimotsuke, Japan.
- 574 **Effect and molecule psychophysical mechanism analysis of tacrolimus ointment in treating male patients with pruritus ani.** [Zhiqiang Xie](#), Yuzhen Lan. Beijing, China.
- 575 **A novel single-fraction radiation approach for metastatic Merkel cell carcinoma is well tolerated and demonstrates strong efficacy linked to intact cellular immunity** [Paul Nghiem](#), Jayasri G Iyer, Upendra Parvathaneni, Natalie Miller, Theodore Gooley, Elan Markowitz, Shailender Bhatia, Kelly Paulson, Astrid Blom, Jay Liao, Kaushik Parvathaneni, Chris Lewis and Ryan Doumani. Seattle, WA.
- 576* **Rosacea is associated with chronic systemic inflammatory diseases in a skin severity-dependent manner** [Barbara M Rainer](#), Alexander H Fischer, Dimitre Luz, Sewon Kang and Anna L. Chien. Baltimore, MD.
- 577* **IL-37, an inhibitor of innate inflammation and adaptive immunity, is elevated in the blood of melanoma patients and is related with poor prognosis.** [Sucai Liu](#), Yuchun Luo, Justin Lee, Steven E Robinson, William A Robinson, David A Norris, Charles A Dinarello and Mayumi Fujita. Aurora, CO and Denver, CO.
- 578 **Efficacy and safety of a low-level laser device in the treatment of male and female pattern hair loss** [Joaquin Jimenez](#), Tongyu Cao Wikramanayake, Wilma Bergfeld, Maria Hordinsky, Janet Hickman, Michael Hamblin and Lawrence Schachner. Miami, FL; Cleveland, OH; Minneapolis, MN; Lynchburg, VA and Boston, MA.
- 579* **Reduced sweat gland function underlies slowed reepithelialization in elderly skin** [Laure Rittié](#), Jeffrey S Orringer, E. A Farr, M. J Karshner, John J Voorhees and Gary J Fisher. Ann Arbor, MI.
- 580 **Open-label pilot study of LDE225 in advanced basal cell carcinoma patients who have been treated previously with a non-LDE225 Smoothed inhibitor.** [Anne Lynn S. Chang](#), Anthony Oro. Redwood City, CA.
- 581 **Eccrine syringometaplasia secondary to vemurafenib at sites of radiation recall.** [Eduardo K Moioi](#), Sonya Kenkare and Keyoumars Soltani. Chicago, IL.
- 582* **An open-label, phase 2 trial of itraconazole for basal cell carcinoma.** [Jean Y Tang](#), Daniel J Kim, James Kim, Katrina Spaunhurst, Javier Montoya, Rita Khodosh, Teresa Fu, Anita Gilliam, Monserrat Molgo and Philip A Beachy. Stanford, CA; Dallas, TX; Santiago, Chile and Palo Alto, CA.
- 583 **Persistent expression of IL-17A in active psoriatic plaques of patients treated with ustekinumab.** [Carolyn Jack](#), Marika Sarfati, Nathalie Arbour and Robert Bissonnette. Montreal, Canada.
- 584 **Excimer laser in combination with clobetasol spray and calcitriol ointment for the treatment of generalized psoriasis: Interim results** [Mona Malakouti](#), Gabrielle Brown, Argentina Leon, Ethan Levin, Eric Sorenson, Eva Wang and John Koo. San Francisco, CA.
- 585 **A novel camera device captures tryptophan autofluorescence in rapid epidermal proliferations** [Arisa Elena Ortiz](#), Walfre Franco, Seyed J Taghados, Enoch Gutierrez-Herrera, William Farinelli, Brian Jiang, Apostolos Doukas and Rox Anderson. San Diego, CA and Boston, MA.
- 586 **TRPV1 antagonist 4-t-butylcyclohexanol inhibits capsaicin induced nerve fiber activation *in vitro* and *in vivo*** [Gitta Neufang](#), Elke Grönniger, Anne C Worthmann, Melanie Sulzberger, Dennis Roggenkamp, Katharina A Jung, Birgit Buck and Rainer Wolber. Hamburg, Germany.
- 587 **Successful treatment of dyshidrosiform pemphigoid with minocycline monotherapy** [Oluwatobi Ogbechie](#), Allison B Eastham, Scott R Granter, Alisa Nicole Femia and Ruth Ann A Vleugels. Boston, MA.
- 588 **Atrophic acne scars can undergo spontaneous regression.** [Anna L. Chien](#), Yevgeniy Balagula, Helena Pasioka, Peter Mattei, Diane Kuhn, Sherry Leung, Dimitri Luz and Sewon Kang. Baltimore, MD and San Paulo, Brazil.
- 589 **Dynamic thermal infrared imaging non-invasively detects skin cancer with high sensitivity and specificity.** [Stephen Myers](#), Sebastián E Godoy, David Ramirez, Greg von Winckel, Sanchita S Krishna, Marianne Berwick, R. S Padilla and Sanjay Krishna. Albuquerque, NM.
- 590 **Clinical and immunologic factors associated with remission and relapse in patients with bullous pemphigoid applying topical corticosteroids.** [Muchi Xu](#), Haiqin Zhu, Xiaoqing Zhao, Weiping Li, Ruofei Shi, Jie Zheng and Meng Pan. Shanghai, China.
- 592* **Time course classification of response to treatment in psoriatic patients.** [Joel M Corrêa da Rosa](#), Suyan Tian, Carrie Brodmerkel, A. B Gottlieb, James Krueger and Mayte Suarez-Farinas. New York, NY; Changchun, China; Spring House, PA and Boston, MA.
- 593 **Interim results of a study evaluating the psychological well-being of psoriasis patients following treatment with ustekinumab.** [Gabrielle Brown](#), Mona Malakouti, Argentina Leon, Ethan Levin, Eric Sorenson, Eva Wang and John Koo. San Francisco, CA.
- 594 **Investigation of the effects of induced perspiration on pruritus.** [Leigh A Nattkemper](#), Rodrigo Valdes, Helen Lee and Gil Yosipovitch. Philadelphia, PA.
- 595 **Allogeneic stem cell transplant for CD8+ cytotoxic and $\gamma\delta$ cutaneous T cell lymphomas** [Juliet Fraser](#), Antonio Subtil, Onder Alpdogan, Stuart Seropian, Dennis Cooper, Mina Xu, Michael Girardi and Francine Foss. New Haven, CT.
- 596 **Phenotypic analysis of PBMCs from IFN-alpha-treated melanoma patients: mechanisms of melanoma tumor containment.** [Madeleine L Tschernitz](#), Bärbel Reininger, Klemens Rappersberger, Markus Neumann and Georg Stingl. Vienna, Austria.
- 597 **Diffuse erythema is a positive predictor of complete remission after alemtuzumab therapy for leukemic CTCL.** [Rachael Clark](#), Rei Watanabe, Jessica Teague, David C Fisher, Marianne Tawa and Thomas S. Kupper. Brookline, MA.

