Mission
To advance and promote the sciences relevant to skin health and disease through education, advocacy and scholarly exchange of scientific information.

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

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

Commercial Support
(Confirmed as of April 8, 2010)

2010 Annual Meeting Exhibitors

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

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

Future Annual Meetings

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

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

Board of Directors

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

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

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

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

Committee on Scientific Programs

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

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

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

Richard A. Clark, MD
President
Robert Swerlick, MD
Secretary-Treasurer
Russell Hall, MD
Asst. Secretary-Treasurer
CME Statement & Objectives

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

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

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

1) Disseminate updated evidence-based knowledge of skin biology/disease and applications for maintaining health and preventing, diagnosing, and treating disease in a manner that fosters scientific excellence, elevates the standard of care, and meets high ethical standards.

2) Provide target audiences with a relevant forum for the exchange of cutting-edge scientific ideas, information, and methodology.

3) Advance the science involved in basic skin biology and clinical care of patients with skin disease.

4) Provide exposure to novel science (both concepts and methods) which may be relevant in the future to understanding and treatment skin disease.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Kristina Callis Duffin, MD, fulfills the role of Speaker for Abbott Laboratories. Speaker - advisory board member for Amgen. Speaker for Johnson & Johnson.
Disclaimer
The information provided at this CME activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient’s medical condition.

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

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

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

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

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

Richard D. Pribitkin, MD, is affiliated with Life Sciences. Stockholder for GE.

Robert S. Weisberg, MD, is affiliated with Life Sciences. Stockholder for GE.


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

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

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

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

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

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

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

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

Anthony Oro, MD/PhD, fulfills the role of Advisory Board Member for Genentech.


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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### Wednesday, May 5, 2010

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

### Thursday, May 6, 2010

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Registration</strong>&lt;br&gt;Lobby Registration Desk, Hilton Atlanta</td>
<td>7:30 am - 4:00 pm</td>
<td></td>
</tr>
<tr>
<td><strong>Plenary Session I</strong>&lt;br&gt;Grand Ballroom, Hilton Atlanta</td>
<td>8:00 am - 9:00 am</td>
<td></td>
</tr>
<tr>
<td><strong>Herman Beerman Lecture</strong>&lt;br&gt;<strong>Towards Curative Therapies for HIV and HCV</strong>&lt;br&gt;Raymond Schinazi, PhD&lt;br&gt;Grand Ballroom, Hilton Atlanta</td>
<td>9:00 am - 9:30 am</td>
<td></td>
</tr>
<tr>
<td><strong>Naomi M. Kanof Lecture</strong>&lt;br&gt;<strong>Current and Future Preventive HPV Vaccines: Implications from the Virus Life Cycle</strong>&lt;br&gt;Douglas Lowy, MD&lt;br&gt;Grand Ballroom, Hilton Atlanta</td>
<td>9:30 am - 10:00 am</td>
<td></td>
</tr>
<tr>
<td><strong>American Skin Association Achievement Award</strong>&lt;br&gt;Grand Ballroom, Hilton Atlanta</td>
<td>10:00 am - 10:10 am</td>
<td></td>
</tr>
<tr>
<td><strong>David Martin Carter Mentor Award</strong>&lt;br&gt;Grand Ballroom, Hilton Atlanta</td>
<td>10:10 am - 10:15 am</td>
<td></td>
</tr>
<tr>
<td><strong>Poster Session I/Technical Exhibits Open w/Coffee Break</strong>&lt;br&gt;<strong>Odd 001-297/Even 298-596</strong>&lt;br&gt;Galleria Exhibit Hall, Hilton Atlanta</td>
<td>10:00 am - 12:00 pm</td>
<td></td>
</tr>
<tr>
<td><strong>Clinical Scholars Plenary Session</strong>&lt;br&gt;Salon A, Hilton Atlanta</td>
<td>10:00 am - 12:00 pm</td>
<td></td>
</tr>
<tr>
<td><strong>Post Doctoral Luncheon</strong>&lt;br&gt;TICKETED EVENT; PRE-REGISTRATION REQUIRED&lt;br&gt;Salon A, Hilton Atlanta</td>
<td>12:00 pm - 2:00 pm</td>
<td></td>
</tr>
<tr>
<td><strong>Satellite Symposium I</strong>&lt;br&gt;<strong>Regenerative Medicine</strong>&lt;br&gt;Grand Ballroom, Hilton Atlanta</td>
<td>12:00 pm - 2:00 pm</td>
<td></td>
</tr>
<tr>
<td><strong>Resident Symposium</strong>&lt;br&gt;<strong>Insights into an Academic Career</strong>&lt;br&gt;212-213, Hilton Atlanta</td>
<td>2:00 pm - 5:00 pm</td>
<td></td>
</tr>
<tr>
<td><strong>Cutaneous T Cell Lymphoma Symposium</strong>&lt;br&gt;Salon A, Hilton Atlanta</td>
<td>2:00 pm - 5:30 pm</td>
<td></td>
</tr>
<tr>
<td><strong>Concurrent Minisymposia</strong>&lt;br&gt;<strong>Pigmentation and Melanoma</strong>&lt;br&gt;Salon C</td>
<td>2:00 pm - 5:30 pm</td>
<td></td>
</tr>
<tr>
<td>**<strong>Angiogenesis, Vascular Biology and Wound Healing</strong>&lt;br&gt;Room 205</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Epidermal Structure and Function</strong>&lt;br&gt;Room 206-207</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Immunology I: Adaptive Immunity</strong>&lt;br&gt;Salon B</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Genetic Disease, Gene Regulation &amp; Gene Therapy</strong>&lt;br&gt;Room 208-209</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Event</strong>&lt;br&gt;TICKETED EVENT; TICKETS MUST BE PURCHASED IN ADVANCE&lt;br&gt;See page 32 for additional information; Buses depart from the Hilton Harris Street exit beginning at 5:00 p.m.&lt;br&gt;Georgia Aquarium</td>
<td>5:00 pm - 11:00 pm</td>
<td></td>
</tr>
</tbody>
</table>
Friday, May 7, 2010

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

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

Plenary Session II 8:30 am - 9:30 am
Grand Ballroom, Hilton Atlanta

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

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

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

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

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

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

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

Research in Cutaneous Surgery Symposium 1:30 pm - 4:30 pm
Salon B, Hilton Atlanta

Concurrent Minisymposia 2:00 pm - 5:30 pm

Autoimmunity and Inflammation
Salon C

Hair and Cutaneous Development I: Embryonic Skin Development / Stem Cell Functions
Salon D

Growth Factors & Signal Transduction
Room 208-209

Carcinogenesis & Cancer Genetics
Room 206-207

Epidemiology/Health Services Research
Room 204

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

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

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

Saturday, May 8, 2010

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

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

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

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

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

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

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

Poster Session III/Technical Exhibits Open 10:00 am - 12:00 pm
w/Coffee Break
Odd 299-595/Even 598-894
Galleria Exhibit Hall, Hilton Atlanta

Concurrent Minisymposia 2:00 pm - 5:30 pm

Immunology II: Innate Immunity & Microbiology
Salon C

Cell Adhesion/Matrix Biology
Salon B

Clinical Research and Therapeutics
Salon E

Photobiology
Salon A

Hair and Cutaneous Development II: Hair Differentiation & Cycling
Salon D
Full Schedule

Wednesday, May 5, 2010

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

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

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

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

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

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

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

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

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

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

State-of-the-Art Plenary Lecture 3 7:00 pm - 7:30 pm
Skin Development and Disease: The p63 Story
Maranke Koster, PhD
Grand Ballroom, Hilton Atlanta
Presiders: Philip Fleckman, MD and Xiao-Jing Wang, MD/PhD

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

Thursday, May 6, 2010

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

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

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

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

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

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

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

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

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

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

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

Poster Session I/Technical Exhibits Open w/coffee break 10:00 am - 12:00 pm
Odd 001-297/Even 298-596
Galleria Exhibit Hall, Hilton Atlanta
1. A mechanism of acquired resistance to B-RAF (V600E) inhibition in melanoma. **RS Lo**, N Nazarian, Q Wang, X Kong, RC Koya, N Attar, H Szegar, Z Chen, N Nelson, G McArthur, J Kosman, JS Economou and R Ribas. Los Angeles, CA; Melbourne, Australia and Nashville, TN. 2:00 p.m. Poster #831


3. Regulation of human skin pigmentation in situ by repetitive UV exposure - molecular characterization of responses to UVA and/or UVB. **W Choi**, MY Miyamura, RW Wolber, CS Smuda, WR Reinhold, HL Liu, L Kolbe and VJ Hearing. Bethesda, MD; Hamburg, Germany and Washington, DC. 2:24 p.m. Poster #843


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

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


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

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

11. The melanocyte-specific glycoprotein, Pmel17gp100, is released by ectodomain shedding. **T Hoashi**, N Kanda, SW Watanabe, S Sato and VJ Hearing. Tokyo, Japan and Bethesda, MD. 4:00 p.m. Poster #830

12. CYLD inhibits melanoma growth and metastasis. **H He** and JY Zhang. Durham, NC. 4:12 p.m. Poster #869

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

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

15. Novel 5,7-unsaturated steroidal and seco-steroidal products of cytochrome P450scc show antimelanoma activity. **A Slominski**, Z Janjetovic, T Kim, MA Mijewsiki, RC Tuckey, T Sweetman, W Li, DJ Jawiony, J Chen, D Miller, R Bieniek, MN Nguyen, T Chen and M Holick. Memphis, TN; Gdansk, Poland; Crawley, Australia; University, MS and Boston, MA. 4:48 p.m. Poster #848

**Concurrent Minisymposium 2**

2:00 pm - 5:30 pm Angiogenesis, Vascular Biology and Wound Healing

Room 205

Presiders: Erwin Tschachler, MD and Nicole Ward, PhD

1. Lhx2 regulates Sox9 and Tcf4 to supply hair follicle-derived progenitor cells to the wound epithelium. **AN Mardaryev**, AA Sharov, TY Sharova, MY Fessing, SW Werner and VA Botchkarev. Bradford, United Kingdom; Boston, MA and Zurich, Switzerland. 2:00 p.m. Poster #017

2. Pericyte-derived MFG-E8 regulates angiogenesis. **S Motegi**, M Lu, M Heneghan, CW Wu, T Chavakis and MC A Mauviel. Orsay, France; Paris, France; Radboud, Netherlands and Berkeley, CA. 2:24 p.m. Poster #004

3. Wilms Tumor 1 (WT-1) overexpression causes malignant transformation of endothelial cells. **R Chua**, L Souza, M McLemore, MY Bonner, C Cohen and JL Arbiser. Atlanta, GA. 2:24 p.m. Poster #007

4. Epidermal growth factor receptor-mediated reepithelialization in an in vitro diabetes model. **KK Quan** and LG Hudson. Albuquerque, NM. 2:36 p.m. Poster #001

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

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


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


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

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

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


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

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

Epidermal Structure and Function
Room 206-207
Presiders: Spiro Getsios, MD and Matthias Schmutz, MD

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

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

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

4. PKCθ and η, MEK1, MEK6, MEK3 and p38ε are essential mediators of normal keratinocyte differentiation. G Adhikary, Y Chew, EA Reece and RL Eckert. Baltimore, MD. 2:36 p.m. Poster #420

5. TiG3, a retinoid-regulated suppressor of psoriatic phenotype, suppresses keratinocyte cell division by inhibiting daughter centrosome separation in mitosis. H Jiang, CA Kraft, T Scharadin, X Wen, EA Rorke and RL Eckert. Baltimore, MD. 2:48 p.m. Poster #422

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


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

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

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

11. Inactivation of autophagy in murine epidermal keratinocytes is associated with hair loss and sebaceous gland abnormalities. H Rossiter, C Barresi, M Buchberger, M Ghannadan, C Stremsnitzer, R Gmeiner, M Komatsu, L Gáspár, T Bíró, T Hellwig-Bürgel, E Bodó, M Klinger and R Paus. Lübeck, Germany; Debrecen, Hungary; Nyíregyháza, Hungary and Manchester, United Kingdom. 3:00 p.m. Poster #428

12. Multiple mechanisms regulate expression of the p21Gsp21 cyclin-dependent kinase inhibitor leading to cessation of proliferation during keratinocyte differentiation. Y Chew and RL Eckert. Baltimore, MD. 4:12 p.m. Poster #421

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

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

Concurrent Minisymposium 4  
2:00 pm - 5:30 pm  
**Immunology I: Adaptive Immunity**

**Salon B**

**Presiders:** Rachael Clark, MD/PhD and Daniel Kaplan, MD/PhD

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

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

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

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

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

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

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

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

9. **Platelet induction of monocyte-to-dendritic cell maturation.**  
TS Durazzo, CL Berger and RL Edelson. New Haven, CT. 3:36 p.m. Poster #721

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

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

12. **Topical genetic immunization and engineered dendritic cell-based vaccines raise CD8 T cell specific responses against a carcinoigen-induced point mutation of the H-ras oncogene.**  
K Rudemiller, G Twitty, H Kim, A Rivera, J Roth, A Holzer, N Yusuf, C Elmets and L Timares. Birmingham, AL. 4:12 p.m. Poster #718

13. **Immune evasion in human Merkel cell carcinoma: A case of T cell nareclospe.**  
Y Jiang, L Wang, J Teague, R Watanabe, M Lichtman, P Nghiem, TS Kupper and R Clark.  
Boston, MA and Seattle, WA. 4:24 p.m. Poster #690

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

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

Concurrent Minisymposium 5  
2:00 pm - 5:30 pm  
**Genetic Disease, Gene Regulation & Gene Therapy**  
Room 208-209

**Presiders:** Peter Koch, MD/PhD and Eli Sprecher, MD/PhD

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

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

3. **Requirement of the VDR coactivator SRC3 in the induction of innate immune genes and permeability barrier formation.**  
Y Oda, V Bul, Y Uchida, M Man, PM Elias, Y Lai, RL Gallo and DD Bikle. San Francisco, CA and San Diego, CA. 2:24 p.m. Poster #554

4. **Hairless and the polyamine putrescine form a negative feedback loop in keratinocytes.**  
C Luke, C Alex, H Kim, S Gilmour and AM Christiano. New York, NY and Wynnnewood, PA. 2:36 p.m. Poster #553

5. **Promoter elements and protein function of TNI1P1 indicate a regulatory feedback loop.**  
C Zhang, P Encarnacao, I Gurevich and B Aneskiiech. Storrs, CT. 2:48 p.m. Poster #557

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

7. **Gene suppression in skin through topical delivery of polyvalent siRNA-gold nanoparticles.**  
AS Paller, D Giljohann, D Zheng, H Iordanov, X Wang and CA Mirkin. Chicago, IL and Evanston, IL. 3:12 p.m. Poster #502

8. **High efficiency exogenous gene expression in primary human skin cells using Bacmam technology.**  
S Gopinath, R Newman, D Kuninger, L Wilson and GD Shipley. Eugene, OR. 3:24 p.m. Poster #558

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

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

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


14. Neuraminidase 3 (Neu3) is critically involved in the initiation of the UVA stress response.  C de Guzman Strong, S Conlan, CB Deming, J Cheng, K Sears and JA Segre.  Bethesda, MD and Urbana, IL.  4:36 p.m.  Poster #551

15. Regulation of asymmetric cell divisions in developing epidermis.  N Poulson and T Lechler.  Durham, NC.  5:00 pm - 5:10 pm

---

Friday, May 7, 2010

**Registration**

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

**Business Meeting for Members**

Grand Ballroom, Hilton Atlanta  7:45 am - 8:30 am

**Plenary Session II**

Grand Ballroom, Hilton Atlanta  8:30 am - 9:30 am

Presiders:  James T. Elder, MD/PhD and Michael Girardi, MD

1. Generation of a hyper iNOS-expressing macrophage leads to a severe delay in wound healing.  BW Doreian, J Rosenjack, KD Cooper and KQ Lu.  Cleveland, OH.  8:30 a.m.  Poster #120

---

**Social Event**

5:00 pm - 11:00 pm

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

See page 32 for additional information; Buses depart from the Hilton Harris Street exit beginning at 5:00 p.m.

**Georgia Aquarium**

---

**Emerging Mechanism-based Therapies for Skin Cancer**

Grand Ballroom, Hilton Atlanta  12:00 pm - 2:00 pm

Presiders:  David Margolis, MD/PhD and Anthony Oro, MD/PhD

---

**Research in Cutaneous Surgery Symposium**

Salon B, Hilton Atlanta  1:30 pm - 4:30 pm

---

**Stephan Rothman Award**

Presented to Dennis Roop, PhD  9:30 am - 9:40 am

---

**Eugene M. Farber Lecture**

Psoriasis: The Path of Translational Medicine  9:40 am - 10:10 am

James G. Krueger, MD/PhD

---

**State-of-the-Art Plenary Lecture 4**

Pemphigus Vulgaris as a Paradigm of Autoimmune Disease  10:15 am - 10:45 am

Masayuki Amagai, MD/PhD

---

**State-of-the-Art Plenary Lecture 5**

The Role of Cadherins in Normal and Diseased Skin  10:45 am - 11:15 am

Carien Niessen, PhD

---

**Poster Session II/Technical Exhibits Open w/coffee break**

Even 002-296/Odd 597-893

Galleria Exhibit Hall, Hilton Atlanta

---

**Clinical Scholars Program**

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

---

**Satellite Symposium II**

Emerging Mechanism-based Therapies for Skin Cancer  12:00 pm - 2:00 pm

Grand Ballroom, Hilton Atlanta

---

**Stephen Rothman Award**

Presented to Dennis Roop, PhD  9:30 am - 9:40 am

---

**Eugene M. Farber Lecture**

Psoriasis: The Path of Translational Medicine  9:40 am - 10:10 am

James G. Krueger, MD/PhD

---

**State-of-the-Art Plenary Lecture 4**

Pemphigus Vulgaris as a Paradigm of Autoimmune Disease  10:15 am - 10:45 am

Masayuki Amagai, MD/PhD

---

**State-of-the-Art Plenary Lecture 5**

The Role of Cadherins in Normal and Diseased Skin  10:45 am - 11:15 am

Carien Niessen, PhD

---

**Poster Session II/Technical Exhibits Open w/coffee break**

Even 002-296/Odd 597-893

Galleria Exhibit Hall, Hilton Atlanta

---

**Clinical Scholars Program**

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

---

**Satellite Symposium II**

Emerging Mechanism-based Therapies for Skin Cancer  12:00 pm - 2:00 pm

Grand Ballroom, Hilton Atlanta

---

**Research in Cutaneous Surgery Symposium**

Salon B, Hilton Atlanta  1:30 pm - 4:30 pm
Concurrent Minisymposium 6

Autoimmunity and Inflammation
Salon C
Presiders: Andrew Blauvelt, MD and Tom McCormick, PhD

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Concurrent Minisymposium 7

Hair and Cutaneous Development I: Embryonic Skin Development / Stem Cell Functions
Salon D
Presiders: Maranke Koster, PhD and Satrajit Sinha, PhD

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

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

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

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


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

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

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


11. Deletion of dermal integrin beta-1 leads to adhesion, but not hair follicle morphogenesis, defects. MC DeRouen, MP Marinkovich and AE Oro. Stanford, CA. 4:00 p.m. Poster #619

12. Defining BMP functions in hair follicle stem cells homeostasis by conditional ablation or activation of BMP receptor 1A. E Kandyba, Y Leung, Y Chen and K Kobielaik. Los Angeles, CA. 4:12 p.m. Poster #665

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


Concurrent Minisymposium 8
2:00 pm - 5:30 pm
Growth Factors & Signal Transduction
Room 208-209
Presiders: Dan Bilek, MD/PhD and John Seykora, MD/PhD

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

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


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

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

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


8. Targeted inducible expression of wnt5a in adult mouse epidermis. L Reilly, M Romanowska and J Roerster. Dundee, United Kingdom. 3:24 p.m. Poster #575

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


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

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

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

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

15. Tissue inhibitor of metalloproteinase 1 is induced in th1 and th17 t-helper cell subsets in a stat-dependent manner. AS Adamson, A Laurence, K Ghoreschi, M Ritliger, Y Kanno, L Wei, W Stetler-Stevenson and J O'Shea. Cambridge, MA and Bethesda, MD. 4:48 p.m. Poster #595

Concurrent Minisymposium 9
2:00 pm - 5:30 pm
Carcinogenesis & Cancer Genetics
Room 206-207
Presiders: Mitchell Denning, PhD and Peter Marinkovich, MD

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

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

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


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

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


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

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

11. ERB-041, an estrogen receptor beta agonist inhibits skin photocarcinogenesis in SKH-1 hairless mice. T Singh, P Kapur, SC Chaudhary, CA Elemts, L Kopelovich and M Athar. Birmingham, AL and Bethesda, MD. 4:00 p.m. Poster #150

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

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


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

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

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

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

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

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


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

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

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

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

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


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


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

SID-AAD Co-Morbidity Conference
Salon E, Hilton Atlanta

North American Hair Research Society
Scientific Meeting
Salon B, Hilton Atlanta

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

Saturday, May 8, 2010

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

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

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

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

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

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

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

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

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

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

American DermatoEpidemiology Network
Business/Scientific Session
Room 204-205, Hilton Atlanta
9:00 am - 1:30 pm
9. IL-22 contributes to disease progression in Leishmania major-infected mice. S Brosch, S Haak, B Lorenz, B Becher and E von Stebut. Mainz, Germany and Zürich, Switzerland. 3:36 p.m. Poster #756

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

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

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

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


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

Concurrent Minisymposium 12
Cell Adhesion/Matrix Biology
Salon B
Presiders: Jonathan Jones, PhD and Peter Marinkovich, MD

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

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

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

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

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

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

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

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


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

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

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


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


Concurrent Minisymposium 13
Clinical Research and Therapeutics
Salon E
Presiders: Maryam Asgari, MD/MPH and Stuart Lessin, MD