- 598 **A multicenter, open-label, randomized, phase I/II study evaluating the safety and efficacy of low-dose (12 Gy) total skin electron beam therapy (TSEBT) combined with vorinostat versus low-dose TSEBT monotherapy in patients with mycosis fungoides** [Sameer Bashey](#), Mahkam Tavallaee, Madeleine Duvic, Bouthaina Dabaja, Rakhshandra Talpur, Lynn Wilson, Michael Girardi, Francine Foss, Shufeng Li, Sima Rozati, Lynn Million, Richard Hoppe and Youn H Kim. Stanford, CA; Houston, TX and New Haven, CT.
- 599 **Decreased collagen quantity rather than quality is more predictive of cutaneous manifestations in osteogenesis imperfecta.** [Helena Beth Pasięka](#), Diane Kuhn, Anna L. Chien, Jay Shapiro and Sewon Kang. Baltimore, MD.
- 600 **Improvement in atrophic acne scars by topical adapalene 0.3% gel is associated with induction of procollagen I and III.** [Sherry Leung](#), Manisha Patel, Anna L. Chien, Haiying Xu, Fabien Audibert, Nabil Kerrouche, Marie-José Rueda and Sewon Kang. Baltimore, MD and Sophia Antipolis, France.
- 601*** **Dupilumab improved all domains of Eczema Area and Severity Index (EASI) and 5-D pruritus scale in adults with atopic dermatitis in a phase 2 study.** [Jennifer Hamilton](#), Haobo Ren, Steven P Weinstein, Gianluca Pirozzi, Neil Graham and Allen Radin. Tarrytown, NY and Bridgewater, NJ.
- 602 **Relative to obesity, negative effect of hidradenitis suppurativa is enhanced on quality of life in super obese patients** [Eubea Baughn Koo](#), Monica Enamandram and Alexa B. Kimball. Boston, MA.
- 603 **Condylomata acuminata: Novel treatment by topical ingenol mebutate.** [Rudolf E. Schopf](#). Mainz, Germany.
- 604 **Chilean oral grape seed antioxidants reduce redness in rosacea** [Patricio Roberto Figueroa](#). Santiago, Chile.
- 605 **Clinical presentation and management of scleredema: An academic medical center experience.** [Sasha Girouard](#), Alisa Nicole Femia, A. Brooke Eastham and Ruth Ann Vleugels. Boston, MA.
- 606 **Gene expression profiling in alopecia areata reveals distinct molecular signatures.** [Ali Jabbari](#), Jane E Cerise, Julian Mackay-Wiggan, Madeleine Duvic, Maria K Hordinsky, Vera H Price, David Norris, Raphael Clynes and Angela Christiano. New York, NY; Houston, TX; Minneapolis, MN; San Francisco, CA and Denver, CO.
- 607 **Risk factors for new onset of psoriatic arthritis in a prospective cohort with psoriasis.** [Cheryl F Rosen](#), Lihi Eder, Arane Thavaneswaran, Vinod Chandran, Amir Haddad and Dafna D Gladman. Toronto, Canada.
- 608 **Integration of serum markers with gene expression signatures for use as an Alopecia Areata Disease Activity Index (ALADIN).** [J. E Cerise](#), A. de Jong, A. Jabbari, M. Duvic, M. Hordinsky, D. Norris, V. Price, J. Mackay-Wiggan, J. L Januzzi, R. Clynes and A. M Christiano. NY, NY; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA and Boston, MA.
- 609 **Cutaneous nerve function in healthy control subjects classified by Fitzpatrick skin type.** [Elisabeth Hurliman](#), Leah Swanson, Kathleen Kane, John Connett and Maria Hordinsky. Minneapolis, MN.
- 610 **Expression of oxidative stress, cellular senescence and skin structure-related genes affected by aging *in vivo* is reversed by galactomyces ferment filtrate *in vitro*** [Rosemarie Osborne](#), Maria Alora Palli, Makio Tamura, Jay Tiesman, Kazumi Toyama, Chieko Soh and Alexa B. Kimball. Cincinnati, OH; Boston, MA and Kobe, Japan.
- 611 **Naftifine hydrochloride gel 2%: An effective topical treatment for moccasin-type tinea pedis.** [Bhushan Hardas](#), Alan B Fleischer, Amit Verma and Babajide Olayinka. Greensboro, NC.
- 612*** **Maximal use systemic exposure (MUSE) study evaluating AN2728, a novel boron-based small molecule, for the treatment of pediatric and adolescent subjects with mild-to-moderate atopic dermatitis.** [Lee Zane](#), Leon Kircik and Adelaide A Hebert. Louisville, KY; Palo Alto, CA and Houston, TX.
- 613 **Analysis of imiquimod 5% cream vs tazarotene 0.1% for the treatment of lentigo maligna.** [Nicholas Blickenstaff](#), Spencer Dowdle, Mark Hyde and Glen Bowen. Salt Lake City, UT and San Francisco, CA.
- 614 **A pilot study evaluating biomarker development for drug-induced chronic eczematous eruptions of aging individuals.** [Garrett Coman](#), Nicholas Blickenstaff and Erika Summers. Salt Lake City, UT.
- 615 **Pivotal phase 3 safety and efficacy results of tavaborole (AN2690), a novel boron-based molecule for the topical treatment of toenail onychomycosis.** [Lee Zane](#), Boni E Elewski, Phoebe Rich, Othon Wiltz, Raza Aly and Remigio F Gonzalez Soto. Birmingham, AL; Portland, OR; Miramar, FL; San Francisco, CA; Palo Alto, CA and Monterrey, Nuevo Leon, Mexico.

Innate Immunity & Microbiology

All orals [designated with an asterisk (*)] listed below are presented in the Innate Immunity and Microbiology Minisymposium on Saturday, May 10, 2014, from 12:30-3:30 pm in the Albuquerque Convention Center, Ballroom C. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 616 **Skin cleansers alter the skin's ability to retain antimicrobial peptides and impact the survival of surface bacteria.** [Aimee M Two](#), Tissa R Hata, Teru Nakatsuji, Paul F Kotol, Alvin B Coda, David Audish, Laurence Du-Thumm, Lia Arvanitidou and Richard L Gallo. San Diego, CA and Piscataway, NJ.
- 617 **Roles of TLR7 in activation of NF-κB signaling of keratinocytes by imiquimod.** [Zheng Jun Li](#), Kyung-Cheol Sohn, Dae-Kyoung Choi, Myung Im, Chang Deok Kim and Jeung-Hoon Lee. Daejeon, Republic of Korea.
- 618* **Skin-specific expression of IL-33 causes atopic dermatitis-like inflammation with activation of group 2 innate lymphoid cells in mice.** [Yasutomo Imai](#), Koubun Yasuda, Hitoshi Mizutani, Tomohiro Yoshimoto, Kenji Nakanishi and Kiyofumi Yamanishi. Nishinomiya, Japan; Milwaukee, WI and Tsu, Japan.
- 619* **An ER stress-initiated sphingolipid metabolite, ceramide-1-phosphate, regulates epithelial innate immunity through stimulation of β-defensin production.** [Young Il Kim](#), Kyungho Park, Jong Youl Kim, Ho Seong Seo, Kyong-Oh Shin, Yong-Moon Lee, Walter M Holleran, Peter Elias and Yoshikazu Uchida. San Francisco, CA; Jeongeup, Republic of Korea and Cheongju, Republic of Korea.
- 620* **Intradermal administration of norepinephrine and adenosine triphosphate increases the mast cell content of skin.** [Lori L Stohl](#), Wanhong Ding, Garrett Desman, AlReem Al-Nabti, Sarah Coates and Richard David Granstein. New York, NY.
- 621* **Cathelicidin is required for normal TLR9 function by dendritic cells** [Yukinobu Nakagawa](#), Richard L Gallo. San Diego, CA.
- 622 **Nonmetal haptens induce ATP release from keratinocytes through opening of pannexin hemichannels by reactive oxygen species.** [Yutaka Kimura](#), Kaoru Onami, Yumiko Ito, Takeshi Yamauchi, Kenshi Yamasaki and Setsuya Aiba. Sendai, Japan.
- 623 **Altered skin microbial communities associated with wet wrap therapy for severe eczema.** [Martin Glatz](#), Kelly Stone, Joshua D Milner and Heidi H Kong. Bethesda, MD.
- 624* **The cutaneous microbiota in atopic dermatitis changes with topical corticosteroid and bleach bath treatment.** [Mercedes Elena Gonzalez](#), Julie V Schaffer, Seth J Orlow, Zhan Gao, Huilin Li, Alexander V Alekseyenko and Martin J Blaser. New York, NY.
- 625 **Innate lymphoid cells promote skin inflammation.** [Brian Kim](#), Mark Siracusa, Kelvin Wang, Steven Saenz, Masato Kubo and David Artis. Philadelphia, PA and Yokohama, Japan.

Abstract Presentation Information

- 626*** Defects in nicotinic receptor activation and chromogranin A promote epidermal innate immune dysregulation to increase *Staphylococcus aureus* susceptibility. [Mari Kishibe](#), Tina M Griffin and Katherine A Radek. Maywood, IL.
- 627* G2A attenuates *Propionibacterium acnes* induction of inflammatory cytokines via regulation of MAPK signaling and is regulated by 13-*cis*-retinoic acid. [Andrew J Park](#), Min Qin, Lisa D Hisaw, Aslan Pirouz, George W Agak, Laura Marinelli, Hermes J Garban and Jenny Kim. Los Angeles, CA.
- 628* Local adipogenesis is essential for protection against skin infection. [Lingjuan Zhang](#), Raul Ramos, Christian F. Guerrero-Juarez, Maksim V. Plikus and Richard L Gallo. San Diego, CA and Irvine, CA.
- 629* The phytoestrogen, genistein, stimulates cathelicidin expression by a novel estrogen receptor β -dependent mechanism, independent of vitamin D3 receptor. [Kyungho Park](#), Young Il Kim, Jong Youl Kim, Ho Seong Seo, Yuko Oda, Taj Mann, Walter M Holleran, Peter Elias and Yoshikazu Uchida. San Francisco, CA and Jeongeup, Republic of Korea.
- 630 The effects of polysaccharides from panax ginseng on skin innate immunity. [Hanbyul Kim](#), Jinyoung Lee, Johnhwan Lee and Haekwang Lee. Yongin, Republic of Korea.
- 631 Different *propionibacterium acnes* strains have variable pathogenicity. [Yang Yu](#), Jackson Champer and Jenny Kim. Los Angeles, CA.
- 632 Novel electrospun halloysite nanotube sustained-release antibiotic sutures prevent dermatologic surgery site infection in rat model. [Nadine Marwan Kaskas](#), Herbert Vandenberg, Jeff Weisman and David Mills. Shreveport, LA and Ruston, LA.
- 633* Chronic skin inflammation via Toll-like receptors increases a risk of secondary amyloidosis. [Shin Morizane](#), Tetsuya Takiguchi, Kazuko Ikeda and Keiji Iwatsuki. Okayama, Japan.
- 634*** Immune suppression in severe atopic dermatitis is mediated by myeloid derived suppressor cells. [Yuliya Skabytska](#), Florian Wölbling, Claudia Günther, Martin Köberle, Susanne Kaesler, Emmanuella Guenova, Thomas Volz and Tilo Biedermann. Tübingen, Germany; Dresden, Germany and Zurich, Switzerland.
- 635 Human and companion animal microbiota sharing and association with methicillin-resistant staphylococcal colonization and infection. [Ana M Misic](#), Megan F Davis, Amanda S Tyldsley, Brendan P Hodkinson, Julia Bugayev, Pam Tolomeo, Baofeng Hu, Irving Nachamkin, Ebbing Lautenbach, Daniel O Morris and Elizabeth A Grice. Philadelphia, PA and Baltimore, MD.
- 636*** Identification of host pathways influenced by the skin microbiota and their role in modulating cutaneous commensal microbiota. [Elizabeth A Grice](#), Adam SanMiguel, Jacqueline Meisel, Christel Chehoud, Stavros Rafail, Brendan P Hodkinson, John T Seykora and John D Lambris. Philadelphia, PA.
- 637 Hyaluronan breakdown controls skin defense against Group A *Streptococcus*. [Nina N Schommer](#), Jun Muto and Richard L Gallo. La Jolla, CA.
- 638* S1P mediates TLR2 and TLR4 antimicrobial activity in human mast cell independently from vitamin D. [Zhenping Wang](#), Matthieu Vandenberghe, Yumiko Muto and Anna Di Nardo. La Jolla, CA.
- 639 Tumor driver and immune surveillance mechanisms in AIDS associated Kaposi's sarcoma. [Rubina Shafi](#), Mohammad Athar, Kris McKay, Mary E Ballestas, Kris Valenteros, W. Britt and Craig A Elmets. Birmingham, AL.
- 640 Interleukin-37 is a potent inhibitor of inflammatory responses induced by *Propionibacterium acnes* and ultraviolet B radiation in human keratinocytes. [Min Qin](#), Andrew J Park, Hermes J Garban and Jenny Kim. Los Angeles, CA.
- 641 Opposing effects of epigenetic influences in skin immunity. [James Asbury Sanford](#), Richard L Gallo. San Diego, CA.
- 642 Differential inflammatory response of *Propionibacterium acnes* strains on sebocytes and keratinocytes. [Jean-Phillip Okhovat](#), Weidong Zhu, George W Agak, Min Qin, Andrew J Park, Hermes J Garban and Jenny Kim. Los Angeles, CA.
- 643* Global regulation of TLR4-induced inflammatory gene networks by physiologic stress signals in macrophages. [Philip Oliver Scumpia](#), Giovanni Botten, Kevin R Doty, Robert Modlin and Stephen Smale. Los Angeles, CA.
- 644 Human keratinocytes display distinct NOD-like receptor expression signatures when exposed to *Propionibacterium acnes* and ultraviolet B radiation. [Min Qin](#), Andrew J Park, George W Agak, Hermes J Garban and Jenny Kim. Los Angeles, CA.
- 645* Heat-inactivated modified vaccinia virus triggers Type I IFN production and inflammasome activation via cGAS/STING and AIM2-mediated cytosolic DNA sensing pathways. [Liang Deng](#), Peihong Dai, Weiyi Wang, Hua Cao, Katherine A Fitzgerald, Gabriel Nunez, Taha Merghoub and Stewart Shuman. New York, NY; Worcester, MA and Ann Arbor, MI.
- 646** MyD88 deficiency affords immune maintenance after UV-irradiation through elevated PARP-dependent DNA repair. [Erin Harberts](#), Rita Fischelevich, Juan Liu and Anthony A Gaspari. Baltimore, MD.
- 647 Dermal collagen/fibrin matrix is a secondary niche for *Bartonella* spp. [Marna Ericson](#), Melissa Weber-Sanders, Steffan Nye, Huy Tran and Paulo Eduardo N F Velho. Minneapolis, MN and Sao Paulo, Brazil.

Photobiology

All orals [designated with an asterisk (*)] listed below are presented in the Photobiology Minisymposium on Thursday, May 8, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, Ballroom C. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 648 Anti photo-aging effect of conditioned-medium of dedifferentiated adipocytes on skin *in vivo* and *in vitro*: A mechanistic study. [Yang Xu](#), Bingrong Zhou, Yan Xu, Di Wu, Ying Wang and Dan Luo. Nanjing, China.
- 649* MiRNA-23a targets AMBRA1 to inhibit autophagy and plays a role in ultraviolet induced premature senescence. [Bingrong Zhou](#), Jia-an Zhang and Dan Luo. Nanjing, China.
- 650 UVB wavelength dependency of HMGB1 production by human keratinocytes. [Kan Torii](#), Motoki Nakamura, Takuya Furuhashi, Emi Nishida and Akimichi Morita. Nagoya, Japan.
- 651 Dietary proanthocyanidins inhibit UV-induced immune suppression by decreasing the functional activation of suppressor T cells in mice. [Santosh K Katiyar](#), Tripti Singh and Mudit Vaid. Birmingham, AL.
- 652* High-fat diet stimulates the growth of UV radiation-induced skin tumors by enhancing DNA hypermethylation and silencing of tumor suppressor genes in mouse skin and tumors. [Ram Prasad](#), Mudit Vaid, Tripti Singh and Santosh K Katiyar. Birmingham, AL.
- 653 Homeostasis of thymus-derived naturally occurring Foxp3+ regulatory T cells is controlled by ultraviolet B exposure in the skin. [Sayuri Yamazaki](#), Akiko Nishioka, Saori Kasuya, Osamu Taguchi and Akimichi Morita. Nagoya, Japan.
- 654 Endogenous estrogen augments UV-induced sunburn and photoaging process in mice. [Hyun-Sun Yoon](#), Cheng Yao, Chang-yup Shin, Yeon Kyung Kim, Se-Rah Lee and Jin Ho Chung. Seoul, Republic of Korea.
- 655 Cathepsin G as an important mediator of proteolytic ECM degradation in photoaging. [Estelle Loing](#), Carine Bezivin and Magali Borel. Québec, Canada and Champlan, France.
- 656* UV-induced activation of the ATR-Chk1 pathway is mediated by 6-4PPs (not CPDs) via replication blockade. [Kaifeng Hung](#), Julia Sidorova, Paul Nghiem and Masaoki Kawasumi. Seattle, WA.
- 657 5-aminolevulinic acid-photodynamic therapy for multidrug resistant *Pseudomonas aeruginosa*. [Toshiyuki Ozawa](#), Kuniyuki Morimoto, Kunio Awazu and Daisuke Tsuruta. Osaka, Japan.