1. A phase I/II trial of photoactivated tissue bonding (“nanosuturing”) for excisional wound closure. S Tsao, M Yao, FP Henry, HTsao, Y Zhao, J Kochevar, R Redmond and I Kochevar. Boston, MA. 2:00 p.m. Poster #252
2. Results of a phase 2b clinical trial of valomaciclovir versus valacyclovir for treating herpes zoster. L Morrison and S Tyring. Houston, TX. 2:12 p.m. Poster #248
3. Molecular tumor characteristics and pharmacodynamic (PD) responses of patients (pts) with advanced basal cell carcinoma (BCC) in a phase I trial of the hedgehog (Hh)pathway inhibitor GDC-0449. IL Caro, RL Yauch, W Darbone, CA Callahan, HM Mackey, CM Rudin, PM LoRusso, JC Reddy, JA Low and DD Von Hoff. San Francisco, CA; Baltimore, MD; Detroit, MI and Scottsdale, AZ. 2:24 p.m. Poster #301
5. The intrinsic type of atopic dermatitis shows normal barrier function, lack of filaggrin mutations, high percentage of Th1 cells, and high frequency of metal allergy. R Kabashima, M Nakamura, M Kobayashi, T Bito, K Kabashima, Y Nomura, M Akiyama, H Shimizu and Y Tokura. Kitakyushu, Japan and Sapporo, Japan. 2:48 p.m. Poster #286
7. Novel mechanism for topical treatment of plaque psoriasis—Results of a randomized, double blind, concentration ranging, vehicle controlled 12 week study with JAK 1/2 inhibitor INCB018424 cream. K Callis Duffin, M Luchi, R Fidelus-Gort, R Newton, J Fridman, T Burn, P Haley, P Scherle, R Flores, N Punwani, R Levy, W Williams and A Gottlieb. Wilmington, DE; Salt Lake City, UT and Boston, MA. 3:12 p.m. Poster #261
8. Determining the extent to which clinically effective treatment, ustekinumab or etanercept, reverses the molecular disease profile of psoriatic skin: Comparisons of lesional, non-lesional and normal skin. J Krueger, K Li, F Baribaud, M Suarez-Farinas and C Brodumerkel. New York, NY and Malvern, PA. 3:24 p.m. Poster #298
9. A long-term study of safety and allergic comorbidity development in a randomized trial of pimecrolimus cream in infants with atopic dermatitis. JM Hanifin, M Boguniewicz, LF Eichenfield, LC Schneider, AS Paller, JA Preston, F Kianifard, J Nyirady, RK Zeldin, M Figliomeni and JM Spergel. Portland, OR; Denver, CO; San Diego, CA; Boston, MA; Chicago, IL; East Hanover, NJ and Philadelphia, PA. 3:36 p.m. Poster #328
10. In vitro release of interferon-gamma from peripheral blood lymphocytes in cutaneous adverse drug reactions. J Goldberg, M Hanson, E Sprecher, G Chodick, J Shirazi and S Brenner. Tel Aviv, Israel. 3:48 p.m. Poster #283
11. Gadolinium deposition in disease affected versus unaffected skin of nephrogenic systemic fibrosis. KN Christensen, CU Lee, MM Hanley, N Leung, TP Moyer and MR Pittelkow. Rochester, MN. 4:00 p.m. Poster #320
13. NVP-LDE225 inhibits the formation and induces the regression of murine basaloid tumor nests in embryonic and newborn murine skin organ cultures derived from Ptch-/ LacZ heterozygous mice. X Wu, Y Wang, R Javed, S Pan, A Stuetz and FS Kalhoff. Vienna, Austria and San Diego, CA. 4:24 p.m. Poster #260
14. Epidermal growth factor receptor inhibitors do not suppress the expression of the antimicrobial peptide human β-defensin 3 in the skin of treated patients. TV Cartee, K White, B Pollack, M Newton-West and RA Swerlick. Atlanta, GA. 4:36 p.m. Poster #329

Concurrent Minisymposium 14
Photobiology
Presiders: Dennis Oh, MD/PhD and Laura Timares, PhD
2:00 pm - 5:30 pm
1. Preventive effects of ultraviolet radiation on autochthonous murine mammary tumor carcigenesis - Is sun avoidance killing patients? P Davari, F Gorouhi and EH Epstein. Oakland, CA. 2:00 p.m. Poster #764
2. Alteration of the migratory behavior of UV-induced regulatory T cells in vivo. A Schwarz, BE Clausen and T Schwarz. Kiel, Germany and Rotterdam, Netherlands. 2:12 p.m. Poster #767
3. Obesity exacerbates UBV radiation-induced inflammation and cell survival signals in UVB-irradiated mouse skin. SD Sharma and SK Katiyar. Birmingham, AL. 2:24 p.m. Poster #768
4. Visualization of in vivo behavioral responses of Langerhans cells to UBV irradiation. R Lu and A Takashima. Toledo, OH. 2:36 p.m. Poster #778
5. Deficiency of xeroderma pigmentosum A results in an augmentation of UBV mediated oxidative stress and platelet-activating factor activity. Y Yao, RL Koner and JB Travers. Indianapolis, IN. 2:48 p.m. Poster #783
6. Photosensitive and non-photosensitive trichothiodystrophy: Specific XPD protein regions play a major role in human photosensitivity. SG Khan, X Zhou, KS Oh, J Boyle, T Ueda, D Tamura, C Nadem, A Mattia, JJ DiGiovanna and KH Kraemer. Bethesda, MD and Providence, RI. 3:00 p.m. Poster #780
7. Enhancement of protoporphyrin IX and suppression of ferrochelatase levels by Vitamin D in tumor models of nonmelanoma skin cancer: Implications for tumor response to photodynamic therapy. S Anand, N
Atanaskova, C Wilson, T Hasan and EV Maytin. Cleveland, OH and Boston, MA. 3:12 p.m. Poster #817

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


11. Ultraviolet B radiation of human skin generates platelet-activating factor receptor agonists. J Travers, Y Yao, RL Konger and JB Travers. Indianapolis, IN. 4:00 p.m. Poster #782

12. Endogenous and exogenous urocanic acid protects against ultraviolet B-induced DNA damage. C Stremnitzer, C Barresi, V Mitz, S Keicz, A Kammeyer, M Ghannadan, K Posa-Markaryan, C Selden, E Tschachler and L Eckhart. Vienna, Austria; Amsterdam, Netherlands; London, United Kingdom and Neuilly, France. 4:12 p.m. Poster #816


14. Photodynamic therapy with the phthalocyanine Pc 4 for T cell mediated diseases: Activated T cells exhibit increased uptake of Pc 4 and increased susceptibility to PDT-mediated cell death. J Ohtola, H Sugiyama, ME Rodriguez, NL Oleinick, M Lam, TS McCormick, KD Cooper and ED Baron. Cleveland, OH. 4:36 p.m. Poster #771

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

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

2. Fuz is a PCP effector gene that controls the morphogenesis and differentiation of hair follicles. D Dai, H Zhu, B Wlodarczyk, L Zhang, AG Li, RH Fin nell, DR Roop and J Chen. Aurora, CO; Houston, TX and Portland, OR. 2:12 p.m. Poster #617

3. Inductive signaling from the dermal papilla of the hair follicle. D Enshell-Seffers, M Kashiwagi and BA Morgan. Boston, MA. 2:24 p.m. Poster #647

4. Inducible deletion of β-Catenin reveals essential roles in adult hair follicle proliferation and maintenance, and epidermal homeostasis. Y Zhang, X Wu, A Nagy, T Andl and SE Millar. Philadelphia, PA and Toronto, Canada. 2:36 p.m. Poster #654


6. Extrinsic regulation of hair follicle cycling. E Festa, M Rodeheffer, M Horowitz and V Horsley. New Haven, CT. 3:00 p.m. Poster #655

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


9. Keratin 74 is a novel determinant of human hair texture and is mutated in autosomal dominant woolly hair. Y Shimomura, M Wajid, L Petukhova, M Kurban and AM Christiano. New York, NY. 3:36 p.m. Poster #668

10. The miRNA-processing enzyme Drosha is required for hair follicle regression, hair shaft differentiation, long-term maintenance of hair follicle stem cells, and epidermal homeostasis. Y Choi, A Nagy, O Tam, GJ Hannon and SE Millar. Philadelphia, PA; Toronto, Canada and Cold Spring Harbor, NY. 3:48 p.m. Poster #645

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

12. c-myb ablation affects hair follicle homeostasis. J Murphy, E Lustiger, JC Strange, J Frampton and A Engelhard. New York, NY and Edgbaston, United Kingdom. 4:12 p.m. Poster #667

13. Patterning dissociated heterotypic adult cells into functional folliculoid organ germs by substratum-facilitated self-assembly. J Hong, C Chan, C Yen and S Lin. Taipei, Taiwan. 4:24 p.m. Poster #660

14. Adult human epithelial stem cells are a novel target for thyroid hormone regulation in situ and in vitro. K Bohm, S Tiede, N Meier and R Paus. Lübeck, Germany and Manchester, United Kingdom. 4:36 p.m. Poster #648

15. The nude mutant gene Foxn1 is a HOXC13 regulatory target during hair follicle and nail differentiation. CS Potter, ND Pruett, MJ Kern, AR Godwin, JP Sundberg and A Awgulewitsch. Charleston, SC; Kansas City, KS and Bar Harbor, ME. 4:48 p.m. Poster #649
Hilton Atlanta Maps

Hilton Atlanta, First Floor

Hilton Atlanta, Second Floor
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 2010 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 Registration Counter at the Atlanta Hilton during the following hours:

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

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

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

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

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

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

The SID welcomes representatives from the following companies.

- Bridge PTS
- Canfield Imaging Systems
- CellNtec
- Elsevier
- Invitrogen, Part of Life Technology
- Nature Publishing Group
- WCD 2011
- Zen-Bio, Inc.
<table>
<thead>
<tr>
<th>Date</th>
<th>Session Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Special Lectures &amp; State-of-the-Art Lectures</td>
</tr>
<tr>
<td>24</td>
<td>Blank Forum, Awards, &amp; Business Meeting</td>
</tr>
<tr>
<td>25</td>
<td>Satellite Symposia: Regenerative Medicine, Emerging Mechanism-based Therapies for Skin Cancers</td>
</tr>
<tr>
<td>26</td>
<td>SID-AAD Co-Morbidity Conference</td>
</tr>
<tr>
<td>27</td>
<td>International Pachyonychia Congenita Consortium</td>
</tr>
<tr>
<td>28</td>
<td>Cutaneous T Cell Lymphoma Symposium</td>
</tr>
<tr>
<td>29</td>
<td>Research in Cutaneous Surgery Symposium</td>
</tr>
<tr>
<td>30</td>
<td>North American Hair Research Society Scientific Meeting</td>
</tr>
<tr>
<td>31</td>
<td>American DermatoEpidemiology Network Business &amp; Scientific Session</td>
</tr>
<tr>
<td>32</td>
<td>Networking and Social Events &amp; Ancillary Groups</td>
</tr>
</tbody>
</table>
Special Lectures & State-of-the-Art Lectures

Special Lectures

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

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

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

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

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

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

State-of-the-Art Lectures

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

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

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

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

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

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

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

Characterization of Individual Cells Capable of Melanoma Formation
Marcus Bosenberg, MD/PhD
Associate Professor of Dermatology and Pathology
Yale School of Medicine
New Haven, Connecticut

The Importance of Host Immunity in Cutaneous T-Cell Lymphoma
Alain Rook, MD
Professor of Dermatology
University of Pennsylvania
Philadelphia, Pennsylvania

Notch and Calcineurin Signaling in Integrated Control of Skin Homeostasis and Carcinogenesis
G. Paolo Dotto, MD/PhD
Professor
Massachusetts General Hospital/Harvard Medical School
Charlestown, Massachusetts

From Bench to Clinic with a Hedgehog: Targeted Therapeutics for Basal Cell Carcinoma
Andrzej Dlugosz, MD
Professor of Cutaneous Oncology
University of Michigan
Ann Arbor, Michigan

American Skin Association Achievement Awards
Thursday, May 6, 2010 • 10:00 - 10:10 am • Grand Ballroom

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

David Martin Carter Mentor Award
Thursday, May 6, 2010 • 10:10 - 10:15 am • Grand Ballroom

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

Stephen Rothman Memorial Award
Friday, May 7, 2010 • 9:30-9:40 am • Grand Ballroom

The SID’s highest award presented for distinguished service to cutaneous medicine
Dennis Roop, PhD
Professor of Dermatology
Director, Regenerative Medicine/Stem Cell Biology Program
University of Colorado, Denver Anschutz Medical Campus

Albert M. Kligman Tribute
Wednesday, May 5, 2010 • 5:00 pm - 5:30 pm
Grand Ballroom, Hilton Atlanta

Business Meeting for Members
Friday, May 7, 2010 • 7:45 am - 8:30 am • Grand Ballroom

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

Regenerative Medicine
Thursday, May 6, 2010 • 12:00 pm - 2:00 pm • Grand Ballroom
Chair: Richard Clark, MD, Professor, Department of Biomedical Engineering, State University of New York, Stony Brook, New York

12:00 pm
Welcome
Richard Clark, MD, Chair

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

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

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

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

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

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

Emerging Mechanism-based Therapies for Skin Cancers
Friday, May 7, 2010 • 12:00 pm - 2:00 pm • Grand Ballroom
Chairs: Anthony Oro, MD/PhD, Associate Professor, Department of Dermatology, Stanford University, Stanford, California
Paul Nghiem, MD/PhD, Associate Professor, Dermatology/Medicine, University of Washington, Seattle, Washington

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

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

12:30 pm – 12:35 pm
Questions

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

12:55 pm – 1:00 pm
Questions

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

1:20 pm – 1:25 pm
Questions

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

1:45 pm – 1:50 pm
Questions

1:55 – 2:00
Panel Discussion, Final Comments
Anthony Oro, MD/PhD and Paul Nghiem, MD/PhD, Chairs
Applying Epidemiology Research to Individual Patients
Friday, May 7, 2010 • 2:00 pm - 5:30 pm • Salon E

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

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

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

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

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

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

3:30-3:45 pm
Break

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

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

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

### International Pachyonychia Congenita Consortium

**Hosted by Pachyonychia Congenita Project**

**Tuesday, May 4, 2010 • 9:00 am - 5:00 pm • Salon C**

**OPEN TO ALL MEETING REGISTRANTS**

**Update on Delivery**

**Section Chair:** Dennis Roop, PhD, University of Colorado, Denver, Colorado

- W.H. Irwin McLean, DSc, FRSE, College of Life Sciences, University of Dundee, Dundee, United Kingdom
- Roger L. Kaspar, PhD, TransDerm, Inc., Santa Cruz, California
- Chris Contag, PhD, Stanford University, Palo Alto, California
- Emilio Gonzalez, PhD, Stanford University, Palo Alto, California
- Robyn Hickerson, PhD, TransDerm, Inc., Santa Cruz, California

**Discussion: Delivery of Nucleic Acids to Skin**

**PC Research Studies**

**Section Chair:** E. Birgit Lane, PhD

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

**Discussion: Future Research Projects**

**HOSTED DINNER—6:30 pm for participants**

---

### International Pachyonychia Congenita Consortium

**Hosted by Pachyonychia Congenita Project**

**Wednesday, May 5, 2010 • 9:00 am - 12:00 pm • Salon C**

**OPEN TO ALL MEETING REGISTRANTS**

**New Data from the Int’l PC Research Registry**

**Section Chair:** Sancy Leachman, MD/PhD

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

**Best Practices Discussion**

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

**Contact for additional information:**

Mary Schwartz, Director
PC Project
Tel: 877-628-7300 (toll free)
Fax: 877-628-7399
Email: Mary.Schwartz@pachyonychia.org
1. Increased twist expression in advanced stage Mycosis Fungoides (MF)/Sézary Syndrome (SS). X Ni, M Goswami, L Shiue, A Dougherty and M Duvic. Houston, TX. 2:12 p.m. Poster #137

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

3. Upregulation of inflammatory cytokines and STAT3 characterizes the tumor microenvironment leading to tumor formation in a murine model of cutaneous lymphoma. X Wu, R Sells and ST Hwang. Milwaukee, WI. 2:36 p.m. Poster #253

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

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

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


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

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


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


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

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

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


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

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

7. **The vitamin D receptor, Hedgehog signaling and epidermal carcinogenesis.** A Teichert, V Bul and DD Bikle. San Francisco, CA. 3:12 p.m. Poster #138


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


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

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

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

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

15. **Utility of relaxing music and guided imagery in reducing intraoperative pain and anxiety during Mohs surgery.** M Alam, J Wang, S Kakodkar, N Kim, J Havey, N Kohli, D Fife, A Butani, R Trela, D West, A Rademaker and S Yoo. Chicago, IL. 4:48 p.m. Poster #365

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

17. **Fractional photothermolysis treatment triggers a wound healing response and dermal remodeling in photoaged human skin in vivo.** L Rittié, JS Orringer, D Baker, JJ Voorhees and GJ Fisher. Ann Arbor, MI. 5:12 p.m. Poster #309

---

**Associate Meetings**

**Research in Cutaneous Surgery Symposium**

Friday, May 7, 2010  •  1:30 pm - 4:30 pm  •  Salon B

**OPEN TO ALL MEETING REGISTRANTS**

Presiders: Murad Alam, MD/PhD and Sherrif Ibrahim, MD/PhD
North American Hair Research Society
Scientific Meeting
Friday, May 7, 2010  •  6:00 pm - 9:30 pm  •  Salon B

OPEN TO ALL MEETING REGISTRANTS

Presider: George Cotsarelis, MD

Business Meeting

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

Oral Abstract Presentations

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


3. Suppression of DNA degradation by inactivation of DNase1L2 leads to increased fragility of hair. H Fischer, S Szabo, J Scherz, K Jaeger, M Buchberger, H Rossiter, M Ghannadan, R Gmeiner, M Hermann, DJ Tobin, EF Wagner, E Tschachler and L Eckhart. Vienna, Austria; Bradford, United Kindom; Madrid, Spain and Paris, France.  7:24 p.m.  Poster #660

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

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

Poster Session


2. Suppression of DNA degradation by inactivation of DNase1L2 leads to increased fragility of hair. H Fischer, S Szabo, J Scherz, K Jaeger, M Buchberger, H Rossiter, M Ghannadan, R Gmeiner, M Hermann, DJ Tobin, EF Wagner, E Tschachler and L Eckhart. Vienna, Austria; Bradford, United Kindom; Madrid, Spain and Paris, France.  Poster #660

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

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

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


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


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

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

OPEN TO ALL MEETING REGISTRANTS

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

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

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

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


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

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

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

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

Break


ADEN Business Meeting

Discussion: Collaboration Opportunities (Pruritis, Psoriasis, Wound Healing, Melanoma)
Networking and Social Events & Ancillary Groups

Networking and Social Events

**Opening Night Welcome Reception**
Wednesday, May 5, 2010  •  7:30 pm - 9:30 pm
Salon West Corridor, Hilton Atlanta

Join us for a Welcome Reception to kick off the Meeting. All attendees are invited, free of charge, to gather for drinks and hors d’oeuvres and mingle with colleagues. **THIS EVENT IS FREE TO ALL MEETING ATTENDEES.**

**Post Doctoral Luncheon**
Thursday, May 6, 2010  •  12:00 pm - 2:00 pm
Salon D, Hilton Atlanta

Young investigators are invited to attend the luncheon to learn about opportunities available through the SID, to provide input and feedback on programs that add value to the PhD experience (including career development), and to network. **TICKETED EVENT; PRE-REGISTRATION REQUIRED.**

**Trainee Dinner Session**
Friday, May 7, 2010  •  7:30 pm - 9:30 pm
Crystal Executive Ballroom, Hilton Atlanta

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

**Social Event at Georgia Aquarium**
Thursday, May 6, 2010  •  5:00 pm - 11:00 pm

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

Ancillary Groups

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

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

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

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

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

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

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

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

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

**SID Board of Directors Meeting**
Saturday, May 8, 2010  •  7:00 am - 8:00 am
Room 203
### Educational Tracks

<table>
<thead>
<tr>
<th>Page</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Track Descriptions</td>
</tr>
<tr>
<td>34</td>
<td>Educational Track Schedule</td>
</tr>
<tr>
<td>36</td>
<td>Translational Research Symposium</td>
</tr>
<tr>
<td>36</td>
<td>Clinical Scholars Plenary Session</td>
</tr>
<tr>
<td>37</td>
<td>Clinical Scholars Lectures</td>
</tr>
<tr>
<td>38</td>
<td>Resident Symposium</td>
</tr>
</tbody>
</table>
The SID is pleased to offer three educational program tracks within the 2010 Annual Meeting: Translational Research Track, Clinical Scholars Track and Resident Track.

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

**Translational Research Track**

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

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

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

**Clinical Scholars Track**

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

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

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

**Resident Track**

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

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

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, May 5, 2010</td>
<td>8:00 am</td>
<td>Translational Research</td>
<td>Plenary Session 1</td>
<td>Beerman &amp; Kanof Lectures</td>
<td>Poster Session 1 &amp; Technical Exhibits</td>
<td>Satellite Symposium 1 Regenerative Medicine</td>
<td>Research in Cutaneous Surgery Symposium</td>
<td>Research in Cutaneous Surgery Symposium</td>
<td>Residency Symposium</td>
<td>Plenary Session 1</td>
<td>State-of-the-Art Plenary Lectures 4, 5</td>
<td>Student Symposium</td>
<td>Poster Session 3 &amp; Technical Exhibits</td>
<td>Clinical Scholars Lecture Session</td>
<td>Clinical Scholars Lecture Session</td>
</tr>
<tr>
<td>Thursday, May 6, 2010</td>
<td>8:00 am</td>
<td>Translational Research</td>
<td>Plenary Session 2</td>
<td>Beerman &amp; Kanof Lectures</td>
<td>Post Doctoral Luncheon</td>
<td>Satellite Symposium 1 Regenerative Medicine</td>
<td>Research in Cutaneous Surgery Symposium</td>
<td>Research in Cutaneous Surgery Symposium</td>
<td>Residency Symposium</td>
<td>Plenary Session 1</td>
<td>State-of-the-Art Plenary Lectures 4, 5</td>
<td>Student Symposium</td>
<td>Poster Session 3 &amp; Technical Exhibits</td>
<td>Clinical Scholars Lecture Session</td>
<td>Clinical Scholars Lecture Session</td>
</tr>
<tr>
<td>Time</td>
<td>Event Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Irvin H. Blank Forum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 pm</td>
<td>Kligman Frost Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 pm</td>
<td>State-of-the-Art Plenary Lectures 1, 2, 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00 pm</td>
<td>Opening Night Welcome Reception</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 pm</td>
<td>Kligman Frost Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 pm</td>
<td>State-of-the-Art Plenary Lectures 1, 2, 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 pm</td>
<td>Opening Night Welcome Reception</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 pm</td>
<td>Concurrent Minisymposia or CTCL Symposium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Event at Georgia Aquarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concurrent Minisymposia or CTCL Symposium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Event at Georgia Aquarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resident Symposium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insights into an Academic Career</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Event at Georgia Aquarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research in Cutaneous Surgery Symposium or Concurrent Minisymposia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>or Co-Morbidity Conference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Event at Georgia Aquarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research in Cutaneous Surgery Symposium or Concurrent Minisymposia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>or Co-Morbidity Conference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Event at Georgia Aquarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research in Cutaneous Surgery Symposium or Concurrent Minisymposia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>or Co-Morbidity Conference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trainee Dinner Session</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concurrent Minisymposia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Translational Research Symposium: Personalized Genetics in Medicine: Are We There Yet?

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

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

Personalizing Melanoma Therapy / Q & A
Hensin Tsao, MD/PhD
Associate Professor, Department of Dermatology
Harvard Medical School, Boston, Massachusetts

Towards Determining Personal Cancer Therapy: The CollabRx Model / Q & A
Raphael Lehrer, PhD
Head of Personalized Oncology Services
CollabRx, Inc., Palo Alto, California

Personalized Medicine in Psoriasis / Q & A
Wilson Liao, MD
Assistant Professor of Dermatology
University of California, San Francisco, San Francisco, California

Pharmacogenomics in Angiogenesis and Inflammation / Q & A
Michael Detmar, MD
Professor of Pharmacogenomics
Institute of Pharmaceutical Sciences, Swiss Federal Institute of Technology, Zurich, Switzerland

Direct-to-Consumer Genetic Analyses of Risk and Ancestry Using the 23andMe Model / Q & A
Serge Saxonov, PhD
Director of R & D
23andMe, Mountainview, California

Clinical Scholars Plenary Session
Thursday, May 6, 2010 • 10:00 am - 12:00 pm • Salon A

PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED

Presider: Ponciano Cruz, MD

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

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

3. Genome-wide association study in alopecia areata implicates both innate and adaptive immunity. L Petukhova, Duvic, M Hordinsky, D Norris, V Price, Y Shimomura, H Kim, P Singh, A Lee, WW Chen, KC Meyer, R Paus, C Jahoda, CI Amos, PK Gregersen and AM Christiano. New York, NY; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA; Manhasset, NY; Lubeck, Germany; Manchester, United Kingdom and Durham, United Kingdom. Poster #551
   Presented by Angela M.Christiano, PhD, Professor and Vice Chair for Research, Dermatology and Genetics Development, Columbia University, New York, New York

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

   Presented by Neil J. Korman, MD/PhD, Professor of Dermatology, University Hospitals Case Medical Center, Cleveland, Ohio

   Presented by David J. Margolis, MD/PhD, Associate Professor of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania
Clinical Scholars Lecture Session
Friday, May 7, 2010 • 11:30 am - 1:30 pm • Salon A
PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED
Presider: Nick Reynolds, MD/FRCP and Edward Cowen, MD

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

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

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

Clinical Scholars Lecture Session
Saturday, May 8, 2010 • 10:00 am - 12:00 pm • Salon A
PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED
Presider: Nick Reynolds, MD/FRCP and Rachael Clark, MD/PhD

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

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

**UVB Immunosuppression**
Thomas Schwarz, MD
Professor and Chairman, Department of Dermatology and Allergology
University of Kiel
Kiel, Germany
Educational Track Programs

Resident Symposium:
Insights into an Academic Career
Thursday, May 6, 2010  •  2:00 pm - 5:00 pm  •  Room 212-213

PRE-REGISTRATION IS ENCOURAGED, BUT NOT REQUIRED

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

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

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

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

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

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

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

Pearls and Pitfalls for a Career in Academic Dermatology
Sewon Kang, MD
Noxell Professor and Chairman, Department of Dermatology, Johns Hopkins University, Baltimore, Maryland
<table>
<thead>
<tr>
<th>Page</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Abstract Presentation Information</td>
</tr>
<tr>
<td>40</td>
<td>Angiogenesis, Vascular Biology &amp; Wound Healing</td>
</tr>
<tr>
<td>40</td>
<td>Auto-immunity &amp; Inflammation</td>
</tr>
<tr>
<td>43</td>
<td>Carcinogenesis &amp; Cancer Genetics</td>
</tr>
<tr>
<td>44</td>
<td>Cell Adhesion &amp; Matrix Biology</td>
</tr>
<tr>
<td>45</td>
<td>Clinical Research &amp; Therapeutics</td>
</tr>
<tr>
<td>48</td>
<td>Epidemiology &amp; Health Services Research</td>
</tr>
<tr>
<td>49</td>
<td>Epidermal Structure &amp; Function</td>
</tr>
<tr>
<td>51</td>
<td>Genetic Disease, Gene Regulation &amp; Gene Therapy</td>
</tr>
<tr>
<td>53</td>
<td>Growth Factors &amp; Signal Transduction</td>
</tr>
<tr>
<td>54</td>
<td>Hair &amp; Cutaneous Development</td>
</tr>
<tr>
<td>56</td>
<td>Immunology 1: Adaptive Immunity</td>
</tr>
<tr>
<td>57</td>
<td>Immunology 2: Innate Immunity &amp; Microbiology</td>
</tr>
<tr>
<td>58</td>
<td>Photobiology</td>
</tr>
<tr>
<td>59</td>
<td>Pigmentation &amp; Melanoma</td>
</tr>
<tr>
<td>62</td>
<td>Keyword Index</td>
</tr>
<tr>
<td>66</td>
<td>Author Index</td>
</tr>
<tr>
<td>91</td>
<td>SID Governance</td>
</tr>
</tbody>
</table>
Abstract Presentation Information

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

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

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

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

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

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

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

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

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

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

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

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

Keyword Index
The keyword index is located on pages 62-65 and appears in the April issue of the Journal of Investigative Dermatology (JID).
Angiogenesis, Vascular Biology and Wound Healing

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

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


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

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

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

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

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

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

009 Hypoxia and UV light modulate the level, localisation and activity of Hif1α/Hif1β proteins in epidermal keratinocytes. L Weir, A Wondimu, D Robertson and AA Panteleyev. Dundee, United Kingdom and New York, NY.

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


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

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

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


016* Rapamycin blocks lymphangiogenesis induced by TSC-2 null hamartoma cells. S Rajesh, S Li, J Wang, R Thangapazham, J Moss and TN Darling. Bethesda, MD.

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

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

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

020 Regulation of extracellular matrix protein expression by NF-κb and its role in impaired wound healing response. S Kaur and MD Southall. Skillman, NJ.

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

022* Psychological stress-induced delays in cutaneous wound healing reversed by inhibitor of the glucocorticoid activating enzyme, 11β-hydroxysteroid dehydrogenase type 1. I Youm, Y Uchida, PM Elias and WM Holleran. San Francisco, CA.

023* TGFβ dependent differentiation of dermal fibroblasts to myofibroblasts is regulated by Clic4. A Shukla, Y Yang, PV Chellamal, S Madanika and SH Yuspa. Bethesda, MD.

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


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

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


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

031* TGFb3 decreases myofibroblast recruitment and keratinocyte proliferation during excisional wound repair. M Le, J Morrison and M Dunnwald. Iowa City, IA.

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

Auto-immunity and Inflammation

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

033 Identification of TRAIL and other molecules that distinguish inflammatory (CD11c+CD1c-) DCs from resident (CD1c+) DCs in human skin. LC Zaba, J Fuentes-Duculan, J Eungdamrong, KE Nogales, TR White, KC Pierson, M Suárez-Fariñas, MA Lowes and JG Krueger. New York, NY.

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


**038** Antimitochondrial autoantibodies in pemphigus. S Marchenko, A Chernyavsky, J Arredondo, V Gindi and S Grande. Irvine, CA.

**039** A study of culture and toxin genes of staphylococcous aureus in atopic dermatitis. J Lee and J Roh. Incheon, South Korea.


**041** Inhibition of Cox-2 suppresses keratinocyte antimicrobial peptide expression. JB Bernard and RL Gallo. San Diego, CA.

**042** Topical herbal extract exhibits both preventive and therapeutic effects in murine acute irritant contact dermatitis. W Man, M Man, G Martín-Ezquerre, M Hupe, C Trullas, KR Feingold, PM Elias and M Man. San Francisco, CA and UAEB, Spain.

**043** Th17 cells from human skin require proliferation for IL-17 production. J Teague, J Hjolen, M Mollet, Y Jiang, R Watanabe, M Lichtman, TS Kupper and R Clark. Boston, MA; Utrecht, Netherlands and Genth, Belgium.


**045** Up-regulation of CLC26 by IL-4 is through Jak-Stat pathway in atopic dermatitis. L Ba, L Chen and LS Chan. Chicago, IL.

**046** In vivo conversion of Cd4+Foxp3- to Foxp3+ T cells. EN Hutter, DD Glass and EM Shevach. Bethesda, MD and Heidelberg, Germany.

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

**048** IgG4 depletion as a therapeutic strategy in pemphigus. T Funakoshi, CE O'Leary and AS Payne. Philadelphia, PA.

**049** An IgE monoclonal antibody to BP180-NCA16A replicates the effects of bulous pemphigoid IgE in vitro. KA Messingham, AL Onoh, EA Vanderah, GJ Giudice and JA Fairley. Iowa City, IA.

**050** Norepinephrine (NE) and adenosine-5'-triphosphate (ATP) synergize in inducing IL-6 production by human dermal microvascular endothelial cells (HDMECs). LL Stohl, IZ Shinkuma, K Natsuga, HA Long, W Nishie and H Shimizu. Fukuoka, Japan.

**051** Laser-capture microdissection of psoriasis vulgaris suggested potential and RD Granstein. New York, NY.

**052** Efficacy and safety of Canakinumab (ILARIS®) in Cryopyrin-Associated Periodic Syndrome (CAPS): Interim results of an ongoing phase III study. KS Leslie, JB Rueger, HJ Lachmann, E Hachulla, J Hoyer, J Smith, Ite Kone-Faut, J Braun, A Widmer, N Patel, R Reiss and PN Hawkins. San Francisco, CA; Tübingen, Germany; London, United Kingdom; Lille Cedex, France; Marburg, Germany; Madison, Wisconsin; Kremlin Bicetre, France; Herne, Germany; Basel, Switzerland and East Hanover, NJ.


**054** Passive transfer of dermatitis herpetiformis serum high in IgA anti-TG3 produces granular IgA deposition in the papillary dermis of human skin engrafted on SCID mice. JJ Song, LA Schmidt, T Taylor, C Huil, M Sotiriou, T Jaskowski, H Hill and LJ Meyer. Salt Lake City, UT.

**055** A xenograft model of human skin to study the role of dendritic cells in inflammatory skin disease. J Wegener-Kops, J Hemmerling, D Wolff, S Grabbe, E Von Stebut, RG Meyer and RE Schoff. Mainz, Germany.

**056** AIL2 is overexpressed in psoriasis and an AIL2 inflammasome is active in human epidermal keratinocytes. Y Dombrowski, M Peric, S Koglin, C Kammerbauer, T Ruzicka, R Biesch and J Schaub. Munich, Germany.

**057** The TRLR4 ligands Mrp8/14 play a critical role in the development of autoreactive CD8+ T cells. K Loser, T Vogl, TA Lugner, J Roth and S Bessert. Muenster, Germany.


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

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

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

**063** Human IgG1 mAb against human COL7A1 NC16A developed from BP patients induces blisters in experimental bullous pemphigoid model. A Shibaki, Q Li, H Uijie, G Wang, R Morichi, H Qiao, H Morioka, S Shinkuma, K Natsuga, HA Long, W Nishie and H Shimizu. Sapporo, Japan and Kumamoto, Japan.

**064** Systemic epinephrine alters neutrophil trafficking and prolongs their persistence in wounds: Implications for stress-mediated impairment of wound healing. M Kim, S Simon and RR Isseroff. Davis, CA.

**065** Targeted depletion of IL-23 by IL-4 in vivo impairs T cell mediated DTHR. E Guenova, W Hoeteneczer, N Hamdi, T Volz, Y Boetet, M Schaller, M Rücken and T Biedermann. Tuebingen, Germany.

**066** Spatiotemporal progression of tissue death surrounding burns. S Lainer, S McClain, F Lin, MG Tonnesen, AJ Singer and RA Clark. Stony Brook, NY and Northport, NY.

**067** Effector T cells and local innate immunity need to act in concert for development of autoimmune myositis. O Okiyama, T Sugihara, H Yokozeki, N Miyasaka and H Kohsaka. Tokyo, Japan and Kanagawa, Japan.

**068** IL-17-producing dendritic epidermal T cells represent a subset of murine T cells involved in cutaneous immunity and wound healing. AS Bichau, S Hemmers, S Von Vietinghoff, K Mowen, K Ley, D Witherden and WL Havran. La Jolla, CA.


**071** Plasmin is involved in the pathogenesis of psoriasis by inducing CCL20 expression in macrophages. Q Li, F Fe and H Wang. Shanghai, China.


**073** Effects of defensamide, a newly synthesized AMP stimulating molecule, on oxazolone-induced atopic dermatitis animal model. J Jeong, J Bae, M Kwon, H Kim, T Mauro, A Celli and S Lee. Deajeon, South Korea; Seoul, South Korea and San Francisco, CA.

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

**075** Distinct roles of IL-23 and IL-17 in the development of psoriasis-like lesion in a mouse model. K Nakajima, T Kanda, M Takaiishi, K Miyoshi, JM Benson, MM Elloso, Y lwakura, J DiGiovanni and S Sano. Kochi, Japan; Radnor, PA; Tokyo, Japan and Smithville, TX.

**076** An environmental contaminant, benzo(a)pyrene induces inflammatory responses in human keratinocytes via aryl hydrocarbon receptor signaling pathway. M Takahara, G Tsui, H Uchi, S Takeuchi, C Mitoma, Y Moroi and M Furue. Fukuoka, Japan.

**077** Antimicrobial peptide-DNA complexes are implicated in initial pathogenesis of rosacea. AA Navarini, P Dzintys, M Seller, M Gilliet and C Conrad. Zurich, Switzerland and Houston, TX.


**079** ATP: A tissue site specific activator of naïve regulatory T cells during contact hypersensitivity reactions. S Ring, AH Enk and K Mahnke. Heidelberg, Germany.

**080** Proteomic analyses for probing biomarkers of atopic dermatitis from the serum-derived samples. I Cho, D Lee, Y Park and J Yang. Seoul, South Korea.


**082** Endothelial cells augment the suppressive function of CD4+CD25+Foxp3+ regulatory T cells: Involvement of PD-1 and IL-10. T Bedke, S Karakhanova, AH Enk and K Mahnke. Heidelberg, Germany.
Detection of IgE by direct immunofluorescence in a large cohort of bullous pemphigoid patients. JR Vu, J Deng, T Patton and E Abell. Pittsburgh, PA.

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

A role for the novel pro-inflammatory cytokine IL-17C in the pathogenesis of psoriasis. PM Al-Arraj, JE Gudjonsson, NL Ward, M Ribett, X Xing, JJ Voorhees, JT Elder and A Johnston. Ann Arbor, MI and Cleveland, OH.

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

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

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

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


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


Cross-reactivity at the T-cell level between human and Malassezia sympholidia thioredoxin(s) in adult patients with atopic dermatitis. H Venkataranayanan, A Heratzadeh, K Wittmann, A Scheynius, R Kramer and T Werfel. Hannover, Germany; Stockholm, Sweden and Davos, Switzerland.


Erlotinib stimulates epidermal hyperplasia in KC-Ile2 mice and human skin organ culture. NL Ward, N Bhagavathula, CM Matheny, W Fu, JE Gudjonsson, A Johnston, J Varani and JT Elder. Cleveland, OH and Ann Arbor, MI.

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

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


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

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

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


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


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

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


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


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


IgG4 and IgE anti-Dsg1 auto-antibodies recognize Lutzomyia longipalpis salivary gland antigens. Y Qiao, JG Valenzuela, G Flores, EA Rivitti, V Aoki, G Hans-Filho and LA Diaz. Chapel Hill, NC; Rockville, MD; Sao Paulo, Brazil and Campo Grande, Brazil.


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

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

** A non-redundant role for HSP70 in autoimmune degipation. JMosenson, J Klarquist, J Guevara-Patino and L Lee. Philadelphia, PA.

Epidermal degipation in a mouse model of vitiligo is IFNγ-dependent and associated with local chemokine expression. JF Harris, EJ Wherry, CA Hunter and LA Turka. Philadelphia, PA.
123 Abnormal DNA methylation in peripheral blood mononuclear cells and skin lesions from patients with psoriasis vulgaris. P Zhang, Y Su, H Chen, M Zhao and Q Lu. Changsha, China.

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

125 IL-1fs, F6, F8, and F9 represent a novel IL-1 signaling system which is active in psoriasis and promotes keratinocyte antimicrobial peptide expression. A Johnstone, X Xing, NL Ward, CM Matheny, M Riblett, AM Guzman, JJ Voorhees, JJ cutter and JE Gudjonsson. Ann Arbor, MI and Cleveland, OH.


127 Therapeutic efficacy of defensamide in atopic dermatitis. H Kim, S Jeong, J Bae, M Kwon and S Lee. Seoul, South Korea and Daejeon, South Korea.


129 Withdrawn.

130 αEβ7 promotes skin inflammation, but is not necessary for leucocyte trafficking, in a mouse model of atopic dermatitis. J Yoo, J McGuire, A Manicone and W Parks. Seattle, WA.

131 Non invasive in vivo small animal Positron Emission Tomography (PET) imaging of TH1 cell trafficking in mouse models for asthma and contact allergy using [64Cu]PSMT labelling. C Griessinger, D Bukala, S Wiehr, W Ehrlichmann, G Reischl, BI Pichler, M Röcken and S Kneeling. Tübingen, Germany.

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

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

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

135 Nucleotide excision repair is inhibited by Cyclosporin A via calcineurin-dependent pathways. CB Bunker. London, United Kingdom and Voorburg, Netherlands.

136* Upregulation of inflammatory cytokines and STAT3 characterizes the tumor microenvironment leading to tumor formation in a murine model of cutaneous lymphoma. X Wu, R Sells and HT Wang. Milwaukee, WI.


138 Inhibition of human papilloma virus-31 in human keratinocytes by the phosphatidylincholine specific phospholipase C-inhibitor LMV-601. E Mensmann, FK Mayer, H Pink and W Baader. Basel, Switzerland; Heidelberg, Germany and Frankfurt, Germany.

139* MicroRNA-211 regulates melanoma metastasis by inhibiting migration and invasion. JA Kado and DR Mehregan. Detroit, MI and Monroe, MI.

140 CCR3 ligand CXCL11 promotes proliferation of primary basal cell carcinoma cells in vitro. BK Lo, M Yu, D Zloty, B Cowan, J Shapiro and KM Ekeliew. Vancouver, Canada.

141 Aldehyde dehydrogenase activity contributes to tumorigenesis of human melanoma. Y Luo, K Dallaglio, M Okamoto, DR Roop and MJ Fujita. Aurora, CO.

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

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

144* SOD3 expression is up-regulated by PKC-δ and inhibits cell proliferation in melanoma via the Stat1-p21 pathways. H Yoo, Y Lee, B Jeon and T Kim. Seoul, South Korea.

145* Carcinoma in-situ of the penis and β-HPV types. SK Krishn, R Meys, KJ Purdie, MN de Koning, A Bardhan, FM Gotch, WG Quint, CH Harwood and CB Bunker. London, United Kingdom and Voorburg, Netherlands.

146* Epidermal expression of a mutant CYLD promotes skin carcinogenesis and metastasis. PM Ilan, M Darvai, S Lutefield, JY Jin, B Leshin and JY Zhang. Durham, NC.

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

148 p38 MAPK regulates oxidative stress in UVB-induced squamous cell carcinoma by blocking NADPH NOK2. X Xing, Y Zhu, JH Back, M Athar, AL Kim and DR Bickers. New York, NY and Birmingham, AL.

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

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

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


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

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

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

169 Lack of novel mertel cell polymavirus in mycosis fungoides tumors. ED Mirvish, RG Pomerantz and LJ Genskin. Pittsburgh, PA.


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

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


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

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


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

178 Epigenetic mechanisms regulate the T-Plastin (PL53) gene, a gene highly expressed in Sezary T cells. H Gibson, H Wong and P Porcu. Detroit, MI and Columbus, OH.


181 Identification of rare skin cancer stem cells using a syngeneic mouse model. S Eubank, K Muraro and DR Roop. Aurora, CO.

182 PAF receptor knockout mice exhibit increased chemical carcinogenesis and an increase in chronic PMA-induced inflammation. RL Konigs, A Kozman, JP Sahu, S DAsilva and JB Travers. Indianapolis, IN.

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

184 Polo like kinase 1 (Pik1) is expressed by Cutaneous T-cell lymphoma (CTCL) and its down-regulation promotes cell cycle arrest and apoptosis. M Nihal, NC Stutz, TL Schmit, N Ahmad and GS Wood. Madison, WI.

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

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

187 Rho-associated Kinase (ROCK) promotes primary and v-ras transformed mouse keratinocyte differentiation. LLJ, S Lutfial, A Lee and SH Yuspaa. Bethesda, MD.


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

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

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

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


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


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

198 Dynamic relationship of focal contacts and hemidesmosome protein complexes in live cells. T Ozawa, L Kobayashi, J Jones, M Ishii, K Ikeda, T Harada, Y Aoyama, A Kawada and D Tsuruta. Osaka, Japan; Chicago, IL; Aichi, Japan and Okayama, Japan.

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

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


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

205 Genomic study of fibroblasts links mtDNA changes to alterations in MMP and collagen expression affecting migration and invasion. J Jandova, J Janda, JZ Boyer and JE Sligh. Tucson, AZ.


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

209 ENaC mediates keratinocyte galvanotaxis by promoting lamellipodial protrusion at the ciliated side. H Yang and R Isseroff. Davis, CA.

210* Therapeutic implications of EGFR transactivation in pemphigus vulgaris. RP Jolly, M Bektas and DS Rubenstein. Chapel Hill, NC.

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

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

213 Gottron’s papules exhibit accumulation of CD44 variant 7 (CD44v7) and its binding partner osteopontin: A unique molecular signature. JS Kim and V Werth. New York, NY and Philadelphia, PA.


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

216* Polynuclear cell of pemphigus vulgaris IgG contributes to desmosomal disassembly by causing clustering and endocytosis of Dsg3. M Saito, M Kaufman, DK Tucker and AP Kowalczyk. Atlanta, GA.

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

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

219 A novel function for α6 integrin as a translational regulator of α3β1 integrin expression. KR Klige, Y Wu, SB Hopkinson and JC Jones. Chicago, IL.

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

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

222 Down-regulation of desmocollin-2 induces epithelial cell proliferation through activation of Akt/beta-catenin signaling. K Kolegraff, P Nava and A Nusrat. Atlanta, GA.

223 Inactive extracellular superoxide dismutase disrupts the secretion and function of active extracellular superoxide dismutase. B Jeon, H Yoo, Y Lee and T Kim. Seoul, South Korea.