- 658 **Ultraviolet-induced decrease of leptin and adiponectin in subcutaneous fat may contribute to exacerbation of photoaging process.** [Dong Hun Lee](#), Eun Ju Kim, Yeon Kyung Kim, Sungsoo Kim and Jin-Ho Chung. Seoul, Republic of Korea.
- 659 **Suppression of epidermal growth factor receptor activation by receptor protein tyrosine phosphatase-kappa reduces ultraviolet irradiation-induced epidermal hyperplasia and inflammation in a transgenic mouse model** [Yiru Xu](#), Hanjun Yang, Yang Xu, Wei Xia, Andrzej Dlugosz, John J Voorhees and Gary J Fisher. Ann Arbor, MI.
- 660* **Downregulation of miR-15b is associated with increased sirtuin 4 (SIRT4) expression in photoaging of human skin** [Susanne Grether-Beck](#), Fabian Kuck, Heidi Brenden, Ingo Felsner, Nina Graffmann, Maren Schneider, Antja Lindecke, Hakima Ezzahoui, Sandra Weinhold, Karl Köhrer, Markus Urberg, Alessandra Marini, Roland Piekorz and Jean Krutmann. Düsseldorf, Germany.
- 661* **Evidence that CS proteins epigenetically regulate tubulin acetylation and thereby autophagy** [Marc Majora](#), Maren Schneider, Ingo Uthe and Jean Krutmann. Duesseldorf, Germany.
- 662 **Ultraviolet B (UVB) stimulates central hypothalamic-pituitary-adrenal (HPA) axis.** [Cezary Skobowiat](#), Andrzej Slominski. Memphis, TN.
- 663 **Timecourse of recovery from UV-induced damage using a full-thickness human skin equivalent.** [Michael Allen Bachelor](#), Alex Armento, Jonathon Oldach, Gina Stolper, Maxwell Li and Patrick J. Hayden. Ashland, MA.
- 664* **Melatonin and its metabolites protect human keratinocytes against UVB-induced oxidative stress and induce DNA repair.** [Zorica Janjetovic](#), Sherie Hanna, Zachary P Nahmias, Stuart G Jarrett, Tae-Kang Kim and Andrzej T Slominski. Memphis, TN and Lexington, KY.
- 665 **Assessment of photoaging protection of the association of retinaldehyde, pretocopheryl glucopyranosyl and glycyglycine oleamide in both *in vitro* and *ex vivo* skin models.** [Nathalie Castex-Rizzi](#), Daniel Bacqueville, Patrick Bogdanowicz, Marie-José Haure, Laure Duprat, Hélène Duplan and Sandrine Bessou-Touya. TOULOUSE Cedex 1, France.
- 666 **Epigenetically enhanced photodynamic therapy (ePDT) is superior to conventional PDT for inducing apoptosis in cutaneous T-cell lymphoma (CTCL)** [Katrin Salva](#), Minakshi Nihal, Jianqiang Wu and Gary S Wood. Madison, WI.
- 667* **microRNA-21 and microRNA-29 act in concert with the TGF- β pathway to down-regulate synthesis of type I collagen in response to UV irradiation in human skin fibroblasts** [Tianyuan He](#), Taihao Quan, Zhaoping Qin, John J Voorhees and Gary J Fisher. Ann Arbor, MI.
- 668** **Platelet-activating factor mediates ultraviolet B radiation systemic immunosuppression via mast cell products and IL-33.** [Jesus Alex Ocana](#), Ravi Sahu, Raymond Lloyd Konger and Jeffrey B. Travers. Indianapolis, IN.
- 669 **Anacardic acid increases type I procollagen expression following ultraviolet irradiation via inhibition of DNA methylation in the COL1A2 promoter region.** [Seon-Pil Jin](#), Min-Kyoung Kim and JinHo Chung. Seoul, Republic of Korea.
- 670 **Atomic hydrogen surrounded by water molecules, H(H₂O)_n, modulates basal and UV-induced gene expressions in human skin *in vivo*** [Sangbum Han](#), Mi Hee Shin, Raaeun Park, Hideo Nojima, Hyung-Chel Kim, Yeon Kyung Kim and Jin Ho Chung. Seoul, Republic of Korea and Suwon, Republic of Korea.
- 671 **Incidence of lung cancer in patients with systemic sclerosis treated with extracorporeal photopheresis.** [Robert Knobler](#), Sabriye Topuzoglu, Ulrike Just, Dagmar Foedinger and Christian Jantschitsch. Vienna, Austria.
- 672 **Evaluation of the large spectral range photoprotective efficacy of a new sunscreen formulation against solar radiation-induced oxidative stress.** [Daniel Bacqueville](#), Martina C Meinke, Julie Chiabrande, Laure Duprat, Hélène Dromigny, Valérie Perier, Sandrine Bessou-Touya, Jurgen Lademann and Helene Duplan. Toulouse, France and Universitätsmedizin Berlin, Germany.
- 673* **Central role of MC1R in the photobiological response of human melanocytes.** [Zalfa A Abdel-Malek](#), Viki Swope, Ana Luisa Kadekaro, Renny Starner, Leonid Koikov, Anne vonKoschembahr, Joshua Jameson, Natalie Hone, Dorothy Supp, Pamela Cassidy and Sancy Leachman. Cincinnati, OH and Portland, OR.
- 674 **New evidence implicates communication between epidermal keratinocytes and dermal mast cells in UVB-induced inflammation of the skin** [Matthieu Vandenberghe](#), Zhenping Wang and Anna Di Nardo. La Jolla, CA.
- 675* **A novel mediator of UVA-induced cutaneous photooxidative stress: The endogenous arylhydrocarbon receptor ligand 6-formylindolo[3,2-b]carbazole (FICZ) is a nanomolar photosensitizer in epidermal keratinocytes and reconstructed human skin** [Georg T Wondrak](#), Rebecca Justiniano, Sophia L Park, Christopher M Cabello, Joshua D Williams and Shuxi Qiao. Tucson, AZ.
- 676 **Voriconazole promotes UV-DNA damage by increasing oxidative stress.** [Michael Gober](#), Xiaoping Yang, JiLon Li, Andrew Huang, Hasan Bashir, Christine Marshall, Todd Ridky and John Seykora. Philadelphia, PA.
- 677* **Toll-like receptor-4 cooperates with inflammasome to mediate ultraviolet radiation induced cutaneous inflammation and tumor development.** [Iman A Tamimi](#), Israr Ahmad, Eva Simanyi, Heba M Rihan, Craig A Elmets and Nabih Yusuf. Birmingham, AL.
- 678 **Baicalin protects keratinocytes from Toll like receptor-4 mediated DNA damage and inflammation following ultraviolet irradiation.** [Wei Min](#), Israr Ahmad, Michelle E Chang, Erin M Burns and Nabih Yusuf. Birmingham, AL and Suzhou, China.
- 679 **Effects of ascorbic acid on simulated solar radiation-induced melanogenesis in human keratinocytes.** [Patricia Ayoola Oyetakin-White](#), Matthew Dimaano, Minh Lam and Elma Baron. Cleveland, OH.
- 680 **UVB irradiation of human keratinocytes causes translational repression via discordant eIF2 kinase stress response.** [Annie E Collier](#), Ronald C Wek and Dan F Spandau. Indianapolis, IN.
- 681 **Role of UVB-induced neutrophils in collagenase induction, and collagen fragmentation.** [Meena Sharma](#), Victoria Werth. Philadelphia, PA.
- 682* **IGF-1 receptor regulates repair of UVB-induced DNA damage in human keratinocytes.** [Mathew Loesch](#), David H Southern, Sunil S Tholpady, Jeffrey B. Travers and Dan F Spandau. Indianapolis, IN.
- 683 **UVB photoconverts voriconazole N-oxide to a UVA sensitizer.** [Dennis H. Oh](#), Katherine Ona-Vu. San Francisco, CA.
- 684 **Proteomic analysis of UVB irradiation effects on human epidermal skin using label free mass spectrometry.** [Giridharan Gokulrangan](#), Minh Lam, Patricia Ayoola Oyetakin-White, Matthew Dimaano, Jean-Eudes Dazard, Elizabeth Yohannes, Mary S Matsui, Mark Chance, Kevin D Cooper and Elma Baron. Cleveland, OH and Melville, NY.
- 685* **Tumor necrosis factor alpha (TNF- α)-dependent augmentation of ultraviolet B-induced apoptosis and inflammation as well as a profound defect in contact hypersensitivity responses are seen in mice lacking epidermal peroxisome proliferator activated receptor gamma (PPAR γ)** [Raymond Lloyd Konger](#), Jeffrey B. Travers and Ravi Sahu. Indianapolis, IN.
- 686 **Light emitting diode-generated red light generates reactive oxygen species and decreases fibroblast migration.** [Jared R Jagdeo](#), Andrew Mamalis, Manveer Garcha, Roslyn Rivkah Isseroff and William Murphy. Sacramento, CA; Mather, CA and Brooklyn, NY.
- 687 **HO-1 regulation in photodynamic therapy in mycosis fungoides.** [Matthew Dimaano](#), Amanda Suggs, Joselin Tacastacas, Minh Lam, Kevin D Cooper and Elma Baron. Cleveland, OH.
- 688 **Efficacy of a dietary supplement versus placebo on skin protection after UV exposure.** [Patricia Ayoola Oyetakin-White](#), Matthew Dimaano, Minh Lam, Philippe Bastien, Thomas McCormick, D. Philippe, I. Castiel-Higounenc, Kevin D Cooper, Elma Baron and Audrey Gueniche. Cleveland, OH; Paris, France and Lausanne, Switzerland.

Abstract Presentation Information

Pigmentation & Melanoma

All orals [designated with an asterisk (*)] listed below are presented in the Pigmentation and Melanoma Minisymposium on Saturday, May 10, 2014, from 12:30-3:30 pm in the Albuquerque Convention Center, Ballroom A. Orals designated by two asterisks (**) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 689 **Oncogenic mutations in BRAF and PTEN as regulators of the host immune response in primary cutaneous malignant melanoma.** Meera Mahalingam, Phyu P Aung, Romi Gupta, Yuval Kluger and Narendra Wajapeyee. Boston, MA and New Haven, CT.
- 690 **Histological features of superficial spreading melanoma are associated with and predictive of CDKN2A germline mutations** Michael R Sargen, Peter A Kanetsky, Julia Newton-Bishop, Nicholas Hayward, Graham Mann, Nelleke Gruis, Margaret Tucker, Alisa Goldstein, Giovanna Bianchi-Scarra, Susana Puig and David E Elder. Philadelphia, PA; Leeds, United Kingdom; Brisbane, Australia; Sydney, Australia; Leiden, Netherlands; Bethesda, MD; Genoa, Italy and Barcelona, Spain.
- 691 **Aberrant expression of miR-25 promotes pigmentation disorders in vitiligo by repressing MITF and MYO5A.** Chunying Li, Qiong Shi, Sen Guo, Weigang Zhang, Shuli Li, Kai Li, Zhe Jian, Gang Wang and Tianwen Gao. Xi, China.
- 692 **Mitochondrial dynamics regulate melanogenesis through ROS activation in B16F1 cells.** Yong-Joo Na, Eun Sung Kim, So Jung Park, Nok-Hyun Park, Hae-Kwang Lee, Jun-Cheol Cho and Dong-Hyung Cho. Yongin, Republic of Korea.
- 693* **CD155/TIGIT interaction is an immune checkpoint regulating antimelanoma immune responses.** Takashi Inozume, Tomonori Yaguchi, Junpei Furuta, Kazutoshi Harada, Yutaka Kawakami and Shinji Shimada. Yamanashi, Japan and Tokyo, Japan.
- 694* **TLR2 and TLR3 agonists utilize Rab11a and Rab27a to transfer melanosome to keratinocytes.** Saaya Koike, Kenshi Yamasaki, Takeshi Yamauchi, Kenichiro Tsuchiyama and Setsuya Aiba. Sendai, Japan.
- 695 **Co-existence of psoriasis and melanoma in a large urban population: A cross-sectional study.** Dennis P West, Tanya Bhattacharya, Beatrice Nardone, Alfred Rademaker, Mary Martini, Ahmad Shatil Amin, Hala Al-Mudaimeagh and Daniel Schneider. Chicago, IL.
- 696 **A study on the mechanism of stimulating effect of *Cryptanthus* on mouse melanoblast.** Min Ji Kang, Ji Won Byun, Han Wool Park, Hyang Bok Lee, Eun Ki Kim and Jeonghyun Shin. Incheon, Republic of Korea.
- 697 **Overexpression of mitochondrial sirtuin deacetylase SIRT3 promotes the survival of human melanoma cells.** Jasmine George, Minakshi Nihal, Chandra K Singh, Weixiong Zhong and Nihal Ahmad. Madison, WI.
- 698 **Host genetic factors are associated with nevus count and dermoscopic patterns: Preliminary results from the study of nevi in children (SONIC).** Irene Orlow, Jaya Satagopan, Kenneth Cheung, Youming Xu, Stephen Dusza, Susan Oliveria, Alan Geller, Marilyn Bishop, Marianne Berwick, Michael Marchetti, Maira Fonseca, Xinyuan Wu, Kirsten White, Martin Weinstock, Alon Scope, Ashfaq Marghoob and Allan Halpern. New York, NY; Boston, MA; Framingham, MA; Albuquerque, NM; Providence, RI and Tel Aviv, Israel.
- 699 **Methotrexate upregulates death receptors/ligands and enhances apoptosis of human melanoma cell lines.** Minakshi Nihal, Jianqiang Wu and Gary S Wood. Madison, WI.
- 700** **Induction of melanocytes from multilineage-differentiating stress-enduring (Muse) cells derived from human adipose tissue.** Takeshi Yamauchi, Kenichiro Tsuchiyama, Fumitaka Ogura, Shohei Wakao, Saaya Koike, Kenshi Yamasaki, Mari Dezawa and Setsuya Aiba. Sendai, Japan.
- 701 **Intrinsic aging and skin darkening: Aging-related changes in inflammatory cytokines can trigger the epidermal hyper-pigmentation** Dae-jin Min, Yong-joo Na, Hae-kwang Lee and John-hwan Lee. Yongin-si, Republic of Korea.
- 702* **Breaking TRAIL resistance in organotypic 3D melanoma.** Stefan Beissert, Hanna Vörsmann and Dagmar Kulms. Stuttgart, Germany and Dresden, Germany.
- 703 **Elevated expression of CYP24A1 in nevi and early-stage skin melanomas.** Anna Aneta Brozyna, Wojciech Jozwicki, Cezary Jochymski and Andrzej T Slominski. Bydgoszcz, Poland and Memphis, TN.
- 704 **The roles of endogenously produced melatonin and its metabolites in pigmentary system.** Tae-Kang Kim, Zongtao Lin, William J Tidwell, Wei Li and Andrzej T Slominski. Memphis, TN.
- 705 **Comparison of predictive models for non-sentinel lymph node tumor positivity in melanoma.** Cheryl Janene Gustafson, Ron Yaar, K. H Chen, Suephy C. Chen, Cynthia Cohen and Benjamin Stoff. Atlanta, GA and Greensboro, NC.
- 706 **Inflammasomal pathways may modulate the dynamic equilibrium between melanoma stem cell-like cells and differentiated transiently amplifying cells.** Samantha L Schneider, Andrew L Ross and James Michael Grichnik. Miami, FL.
- 707 **Sensitization of melanoma cells to TNF α treatment via modulation of mTORC1 pathway.** Samuel Flashner, David Calianese, Garrett Cammarata, Charles Best, Gaoyun Yang and Yinsheng Wan. Providence, RI and Beijing, China.
- 708 **Glucose deprivation alters cell survival signals in melanoma cells.** Garrett Cammarata, David Calianese, Victoria Schwartz, Jake Swanson, Gaoyun Yang and Yinsheng Wan. Providence, RI and Beijing, China.
- 709 **Upregulation of miR-519d contributes to melanosphere formation and epithelial to mesenchymal transition.** Yi-Hua Liao, Chun-Ju Lin and Ming-Liang Kuo. Taipei, Taiwan.
- 710 **Generation of pigmented human 3D skin equivalents containing iPSC-derived melanocytes, keratinocytes and fibroblasts** Karl Gledhill, Zongyou Guo, Munenari Ito, Claire Higgins, Noriko Umegaki-Arao and Angela Christiano. New York, NY.
- 711 **Increased endogenous oxidative levels correlate to increased iron in melanocytes** Edward Pelle, Xi Huang, Qi Zhang, Nadine Pernodet, Daniel B Yarosh and Krystyna Frenkel. Melville, NY; New York, NY and Branchburg, NJ.
- 712 **Use of a 3-dimensional epidermal model containing functional melanocytes for skin lightening and pigmentation studies.** Michael Allen Bachelor, Bridget Breyfogle, Edward Gustafson and Mitchell Klausner. Ashland, MA.
- 713* **Honokiol Bis-Dichloroacetate (Honokiol DCA) demonstrates activity in vemurafenib-resistant melanoma *in vivo*** Michael Bonner, Isabella Karlsson, Monica Rodolfo, Rebecca S Arnold, Elisabetta Vergani and Jack Arbiser. Atlanta, GA; Decatur, GA and Milan, Italy.
- 714 **A new computer-vision approach for melanoma detection in dermoscopy.** Daniel Gareau, Sarah Yagerman, Mayte Suarez-Farinas, Joel Correa da Rosa, Jennifer DeFazio, Lucy Chen, Ashfaq Marghoob and James Krueger. New York, NY.
- 715* **Meiotic cohesion REC8 as a driver of chromosomal instability in melanoma.** Mark Eller, Scott Lindsey, Samantha L Schneider, Julia Escandon and James Michael Grichnik. Miami, FL.
- 716* **Melanoma arises from common nevi after loss of p15-mediated proliferation arrest.** Andrew McNeal, Kevin Liu, Vihang Nakhate, Christopher Natale, Brian C Capell, Tzvet Dentchev, Shelly Berger, John Seykora and Todd William Ridky. Philadelphia, PA.
- 717 **Combining a Bcl-2 inhibitor with the retinoid derivative fenretinide targets melanoma cells including melanoma initiating cells.** Nabanita Mukherjee, Steven N. Reuland, Yan Lu, Yuchun Luo, Mayumi Fujita, Yiqun G Shellman and David A Norris. Aurora, CO.