225 Wound healing delay in HIF-1alpha knockdown keratinocytes. A Nusrat. Atlanta, GA.


228 Characterization of dermal interstitial proteoglycans in human skin. Y Li, Y Liu, W Xia, Y Shao, JJ Voorhees and GJ Fisher. Ann Arbor, MI.

229 Human facial and abdominal subcutaneous adipocytes are distinguished by their differentiation potential and responsiveness to lipolytic agents. A Pappas, S Chon and D Cavender. Skillman, NJ.

230 Retinoid suppresses CYR61/CCN1, a negative regulator of collagen homeostasis, in chronically aged and photoaged human skin in vivo and reconstructed human skin. Z Qin, Y Shao, Y Xu, JJ Voorhees, GJ Fisher and T Quan. Ann Arbor, MI.

231 A conditional knockout of the α3 laminin subunit. SB Hopkinson, KJ Hamill and JC Jones. Chicago, IL.

232 Development of a 3D reconstructed psoriatic tissue model. S Aveyhunie, D Jones, M Child, R Clark, T Kupper and M Klausner. Ashland, MA and Boston, MA.


234 Caveolin-1 interacts with desmogleins and modulates desmosome homeostasis. D Brennan, S Petelton, M Medhat, KJ Green, F Del Galdo and MG Mahoney. Philadelphia, PA; Turku, Finland and Chicago, IL.

235* DSC3 in skin tumor development and progression. JC Chen, O’Shea, JE Fitzpatrick and PJ Koch. Aurora, CO.

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


Clinical Research and Therapeutics

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

238 Treatment of the severe photodamage. G Giuliani, F Rinaldi and A Benedusi. Milan, Italy.


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

241 Broad defects in epidermal corneification in atopic dermatitis (AD) identified through genomic analysis. E Guttmann-Yassky, M Suarez-Farinas, A Chiricozzi, KK Nogales, J Fuentes-Duculan, AM Bowcock and JK Krueger. New York, NY and Saint Louis, MO.

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

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


245 Non invasive study for the detection of advanced glyced end products within the skin and nails in patients with diabetes mellitus. C Castillo-Martinez, M Gherbe, B Torres-Alvarez, B Moncada and FJ Gonzalez. San Luis Potosi, Mexico.

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

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

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

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

250 Modification of skin discoloration by an anti-oxidant. T Mamnone, M Muizuddin, L Declercq, D Clio, H Corstjens, I Sente, K Van Rillaer, M Matsu, Y Niki, M Ichihashi, PU Giacomoni and D Yarosh. Melville, NY; Belgium; Stony Brook, NY; Kobe, Japan and Kyoto, Japan.

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

252* A phase I/II trial of phototoxic agent treatment ("nanosutting") for excisional wound closure. S Tsao, M Yao, FP Henry, H Tsao, Y Zhao, J Kochevar, R Redmond and I Kochevar. Boston, MA.
253 Infant skin is similar in New Jersey and Mumbai and markedly different in Beijing in winter. M Chu, M Mack, N Tierney, E Ruvolo, G Stamatas, N Kollias, K Martin, K Bhagat and L Ma. Skillman, NJ; Mumbai, India and Beijing, China.

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


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

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

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

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

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


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

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

268 Inducible hyaluronan macropinocytosis by melanoma cells: A useful endocytic route for bioconjugate drug delivery. L Zhang, HJ Greyner and AB Kimball. Boston, MA and Cleveland, OH.


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

272 The smoothened inhibitor NVP-LDE225 has favorable skin penetration/ permeation properties in vitro and in vivo. A Billich, FS Kalthoff, H Aschauer, P Stuchlik, H Fahrngruber, E Kowsaly, JM Meingassner and A Stuetz. Vienna, Austria.


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


278* In vitro release of interferon-gamma from peripheral blood lymphocytes in cutaneous adverse drug reactions. J Goldberg, M Hanson, E Sprecher, G Chodick, I Shirazi and S Brenner. Tel Aviv, Israel.


281* The intrinsic type of atopic dermatitis shows normal barrier function, lack of filaggrin mutations, high percentage of TH1 cells, and high frequency of metal allergy. K Kabashima, M Nakamura, K Kobayashi, T Bito, K Kabashima, Y Nomura, M Akiyama, H Shimizu and Y Tokura. Kitakyushu, Japan and Sapporo, Japan.


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


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

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


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

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

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


300 Differences in photo-protected and photo-exposed skin of caucasians: A wrinkles biopsy study. R Noffsinger, C Sasik, D Rossetti, M Anthonavage, P Bargo and S Tucker-Samaras. Skillman, NJ.

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

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

303 Evaluation of subacute systemic toxicity using a non-animal sourced and B Hardas. Greensboro, NC.


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


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

308 A potent and selective CRTh2 antagonist is efficacious in a model of atopic dermatitis. LE Burgess, M McVean, C Napier, LL Carter, E Cberhardt, D Wright, N Klopfenstein and A Cook. Boulder, CO.


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


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

313 Cosmetic ingredients stimulate fibroblast contractile capabilities and procollagen-1 production resulting in skin anti-aging and skin lifting properties in vivo. L Visdal-Johnsen, T Al-Bader, A Byrne, J Gillbro, A Matarotonda, AV Rawlings and A Lalouef. Stockholm, Sweden; Bray, Ireland and Northwich, United Kingdom.


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

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

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


320* Gadalominum deposition in disease affected versus unaffected skin of neoplastic systemic fibrosis. KN Christenson, CU Lee, MM Hanley, N Leung, TP Moyer and MR Pittelkow. Rochester, MN.


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


324 Natural PPAR-alpha agonist and atopic dermatitis: From research to clinical efficacy. P Misika, C De Belloyosky, F Menu, C Baudouin and B Chadoutaud. E资源ion, France; Paris, France and Toulouse, France.

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


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

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

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

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

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

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


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


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

337 ABT-737 synergizes with bortezomib to kill melanoma cells by neutralizing multiple anti-apoptotic defenses. YG Shellman, KA Partyka, S Reuland, Y Luo, NB Goldstein, S Smith, M Fujita, R Gonzalez, K Lewis and DA Norris. Aurora, CO.
338 Documentation of skin responses in rhytidectomy with spectral imaging. E Ruvolo, P Bargo, T Dietz, R Scarnuffa, K Schoemaker, B DiBerardo and N Kollias. Skillman, NJ; Cincinnati, OH and Montclair, NJ.

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

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

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


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

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


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


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


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


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

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

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


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

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


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

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

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

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


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

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

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

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

375* The compact SF-12 can detect both physical and mental impacts of psoriasis severity. G Grodsky, D East, L Cao, D Carlson, K Kavlick, R Feig, P Pujari, B Schmoter, D Babineau, E Kern, T McCormick, K Cooper and N Korman. Cleveland, OH.


Epidemiology and Health Services Research

All orals [designated with an asterisk (*)] listed below are presented in the Epidemiology and Health Services Research Minisymposium on Friday, May 7, 2010 from 2:00-5:30 p.m. in Room 204, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

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


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


Usage of indoor tanning beds and risk of melanoma, squamous cell carcinoma and basal cell carcinoma. Y Li, AA Qureshi and J Han. Boston, MA.


Prevalence of cutaneous manifestations in POEMS syndrome patients. RY Nemgar, NI Comfere, A Dispenzieri, CM Lohse and R el-Azhary. Atlanta, GA.

The epidemiology of adolescent acne in North East China. C He, B Wei, Y Pang, H Wei and H Chen. Shenyang, China; Shanghai, China and New York, NY.

Methods to account for actinic keratoses (AK) burden. SC Cheo, N Hill, E Veledar, M Weinstock and CVA AK Rates Group. Atlanta, GA; Providence, RI and Washington DC.

Risk for multiple non-melanoma skin cancers among US women and men. AA Qureshi, Y Li and J Han. Boston, MA.

Evidence of reliability, reproducibility, and validity of the ItchyQoL in the veteran population. SP Kini, S Coleman King, E Veledar, LK DeLong, Z Rice, J Kamalpour and SC Chen. Atlanta, GA.

Depression and risk of incident psoriasis in US women: A prospective study. PI Dominguez, J Han, G Curhan, HK Choi and AA Qureshi. Boston, MA.

Cancer worry (CW) in Atypical Mole Syndrome (AMS) patients utilizing Total Body Digital Photography (TBDP): Does previous history of melanoma (MM) matter? S Coleman King, E Veledar, Z Rice, A Seidler, C Curiel-Lewandrowski and S Chen. Atlanta, GA and Tuscon, AZ.


Vitamin D levels and oral supplementation update in patients with skin cancer. L Delong, S Wetherington, N Hill, M Kumari, V Tangripricha and SC Chen. Atlanta, GA.

Getting to burden of disease: Willingness-to-pay (WTP) and Dermatology Life Quality Index (DLQI) in psoriasis and psoriatic arthritis. S Kumar, P Dominguez, J Han and A Qureshi. Boston, MA.


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

Screening for psoriatic arthritis and psoriasis phenotypes in the nurses’ health study 2. P Dominguez, H Choi, G Curhan, J Han and A Qureshi. Boston, MA.

Characteristics and survival of Kaposi sarcoma patients in the pre-AIDS, AIDS epidemic, and HAART eras. KJ Martines and JS Bordeau. Cleveland, OH.

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

Skin cancer risk perception in renal transplant recipients. TW Chang, M DeMara, B Vasudev and EB Olasz. Milwaukee, WI.


Epidermal Structure and Function

All oral sessions designated with an asterisk (*) will be presented in the Epidermal Structure and Function Minisymposium on Thursday, May 6, 2010 from 2:00-5:30 p.m. in Room 206-207, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.


Dermatomeasurement of iron overload: Sequestering iron in epidermis ameliorates hepatic accumulation of iron in mice with hematosis. LM Milstone, J Zhou, R Hu and C Blain. New Haven, CT.


Ultraviolet B irradiation induces the expression of hornein, a member of the S100 fused-type protein family in human skin. T Makino, T Yamakoshi, M Furuchi, N Huh and T Shimizu. Toyama, Japan and Okayama, Japan.


Different characteristics of reactive oxygen species produced by HaCaT cells treated with DNCB and BKC. D Kim, D Byamba, J Je and M Lee. Seongnam, South Korea and Seoul, South Korea.


Identification and characterization of trichohyalin-like 1 (TCHHL1), a novel S100 fused-type protein in human skin. T Yamakoshi, T Makino, C Ueda and T Shimizu. Toyama, Japan.

Regulation of asymmetric cell divisions in developing epidermis. N Poulsom and T Lechler. Durham, NC.


Effect of inducible misexpression of Dlx3 in basal keratinocytes on epidermal differentiation and hair development. AK Bartels, NB Gentile, O Duverger and MI Morasso. Bethesda, MD.

Compositional differences between infant and adult stratum corneum determined by in vivo Raman confocal microscopy. GN Stamatas, E Boireau and J Nikolovski. Issy-les-Moulineaux, France and Skillman, NJ.

Intracellular Ca2+ release is the initial signal for epidermal differentiation after acute epidermal permeability barrier perturbation. A Celli, DS Mackenzie, D Crumrine, C Tu, M Hupe, DD Bickle, PM Elias and T Mauro. San Francisco, CA.

Neutral lipid storage leads to acylceramide deficiency, likely contributing to the pathogenesis of Dorfman-Chanarin syndrome. Y Uchida, Y Cho, S Moradian, J Kim, K Nakajima, D Crumrine, M Ujihara, M Akiyama, H Shimizu, PM Elias, W Holleran and S Sano. San Francisco, CA; Seoul, South Korea; Nankoku, Japan and Sapporo, Japan.


PKCδ and η, MEKK1, MEK6, MEK3 and p38δ are essential mediators of normal keratinocyte differentiation. A Gadhikary, Y Chew, EA Reece and RL Eckert. Baltimore, MD.

Multiple mechanisms regulate expression of the p21waf1 cyclin-dependent kinase inhibitor leading to cessation of proliferation during keratinocyte differentiation. Y Chew and RL Eckert. Baltimore, MD.

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

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

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

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


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


Effects of hypoxia upon differentiation and proliferation of epidermal keratinocytes. D Weir, D Robertson, IM Leigh and AA Panteleyev. Dundee, United Kingdom.

A novel function for TAP63α in the epidermis. D Dai and DR Roop. Houston, TX and Aurora, CO.

Caspase-14 is required for filaggrin deprivation to natural moisturizing factors in the skin. D Gneenke, E Hoste, P Kemperman, M Devos, S Kezic, N Yau, B Gilbert, S Lippens, P Van Damme, K Govaert, RB Presland, P Caspers, P Vandenabeele and W Declercq. Ghent, Belgium; Rotterdam, Netherlands; Amsterdam, Netherlands and Seattle, WA.


Insect bites selective upregulate skin’s antimicrobial protein expression. E Proksch, C Neumann, J Harder, J Schroeder, O Sarig, C Enk and O Sarig. Tel Aviv, Israel; Haifa, Israel and Jerusalem, Israel.


Regulatory mechanisms of a natural moisturizing factor-generating enzyme, beloumycin hydrolase—its relevance to atopic dermatitis. Y Kamata, M Yamamoto, R Tsuobu, K Ishihasi, A Takeda and T Hibino. Yokohama, Japan; Sapporo, Japan.


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


Assessment of THP1 subacute cytotoxicity in order to evaluate long-term innocuity of soluble cosmetic ingredients. I Garcia, C Pouzet, M Arcioni, E Bauza and N Domloge. Sophia Antipolis, France and Wayne, NJ.

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

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


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


Zebrafish type XVII collagen/the 180-kDa bullous pemphigoid antigen: Gene structures, expression profiles, and morphologic “knock-down” phenotypes. S Kim, H Choi, J So, C Kim, S Ho, M Frank, Q Li and J Utito. Kayong, South Korea; Seoul, South Korea; Daejeon, South Korea and Philadelphia, PA.

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


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

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

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


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

Expression of the homeobox gene, HOPX, is modulated by PKC dependent signaling pathways and is involved in the expression of differentiation markers during the differentiation of human keratinocytes. J Yang, S Sim, H Kim and G Park. Seoul, South Korea.
462 Nummular eczema is highly associated with diminished innervation of the epidermis. B Maddison, A Parsons, O Sanguez, D Maruziva and G Yosipovitch. Winston Salem, NC and Sharnbrook, United Kingdom.

463 Regulation of epidermal tight junction proteins, claudin-1 and -4, by T-helper 1(Th1) and Th2-type cytokines. S Lee, J Baek, M Jeong and S Lee. Seoul, South Korea.

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


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


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


472 Chemical and biological compatibility of calcipotriene and clobetasol foam formulations. E Hsia, J Therrien, B Millerman, R Ye, D Luu and H Hofland. Palo Alto, CA and Rowvville, Australia.

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


476 Effects on proliferation, migration and cytoskeleton of keratinocytes and fibroblasts of a secretion of the mollusk cryptomphalus aspera. A Juanzar, M Iglesias de la Cruz, F Sanz-Rodriguez, M Calvo, E Reyes and S Gonzalez. Madrid, Spain and New York, NY.

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

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

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


481 Novel mechanisms for keratinocyte specification. A Tadeu and V Horsley. New Haven, CT.


483 ALDH“CD44” and d6“CD71” keratinocyte populations are enriched for human epidermal stem cell in vivo. A Szabo, S Fong, K Zhang, ML Manicanti and R Ghadially. San Francisco, CA and Berkeley, CA.


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


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

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


491* Lorican deficient mice as a model for atopic dermatitis. A Hauter, Y Refaeli and DR Roop. Aurora, CO.

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

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


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

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

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


499 Epidermal gene expression in atopic dermatitis compared to psoriasis and nonatopic controls. LA Beck, AEG Birger, MT McGriff, C Cheadle and A De Benedetto. Rochester, NY and Baltimore, MD.

500 Inositol polyphosphate-5-phosphatase (INPP5A) expression is associated with increased differentiation and decreased proliferative capacity of normal human keratinocytes. A Sekulig, M Pittelkow, S Shack, L Alla, M Bittner and J Trent. Scottsdale, AZ; Rochester, MN and Phoenix, AZ.

501 Improved dermal responsiveness and reproducibility in the human 3D skin model AccuSkin. C Tapia, C Goecke and W Hoeffler. Sausalito, CA and San Rafael, CA.

---

**Genetic Disease, Gene Regulation and Gene Therapy**

All orals [designated with an asterisk (*)] listed below are presented in the Genetic Disease, Gene Regulation and Gene Therapy Minisymposium on Thursday, May 6, 2010 from 2:00-5:30 p.m. in Room 208-209, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

502* Gene suppression in skin through topical delivery of polyvalent siRNA-gold nanoparticles. AS Pallar, D Giljohnan, D Zheng, H Iordanov, X Wang and CA Mirkin. Chicago, IL and Evanston, IL.

503 Different immunosuppressive strategies are required to control immune responses to antigenic fibroblasts and keratinocytes: Implications for cutaneous gene/cell therapy. W Zhang, C Kuscu and S Ghazizadeh. Stony Brook, NY.
504 Regulating the expression of genes responsible for the synthesis and maintenance of dermal hyaluronan and barrier lipids via topical treatment of salicin- an in vitro analysis. R Gopaul and HE Knaack. Provo, UT.

505 Salicin reduces the expression of genes associated with skin inflammation — An in vitro analysis. R Gopaul and HE Knaack. Provo, UT.

506 LiPH-prevalent founder mutations lead to loss of P2YS activation ability of PA-PLA1a in autosomal recessive hypotrichosis. S Shinkuma, M Akiyama, A Inoue, J Aoki, K Natsuoka, T Nomura, K Arita, R Abe, W Nishie and H Shimizu. Sapporo, Japan; Sendai, Japan and Dundee, United Kingdom.

507 Combination therapy of Rapamycin and Imatinib synergistically inhibits tuberous sclerosis tumors. R Gobina, D Shank, M Meyer, C Rose and R Paus. Luebeck, Germany and Manchester, UK.

512 Distribution of mitochondrial DNA deletions in Csb m/m and Csa-/- mice - the gene mutated in familial tumoral calcinosis. S Zhang, J Lee, J Namkung, S Kim, S Kim, E Shin, E Cho and J Yang. Seoul, South Korea and Cleveland, OH.

519* DNMT1 maintains epidermal progenitor function. AB Sanders, NC Salem, NC and London, United Kingdom.

520 Follow up study identifies six novel susceptibility loci for psoriasis in Han population. LA McClellan, LC Walker, M Yamauchi, H Nagaoka, RP Hall, WE St. Clair and HN Yeowell. Durham, NC and Chapel Hill, NC.

521 Follow up study identifies two novel susceptibility loci for systemic lupus erythematosus in Chinese Han population. Q Li, M Frank, E Sprecher, S Ho and J Uitto. Philadelphia, PA and Tel Aviv, Israel.

524* A double-blind, randomized, vehicle-controlled proof of concept study to evaluate the safety, local tolerability, pharmacokinetics and pharmacodynamics of multiple topical administrations of LDE225 (a specific smoothened inhibitor) on skin basal cell carcinomas in Gorlin Syndrome patients. MA de Rie, H Skvara, L Mickel, C Schuster, G Stary, A Stuetz, F Kalthoff, AM Costa Antunes, OJ David, K Rose, AP Bertolino and G Stingl. Basel, Switzerland; Austria and East Hanover, NJ.

525* Pemphigus vulgaris: A genome-wide association study. O Sarig, S Bercovici, L Zoller, M Indelman, I Goldberg, R Bergman, S Israeli, S Rosenberg, A Darvasi, D Geiger and E Sprecher. Tel Aviv, Israel; Haifa, Israel and Jerusalem, Israel.

526 Clerici-type poikiloderma with neutropenia resulting from a homozygous internal deletion mutation, c.179delC in the C10orf57 gene. A Tanaka, F Morice-Picard, HR Revzani, M Hide, A Taieb and JA McGrath. London, United Kingdom; Hiroshima, Japan and Bordeaux, France.

527 Association of single nucleotide polymorphisms in the IL-12 and IL-12 receptor genes and gene-gene interactions with atopic dermatitis in Koreans. E Kim, J Lee, J Namkung, S Kim, S Kim, E Shin, E Cho and J Yang. Seoul, South Korea and Cleveland, OH.


532 Distribution of mitochondrial DNA deletions in Csb m/m and Csa-/- mice of different ages. Y Kamenshik, A von Thaler, R Kuiper, H van Steeg, M Röcken, LH Mullenders and M Berneburg. Tuebingen, Germany; Leiden, Netherlands and Utrecht, Netherlands.

533 Connecting base excision repair (BER) and nucleotide excision repair (NER) within mitochondria: Cockayne syndrome A and B interact in complexes with mitochondrial (mt)DNA repair associated proteins 8-oxo-guanosine glycosylase (hOGG)-1 as well as mt single strand binding protein (SSBP)-1. Y Kamenshik, J Knock, A von Thaler, M Schaller, H van Steeg, M Röcken, LH Mullenders and M Berneburg. Tuebingen, Germany; Utrecht, Netherlands and Utrecht, Netherlands.

534 A survey of c-Kit mutations in adult-onset and childhood-onset mastocytosis patients. J Chan and MD Tharp. Chicago, IL.

535 Identification and characterization of zebrafish orthologues of SAMD9 - the gene mutated in familial tumoral calcinosis. Q Li, M Frank, E Sprecher, S Ho and J Uitto. Philadelphia, PA and Tel Aviv, Israel.

536 Global transcriptional analysis in psoriasis skin and blood highlights several genomio hotspots for differentially expressed genes. M Icen, JR Smith and AA Sinha. East Lansing, MI.

537 Topical application of type VII collagen for wound healing and treatment of DEB. P Ghasri, X Wang, A Ng, D Woodley and M Chen. Los Angeles, CA.

538 Polymorphisms in the obesity related FTO gene are associated with psoriasis. R Soltan-Arashibeh, B Feng, K Callins Duph, DE Goldgar, SC Hunt, RP Naar, JT Elder, GR Abecasis, AM Bowcock and GG Krueger. Salt Lake City, UT; Ann Arbor, MI and Saint Louis, MO.


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


542 Cylindrospiradenomas may arise from immunoprivileged hair follicle stem cells and are vulnerable to anti-inflammatory treatment. NT Meier, KC Meyer, C Rose and R Paus. Luebeck, Germany and Manchester, United Kingdom.

543* A murine model of renal epithelial damage using the FTO gene and an FTO deficient diet. C de Guzman Strong, S Conlan, CB Deming, J Cheng, K Sears and JA Segre. Bethesda, MD and Urbana, IL.

544* A large mutational study in pachyonychia congenita. NJ Wilson, SA Leachman, PR Hull, LM Milstone, ME Schwartz, CD Hansen and EI Smith. Dundee, United Kingdom; Salt Lake City, UT; Saskatoon, Canada and New Haven, CT.