- 718** **Combination of a gamma secretase inhibitor with the Bcl-2 inhibitor ABT-737 kills Melanoma Cancer Initiating Cells (MICs) by inducing apoptosis and inhibits the self renewability of MICs.** [Yan Lu](#), Nabanita Mukherjee, Adam R Almeida, Katie A Partyka, Josi Schwan, Yuchun Luo, Mayumi Fujita, Yiqun G Shellman and David A Norris. Aurora, CO.
- 719** **Discrimination of dysplastic nevi from common melanocytic nevi by cellular and molecular criteria.** [Hiroshi Mitsui](#), Felix Kiecker, Avner Shemer, Maria V Cannizzaro, Claire Q Wang, Nicholas Gulati, Hanako Ohmatsu, Kejal R Shah, Patricia Gilleaudeau, Mary Sullivan-Whalen, Inna Cueto, Neil S McNutt, Mayte Suárez-Fariñas and James G Krueger. New York, NY; Berlin, Germany; Ramat-Gan, Israel; Rome, Italy and Dallas, TX.
- 720*** **Targeting ALDH1 to decrease tumorigenicity, growth and metastasis of human melanoma** [Ruby Ghadially](#), Lili Yue, Zhi-Ming Huang, Stephen Fong, Stanley Leong, James G Jakowatz, Alexandra Charruyer and Maria L. Wei. San Francisco, CA and Irvine, CA.
- 721** **Melasma in Mexican women. A prevalence study of anxiety, depression and its impact on quality of life.** [Adriana Rodríguez-Arámula](#), Juan P Castanedo-Cázares, Diana Hernández-Blanco and Bertha Torres-Alvarez. San Luis Potosi, Mexico.
- 722** **Induction of endoplasmic reticulum stress as a strategy for melanoma therapy.** [Nikolas K Haass](#), David S Hill, Kimberley A Beaumont, Andrea Anfosso, Penny Lovat and Wolfgang Weninger. Sydney, Australia; Newcastle upon Tyne, United Kingdom and Brisbane, Australia.
- 723** **Hybrid-featuring melanoma CAD for self-diagnosis.** [ChuenKai Shie](#), Fu-Cheng Fan and Yi-Hua Liao. New Taipei City, Taiwan and Taipei, Taiwan.
- 724** **Regions of birth and residence are predictors of vitiligo extent.** [Nanette B Silverberg](#), Jonathan Silverberg and Mishal Reja. Chicago, IL and New York, NY.
- 725*** **CD271 expression is inversely correlated with melanoma aggressiveness in 3-dimensional tumor models** [Annalisa Saltari](#), Francesca Truzzi, Roberta Lotti, Paolo Morandi, Tiziana Petrachi, Alessandra Marconi and Carlo Pincelli. Modena, Italy.
- 726** **The NFkB target gene miR146a is highly expressed in melanoma and regulates melanoma growth.** [Abigail L Samuels](#), Tanzila Bashar, Matthew Stephen Ning, Kiara A Clay, Gregoire LeBras, Holli Loomans, Claudia D Andl and Thomas Andl. Nashville, TN.
- 727** **NLRP1 is involved in melanoma tumorigenesis and temozolomide chemoresistance** [Zili Zhai](#), Weimin Liu, Manjinder Kaur, Yuchun Luo, David A Norris, Charles A Dinarello, Richard A. Spritz and Mayumi Fujita. Aurora, CO and Denver, CO.
- 728** **Methods of generating single cell suspensions from tumor tissues influence the frequency of tumor-initiating cells.** [Mayumi Fujita](#), Yuchun Luo, Sucai Liu, Lekha K Kutty, John J Arcaroli, Steven E Robinson, William A Robinson, David A Norris and Wells A Messersmith. Aurora, CO and Denver, CO.
- 729*** **The effect of combination therapies of thioridazine and vemurafenib on melanoma.** [Yasmine Tameze](#), Simone Degan, Quoqiang Zhang, Jane Jin, Jesse Wilson, Christina Gainey, Warren Warren and Jennifer Y Zhang. Durham, NC.
- 730** **Fisetin enhances the therapeutic efficacy of sorafenib in BRAF-mutated human melanoma cells.** [Farrukh Afaq](#), Harish C Pal, Ronald D Baxter, Jyoti Agarwal, Leah R Strickland and Craig A Elmets. Birmingham, AL.
- 731** **Inhibition of HDAC3 accelerates autophagy to induce melanoma cell death.** [Xiao-Qi Wang](#), Heather Wilson, Antonio Velez, James Wu, Jayson Wilson and Amy S. Paller. Chicago, IL.
- 732** **Inhibiting notch signaling pathway with γ -secretase inhibitor (GSI) induces cellular senescence in melanoma cells.** [Guannan Zhu](#), Chunying Li and Tianwen Gao. Xi'an, China.
- 733** **IMP-3 promotes tumor invasion and predicts poor prognosis in acral lentiginous melanomas.** [Shiou-Hwa Jee](#), Yi-Shuan Sheen, Chih-Chun Yeh, Pin-Chun Chen, Min-Liang Kuo and Chia-Yu Chu. Taipei, Taiwan.
- 734** **Effect of 3oxo-glycyrhretinic acid on tyrosinase and trp1 protein in normal human melanocytes.** [Andre Mahns](#), Anja Thiessen, Lara Terstegen, Franz Stäb, Horst Wenck and Ludger Kolbe. Hamburg, Germany.
- 735** **Diclofenac induces expression of TNF-related apoptosis-inducing ligand in adaptive and innate immune cells** [Mariana Isabel Vazquez-Strauss](#), Georg Stingl. Vienna, Austria.
- 736** **miR-638 promotes melanoma metastasis and is repressed by transcription factor AP2-alpha.** [Animesh Bhattacharya](#), Ulf Schmitz, Yvonne Raatz, Madeleine Schönherr, Tina Kottek, Marianne Schauer, Sandra Franz, Anja Saalbach, Ulf Anderegg, Olaf Wolkenhauer, Dirk Schadendorf, Jan C Simon, Thomas Magin, Julio Vera and Manfred Kunz. Leipzig, Germany; Rostock, Germany and Essen, Germany.
- 737** **Immunotargeting of established experimental melanoma by chemokine-enhanced DNA vaccination.** [Vitali Alexeev](#), Olga Igoucheva, Martha Grazzini and Daria Kemp. Philadelphia, PA and Firenze, Italy.
- 738** **Misbalanced CXCL12 and CCL5 chemotactic signals may contribute to the onset and progression of vitiligo.** [Vitali Alexeev](#), Olga Igoucheva, Daria Kemp and Jason Lee. Philadelphia, PA.
- 739** **Clearance of malignant ascites by interferon-induced senescence** [Cristina Boss](#), Ellen Brenner, Heidi Braumüller, Thomas Wieder, Simone Kayser, Tobias Feuchtinger and Martin Röcken. Tübingen, Germany.
- 740** **Mucosal melanoma: Incidence at University Hospitals Case Medical Center from 1997-2013.** [Kevin D Cooper](#), Sital Patel, Kord Honda and Meg Rebecca Gerstenblith. Cleveland, OH.
- 741** **Neuropeptide Y expression in cutaneous melanoma** [Berta Pérez-Tato](#), Yolanda Gilaberte, Laura Nájera, Ángeles Juarranz and Salvador Gonzalez. Móstoles, Spain; Huesca, Spain; Fuenlabrada, Spain; Madrid, Spain and New York, NY.
- 742** **Sox2 and sox10 expression patterning in melanoma.** [Marilyn T Wan](#), Hojabr Kakavand, Martin C Mihm, Richard A Scolyer, John T Thompson, George F Murphy and Jennifer Y. Lin. Boston, MA and Sydney, Australia.
- 743** **P1446A-05: A potent cyclin-dependent kinase inhibitor with preclinical activity in melanoma.** [David Michael Miller](#), Michael Taylor, Raj Kumar, Keith Flaherty, Sreesha Srinivasa, Shama Buch and Hensin Tsao. New York, NY; Boston, MA and Mumbai, India.
- 744** **A distinct chemokine profile favors the development of metastases in human melanoma.** [Ana Soler-Cardona](#), Clemens Burger and Robert A Loewe. Vienna, Austria.
- 745** **Narrow band ultraviolet B treatment for human vitiligo induces three distinct populations of melanocytes.** [Stanca A Birlea](#), Nathaniel B Goldstein, Maranke I Koster, Laura Hoaglin, Steven E Robinson, William A Robinson, Dennis R Roop and David A Norris. Aurora, CO.
- 746** **Animal-type melanoma: Two cases with aggressive behavior** [Ritva Vyas](#), Kord Honda, Kevin Cooper and Meg Gerstenblith. Cleveland, OH.
- 747*** **The metabolic state determines resistance to BRAF/MEK-inhibition.** [Hans R Widlund](#). Boston, MA.
- 748*** **Investigation on crosstalk between cAMP signaling and BRAF(V600E) in melanoma.** [Carlos I Rodriguez](#), Nityanand Maddodi and Vijayaradhi Setaluri. Madison, WI.
- 749** **BRAF protein expression as a prognostic marker for thin melanomas.** [Yabin Cheng](#), Youwen Zhou. Vancouver, Canada.
- 750** **Melanoma patients' communication preferences for biopsy result notification in an era of proliferating electronic messaging methods.** [Aditi Choudhry](#), Judith Hong, Kimberly Chong, Betty Jiang, Rebecca Hartman, Emily Chu, Kelly Nelson, Maria L. Wei and Tien Nguyen. San Francisco, CA; Durham, NC and Philadelphia, PA.
- 751*** **Selective inhibition of protein trafficking increases melanoma sensitivity to vemurafenib and blocks the development of resistance by down-regulating receptor tyrosine kinase signaling pathways.** [Maria L. Wei](#), Zhi-ming Huang, Jillian Miller, Ann Lazar and Glenn Millhauser. San Francisco, CA and Santa Cruz, CA.

Abstract Presentation Information

Tissue Regeneration and Wound Healing

All orals [designated with an asterisk (*)] listed below are presented in the Tissue Regeneration and Wound Healing Minisymposium on Thursday, May 8, 2014, from 2:00-5:00 pm in the Albuquerque Convention Center, San Miguel/Mesilla. Orals designated by two asterisks (***) will be presented during a Plenary Session. Orals designated by three asterisks (***) will be presented during the Interdisciplinary Spotlight: Atopic Dermatitis Minisymposium on Thursday, May 8, 2014, from 2:00 – 5:00 pm in the Albuquerque Convention Center, Kiva Auditorium.

- 752** **The role of MFG-E8 in cutaneous ischemia-reperfusion injury.** Akihiko Uchiyama, Kazuya Yamada, Sachiko Oginio, Yoko Yokoyama, Yuko Takeuchi, Osamu Ishikawa and Sei-ichiro Motegi. Maebashi, Japan.
- 753*** **Wounds with skin iron overload have increased susceptibility to and persistence of bacterial invasion** Marie S Tuttle, Christine Ammons, Daniel Sprockett, Pooja Mude and Kurt Quoc Lu. Cleveland, OH.
- 754*** **New approach to personalized medicine: Use of predictive biomarkers for healing outcomes in diabetic foot ulcers.** Shailee Patel, Olivera Stojadinovic, David J Margolis, Irena Pastar, Natalie Yin, Robert Kirsner and Marjana Tomic-Canic. Miami, FL and Philadelphia, FL.
- 755** **Knockout of GM3 synthase prevents footpad and periwound denervation while normalizing pain responses in diabetic mice** Amy S. Paller, Daniela Menichella, Heather Wilson and Jayson Wilson. Chicago, IL.
- 756** **Inducing hair follicle neogenesis by defined extracellular factors.** Sung-Jan Lin, Sabrina Mai-Yi Fan, Chien-Mei Yen and Wei-Hong Wang. Taipei, Taiwan.
- 757** **Bullous pemphigoid antigen proteins regulate the localization of traction forces generated by keratinocytes.** Sho Hiroyasu, Jonathan Jones. Pullman, WA.
- 759** **Genes and microRNAs regulating human skin pigmentation: Bioinformatics model and study on engineered tissue.** Jean marie Botto, Catherine, Serre, Christophe Capallere, Christelle Plaza, Laurine Bergeron and Nouha Domloge. Sophia Antipolis, France.
- 760** **Nicotinic Acetylcholine Receptor (nAChR)-mediated cooperation of SLURP-2 and pro-epithelialization growth factors.** Sergei A Grando, A. Chernyavsky and V. Galitovskiy. Irvine, CA.
- 761** **Diminished catecholamine stress response in adipose-derived mesenchymal stem cells.** Ravi Dasu, Sandra Ramirez, Tina DinhLa, Marianne Chigbrow, Thomas Peavy, Jan Nolta and Rivkah Isseroff. Davis, CA.
- 762** **IFN- γ inhibits keratinocyte migration *in vitro* and may contribute to slower wound healing in adult human skin** Aviva C Berkowitz, Hiroshi Mitsui, Jie Chen, Hldeki Fujita, James Krueger, Dix P Poppas, Diane Felsen and John A Carucci. NY, NY.
- 763** **Chromatin remodeler and special AT-rich binding Satb1 protein regulates epidermal regeneration during wound healing via modulation of cell migration and apoptosis.** Vladimir A. Botchkarev, V. Emelianov, M. Ahmed, T. Sharova, A. Mardaryev, M. Fessing and A. Sharov. Boston, MA; Cheboksary, Russian Federation; Oxford, United Kingdom and Bradford, United Kingdom.
- 764** **Tcf3 promotes cell migration and wound repair through regulation of lipocalin 2.** Hoang Nguyen, Qi Miao, Amy Ku, Yudai Nishino, Jeffrey Howard, Ajay Rao, Timothy M Shaver, Gloria E Garcia, Diep N Le, Kristen L Karlin, Thomas F Westbrook and Valeria Poli. Houston, TX and Turin, Italy.
- 765**** **Double stranded RNA and TLR3 initiates hair follicle neogenesis after wounding.** Amanda M Nelson, Adiya S Katseff, Tabetha S Ratliff, Sydney R Resnik, Alexander J Whittam, LLOYD Miller and Luis Garza. Baltimore, MD and Hershey, PA.
- 766** **A role for the calcium-binding protein Calm4 in cell migration and wound healing** Juliane C Lessard, Alexandr Kalinin, Mary Ann Stepp and Maria Morasso. Bethesda, MD and Washington, DC.
- 767** **Cellular communication through adipose derived stem cells.** Estelle Loing, Carine Bezinvin. Quebec, Canada and Champlan, France.
- 768*** **The levels of SNAI2 expression controls epidermal stem and progenitor cell fate** George Sen, Devendra Mistry and Yifang Chen. La Jolla, CA.
- 769*** **Epidermal nicotinic acetylcholine receptor activation impairs toll-like receptor 2 responses during wound infection.** Mari Kishibe, Tina M Griffin and Katherine A Radek. Maywood, IL.
- 770** **Identification of unique gene expression profiles in older women with youthful appearing skin.** Anne Lynn S. Chang, Robert Spitale, Rui Li, Eduardo Torre, Dale G Kern and Helen Knaggs. Redwood City, CA and Provo, UT.
- 771** **Recovery and cultivation of keratinocytes from shipped mouse skin.** Hsinya Yang, Zhanna Gurenko, Pieter Steenhuis, Wei Liu and Roslyn Rivkah Isseroff. Davis, CA.
- 772** **High-glucose cultivated peripheral blood mononuclear cells reduced keratinocytes mobility partly through IL22-regulated MMP3 expression.** Cheng-Che Lan, Shu-Mei Huang and Gwo-Shing Chen. Kaohsiung, Taiwan.
- 773*** **Thy-1 (CD 90) – A crucial surface marker controlling the balance between fibroblast proliferation and differentiation** Manuela Schmidt, Danny Gutknecht, Jan C. Simon, Beate Eckes, Ulf Anderegg and Anja Saalbach. Leipzig, Germany and Cologne, Germany.
- 774** **MiR-31 regulates a gene network involved in keratinocyte activation, migration and differentiation.** Thomas Andl, Kiara A Clay, Liming Luan, Holli Loomans and Claudia D Andl. Nashville, TN.
- 775*** **Characterization of the basal cell layer of squamous epithelia and their stem cell niche: the role of TGFbeta.** Gregoire LeBras, Holli Loomans, Kiara A Clay, Claudia D Andl and Thomas Andl. Nashville, TN.
- 776** **Topical recombinant extracellular Hsp90 α treatment surpasses conventional growth factor therapies to promote acute and diabetic wound healing in pigs.** Kathryn O'Brien, Ayesha Bhatia, Fred Tsen, Mei Chen, Alex Wang, David Timothy Woodley and Wei Li. Los Angeles, CA.
- 777** **Translating research to practice: A tale of timolol and wounds.** Rivkah Isseroff, Sara Dahle, Hadar Lev-Tov, Catherine Tchanque-Fossuo and Lam Nguyen. Davis, CA.
- 778** **Direct comparison of Er:YAG laser and bipolar radiofrequency combined with infrared diode laser in acne scar treatment: Different expression of TGF β isoforms may have association with different efficacy between ablative laser and nonablative laser.** Dae Hun Suh, Seonguk Min, Ji Young Yoon, Seon Yong Park and Hyuck Hoon Kwon. Seoul, Republic of Korea.
- 779*** **Macrophage-mediated regulation of adipogenesis during skin wound repair.** Brett Shook, Valerie Horsley. New Haven, CT.
- 780** **Mutant *Abcc6*^{-/-} mouse as a model for heterotopic ossification following thermal injury** T. Price, Q. Li and J. Uitto. Philadelphia, PA.
- 781*** **The role of AKR1C3-mediated metabolism of prostaglandin D2 in keloid fibrosis.** Alon Mantel, Austin Newsome, Theresa Joseph, Erika Clark and Meena Katdare. Hampton, VA and Norfolk, VA.
- 782** **Morphogenetic potential of transplanted dermal papillae in full-thickness wounds – Insight into wound-induced hair follicle neogenesis.** Maksim Plikus, Aliaksandr Astrowski, Vera Shastrova and Xenia Astowska. Grodno, Belarus and Irvine, CA.
- 783*** **Generation of induced pluripotent stem cells from revertant mosaic keratinocytes.** Noriko Umegaki-Arao, Anna M Pasmooij, Munenari Itoh, Jane E Cerise, Zongyou Guo, Antoni Gostynski, Marcel F Jonkman and Angela Christiano. New York, NY and Groningen, Netherlands.
- 784*** **Differential expression of Dsg2 is important in epidermal structure and function** F. Cooper, A. Overmiller, A. Loder, D. Brennan-Crispi, K. P McGuinn and M. G Mahoney. Philadelphia, PA.
- 785** **Effects of a plant extract on wound healing: Cell proliferation and migration assays.** Mina Zarei, William Lee and Jie Li. Miami, FL.
- 786** **Prolonged inflammation correlates with induction of pyroptosis in healing impaired diabetic foot ulcers.** Olivera Stojadinovic, Andrew Sawaya, Robert Kirsner and Marjana Tomic-Canic. Miami, FL.