545 The mouse Samd9L gene: Developmental and tissue-specific expression. Q Jiang, B Quaynor, A Sun, Q Li, H Matsui, H Honda, T Inaba, E Sprecher and J Uitto. Philadelphia, PA; Hiroshima, Japan and Tel Aviv, Israel.
546  Mutation-specific siRNA therapy for epidermolysis bullosa simplex.  VE McGilligan, S Atkinson, H Liao, T Moore and I McLean.  Dundee, United Kingdom and Coleraine, United Kingdom.


548*  Aminoglycosides restore type VII collagen function by overcoming premature stop mutations: Implications for DEB therapy.  J Weinstein, J Cogan, Y Hsu, S Martin, X Wang, P Ghiasi, A South, D Woodley and M Chen.  Los Angeles, CA and Dundee, United Kingdom.


550  A comparison of Type VII collagen levels, mmp1 promoter polymorphism and clinical severity in a Mexican cohort of patients with recessive dystrophic epidermolysis bullosa.  J Garza-Gomez, J Salas-Alanis, J Ocampo-Candiani, M Gomez-Flores, J McGrath and AP South.  Monterrey, Mexico and Dundee, United Kingdom.

551*  Genome-wide association study in alopecia areata implicates both innate and adaptive immunity.  I Petukhova, M Duvic, M Hordinsky, D Norris, V Price, Y Shimomura, H Kim, P Singh, A Lee, WV Chen, KC Meyer, R Paus, C Jahoda, CI Amos, PK Gregersen and AM Christiano.  New York, NY; Houston, TX; Minneapolis, MN; Denver, CO; San Francisco, CA; Manhasset, NY; Lubeck, Germany; Manchester, United Kingdom and Durham, United Kingdom.

552  A review of the clinical findings in 231 patients with pachyonychia congenita.  MJ Elision, SA Leachman, D Goldgar, M Schwartz and C Hansen.  Salt Lake City, UT.

553*  Hairless and the polyamine putrescine form a negative feedback loop in keratinocytes.  C Luke, C Alex, H Kim, S Gilmour and AM Christiano.  New York, NY and Wynnewood, PA.


555  Whole-genome transcriptional profiling for the evaluation of psoriasis-like mouse models.  WR Swindell, A Johnston, E Baerwald, J Eldr, EP Prens, NL Ward and JE Gudjonsson.  Ann Arbor, MI; Rotterdam, Netherlands and Cleveland, OH.

556  Tumour necrosis factor alpha promoter -308g/a (tnfa -308g/a) polymorphism in Mexican patients with alopecia areata.  CS Salinas-Cantu, M Salinas-Santander, A Lagos-Rodriguez, C Sanchez-Dominguez, C Rios-Ibarra, R Ortiz-Lopez and J Ocampo-Candiani.  Monterrey, Mexico.

557*  Promoter elements and protein function of TNIP1 indicate a regulatory equivalent model.  R Hickerson, D Leake and RL Kaspar.  Santa Cruz, CA.


560  Evaluation of functional siRNA delivery in a human epidermal skin equivalent model.  RP Hickerson, D Leake and RL Kaspar.  Santa Cruz, CA and Lafayette, CO.

561*  Silencing reporter gene expression in skin using siRNAs delivered by a soluble protrusion array device (PAD).  E Gonzalez-Gonzalez, TJ Speaker, R Hickerson, R Spiteri, M Flores, D Leake, CH Contag and RL Kaspar.  Stanford, CA; Santa Cruz, CA and Lafayette, CO.

562  Increased interstitial pressure increases nucleic acid delivery to skin enabling a comparative analysis of constitutive promoters.  E Gonzalez-Gonzalez, H Ra, R Spiteri, RP Hickerson, CH Contag and RL Kaspar.  Stanford, CA and Santa Cruz, CA.

563*  Differentiation of induced pluripotent stem cells into a multipotent keratinocyte lineage.  G Blouwos, J Chen and DR Roop.  Aurora, CO.


566  The first Asian case of Dowling Dego Disease described with a recurrent keratin 5 mutation.  RL Haines, JE Common, D Lunny, K Chong, E Lane and B Goh.  Singapore, Singapore.

567  MicroRNAs in the epidermis and dermis are associated with skin and hair follicle morphogenesis.  M Tavazoie, C Higgins, K Inoue, K Fantauzzo, H Bazzi, GD Richardson, C Jahoda and AM Christiano.  New York, NY and Durham, United Kingdom.

568  Gene-breaking mutagenesis in zebrafish identifies the novel epidermal mutant wicked witch of the Midwest.  SE Westcott, D Balciunas, S Sivasubbu, KJ Clark, AM Petzold, G Moulder, TM Greenwood and SC Ekker.  Minneapolis, MN; Rochester, MN; Philadelphia, PA and New Delhi, India.


570  Calcium-induced epidermal differentiation is a reversible process regulated by PKD.  A Jadali and S Ghazizadeh.  Stony Brook, NY.

571  Uproglation of nuclear factor-κB (NF-κB) expression by SLURP-1 via Kadin2 and Keratinocyte a7 Nicotinic Acetylcholine Receptor (nACHr) involves both ionic events and activation of protein kinase C.  A Chernyavsky, J Qian and S Grando.  Irvine, CA.


573*  ErB2 interacting protein (Erbin) binds unique domains of the desmoglein 1 C-terminus to form a complex that cooperatively promotes epidermal differentiation.  CL Simpson, R Harmon, S Getsios and RJ Green.  Chicago, IL.

574  Neurotrophins stimulate human fibroblast differentiation, migration and contractile strength.  K Dallago, E Palazzo, A Marconi, C Vienett, M Dumas, P Humbert and C Pincelli.  Modena, Italy; Saint Jean de Braye, France and Besancon, France.

575*  Targeted inducible expression of wnt5a in adult mouse epidermis.  J Reilly, M Romanowska and J Foerster.  Dundee, United Kingdom.

576  Opposing actions of insulin and arsenite converge on p53 to alter keratinocyte proliferation and differentiation.  TQ Patterson, RH Rice and RL Kaspar.  Davis, CA.

577  Endogenous galectin-3 positively regulates keratinocyte migration by controlling EGFR intracellular trafficking through Alix.  W Liu, DK Hsu, H Chen, R Yang, L Larsen, R Isseroff and F Liu.  Sacramento, CA and North Chicago, IL.

578*  STA-21, a stat3 inhibitor, induces differentiation of normal human epidermal keratinocytes and human keratinocyte derived cell lines.  M Takaishi, M Yokogawa, K Miyoshi, K Nakajima, J DiGiannov and S Sano.  Nankoku, Japan and Austron, TX.

579  Spermidine stimulates hair follicle elongation and anagen prolongation, accompanied by increased keratin K15 expression.  Y Ramot, S Tiede, G Giuliani and R Paus.  Jerusalem, Israel; Lubeck, Germany; Milan, Italy and Manchester, United Kingdom.


581*  Th2 cytokines-induced dual oxidase 1 in human epidermal keratinocytes makes a positive feedback loop for IL-4/IL-13 signaling by augmenting STAT6 phosphorylation via oxidative inactivation of protein tyrosine phosphatase 1B.  S Hirakawa, R Saito, H Ohara, R Okuyama and S Aiba.  Sendai, Japan and Yokohama, Japan.

582  Vegetable peptid SP005 promotes activation of mTOR pathway through ERK/MAPK signal in stem cell proliferation.  J Lee, E Jung, S Huh, K Roh, Y Kim, D Park and J Lee.  Gunpo-City, South Korea.

Adipose-derived stem cell-cultured media improves oxazolone induced atopic dermatitis skin lesions. H Lee, M Jung and E Choi. Wonju, South Korea.


586 Genetic deletion of Egr1 results in delayed catagen associated with defective cell cycle progression. W Michiel, DA Porto, E Forney, C Foote and LA Hansen. Omaha, NE.


588* The TBJRI expression levels determine whether TGFβ activates or inhibits ERK without participation of TBJRI. A Han, B Bandopadhyay, J Dai, J Fan, Y Li, M Chen, D Woodley and W Li. Los Angeles, CA.


590 UV irradiation reduces Type II TGFβ receptor expression by transcriptional repression through a 38 base pair promoter sequence in human skin fibroblasts. T He, T Quan, Z Qin, JJ Voorhees and GJ Fisher. Ann Arbor, MI.

591* Deacetylated gangliside GM3 activates uPAR/p38 MAPK kinase signaling in caveolar domains. X Wang, P Sun, J Liu, Q Yan and AS Paller. Chicago, IL.

592 p75NTR mediates apoptosis in transit amplifying (TA) cells and its overexpression restores cell death in psoriatic keratinocytes. F Fruzzi, A Marconi, R Lotti, K Dallaglio, E Palazzo, R Borroni, C Vaschieri, R Tiberio and C Pincelli. Modena, Italy and Novara, Italy.

593** Adipocytes and adiponectin secretion plays a major role in skin physiology and in diabetes wound healing pathology. L Braiman-Wiselman, R Mandil-Levin, M Ben-Hamo and T Tenenbaum. Rehovot, Israel.

594* The role of the PLD2/AQP3/PG signalizing module in keratinocyte proliferation and differentiation. H Qin and WB Bollag. Augusta, GA.

595* Tissue inhibitor of metalloproteinase 1 is induced in th1 and th17 t-helper cell subsets in a stat-dependent manner. AS Adamson, A Laurence, K Ghoreschi, M Rittler, Y Kanno, L Wei, W Stetler-Stevenson and J Voorhees. Ann Arbor, MI.

596 Withdrawn.

597 Irritant induced purine release mediates EGF activation in vitro. K White, M Newton-West, VJ Maffei and RA Swerlick. Atlanta, GA and Decatur, GA.

598 Cathepsin S is a cysteine protease, elicits itch and signals via protease-activated receptors. EA Lerner, Y Sun, SG Shimada, P Sikand, RH LaMotte and WB Bollag. Augusta, GA.


601 A study of NGF levels in atopic dermatitis. NGF does not seem to be a reliable marker for severity of atopic dermatitis. H Wang, AD Papoulis, Y Ishiiji, G Yospitovitch and M Schmelz. Winston-Salem, NC and Mannheim, Germany.

602 The phospholipase D2-acquaporin-3-phosphatidylglycerol lipid signaling pathway in corneal epithelial proliferation and migration. D Xie and WB Bollag. Augusta, GA.

603 UVR induction of snail and slug is independent of lipid raft composition. SH Shirley, S George, S Wu and DF Kusewitt. Smithville, TX and Athens, OH.

604* Slug modules ultraviolet radiation induction of calprotectin in keratinocytes. J He and DZ Kusewitt. Smithville, TX.

605 Modulation of signal transduction by (-)-epigallocatechin-3-gallate (EGCG) in sebocyte. J Kim, DM Thiboutot and D Suh. Seoul, South Korea and Hershey, PA.

606* Amphiregulin carboxy-terminal domain regulates autocrine keratinocyte growth and differentiation. SW Stoll, L Rittié and JT Elder. Ann Arbor, MI.

Hair and Cutaneous Development

All orals [designated with an asterisk (*)] listed below are presented in the Hair and Cutaneous Development Minisymposium on Friday, May 7, 2010 from 2:00-5:30 p.m. in Salon D, Hilton Atlanta or in the Hair and Cutaneous Development II: Hair Differentiation & Cycling Minisymposium on Saturday, May 8, 2010 from 2:00-5:30 p.m. in Salon D, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.


608 Probiotic Lactobacillus rhamnosus LR-04 oral supplementation improves dandruff condition. G Giuliani, A Benedusi, A Marzani and M Mascolo. Milano, Italy.


613 Gene expression profiling reveals similarities and distinct differences between lymphomcytic and neutrophilic cicatricial alopecias. S Parmeswara Paniker, L Xu, MC Consolo, VH Price, P Mirmirani and P Karrin. Cleveland, OH; San Francisco, CA and Vallejo, CA.

614 Expression of MPZL3 during mouse skin differentiation. J Weiss, R Rodriguez, P Racz, GY Nakamatsu, K Ciszar and T Cao. Miami, FL and Honolulu, HI.

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


617* Fuz is a PCP effector gene that controls the morphogenesis and differentiation of hair follicles. D Dai, H Zhu, B Wlodarczyk, L Zhang, AG Li, RH Finnell, DR Roop and J Chen. Aurora, CO; Houston, TX and Portland, OR.

618* Dermal Sonic Hedgehog signaling is required for hair follicle morphogenesis and regeneration. W Woo, HH Zhen and AE Oro. Palo Alto, CA.

619* Deletion of ddr integral beta-1 leads to adhesion, but not hair follicle morphogenesis, defects. MC DeRouen, MP Marinovich and AE Oro. Stanford, CA.


621 VEGF stimulates proliferation of human outer root sheath cells through VEGF receptor-2 mediated ERK signal pathway. M Zheng, W Li, C Li, X Man, Y Yang, S Cai and ZL Wu. Hangzhou, China.

622 VEGF receptor-2 mediates proliferation of human dermal papilla cells through ERK pathway, but not through p38 MAPK, JNK, AKT pathways. W Li, C Li, J Zhou, J Chen, X Man, S Cai, ZL Wu and M Zheng. Hangzhou, China.


626* m53 and IRF6 are components of a common molecular pathway disrupted in ectodermal dysplasias. F Moretti, G Spallone, E Botti, A Giunta, N Lo Iacono, G Merlo, A Mills, S Alemà, S Chimenti, L Guerrini and A Costanzo. Rome, Italy; Milan, Italy; Turin, Italy; Cold Spring Harbor, NY and Monterotondo, Italy.
627 Effects of extracellular calcium on cultured sebocytes. J Kim, W Lee, H Kim, B Kim, S Lee and D Kim. Daegu, South Korea and Busan, South Korea.


629 Withdrawn.

630 New pointers towards a role of perifollicular mast cells in alopecia areata. M Bertolini, P Kleditzsch, VU Emelianov, K Sugawara, KC Meyer and R Paus. Lübeck, Germany and Manchester, United Kingdom.


632 Inhibition of sebaceous gland differentiation and production of sebum-specific lipids by a melanocortin receptor 5 antagonist. M Eisinger, W Li, M Anthonavage, L Zhang, A Pappas, D Rossetti and M Seiberg. Skillman, NJ.


634** Genome organizer and special A-Rich-binding protein Satb1 controls the establishing tissue-specific chromatin organization during development of the epidermis. MY Fessing, MR Gdula, AN Mardarvey, AA Sharov, TV Sharova, KB Gordon, T Kohwi-Shigematsu and VA Botchkarev. Bradford, United Kingdom; Boston, MA and Berkeley, CA.

635 Autoimmunity, skin morphology and hair cycling in a mouse model of systemic lupus erythematosus. T Parsons, E Hagen, L Xu, B Sakic and P Arck. Hamilton, Canada and Berlin, Germany.


637 Clinical evaluation of embryonic-like fibroblast secreted proteins to induce hair growth in humans. G Naughton, M Zimber, C Ziering, M Hubka, R Kellar, K Hubka, D Perez-Mesa and J Mансbridge. San Diego, CA and Maitland, FL.

638 Endo- and phytocannabinoids differentially regulate biology of human epidermal skin cells. A Ofaiz, BI Töth, AG Szöllösi, G Czifra, K Sugawara, CC Zouboulis, R Paus and T Biró. Debrecen, Hungary; Lübeck, Germany and Dessau, Germany.

639 MicroRNA-31 regulates a complex program of gene expression during murine hair cycle and associated tissue remodeling. M Ahmed, A Mardarvey, N Vlahov, A Sharov and N Botchkarev. Bradford, United Kingdom and Boston, MA.

640* Role of Sostdc1 in hair follicle and mammary gland development. K Nähr, M Stummers, T Theileff and ML Mikkel. Helsinki, Finland.

641 “Tonic inhibition” of human and mouse skin mast cell functions in situ by endocannabinoids and cannabinoid receptor 1 (CB1)-mediated signaling. K Sugawara, T Biró, A Kromminga, A Zimmer, BF Gibbs, A Zimmer and R Paus. Luebeck, Germany; Debrecen, Hungary; Hamburg, Germany; Bonn, Germany; Kent, United Kingdom and Manchester, United Kingdom.


643* Regulation of Shh and Sox9 by Trp53 in the developing murine hair follicle. KA Fantauzzo and AM Christiano. New York, NY.


645* The miRNA-processing enzyme Drosha is required for hair follicle regression, hair shaft differentiation, long-term maintenance of hair follicle stem cells, and epidermal homeostasis. Y Choi, A Nagy, O Tam, GJ Hannon and SE Millar. Philadelphia, PA; Toronto, Canada and Cold Spring Harbor, NY.

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

647* Inductive signaling from the dermal papilla of the hair follicle. D Enshassi-Seijfers, M Kashiwagi and BA Morgan. Boston, MA.

648* Adult human epithelial stem cells are a novel target for thyroid hormone regulation in situ and in vitro. K Bohm, S Tiede, N Meier and R Paus. Lübeck, Germany and Manchester, United Kingdom.

649* The nude mutant gene Foxn1 is a HOXC13 regulatory target during hair follicle and nail differentiation. CS Potter, ND Pruett, MJ Kern, AR Godwin, JP Sundberg and A Awuglewischt. Charleston, SC; Kansas City, KS and Bar Harbor, ME.

650* The ΔNP63 isofrom is an essential regulator of epithelial development and stem cell renewal. R Romano and S Sinha. Buffalo, NY.


655* Extrinsic regulation of hair follicle cycling. E Festa, M Rodeheffer, M Horowitz and V Hersley. New Haven, CT.

656* Overexpression of microRNA miR-31 in mouse skin alters hair growth. M Lu, C Ho, L Nanney, L King and T Andl. Nashville, TN.

657* Negative regulation of Shh expression in a model of the RAS/MAPK syndromes. A Muhkopadhyay, S Kumar and BD Yu. San Diego, CA.


659 Age, gender and ethnic variations in sebaceous lipids. A Pappas, J Fantasia and T Chen. Skillman, NJ.

660 Suppression of DNA degradation by inactivation of DNASe1L2 leads to increased fragility of hair. H Fischer, S Szabo, J Schierz, K Jaeger, M Buchberger, H Rossiter, M Ghannadan, R Gmeiner, M Hermann, DJ Tobin, EF Wagner, E Tschachler and L Eckhardt. Vienna, Austria; Bradford, United Kingdom; Madrid, Spain and Paris, France.


662* The living wave: Self-organizing regenerative behavior of stem cells revealed in the cycling of large hair follicle populations. MV Plikus, RE Baker, C Chen, Fare, D de la Cruz, PK Maini, S Millar, RB Widelitz and CM Chuong. Los Angeles, CA; Oxford, United Kingdom and Philadelphia, PA.

663* Generation of induced pluripotent stem cells by reprogramming human dermal papilla cells. CA Higgins, M Ito, K Inoue, GD Richardson, CA Jahoda and AM Christiano. New York, NY and Durham, United Kingdom.

664* Wnt/b-Catenin- and deprivation-induced activation of hair follicle stem cells requires chromatin regulatory protein Pyg02. P Sun and X Dai. Irvine, CA.

665* Defining BMP functions in hair follicle stem cell homeostasis by conditional ablation or activation of BMP receptor 1A. E Kandyba, Y Leung, Y Chen and K Kobiela. Los Angeles, CA.


667* c-myb ablation affects hair follicle homeostasis. J Murphy, E Lustiger, JC Strange, J Frampont and A Engelhard. New York, NY and Edgbaston, United Kingdom.

668* Keratin 74 is a novel determinant of human hair texture and is mutated in autosomal dominant woolly hair. Y Shimomura, M Wajid, L Petukhova, M Kurban and AM Christiano. New York, NY.

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

670 Reconstitution of human hair follicles using fetal epidermal and dermal cells. C Yang, D Gay and G Cotsarelis. Taiwan, Taiwan and Philadelphia, PA.

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

673 Impact of copy number variations in the human genome on hair patterns. Gk Lewkowitz, A Mukhopadhyay, C Cowing-Zittron and BD Yu. La Jolla, CA.

Immunology I: Adaptive Immunity

All orals [designated with an asterisk (*)] listed below are presented in the Immunology I: Adaptive Immunity Minisymposium on Thursday, May 6, 2010 from 2:00-5:30 p.m. in Salon B, Hilton Atlanta. Orals designated by two asterisks (**) will be presented during a Plenary Session.

674 Different effects of active or IgE-dependent passive systemic anaphylaxis on endothelin-1. M Metz, B Schärer, M Tsai, M Maurer and SJ Galli. Berlin, Germany and Stanford, CA.

675* Galectin-1 is a potent inducer of a regulatory phenotype on skin-resident memory T cells. F Cedeño-Laurent, ST Barthel, RA Clark and CJ Dimitroff. Boston, MA.


677 Exposure of Langerhans cells (LCs) to pityuitary adenylate cyclase-activating peptide (PACAP) or vasoactive intestinal peptide (VIP) biases antigen presentation towards a CD4+ T cell IL-17 response. W Ding, LL Stohl, M Manni and RD Granstein. New York, NY.

678 Muramyl dipeptide induces Th17 polarization through activation of endothelial cells. M Manni, W Ding, LL Stohl and R Granstein. New York, NY.

679* PD-1 expression is a marker of a tumor-reactive but functionally impaired lymphocyte population infiltrating human melanoma. T Inoue, K Hanada, J Wunderlich, S Rosenberg, S Shimada and Y James. Bethesda, MD and Chuo, Japan.


681* Desmoglein 3-specific TCR transgenic CD4+ T cells that escape from central tolerance induce autoreactive dermatitis. H Takahashi, S Koyasu, M Kuswana and M Amagai. Tokyo, Japan.

682 Both the elicitation phase of contact hypersensitivity response and irratant dermatitis are suppressed by administration of Th1-based drugs. A Fukunaga, T Horikawa, K Ogura, K Taguchi, X Yu, Y Funasaka, M Takeda, H Nakamura, J Yodoi and C Nishigori. Kobe, Japan.

683 A novel polyclonal peripheral B cell tolerance model (Liver specific Ig-k SuperAntigen). T Otta, M Aoki-Ota, B Duong and D Nemaze. La Jolla, CA.


685 The effect of clonal mesenchymal stem cells on IgE production of activated B cells. H Lee, J Byun, G Choi and J Shin. Incheon, South Korea.

686* Discovery of a new dendritic cell subset, termed “gr-DC,” derived from a granulocyte precursor. S Geng, H Matsushima and A Takashima. Toledo, OH.