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- 787*** **Integrin $\alpha 3\beta 1$ in the epidermis regulates fibulin-2 expression, epidermal adhesion and assembly of the basement membrane during cutaneous wound healing** C. Michael DiPersio, Whitney M Longmate, Ruby Monichan, Mon-Li Chu, Takeshi Tsuda and My G Mahoney. Albany, NY; Philadelphia, PA and Wilmington, DE.
- 788** **Fibroblast growth factor signaling in wound-induced hair follicle neogenesis.** Phillip Holler, Oshang Kwon, Zhikun Zhang, David M Ornitz and George Cotsarelis. Philadelphia, PA and St. Louis, MO.
- 789*** **CCBE1 is required for VEGFC-induced lymphangiogenesis in the skin.** David R Enis, Mark L Kahn. Philadelphia, PA.
- 790** **Very small embryonic-like stem cells accelerate healing and differentiate into epidermal and endothelial cells.** Vincent Falanga, Xiaofeng Lin, Tatyana Yufit, Tatyana Y Sharova, Andrey Sharov, David Fiore and Polly Carson. Boston, MA.
- 791** **Potential skin rejuvenating effect of chondroitin sulfate.** Jihae Lee, Il-hong Bae, Sunyoung Park, Hyun-ju Koh, Jin Kyu Choi, Young-Ho Park, Miyoung Park and Won-seok Park. Yongin-si, Republic of Korea and Anseong-si, Republic of Korea.

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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
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2000 Richard Dobson
2001 Robert Briggaman
2002 Eugene Bauer
2003 Georg Stingl
2004 Stuart Yuspa
2005 John Voorhees
2006 Thomas Lawley
2007 Barbara Gilchrest
2009 Luis Diaz
2010 Dennis Roop
2011 John Stanley
2012 Paul Bergstresser

Naomi M. Kanof Clinical Investigator Award

This award is given to enlighten present and future workers about the importance of clinical investigation. It honors an individual who has made significant contributions to our understanding of clinical medicine.

1993 Alvan Feinstein
1994 R. Michael Blaese
1995 Judah Folkman
1996 Jean Wilson
1997 C. Garrison Fathman
1998 Jeffrey Bluestone
1999 Brian Strom
2000 William Kelley
2001 James Ostell
2002 Leena Peltonen
2003 Judith Campisi
2004 Brian Druker
2005 Joseph Nadeau
2006 John Schiller
2007 Thomas Pearson
2009 Mahlon DeLong
2010 Douglas Lowy
2011 David Lane
2012 Luis Parada

SID Governance

Julius Stone Lectureship

This award is intended to promote the advancement of knowledge in immunology as it relates to the skin and skin disease.

1999	Eli Gilboa
1999	Stephen Johnston
1999	Jeffrey Trent
2000	Nigel Bunnett
2000	Ronald Crystal
2000	Ralph Steinman
2001	Roland Martin
2002	Gerald Crabtree
2004	Adrian Hayday
2005	Polly Matzinger
2006	Alexander Rudensky
2007	Donald Y.M. Leung
2009	Jamey Marth
2010	Rafi Ahmed
2011	Casey Weaver
2012	Rebecca Buckley

William Montagna Lectureship

This annual award is intended to honor and reward young active investigators. Primary emphasis is given to researchers in skin biology.

1975	Kenneth Halprin
1976	Frank Parker
1977	Arthur Eisen
1978	Irma Gigli
1979	Marvin Karasek
1980	Irwin Freedberg
1981	Stephen Katz
1982	John Parrish
1983	Douglas Lowy
1984	Gerald Lazarus
1985	Eugene Bauer
1986	Georg Stingl
1987	Jouni Uitto
1988	Stuart Yuspa
1989	Tung-Tien Sun
1990	Karen Holbrook
1991	Luis Diaz
1992	Dennis Roop
1993	Ervin Epstein, Jr.
1994	John Stanley
1995	Elaine Fuchs
1996	Thomas Kupper
1997	Barbara Gilchrist
1998	Robert Modlin
1999	Fiona Watt
2000	Thomas Luger

2001	Peter Elias
2002	Kathleen Green
2003	Masayuki Amagai
2004	Akira Takashima
2005	Paul Khavari
2006	Richard Gallo
2007	George Cotsarelis
2008	Pierre Coulombe
2009	Angela Christiano
2010	W. H. Irwin McLean
2011	John McGrath
2012	Howard Chang
2013	Andrzej Dlugosz

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	G.J.V. Nossal
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	Phil 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	Günter 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
2012	Mina Bissell
2013	Allan Balmain

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
	Thomas McCormick
2004	Edmund Lee
	Michael Allen
2005	Curdin Conrad
	Shigetoshi Sano
2006	Helen Young
	Amos Gilhar
2007	Rajan Nair

Eugene M. Farber Lectureship

This lecture is presented by an investigator whose work is relevant to expanding our insights into the pathophysiology and treatment of psoriasis.

2007	Brian Nickoloff
2008	Enno Christophers
2009	James T. Elder
2010	James Krueger
2011	Kevin Cooper
2012	Frank Nestle

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	Robert Lavker
2013	Elaine Fuchs

SID/Galderma Acne Research Award

2002	Diane Thiboutot
2003	Jenny Kim
2004	Michaela Downie
2005	Andrzej Dlugosz
2006	Sewon Kang
2007	Philip Liu

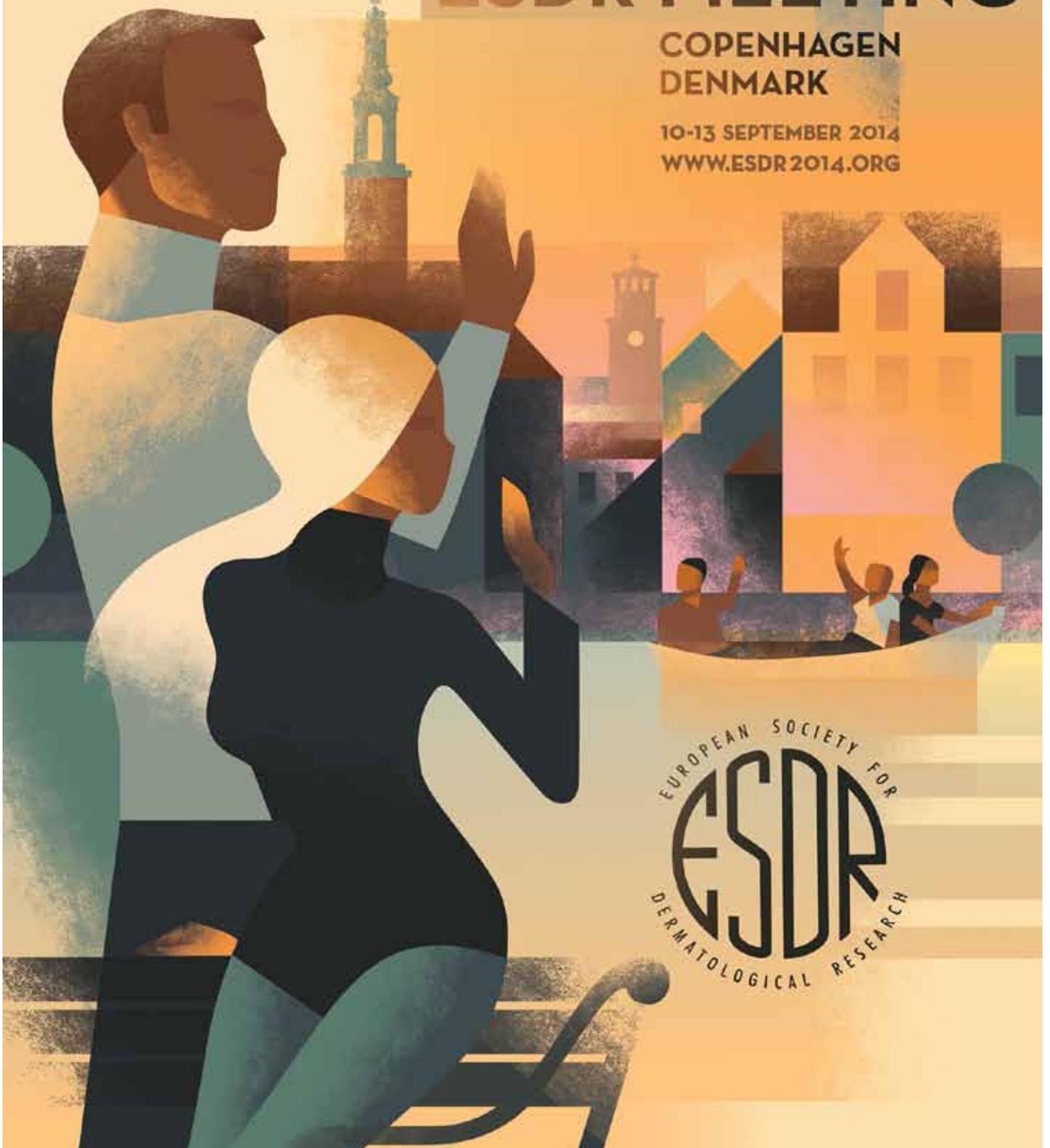
SID/Galderma Rosacea Research Award

2009	Kenshi Yamasaki
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next year!



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