687* In vivo immunomodulatory functions of Abcb5+ dermal mesenchymal stem cells. T Schatton, J Yang, M Grimm, M Gasser, AM Waaga-Gasser, MH Sayegh and MH Frank. Boston, MA and Würzburg, Germany.

688 Abscopal effect in a patient with metastatic Merkel cell carcinoma following radiation therapy. SE Cotter, PM Devlin, KM Collins, D Sahni, AK Ng and LC Wang. Boston, MA.


691 Chemokine requirements for epidermal T cell trafficking. JL Campbell and NJ Tubo. Boston, MA.

692 Abnormal barrier function and allergic skin inflammation in mice overexpressing Th2 cells via a constitutively active STAT6 gene. S Da Silva, S Sehra, MD Southall, MH Kaplan and JB Travers. Indianapolis, IN and Skillman, NJ.

693* Langerhans cells induce expansion of skin resident tregs in the absence of exogenous antigen, but activate T effector memory cells in the presence of microbial antigen. J Senescall, RA Clark and TS Kupper. Boston, MA.

694 Comparison of flow cytometry and ELISA in the evaluation of the skin sensitization by non-radioactive murine local lymph node assay using bromodeoxyuridine. K Jung, J Lee, Y Chung, Y Park and K Lim. Young-in-si, South Korea and Seoul, South Korea.

695 A controlled aquaporin-3 expression in T lymphocytes regulate their migration and trafficking in cutaneous immune reaction. M Hara-Chikuma, S Chikuma, K Kabashima, K Nakagishii, A Kamegawa, Y Fujiyoshi, AS Verkman, Y Sugiyama, S Inoue and Y Miyachi. Kyoto, Japan; Odawara, Japan and San Francisco, CA.

696 Propionibacterium acnes vaccination improves mouse atopic dermatitis inducing regulatory T cells and Th1 immune response. H Kitagawa, K Yamanaka, M Kakeda, H Inada, Y Imai, EC Gabazza, I Kurokawa and H Mizutani. Tsu, Japan and Nishinomiya, Japan.


698 Role of HERV-K dUTPase in immune dysregulation and psoriasis disease. M Arita and MV Williams. Columbia, SC and Columbus, OH.


700* Interleukin-31 directly regulates neuronal function in inflammation and itch. F Cevikbas, X Wang, S Seewiger, M Fischer, SR Dillon, B Homey, A Basbaum and M Steinhoff. San Francisco, CA; Goettingen, Germany; Seattle, WA; Erlangen, Germany; Dusseldorf, Germany and Muenster, Germany.

701* Sustained skin specific inflammation elicits increases in circulating Ly-6C monococytes and spontaneous atherosclerotic plaque formation in a murine model of psoriasis. Y Wang, H Gao, C Matheny, W Fu, D Diaconu, S Liu, KD Cooper, DI Simon, TS McCormick and NI Ward. Cleveland, OH.

702 Langerhans cells require cognate interaction with CD4+ T cells and secrete IL-10 to suppress CHS responses. B Igbarjo, JD Dudda, A Roers, PA Koni, DJ Campbell and DH Kaplan. Minneapolis, MN; Seattle, WA; Dresden, Germany and Augusta, GA.

703 Acute ablation of epidermal Langerhans cells enhances skin immune responses. A Bobr, I Olvera-Gomez, BZ Igbarjo, KA Hogquist and DH Kaplan. Minneapolis, MN.

704* Homoisoflavonene prevents allergic responses by degranulation of mast cells through the inhibition of FceRI signaling pathways. Y Lee, S Hur and T Kim. Seoul, South Korea.


707 IRF8 as a potentially key determinant in the activation or death of CD8 T cells. F Miyagawa, EA Nelson and SJ Katz. Bethesda, MD.

708 Deletion of microRNAs mediated by Langerin-Cre impairs epidermal Langerhans cell development. H Wang, K Li, R Qi, S Keo, Z Zheng, D Kaplan, Q Mi and L Zhou. Detroit, MI and Minneapolis, MN.

709 Effect of extracorporeal photopheresis on dendritic cell populations in patients with Sézary syndrome and graft versus host disease. LH Shiue, M Gowsami, A Alousi, M Duvic and X Ni. Houston, TX.

710* Retinoid Orphan Receptor-gamma (ROR-γ) deficient mice generate potent Th9 responses, but not Th17 responses, under Th17 polarizing conditions. R Purwar, AM Jetten and TS Kupper. Boston, MA and Research Triangle, NC.
711 Deficiency of retinoid related orphan receptor-gamma (ROR-γ) results in impaired contact hypersensitivity (CHS) responses, but enhanced melanoma tumor immunity. R Purwar, AM Jetten and T Kupper. Boston, MA and Research Triangle, NC.

712** Effectory memory T cells persist long term in the skin, and their recirculation into blood is limited. X Jiang, A Wagers, R Clark, L Liu, R Fuhlbrigge and T Kupper. Boston, MA.

713* Vaccination through epidermis with Vaccinia Virus (VACV) generates skin resident T cells, central memory T cells and lung resident T cells which protect the host independent of antibody. L Lisa, T Tian and TS Kupper. Boston, MA.

714 T-cell immunosenescence is associated with the presence of Kaposi’s Sarcoma in antiretroviral treated human immunodeficiency virus infected persons. P Unemori, P Hunt, KS Leslie, E Sinclair, JN Martin, SG Deeks and T Maurer. San Francisco, CA.


716 A role for IL-5 in promoting increased IgM at the site of disease in leprosy. MT Ochoa, R Teles, B Haas, D Zaghbi, H Li, EN Sarno, TH Rea, RL Modlin and DJ Lee. Los Angeles, CA; Bronx, NY and Rio de Janeiro, Brazil.

717* Psoriasis lesions are enriched in IL-22+ and IL-17+ T cells with an associated increase in the IL-17A+/IL-17B+ T cell ratio. CJ Rubin, M Riblett, A Lin, RJ Nair, JT Elder and AT Bruce. Ann Arbor, MI.


719 Effect of local hyperthermia on Langerhans cells in normal and HPV infected skin. H Chen and X Gao. Shenyang, China.

720 The human T cell repertoire contains CD1a autoreactive T cells that home to the skin and modulate keratinocytes through interleukin-22. A de Jong, V Peña-Cruz, T Cheng and B Moody. Boston, MA.

721* Platelet induction of monocyte-to-dendritic cell maturation. TS Durazzo, CL Berger and RL Edelson. New Haven, CT.

** Immunology 2: Innate Immunity and Microbiology

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

722 Antimycotics enhance the production of human β-defensin-3 in human keratinocytes: Another possible mechanism for antimicrobial effects. N Kanda and S Watanabe. Tokyo, Japan.

723 Staphylococcus aureus hijacks a skin commensal to intensify its virulence: Vaccination targeting β-hemolysin and CAMP factor. C Lo, Y Lai, RL Gallo and C Huang. San Diego, CA and Hsinchu, Taiwan.

724 N-acetyl-S-farnesyl-L-cysteine (AFc) suppresses ATP5s-induced CCLX8, CCL2 and CCLX11 production in a human dermal microvascular endothelial cell line (HMEC-1) and primary human dermal microvascular endothelial cells (pHMDECs). R Adhami, J Wong, M Schierr, JS Gordon, JR Fernandez, E Perez, M Stock and R Granstein. New York, NY and Monmouth Junction, NJ.

725 Staphylococcal LTA suppresses TL83-dependent inflammation following skin injury. Y Lai and R Gallo. San Diego, CA.

726* Dietary vitamin D3 protects against bacterial skin infection. B Mueheisen, T Jaale, K Radek and R Gallo. San Diego, CA; Birmingham, AL and Maywood, IL.


728* Staphylococcus aureus derived monomeric peptidoglycan is a NOD2 ligand and aggravates TLR mediated inflammation by amplifying Th1 and Th17 responses. T Volz, M Nega, J Buschmann, S Kaeoler, E Guenova, M Roeken, F Götz and T Biedermann. Tübingen, Germany.

729* IL-23 and Th17 cytokines control cutaneous infection with Candida albicans as well as C. albicans-induced epidermal hyperplasia. S Kagami, H Rizzo, S Kurtz and A Blauvelt. Portland, OR.


731 Heat-treated vaccinia virus induces type I IFN production in dendritic cells and macrophages through distinct pathways. P Dai, H Cao, F Wang, T Mergoub, C Fang, P Pitta-Rowe, L Waggoner, KA Fitzgerald, A Rice, R Moyer, A Houghton, S Shuman and L Deng. New York, NY; Baltimore, MD; Worcester, MA; San Diego, CA; and Vienna, VA.


734 Propionibacterium acnes induces an inflammatory response in keratinocytes via cross-talk of the p38 MAPK and NF-κB pathways. S Kaur, P Lyte, R Kharidia and MD Southall. Skillman, NJ.


737 Antimicrobial and anti-inflammatory effects of newly designed synthetic Cecropin A (1-8)-Magainin 2 (1-12) hybrid peptide CA-MA analogue 5 against Malassezia furfur. S Ryu, S Acharya, C Gurley, Y Park, CA Armstrong and PI Song. Little Rock, AR and Guangji, South Korea.

738 Production of IL-37 during herpess simplex viruses type 2 infection in human keratinocytes enhances HSV susceptibility in Langerhans cells. Y Ogawa, T Kawamura, A Blauvelt and Shima. Yamanashi, Japan and Portland, OR.

739 The contact allergen 2,4-dinitrochlorobenzene has minimal effects on microRNA-155 expression in human monocyte-derived dendritic cells and in a skin explant model. E Vayatsikou, C Pickard, T Sanchez-Eslcer and E Healy. Southampton, United Kingdom.

739* TL2-activation turn mast cells in skin sentinel against viruses. J Wang, Y Lai, DT McLeod, AL Cogen and A Di Nardo. La Jolla, CA.

740 Claudin-1 defect in atopic dermatitis may enhance susceptibility to HSV-1 infections. A De Benedetto, M Dubois, M Bolognino, DC Johnson, MK Silfka, DY Leung and LA Beck. Rochester, NY; Beaverton, OR and Denver, CO.

741 Activating Transcription Factor 3 (ATF3)-mediated protection against endotoxins causes severe susceptibility to bacterial infections. W Hoetenzecker, E Guenova, F Woelbing, B Echtenacher, J Brueck, E Glocova and T Volz. Tübingen, Germany.

742 The Activating Transcription Factor 3 (ATF3) determines the state of postseptic immune suppression in humans. W Hoetenzecker, B Echtenacher, E Guenova, J Brueck, B Hoetenzecker, T Biedermann, K Ghoreschi and M Roecken. Tuebingen, Germany.

743* Survey of bacterial diversity on infant skin over the first year of life. K Capone, SE Dowd, GN Starnas and J Nikolovski. Skillman, NJ; Issy-les-Moulineaux, France and Lubbock, TX.


746** Langerhans cell dendrites penetrate through epidermal tight junction barrier during foreign antigen uptake. A Kubo, K Nagao, M Yokouchi, K Yoshida, H Sasaki and M Amagai. Tokyo, Japan and Osaka, Japan.

749 TRIF-mediated IGE type class switch which are induced by TLR9 and MyD88 activation. E Lee, K Na, J Cheon, M Jeon and T Kim. Seoul, South Korea.


752 Peptidoglycan and related molecules increase tight junction function and expression in human keratinocytes. Y Kuo, A De Benedetto, T Yoshida, MY Laura and LA Beck. Rochester, NY and Baltimore, MD.

753 Sebum free fatty acids modulate skin innate immune responses by enhancing antimicrobial function of sebocytes and attenuating TLR2-mediated inflammatory response of keratinocytes. T Nakatsuji, K Yamasaki, CC Zouboulis, RL Gallo and C Huang. San Diego, CA and Dessau, Germany.

754* Epidermal Langerhans cells act as negative regulators of a protective anti-Leishmania response, whereas dermal CD11c+high dendritic cells promote healing. K Kautz-Neu, D John, S Dinges, M Noordegraaf, BE Clausen and E von Stebut. Mainz, Germany; Rotterdam, Netherlands and Amsterdam, Netherlands.

755* Leukotriene A4 Hydrolyase (LTA4H) is involved in lesion progression and lesions are associated with susceptibility to mycobacterial diseases. JC Vary, DM Tobin, SL Dunstan, DA Hagge, S Khadge, M King, L Ramakrishnan and TR Hawn. Seattle, WA; Ho Chi Minh City, Viet Nam; Oxford, United Kingdom and Kathmandu, Nepal.

756* IL-22 contributes to disease progression in Leishmania major-infected mice. S Brosch, S Haak, B Lorenz, B Becher and E von Stebut. Mainz, Germany and Zürich, Switzerland.

757 Response to Toll-Like Receptor agonists in human neonatal foreskin. SK Bonish. Chicago, IL.

758 Aberrant TNF signaling in FAN-deficient mice leads to enhanced susceptibility to cutaneous leishmaniasis. M Fischer, M Krönke and E von Stebut. Mainz, Germany and Cologne, Germany.

759 Induction of specific immune response by single and mixed-species biofilms infection in porcine partial thickness wound healing model. TPastor, I Gil, I Valdez, D Stojadinovic, EA Lebrun, L Plano, M Tomic-Canic and SC Davis. Miami, FL.


762* TNFα, a critical cytokine for cutaneous immunity to vaccinia virus. T Tian, K Dubin, A Qureshi, L Liu, X Jiang, T Kupper and R Fuhlbrigge. Boston, MA.

763 Photobiology

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

764 Protective effects of platinum nanoparticles against UV-light-induced epidermal inflammation. Y Yoshigita, Q Zhao, T Makino, K Matsui, Y Miyamoto, T Kondo and T Shimizu. Toyama, Japan and Chiba, Japan.


766* Sun-induced changes in epidermal function vary with gender and extent of exposure. S Song, Z Liu, J Fluhr, PM Elias and M Man. Dalian, China; Berlin, Germany and San Francisco, CA.

767 The effect of UVB on cytokines, no production; Using in vitro co-culture system of monocyte/keratinocyte culture. MK Watson, Y Ee, M Nowakowski, AR Shalita and W Lee. Brooklyn, NY.

768* Alteration of the migratory behavior of UV-induced regulatory T cells in vivo. A Schwarz, BE Clausen and T Schwarz. Kiel, Germany and Rotterdam, Netherlands.

769 Obesity exacerbates UVB radiation-induced inflammation and cell survival signals in UVB-irradiated mouse skin. SD Sharma and SK Katiyar. Birmingham, AL.

760 Silimarin, a plant flavonoid, suppresses UV radiation-induced apoptosis of epidermal cells by stimulating DNA repair. SK Katiyar and SK Mantena. Birmingham, AL.

770 Langerhans cells protect against acute UVB-induced epidermal oxidative stress. DA Smith, J Lewis, R Filler, K Golubets and M Girardi. New Haven, CT.

771* Photodynamic therapy with the phthalocyanine Pc 4 for T cell mediated diseases: Activated T cells exhibit increased uptake of Pc 4 and increased susceptibility to PDT-mediated cell death. J Ohtola, H Sugiyama, ME Rodriguez, NL Oleinick, M Lam, TS McCormick, KD Cooper and ED Baron. Cleveland, OH.

772 Cpg-ODN protects against UV-induced apoptosis via enhancement of AKT and mTORC1/mTORC2 activation in keratinocytes and dendritic cells. S Lu, C Cao, J Li, F Ji, R Kivlin, M McCauley, A Nalbandian, G Brum, J Parisi, S Sarkissan, J Marshall, W Chu, A Xu and Y Wan. Providence, RI and Hangzhou, China.


774 Resveratrol sensitizes keratinocytes to UVA-induced apoptosis through increased oxidative stress in mitochondria and mitochondrial permeability transition pore (MPTP) opening. JZ Boyer, J Jandova, FR Vleugels and JE Sligh. Tucson, AZ.

775 Resveratrol acts specifically with UVA and not with UVB to induce apoptosis in HaCaT cells. FR Vleugels, JZ Boyer, J Jandova and JE Sligh. Tucson, AZ.

776 No formation of DNA double strand breaks and no activation of recombination repair with UV. J Rizzo, J Dunn, A Rees and TM Ruenger. Boston, MA.


778 Visualization of in vivo behavioral responses of Langerhans cells to UVB irradiation. R Lu and A Takashima. Toledo, OH.

779 Ginsenoside-Rg1 protects human dermal fibroblasts against Methoxyxypersen plus Ultraviolet A-induced photaging through telomerase mechanism. G Yingying, L Dan, Z Bingrong, L Wei and M Wei. Nanjing, China.

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


782* Ultraviolet B radiation of human skin generates platelet-activating factor receptor agonists. J Travers, Y Yao, RL Konger and JB Travers. Indianapolis, IN.

783* Deficiency of xeroderma pigmentosum A results in an augmentation of UVB mediated oxidative stress and platelet-activating factor activity. Y Yao, RL Konger and JB Travers. Indianapolis, IN.

784 Development and validation of a high frequency ultrasonound-guided fluorescence tomography system to improve targeting of photodynamic therapy of skin tumors. A Palival, JD Gruber, JA O'Hara, BW Pogue, T Than and EV Maytin. Cleveland, OH; Hanover, NH and Boston, MA.


787 Telomere shortening of cultured human dermal fibroblasts in association with acute photodamage induced by ultraviolet irradiation. B Yin and X Jiang. Chengdu, China.

Microarray analysis of differently expressed microRNA profiles induced by UVB irradiated in mice skin. L Wei, H Lijuan and L Dan. Nanjing, China.

TLR2 mediates UV-induced epidermal proliferation, inflammation and cell apoptosis in mouse skin in vivo. Y Lee, K Kong, S Lee, D Lee, J Han, K Kim and J Chung. Seoul, South Korea.


**Neuraminidase 3 (Neu3) is critically involved in the initiation of the UV A stress response. S Grether-Beck, R Walli, Z Kohne, H Brenden, I Felsner, M Majora, J Füllerfeb, K Kurczhalia and J Krutmann. Düsseldorf, Germany; Heidelberg, Germany and Dresden, Germany.


Multiple exposures with visible light following a large initial dose induce persistent pigmentation, blue wavelengths are the major contributors. J Seo, F Liebel, E Ruvolo, PR Bargo, M Southall and N Kollas. Skillman, NJ.

E-Light as a novel nonablative approach to photaging. M EI-Domyat, M Medhat, T EL-Awami, O Moawad, D Brennan, MG Mahoney and J Iutto. Al-Minya, Egypt; Philadelphia, PA and Cairo, Egypt.

Evaluation of screens photosprotection against cyclobutane pyrimidine dimers on ex vivo human skin model exposed to UV or UVR irradiation. S Mourot, P Bogdanowicz, M Haure, N Castex-Rizzi and T Douki. Grenoble, France and Toulouse, France.


High levels of serum resistin in psoriasis patients are restored to normal by phototherapy. IWashikawa, K Torii, T Furuhashi, C Saito and A Morita. Nagoya, Japan.


Calpain plays a pivotal role in the UVB-irradiated ROS generation in HaCaT keratinocytes through stimulation by IL-1alpha. H Masaki, Y Iizutsu, S Yahagi and Y Okano. Tokyo, Japan.


Vitamin loaded nanosomes reduce erythema and erythropoeen content changes in skin due to solar simulated ultraviolet radiation induced damage. C Sunkani, E Papazoglou, M Neidrauer, JF Klement and J Uitto. Philadelphia, PA.


Aptosis induced by photodynamic therapy with the silicon phthalocyanine Pc 4 in Candida albicans. M Lam, AA Lattif, PC Jou, Y Lee, CL Malbasa, PK Mukherjee, NL Oleinick, MA Ghannoun, KD Cooper and ED Barom. Cleveland, OH.

Regulation of ultraviolet (UV) radiation induced cutaneous photoinflammation suppression by Toll like receptor-4 (TLR4). TH Nasti and NY Yuuf. Birmingham, AL.


Generation of immature dendritic cells by modified extracorporeal photopheresis. AT Baird, CL Berger and RL Edelson. New Haven, CT.

Oxidative stress elevates cystein-rich protein 61 (CtRF61), a novel mediator of photaged skin, in human skin fibroblasts. Z Qin, T He, JJ Vorhees, GL Fisher and T Quan. Ann Arbor, MI.

The GS-nitroxide JP04-39 is a potent topical antioxidant that can mitigate skin damage from ionizing radiation. RM Brand, M Epperly, J Stottlemeyer, X Gao, S Li, S Huq, P Wipf, V Kagan, J Greenberger and LD Falo. Pittsburgh, PA.

Endogenous and exogenous uric acid protects against ultraviolet B-induced DNA damage. C Streimimter, C Barresi, V Militz, S Keicz, A Kammeyer, M Ghannadan, K Posa-Markaryan, C Selden, E Tschaechler and LR Eckhart. Vienna, Austria; Amsterdam, Netherlands; London, United Kingdom and Neufilly, France.

Enhancement of photoporphyrin IX and suppression of ferrochelatase levels by Vitamin D in tumor models of melanoma skin cancer: Implications for tumor response to photodynamic therapy. S Anand, N Anatakasa, C Wilson, T Hasan and EV Maytin. Cleveland, OH and Boston, MA.

Loss of epidermal PPARy in SKH-1 mice results in absent sebaceous glands, a defect in permeability barrier function, and augmented UVB-induced apoptosis and inflammatory responses. RP Sahu, S DaSilva and RL Konger. Indianapolis, IN.

Proteome changes in human epidermis induced by UVB irradiation. J Benihab, MK Hordinsky, IG Panoutsopoulou, MA Junqueira, L Ebertschafer-Crab, WR Kennedy and GL Wilcox. Minneapolis, MN.

Microscopic UV conditions on skin provide new information on relationship of challenge to response. I Seo, PR Bargo, M Chu and N Sollas. Skillman, NJ.


Proteome changes in human epidermis induced by UVB irradiation. E Benihab, MK Hordinsky, IG Panoutsopoulou, AA Junqueira, G Wendelschafer-Crab, WR Kennedy and GL Wilcox. Minneapolis, MN.

Photoactivated Rose Bengal, a possible mutagen in Chinese hamster ovary cells. L Hunter, S Wang, J Wickliffe and M Wilkerson. Galveston, TX and New Orleans, LA.

Pigmentation and Melanoma

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


Oncogenic transformation of cutaneous melanocytes by ultraviolet radiation and Bisphenol A. Y Dyrovkin, L Xu, M Consolo, T McCormick, K Cooper and P Karnik. Cleveland, OH.


The p16ink4a tumor suppressor regulates cellular oxidative stress. NC Jenkins, T Liu, AG Goodson, G Samadashwily and D Grossman. Salt Lake City, UT.

Combination of dacarbazine and dimethyllumurate efficiently reduces melanoma lymph node metastasis. T Volero, S Steeie, K Neumuller, A Bracher, H Niederleithner, P Hemberger, P Petzeltbauer and R Loewe. Vienna, Austria.

830* The melanocyte-specific glycoprotein, Pmel17/gp100, is released by ectodomain shedding. T. Hoashi, N. Kanda, S. Watanabe, S. Sato and VJ Hearing. Tokyo, Japan and Bethesda, MD.


832 An advanced approach for skin whitening/lightening regulation through the inhibition of a new intracellular target. E. Leong and I. Laccase. Quebec, Canada.


834 A new insight into skin whitening: The accumulation of advanced glycation end products (AGEs) in the dermis triggers melanogenesis in epidermal melanocytes. S. Yahagi, Y. Izutsu, Y. Okano, P. Andre, I. Rininem and H. Masaki. Tokyo, Japan and Saint-Jean-de-Braye, France.


837 Skin melanin index obtained from digital photography and videodermoscopy correlates with dermatologist assessment of skin type. B. Nardong, A. Haley, M. Martini, K. Brown, D. West and J.K. Robinson. Chicago, IL.


839 Pediatric melanoma of the head and neck: A single-institution review of 41 patients. JY Tcheung, PK Puri, AP Abernethy and KC Nelson. Durham, NC.

840 Genetic variants in telomere-maintaining genes and skin cancer risk. H. Naq, AA Qureshi, J. Prescott, I. De Vivo and J. Han. Boston, MA.


843* Regulation of human skin pigmentation in situ by repetitive UV exposure - molecular characterization of responses to UVA and/or UVB. W. Choi, Y. Miyamura, R. Wolber, C. Smuda, W. Reinhold, H. Liu, L. Kolbe and VJ Hearing. Bethesda, MD; Hamburg, Germany, Newcastle and Washington, DC.

844 Dietary tripterypene lupeol targets melanoma phenotype exhibiting activated Wnt/b-catenin signaling. RS Tarapore, IA Siddiqui, M. Saleem, V. Spiegelman and H. Mukhtar. Madison, WI and Austin, MN.


848* Novel 5,7-unsaturated steroidal and secoesteroidal products of cytotoxic P450scs show antimelanoma activity. A. Slominski, Z. Janjetovic, T. Kim, MA Zmijewski, RC Tuckey, T. Sweetman, W. Li, J. Zjawiony, E. Chen, D. Miller, R. Bienek, MJ Nguyen, T. Chen and M. Holick. Memphis, TN; Graz, Poland; Crawley, Australia; University, MS and Boston, MA.

849 Expression of vitamin D receptor (VDR) decreases during progression of melanocytic and melanoma lesions. A. Brovnia, W. Jozwicki and A. Slominski. Bydgosczc, Poland and Memphis, TN.


852* Prognostic significance of BRMS1 expression in human melanoma. Y. Cheng, J. Li, M. Martinka and G. Li. Vancouver, Canada.

853 Nucleotide excision repair (NER) gene family play an important role in the control of non-pigmented hair fiber growth. M. Yu, S. Shapiro and KJ McElwee. Vancouver, Canada.


855* Pilot survey study - Comparison of diagnostic and biopsy/referral sensitivity to melanoma between dermatologists and MelaFind®. R. Wells, E. Veledar, S. Chen and L. Ferris. Atlanta, GA and Pittsburgh, PA.

856 Fluorescence in situ hybridization for distinguishing malignant blue nevi from atypical cellular blue nevi. R. Gammon and P. Gerami. Chicago, IL.

857 Disruption of N-glycan processing by N-Acetyl Glucosamine (NAG) and its depigmenting effects in vivo models. J. Hwang, T. Choi, M. Kim, J. Kim, K. Sohn, C. Kim, J. Lee and T. Yoon. Yongsin, South Korea; Daereon, South Korea and Jinping, South Korea.

858 Melanocyte dendrite-derived globules secreted into the culture medium are possible transporters of melanosomes in the melanosome transfer mechanism. H. Ando, Y. Niki, M. Yoshida, M. Ito, MS Matsui, DB Yarosh and M. Ichihashi. Kyoto, Japan; Kobe, Japan; Niigata, Japan and Melville, NY.

859 1-(2,4-dihydroxyphenyl)-3-(2,4-dimethoxy-3-methylphenyl)propane inhibits melanin synthesis by multiple mechanisms. Y. Niki, M. Yoshida, H. Ando, MS Matsui, DB Yarosh and M. Ichihashi. Kobe, Japan; Kyoto, Japan and Melville, NY.

860 Examining the impact of potent skin lighteners on melanocytes in vitro. JY Gruber and R. Holtz. South Plainfield, NJ and Lakewood, CO.


862* Human Numb is required for proper mitotic entry and progression in melanoma cells. TL Schmit, V. Setaluri, VS Spiegelman and N. Ahmad. Madison, WI.

863* Targeting altered glucose metabolism in melanoma. JQin, H. Xiu and BJ Nickoloff. Chicago, IL.


865 Protease-activated receptors-1 and -2 activate protein kinase D1 (PKD1) signaling in human melanoma cells. C. Kempees, A. Rattelhorn, E. Strozyk, J. Eberle, A. Hausser, SW Schneider and M. Steinhoff. Muenster, Germany; Mannheim, Germany; Berlin, Germany; Stuttgart, Germany and San Francisco, CA.

866 Expression of activating transcription factor 3 (ATF3) in human melanoma. BP Pollack and B. Sapkota. Atlanta, GA.

867 Polo-like kinase 1 expression is regulated through MAPK signaling pathway and is a potential therapeutic target in human melanoma. A. Jalili, A. Moser, M. Pashenkov, C. Wagner, G. Stingl, S. Ramsawany, J. Brunet, TR Golub and SN Wagner. Vienna, Austria and Cambridge, MA.


869* CYLD inhibits melanoma growth and metastasis. H. Ke and JY Zhang. Durham, NC.

870 N-Nicotinoyl dopamine inhibines skin pigmentation by reducing melanosome transfer. J. Kim, B. Kim, S. Lee, M. Kim, H. Kim, K. Choi and J. Lee. Incheon, South Korea; Suwon, South Korea and Seoul, South Korea.


872 Requirement of NAD(P)H:quinone oxidoreductase-1 (NQO1) for the development of melanocytes in zebrafish. M. King, T. Choi, J. Lee, C. Kim, J. Lee and T. Yoon. Daejeon, South Korea and Jinju, South Korea.

874** In vivo regeneration of the follicular pigmented unit with melanocyte progenitors from adult skin.  H Hwang, G Diwakar, MR Zaidi, GT Merlino and TJ Hornyak.  Bethesda, MD.

875 Reflectance confocal microscopy features of cutaneous metastatic melanoma.  AK Raymond, JY Tcheung, P Phadke, MA Selim, D Tyler and KC Nelson.  Durham, NC.


877 Role of p16INK4a mutations in melanocytic nevi induced by 7,12-dimethylbenz(a)anthracene (DMSBA).  AM Holzer, R Patel, TH Nasli, A Andea, N Yusuf and CA Elmets.

878* Association of high c-SKI/SnoN expression and efficient TGF-β/SMAD signaling in human melanoma cells.  D Javelaud, V Alexaki, L van Kempen, E Le Scolan, K Luo and A Mauviel.  Orsay, France; Paris, France; Radboud, Netherlands and Berkeley, CA.


880* Thyrotropin-releasing hormone (TRH) is a novel pigmentary hormone in situ and in vitro.  KT Nguyen-Thi, E Gáspár, C Hardenbicker, D Pattwell, S Tiede and R Paus.  Lübeck, Germany and Manchester, United Kingdom.

881 MDM2 antagonists increase pigmentation and induce epidermal thinning in human reconstructed skin.  JC Valencia, S Coelho, G Zhang and VJ Hearing.  Bethesda, MD.

882 Clinical valuation of a dioc acid and rumex occidentalis complex-based formulation in a dark-skinned population.  E Mermirande, AI Byrne, L Vidal-Johnsen, G Bouvy, J Gillbro, AV Rawlings and A Laloeuf.  Stockholm, Sweden; Bray, Ireland and Northwich, United Kingdom.

883 Prophylactic potential of bleaching agents for familial melanoma.  V Hariharan, T Toole, JF Longley and C Le Poole.  Maywood, IL and Madison, WI.

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

885 Stable isoform of the Smad1 protein inhibits melanoma cell proliferation and migration.  N Rungsimanond, T Sharova, V Botchkarev and A Sharov.  Boston, MA and Bradford, United Kingdom.

886 Characterizing regression in melanomas: A population-based study.  KJ Martires and JS Bordeaux.  Cleveland, OH.

887 Blocking laminin alpha 5 expression inhibits melanoma cell proliferation, migration and invasion.  L Tang, T Cui and J Li.  Miami, FL.


889 Regulatory T lymphocyte infiltrate is inversely related to Breslow Depth in melanoma.  A Hanlon, L Nanney, B Litzner and DL Ellis.  Nashville, TN.

890 An issue of safe inferior surgical margin in subungual melanoma: Is the distance from nail matrix to phalangeal bone enough to eradicate?  S Lee, J Kim, W Lee, D Kim, G Yoon and D Kim.  Daegu, South Korea.


892 Automated computer analysis of pagetoid spread and irregularity at the basal layer in confocal images of superficial spreading melanoma vs junctional nevi.  DS Gareau, R Hennessey, G Pellacani and SL Jacques.  Portland, OR and Modena, Italy.

893* Investigation of melanosome-based mechanisms underlying melanoma treatment resistance.  MI Wei, M Chinen, DC Bennett, EV Sviderskaya, PI Chang and Z Huang.  San Francisco, CA and London, United Kingdom.

894 Paving the way for personalized approaches to melanoma prevention.  N Box, J Aalborg, T Terzian, R Stegemann, V Gonzalez, E Torchia, N Asdigian, R Dellavalle, S Mokrohisky, J Morelli and L Crane.  Aurora, CO.
<table>
<thead>
<tr>
<th>Term</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melanoma, epidemiology</td>
<td>716</td>
</tr>
<tr>
<td>Merkel cell</td>
<td>690</td>
</tr>
<tr>
<td>Metabolism</td>
<td>891</td>
</tr>
<tr>
<td>Metalloproteinase</td>
<td>823</td>
</tr>
<tr>
<td>Microarray</td>
<td>716</td>
</tr>
<tr>
<td>Monocyte</td>
<td>736</td>
</tr>
<tr>
<td>Morphology</td>
<td>651</td>
</tr>
<tr>
<td>Mouse mutation</td>
<td>636</td>
</tr>
<tr>
<td>Musoca</td>
<td>676</td>
</tr>
<tr>
<td>Mutation</td>
<td>823</td>
</tr>
<tr>
<td>Mycobacteria</td>
<td>755</td>
</tr>
<tr>
<td>Mycosis fungoides</td>
<td>336</td>
</tr>
<tr>
<td>Nail</td>
<td>631</td>
</tr>
<tr>
<td>Nerve</td>
<td>669</td>
</tr>
<tr>
<td>Nerve growth factor</td>
<td>601</td>
</tr>
<tr>
<td>Neural transmitters</td>
<td>700</td>
</tr>
<tr>
<td>Neurofibromatosis</td>
<td>147</td>
</tr>
<tr>
<td>Neuropeptides</td>
<td>879</td>
</tr>
<tr>
<td>Neutrophil</td>
<td>064</td>
</tr>
<tr>
<td>Nevis</td>
<td>877</td>
</tr>
<tr>
<td>Notch</td>
<td>497</td>
</tr>
<tr>
<td>Oncogene</td>
<td>179</td>
</tr>
<tr>
<td>Outcomes research</td>
<td>388</td>
</tr>
<tr>
<td>Oxygen radicals</td>
<td>407</td>
</tr>
<tr>
<td>p53</td>
<td>180</td>
</tr>
<tr>
<td>Papillomavirus</td>
<td>150</td>
</tr>
<tr>
<td>Paraneoplastic pemphigus</td>
<td>094</td>
</tr>
<tr>
<td>Patch/hedgehog</td>
<td>661</td>
</tr>
<tr>
<td>Patient preferences</td>
<td>390</td>
</tr>
<tr>
<td>Pemphigus</td>
<td>216</td>
</tr>
<tr>
<td>Pemphigus foliaceus</td>
<td>233</td>
</tr>
<tr>
<td>Pemphigus vulgaris</td>
<td>466</td>
</tr>
<tr>
<td>Percutaneous absorption</td>
<td>452</td>
</tr>
<tr>
<td>Permeability barrier</td>
<td>470</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>884</td>
</tr>
<tr>
<td>Phosphatase</td>
<td>589</td>
</tr>
<tr>
<td>Phospholipase</td>
<td>602</td>
</tr>
<tr>
<td>Phosphorylation</td>
<td>773</td>
</tr>
<tr>
<td>Photobiology</td>
<td>823</td>
</tr>
<tr>
<td>Photodynamic therapy</td>
<td>817</td>
</tr>
<tr>
<td>Pigmentation</td>
<td>451</td>
</tr>
<tr>
<td>Protein kinase</td>
<td>571</td>
</tr>
<tr>
<td>Proteoglycans</td>
<td>467</td>
</tr>
<tr>
<td>Proteomics</td>
<td>581</td>
</tr>
<tr>
<td>Pruritus</td>
<td>228</td>
</tr>
<tr>
<td>Psorals</td>
<td>192</td>
</tr>
<tr>
<td>Psoriasis</td>
<td>071</td>
</tr>
<tr>
<td>Quality care</td>
<td>392</td>
</tr>
<tr>
<td>Quality of life</td>
<td>585</td>
</tr>
<tr>
<td>Ras</td>
<td>657</td>
</tr>
<tr>
<td>Receptor</td>
<td>546</td>
</tr>
<tr>
<td>Retinoid</td>
<td>373</td>
</tr>
<tr>
<td>Retinoid receptors</td>
<td>557</td>
</tr>
<tr>
<td>Retrovirus</td>
<td>322</td>
</tr>
<tr>
<td>Rosacea</td>
<td>322</td>
</tr>
<tr>
<td>SCID mouse</td>
<td>828</td>
</tr>
<tr>
<td>Scinderoma</td>
<td>555</td>
</tr>
<tr>
<td>Sebaceous glands</td>
<td>322</td>
</tr>
<tr>
<td>Sezary syndrome</td>
<td>709</td>
</tr>
<tr>
<td>Signal transduction</td>
<td>425</td>
</tr>
<tr>
<td>Squamous cell carcinoma</td>
<td>765</td>
</tr>
<tr>
<td>Stratum corneum</td>
<td>765</td>
</tr>
<tr>
<td>Substance P</td>
<td>386</td>
</tr>
<tr>
<td>Sunlight</td>
<td>786</td>
</tr>
<tr>
<td>Systemic lupus erythematosis</td>
<td>521</td>
</tr>
<tr>
<td>T cell</td>
<td>771</td>
</tr>
<tr>
<td>T cell lymphoma</td>
<td>148</td>
</tr>
<tr>
<td>T regulatory cell</td>
<td>715</td>
</tr>
<tr>
<td>TGF-beta</td>
<td>878</td>
</tr>
<tr>
<td>Th1/Th2</td>
<td>758</td>
</tr>
<tr>
<td>Therapeutics</td>
<td>881</td>
</tr>
<tr>
<td>Tight junction</td>
<td>747</td>
</tr>
<tr>
<td>TNF-alpha</td>
<td>806</td>
</tr>
<tr>
<td>Toll-like receptors</td>
<td>744</td>
</tr>
<tr>
<td>Toxicology</td>
<td>811</td>
</tr>
<tr>
<td>Transcription</td>
<td>452</td>
</tr>
<tr>
<td>Transcription factors</td>
<td>687</td>
</tr>
<tr>
<td>Transgenic mice</td>
<td>674</td>
</tr>
<tr>
<td>Transglutaminase</td>
<td>495</td>
</tr>
</tbody>
</table>

**Note:** The pages listed correspond to the text in the image. The numbers may indicate specific references or page numbers where the terms are discussed.
<table>
<thead>
<tr>
<th>Term</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tumor infiltrating lymphocyte</td>
<td>679, 684, 889</td>
</tr>
<tr>
<td>Tumor progression</td>
<td>148, 158, 196, 205, 235, 422</td>
</tr>
<tr>
<td>Tumor suppressor gene</td>
<td>007, 133, 158, 249, 827, 869</td>
</tr>
<tr>
<td>Tyrosinase</td>
<td>842, 857, 859, 860</td>
</tr>
<tr>
<td>Tyrosine kinase</td>
<td>154, 200, 580, 589</td>
</tr>
<tr>
<td>Ultraviolet</td>
<td>133, 134, 140, 155, 159, 161, 172, 174, 318, 361, 405, 441, 467, 590, 604, 624, 727, 732, 760, 764, 765, 766, 767, 768, 769, 770, 774, 775, 776, 777, 778, 782, 783, 787, 789, 791, 792, 793, 794, 795, 796, 801, 804, 805, 806, 808, 809, 811, 812, 816, 819, 820, 821, 822, 825, 843</td>
</tr>
<tr>
<td>Urocanic acid</td>
<td>816</td>
</tr>
<tr>
<td>Vaccine</td>
<td>333, 713, 718, 723</td>
</tr>
<tr>
<td>Vasculitis</td>
<td>244</td>
</tr>
<tr>
<td>Virus</td>
<td>169, 243, 740, 741</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>138, 149, 327, 348, 361, 368, 370, 372, 391, 419, 472, 554, 726, 764, 817, 848, 849</td>
</tr>
<tr>
<td>Vitiligo</td>
<td>121, 122, 508, 522</td>
</tr>
<tr>
<td>Warts</td>
<td>745</td>
</tr>
<tr>
<td>Wound healing</td>
<td>002, 003, 005, 008, 010, 011, 012, 014, 017, 019, 020, 021, 022, 023, 024, 025, 027, 029, 030, 031, 032, 064, 104, 120, 215, 218, 476, 481, 517, 537, 593, 602, 759</td>
</tr>
<tr>
<td>Xeroderma pigmentosum</td>
<td>135, 162, 364, 780</td>
</tr>
</tbody>
</table>
Author Index

Conflict of Interest Disclosure Key

A - Advisory Board
B - Board of Directors
C - Consultant
E - Employee or Salary Support
F - Founder
G - Grant or Research Support
H - Honoraria
I - Investigator
P - Co-inventor on Patent Held by University of Corporation
SB - Speakers Bureau
SH - Stock Holder
O - Other

Unless otherwise noted, authors/speakers/presiders with no disclosure statements listed had no conflicts of interest to disclose.

A

Aalborg, J 894
Abe, R 142, 506
Abecasis, GR 538
Abell, E 83
Abernethy, AP 839
Abreu-Velez, AM 189
Abuabara, K 350, 355, 378
Acharya, S 737
Ackermann, K 529
Adams, G 019
Adams, N 278, 279
Adamson, AS 595
Adhami, K 676, 724
Adhikary, G 420, 424, 425
Agostinho, A 001
Ahdoot, E 221
Ahmad, MA 829
Ahmad, N 146, 184, 862
Ahmed, M 639
Ahmed, RL 363
Ahmed, R p. 23
Ahn, J 334, 488
Aherens, K 434, 706
Alba, S 581
Akazawa, Y 418
Akedo, T 689
Akllov, OE 333
Akiyama, M 286, 416, 506, 516
Alagesan, B 615
Alam, M 365
Al-Attar, PM 085
Al-Bader, T 312, 313
Alema, S 626
Alex, C 553
Alexaki, I 876
Alexaki, V 878
Alexandrescu, D 104
Ali, N 162, 225
Alikhan, A 310

Alitalo, K 006
Alla, L 500
Almaani, N 518
Alousi, A 709
Althouse, B 012
Althner, A 318
Altobelli, C 460
Altrich, ML 316
Amagai, M 036, 681, 747, p. 23
Amandine, G 699
Amano, S 438
Amargo, E 197
Amos, CI 551
Amoyel, A 441
Ammann, E 150 (SH - BioSphings AG; E - DKFZ, BioSphings AG)
An, L 114
Anand, S 817
Andea, A 282, 877
Andl, T 166, 636, 654, 656, 671
Ando, H 454, 858, 859
André, V 204, 450
André-Frei, V 460
Andre, P 834
Aneskéievich, B 557
Angelova-Fischer, I 487
Anshelevich, A 306
Anthonavage, M 300, 632 (E - Johnson&Johnson)
Anton-Culver, H 362
Antony, A 344
Anzick, S 143
Aoki, J 506
Aoki, V 112, 117
Aoki-Ota, M 683
Aoyagi, S 142
Aoyama, Y 092, 198
Apel, A 135
Arabsadah, H 485, 492
Aractingi, S 005, 835
Arbiser, JL 007
Arbuckle, A 307, 342
Arbues, M 879
Arcioni, M 443
Arck, P 635
Arias Restrepo, LF 189
Ariizumi, K 047, 251
Arita, K 506
Ariza, M 698
Armento, AJ 025
Armstrong, A 349, 351
Armstrong, AW 310, 352
Armstrong, BK 362
Armstrong, CA 737
Arnonheim, A 540
Arnonova, M 610
Arrerondo, J 038
Arun, SN 174
Asada, Y 572
Asboe, D 745, 746
Aschauer, H 277 (E - Novartis Pharma)
Asigian, N 894
Asgari, M 348 (G, I - Novartis Pharmaceuticals)
Atanaskova, N 817
Atasoy, E 485
Athan, M 134, 159, 160, 165, 177, 282, 346, 821
Atkinson, S 546
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attar, N</td>
<td>831</td>
</tr>
<tr>
<td>Aubert, J</td>
<td>088</td>
</tr>
<tr>
<td>Aufvenne, K</td>
<td>529</td>
</tr>
<tr>
<td>Aurélie, B</td>
<td>699</td>
</tr>
<tr>
<td>Avidan, N</td>
<td>540</td>
</tr>
<tr>
<td>Awgulewitsch, A</td>
<td>649</td>
</tr>
<tr>
<td>Ayehunie, S</td>
<td>232</td>
</tr>
<tr>
<td>Azfar, R</td>
<td>378, 390</td>
</tr>
<tr>
<td>Baader, W</td>
<td>150</td>
</tr>
<tr>
<td>Babineau, DC</td>
<td>086, 326, 375</td>
</tr>
<tr>
<td>Bacelieri, R</td>
<td>239</td>
</tr>
<tr>
<td>Bachrach, LK</td>
<td>307</td>
</tr>
<tr>
<td>Back, JH</td>
<td>159, 160, 165</td>
</tr>
<tr>
<td>Bae, J</td>
<td>073, 127</td>
</tr>
<tr>
<td>Baek, J</td>
<td>463, 465, 470</td>
</tr>
<tr>
<td>Baerveldt, E</td>
<td>555</td>
</tr>
<tr>
<td>Bailey, EE</td>
<td>310</td>
</tr>
<tr>
<td>Bair III, WB</td>
<td>891</td>
</tr>
<tr>
<td>Baird, AH</td>
<td>813</td>
</tr>
<tr>
<td>Baird, J</td>
<td>361</td>
</tr>
<tr>
<td>Baker, D</td>
<td>309, 589</td>
</tr>
<tr>
<td>Baker, RE</td>
<td>662</td>
</tr>
<tr>
<td>Balakrishnan, A</td>
<td>564</td>
</tr>
<tr>
<td>Balasubramanian, S</td>
<td>425</td>
</tr>
<tr>
<td>Balazs, N</td>
<td>861</td>
</tr>
<tr>
<td>Balcunas, D</td>
<td>568</td>
</tr>
<tr>
<td>Ballester, M</td>
<td>314</td>
</tr>
<tr>
<td>Banchereau, J</td>
<td>087</td>
</tr>
<tr>
<td>Banchereau, R</td>
<td>087</td>
</tr>
<tr>
<td>Banczyk, D</td>
<td>037</td>
</tr>
<tr>
<td>Band, H</td>
<td>507</td>
</tr>
<tr>
<td>Bandopadhyay, B</td>
<td>588</td>
</tr>
<tr>
<td>Bang, ND</td>
<td>755</td>
</tr>
<tr>
<td>Bankaitis-Davis, D</td>
<td>304</td>
</tr>
<tr>
<td>Bao, L</td>
<td>045</td>
</tr>
<tr>
<td>Biró, T</td>
<td>475, 482, 638, 641</td>
</tr>
<tr>
<td>Bardhan, A</td>
<td>157</td>
</tr>
<tr>
<td>Bargo, P</td>
<td>300, 338 (E - Johnson and Johnson)</td>
</tr>
<tr>
<td>Bargo, PR</td>
<td>798, 799, 820</td>
</tr>
<tr>
<td>Baribaud, F</td>
<td>298 (G, E - Centocor Research &amp; Development, Inc.)</td>
</tr>
<tr>
<td>Barlow, WE</td>
<td>395</td>
</tr>
<tr>
<td>Baron, ED</td>
<td>771, 810, 812 (P - Pc 4; SH, F - Fluence Therapeutics)</td>
</tr>
<tr>
<td>Barresi, C</td>
<td>477, 816</td>
</tr>
<tr>
<td>Barrett, KE</td>
<td>287 (E - Unilever)</td>
</tr>
<tr>
<td>Barron, P</td>
<td>196</td>
</tr>
<tr>
<td>Bartels, AK</td>
<td>413, 644</td>
</tr>
<tr>
<td>Barthel, SR</td>
<td>675</td>
</tr>
<tr>
<td>Basbaum, A</td>
<td>700</td>
</tr>
<tr>
<td>Bashir, M</td>
<td>467</td>
</tr>
<tr>
<td>Bashir, MM</td>
<td>044</td>
</tr>
<tr>
<td>Bastianetto, S</td>
<td>325</td>
</tr>
<tr>
<td>Batra, P</td>
<td>318</td>
</tr>
<tr>
<td>Baud, L</td>
<td>005</td>
</tr>
<tr>
<td>Baudouin, C</td>
<td>324, 474</td>
</tr>
<tr>
<td>Bauer, J</td>
<td>541</td>
</tr>
<tr>
<td>Bauer, N</td>
<td>164</td>
</tr>
<tr>
<td>Bauer, W</td>
<td>715</td>
</tr>
<tr>
<td>Bauerle, EA</td>
<td>011</td>
</tr>
<tr>
<td>Bause, AS</td>
<td>891</td>
</tr>
<tr>
<td>Bauza, E</td>
<td>015, 442, 443</td>
</tr>
<tr>
<td>Baxter-Lowe, L</td>
<td>342</td>
</tr>
<tr>
<td>Bazzi, H</td>
<td>567</td>
</tr>
<tr>
<td>Beauchef, G</td>
<td>207</td>
</tr>
<tr>
<td>Becker, B</td>
<td>756</td>
</tr>
<tr>
<td>Beck, LA</td>
<td>498, 499, 741, 752</td>
</tr>
<tr>
<td>Beck, ZT</td>
<td>600</td>
</tr>
<tr>
<td>Becker, MR</td>
<td>751</td>
</tr>
<tr>
<td>Bedke, T</td>
<td>082</td>
</tr>
<tr>
<td>Beer, JZ</td>
<td>318</td>
</tr>
<tr>
<td>Beeeson, WH</td>
<td>819</td>
</tr>
<tr>
<td>Begg, CB</td>
<td>362</td>
</tr>
<tr>
<td>Behne, M</td>
<td>448</td>
</tr>
<tr>
<td>Behrendt, M</td>
<td>498</td>
</tr>
<tr>
<td>Beissert, S</td>
<td>057</td>
</tr>
<tr>
<td>Bektas, M</td>
<td>210</td>
</tr>
<tr>
<td>Belet, JS</td>
<td>851</td>
</tr>
<tr>
<td>Ben-Hamo, M</td>
<td>593</td>
</tr>
<tr>
<td>Benedusi, A</td>
<td>238, 607, 608 (E - Giuliani S.p.A)</td>
</tr>
<tr>
<td>Benlhhabib, E</td>
<td>822</td>
</tr>
<tr>
<td>Bennett, DC</td>
<td>893</td>
</tr>
<tr>
<td>Benoît, BM</td>
<td>306</td>
</tr>
<tr>
<td>Benson, JM</td>
<td>075</td>
</tr>
<tr>
<td>Berard, K</td>
<td>494</td>
</tr>
<tr>
<td>Bercovic, S</td>
<td>525</td>
</tr>
<tr>
<td>Berger, AE</td>
<td>499</td>
</tr>
<tr>
<td>Berger, C</td>
<td>179</td>
</tr>
<tr>
<td>Berger, CL</td>
<td>721, 813</td>
</tr>
<tr>
<td>Bergeron, L</td>
<td>441, 444</td>
</tr>
<tr>
<td>Bergfeld, WF</td>
<td>330, p. 25</td>
</tr>
<tr>
<td>Berghi, A</td>
<td>288, 289, 291, 294</td>
</tr>
<tr>
<td>Bergman, R</td>
<td>525</td>
</tr>
<tr>
<td>Bergstresser, P</td>
<td>143, p. 38</td>
</tr>
<tr>
<td>Berman, D</td>
<td>424</td>
</tr>
<tr>
<td>Berman, S</td>
<td>307</td>
</tr>
<tr>
<td>Bernard, JJ</td>
<td>041</td>
</tr>
<tr>
<td>Berneburg, M</td>
<td>512, 513</td>
</tr>
<tr>
<td>Bertolini, M</td>
<td>630</td>
</tr>
<tr>
<td>Bertolino, AP</td>
<td>524 (E - Novartis)</td>
</tr>
<tr>
<td>Berwick, M</td>
<td>362</td>
</tr>
<tr>
<td>Besch, R</td>
<td>056</td>
</tr>
<tr>
<td>Betsuyaku, T</td>
<td>114</td>
</tr>
<tr>
<td>Beyaert, R</td>
<td>633</td>
</tr>
<tr>
<td>Bhagat, K</td>
<td>253</td>
</tr>
<tr>
<td>Bhagavathula, N</td>
<td>098</td>
</tr>
<tr>
<td>Bharadi, D</td>
<td>829</td>
</tr>
<tr>
<td>Bhatta, N</td>
<td>888</td>
</tr>
<tr>
<td>Bhattacharyya, S</td>
<td>053</td>
</tr>
<tr>
<td>Bichsel, KJ</td>
<td>586</td>
</tr>
<tr>
<td>Bickenbach, Jr</td>
<td>509</td>
</tr>
<tr>
<td>Bickers, DR</td>
<td>159, 160, 162, 165, 177</td>
</tr>
<tr>
<td>Bickle, DD</td>
<td>415</td>
</tr>
<tr>
<td>Bidder, M</td>
<td>435</td>
</tr>
<tr>
<td>Bieher, K</td>
<td>037</td>
</tr>
<tr>
<td>Biedermann, T</td>
<td>065, 697, 728, 730, 742, 743</td>
</tr>
<tr>
<td>Biemiek, R</td>
<td>848</td>
</tr>
<tr>
<td>Bigler, J</td>
<td>273</td>
</tr>
<tr>
<td>Bigot, N</td>
<td>207</td>
</tr>
<tr>
<td>Bille, DD</td>
<td>138, 348, 408, 554</td>
</tr>
<tr>
<td>Bilker, W</td>
<td>390</td>
</tr>
<tr>
<td>Billich, A</td>
<td>277 (E, SH - Novartis Pharma Scientist)</td>
</tr>
<tr>
<td>Billick, E</td>
<td>110, 417</td>
</tr>
<tr>
<td>Bilousova, G</td>
<td>563</td>
</tr>
<tr>
<td>Bingham, SF</td>
<td>373</td>
</tr>
<tr>
<td>Bingliang, L</td>
<td>781, 795, 796</td>
</tr>
<tr>
<td>Binzgrong, Z</td>
<td>779</td>
</tr>
<tr>
<td>Biró, T</td>
<td>653</td>
</tr>
<tr>
<td>Bito, T</td>
<td>274, 286</td>
</tr>
<tr>
<td>Bittner, M</td>
<td>500</td>
</tr>
<tr>
<td>Blain, C</td>
<td>403</td>
</tr>
<tr>
<td>Blauvelt, A</td>
<td>105, 729, 738</td>
</tr>
<tr>
<td>Blumenberg, M</td>
<td>469</td>
</tr>
<tr>
<td>Bluth, MJ</td>
<td>028, 323, 345</td>
</tr>
<tr>
<td>Bobr, A</td>
<td>703</td>
</tr>
<tr>
<td>Bock, VL</td>
<td>133</td>
</tr>
<tr>
<td>Bodó, E</td>
<td>475</td>
</tr>
<tr>
<td>Boeck, C</td>
<td>669</td>
</tr>
<tr>
<td>Boeckmann, L</td>
<td>135</td>
</tr>
<tr>
<td>Boernchen, CA</td>
<td>448</td>
</tr>
<tr>
<td>Boes, M</td>
<td>600</td>
</tr>
<tr>
<td>Boettcher, Y</td>
<td>065</td>
</tr>
<tr>
<td>Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Chan, I</td>
<td>514</td>
</tr>
<tr>
<td>Chan, LS</td>
<td>045</td>
</tr>
<tr>
<td>Chance, MR</td>
<td>812</td>
</tr>
<tr>
<td>Chang, J</td>
<td>251</td>
</tr>
<tr>
<td>Chang, PJ</td>
<td>893</td>
</tr>
<tr>
<td>Chang, TW</td>
<td>399</td>
</tr>
<tr>
<td>Chang, W</td>
<td>408</td>
</tr>
<tr>
<td>Chantalat, J</td>
<td>203, 842</td>
</tr>
<tr>
<td>Charruyer, A</td>
<td>479</td>
</tr>
<tr>
<td>Chaudhary, SC</td>
<td>134, 821</td>
</tr>
<tr>
<td>Chaudhury, S</td>
<td>342</td>
</tr>
<tr>
<td>Chaussabel, D</td>
<td>087</td>
</tr>
<tr>
<td>Chavakis, T</td>
<td>004</td>
</tr>
<tr>
<td>Chavan, M</td>
<td>445</td>
</tr>
<tr>
<td>Cheadle, C</td>
<td>499</td>
</tr>
<tr>
<td>Chellamal, PV</td>
<td>023</td>
</tr>
<tr>
<td>Chen, C</td>
<td>662</td>
</tr>
<tr>
<td>Chen, H</td>
<td>123, 384, 564, 577, 719</td>
</tr>
<tr>
<td>Chen, J</td>
<td>060, 118, 235, 563, 617, 622, 848</td>
</tr>
<tr>
<td>Chen, K</td>
<td>730</td>
</tr>
<tr>
<td>Chen, L</td>
<td>045</td>
</tr>
<tr>
<td>Chen, M</td>
<td>021, 221, 342, 537, 548, 588, p. 36</td>
</tr>
<tr>
<td>Chen, N</td>
<td>199, 201, 202, 203, 842</td>
</tr>
<tr>
<td>Chen, S</td>
<td>118</td>
</tr>
<tr>
<td>Chen, S</td>
<td>206, 211</td>
</tr>
<tr>
<td>Chen, S</td>
<td>379, 387, 389, 391, 398, 855</td>
</tr>
<tr>
<td>Chen, T</td>
<td>427, 611, 659, 848</td>
</tr>
<tr>
<td>Chen, W</td>
<td>616</td>
</tr>
<tr>
<td>Chen, WV</td>
<td>551</td>
</tr>
<tr>
<td>Chen, Y</td>
<td>103, 665</td>
</tr>
<tr>
<td>Chen, Z</td>
<td>831</td>
</tr>
<tr>
<td>Cheng, C</td>
<td>021</td>
</tr>
<tr>
<td>Cheng, H</td>
<td>520</td>
</tr>
<tr>
<td>Cheng, J</td>
<td>543</td>
</tr>
<tr>
<td>Cheng, S</td>
<td>433</td>
</tr>
<tr>
<td>Cheng, T</td>
<td>720</td>
</tr>
<tr>
<td>Cheng, Y</td>
<td>852</td>
</tr>
<tr>
<td>Cheon, I</td>
<td>749</td>
</tr>
<tr>
<td>Chernyavsky, A</td>
<td>038, 571</td>
</tr>
<tr>
<td>Chew, Y</td>
<td>420, 421</td>
</tr>
<tr>
<td>Chien, A</td>
<td>331</td>
</tr>
<tr>
<td>Chikuma, S</td>
<td>695</td>
</tr>
<tr>
<td>Child, M</td>
<td>232</td>
</tr>
<tr>
<td>Childress, V</td>
<td>612</td>
</tr>
<tr>
<td>Chimienti, S</td>
<td>081, 626</td>
</tr>
<tr>
<td>Chin, DL</td>
<td>352</td>
</tr>
<tr>
<td>Chin, L</td>
<td>671</td>
</tr>
<tr>
<td>Chinen, M</td>
<td>893</td>
</tr>
<tr>
<td>Chiricozzi, A</td>
<td>241</td>
</tr>
<tr>
<td>Chiu, H</td>
<td>139</td>
</tr>
<tr>
<td>Cho, E</td>
<td>527, 528</td>
</tr>
<tr>
<td>Cho, I</td>
<td>080, 750</td>
</tr>
<tr>
<td>Cho, JS</td>
<td>748</td>
</tr>
<tr>
<td>Cho, JW</td>
<td>002</td>
</tr>
<tr>
<td>Cho, Y</td>
<td>416</td>
</tr>
<tr>
<td>Chock, M</td>
<td>299, 319</td>
</tr>
<tr>
<td>Chodick, G</td>
<td>283</td>
</tr>
<tr>
<td>Choi, E</td>
<td>284, 455, 470, 584</td>
</tr>
<tr>
<td>Choi, G</td>
<td>254, 685</td>
</tr>
<tr>
<td>Choi, H</td>
<td>396, 449</td>
</tr>
<tr>
<td>Choi, HK</td>
<td>388</td>
</tr>
<tr>
<td>Choi, K</td>
<td>439, 468, 870</td>
</tr>
<tr>
<td>Choi, S</td>
<td>295, 297, 871</td>
</tr>
<tr>
<td>Choi, T</td>
<td>857, 872</td>
</tr>
<tr>
<td>Choi, W</td>
<td>843</td>
</tr>
<tr>
<td>Choi, Y</td>
<td>636, 645</td>
</tr>
<tr>
<td>Choi, YS</td>
<td>751</td>
</tr>
<tr>
<td>Chon, S</td>
<td>229</td>
</tr>
<tr>
<td>Name</td>
<td>Pages</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Henry, FP</td>
<td>252</td>
</tr>
<tr>
<td>Heratzadeh, A</td>
<td>096</td>
</tr>
<tr>
<td>Herrmann, M</td>
<td>660</td>
</tr>
<tr>
<td>Hershkovitz, D</td>
<td>540</td>
</tr>
<tr>
<td>Hibino, T</td>
<td>436, 464</td>
</tr>
<tr>
<td>Hickerson, RP</td>
<td>560, 561, 562, p. 27</td>
</tr>
<tr>
<td>Hide, M</td>
<td>526</td>
</tr>
<tr>
<td>Higashi, Y</td>
<td>850</td>
</tr>
<tr>
<td>Higgins, CA</td>
<td>567, 663, 666</td>
</tr>
<tr>
<td>Hijken, D</td>
<td>043</td>
</tr>
<tr>
<td>Hilario-Vargas, J</td>
<td>112</td>
</tr>
<tr>
<td>Hill, H</td>
<td>054</td>
</tr>
<tr>
<td>Hill, N</td>
<td>385, 391, 398</td>
</tr>
<tr>
<td>Hindes, A</td>
<td>469</td>
</tr>
<tr>
<td>Hinds, G</td>
<td>344</td>
</tr>
<tr>
<td>Hino, R</td>
<td>274, 383, 873</td>
</tr>
<tr>
<td>Hinte, H</td>
<td>088</td>
</tr>
<tr>
<td>Hintner, H</td>
<td>541</td>
</tr>
<tr>
<td>Hirakawa, S</td>
<td>581</td>
</tr>
<tr>
<td>Hirose, M</td>
<td>034, 037</td>
</tr>
<tr>
<td>Hisada, K</td>
<td>092</td>
</tr>
<tr>
<td>Ho, S</td>
<td>449, 515, 516</td>
</tr>
<tr>
<td>Ho, V</td>
<td>347 (G, I - Centocor Research &amp; Development, Inc.)</td>
</tr>
<tr>
<td>Hoashi, T</td>
<td>830</td>
</tr>
<tr>
<td>Hoeffer, W</td>
<td>501</td>
</tr>
<tr>
<td>Hoetzenecker, K</td>
<td>743</td>
</tr>
<tr>
<td>Hoetzenecker, W</td>
<td>065, 742, 743</td>
</tr>
<tr>
<td>Hoffstad, O</td>
<td>354</td>
</tr>
<tr>
<td>Hofland, HE</td>
<td>472, 547</td>
</tr>
<tr>
<td>Hogquist, KA</td>
<td>703</td>
</tr>
<tr>
<td>Holick, M</td>
<td>848</td>
</tr>
<tr>
<td>Holland, P</td>
<td>587</td>
</tr>
<tr>
<td>Holleran, WM</td>
<td>022, 416, 419</td>
</tr>
<tr>
<td>Hollnack, S</td>
<td>480</td>
</tr>
<tr>
<td>Holtz, R</td>
<td>860</td>
</tr>
<tr>
<td>Holzer, AM</td>
<td>718, 877</td>
</tr>
<tr>
<td>Homann, Y</td>
<td>616 (E - Aderans Research Institute, Inc.)</td>
</tr>
<tr>
<td>Homey, B</td>
<td>220, 700</td>
</tr>
<tr>
<td>Honda, H</td>
<td>545</td>
</tr>
<tr>
<td>Honda, T</td>
<td>705</td>
</tr>
<tr>
<td>Hong, C</td>
<td>145, 295, 297</td>
</tr>
<tr>
<td>Hong, D</td>
<td>175</td>
</tr>
<tr>
<td>Hong, J</td>
<td>620</td>
</tr>
<tr>
<td>Honma, M</td>
<td>457</td>
</tr>
<tr>
<td>Hopkinson, SB</td>
<td>218, 219, 231</td>
</tr>
<tr>
<td>Hordinsky, M</td>
<td>551, 669, 822</td>
</tr>
<tr>
<td>Horikawa, T</td>
<td>682</td>
</tr>
<tr>
<td>Hornyak, TJ</td>
<td>874</td>
</tr>
<tr>
<td>Horowitz, M</td>
<td>655</td>
</tr>
<tr>
<td>Horowitz, P</td>
<td>259 (C, H, I - Johnson &amp; Johnson; C, H, I - SkinWear USA; C, H, I - Abbott Infant Nutrition)</td>
</tr>
<tr>
<td>Horsley, V</td>
<td>481, 489, 655</td>
</tr>
<tr>
<td>Horst, R</td>
<td>348</td>
</tr>
<tr>
<td>Hoshina, D</td>
<td>142</td>
</tr>
<tr>
<td>Hosler, G</td>
<td>141</td>
</tr>
<tr>
<td>Hoste, E</td>
<td>432</td>
</tr>
<tr>
<td>Hou, M</td>
<td>404</td>
</tr>
<tr>
<td>Hou, Y</td>
<td>221, 548</td>
</tr>
<tr>
<td>Houghton, A</td>
<td>731, 847</td>
</tr>
<tr>
<td>Howald, D</td>
<td>466, 494</td>
</tr>
<tr>
<td>Howard, MS</td>
<td>189</td>
</tr>
<tr>
<td>Hoyter, J</td>
<td>052</td>
</tr>
<tr>
<td>Hsia, E</td>
<td>472, 547</td>
</tr>
<tr>
<td>Hsieh, J</td>
<td>616 (E - Aderans Research Institute, Inc.)</td>
</tr>
<tr>
<td>Hsu, DK</td>
<td>577, 599</td>
</tr>
<tr>
<td>Hsu, MC</td>
<td>347 (E - Centocor Research &amp; Development, Inc.)</td>
</tr>
<tr>
<td>Hu, R</td>
<td>403</td>
</tr>
<tr>
<td>Hu, Y</td>
<td>199, 201, 202, 203, 842 (E - Johnson &amp; Johnson Consumer Companies)</td>
</tr>
<tr>
<td>Huang, C</td>
<td>723, 753</td>
</tr>
<tr>
<td>Huang, EY</td>
<td>517</td>
</tr>
<tr>
<td>Huang, XX</td>
<td>133</td>
</tr>
<tr>
<td>Huang, Z</td>
<td>893</td>
</tr>
<tr>
<td>Hubka, K</td>
<td>637 (E - Histogen, Inc.)</td>
</tr>
<tr>
<td>Hubka, M</td>
<td>637 (E - Histogen, Inc.)</td>
</tr>
<tr>
<td>Hudson, LG</td>
<td>010</td>
</tr>
<tr>
<td>Huebner, AJ</td>
<td>491</td>
</tr>
<tr>
<td>Huen, A</td>
<td>255</td>
</tr>
<tr>
<td>Huggenberger, R</td>
<td>006</td>
</tr>
<tr>
<td>Huh, N</td>
<td>405</td>
</tr>
<tr>
<td>Huh, S</td>
<td>582</td>
</tr>
<tr>
<td>Hull, C</td>
<td>054</td>
</tr>
<tr>
<td>Hull, PR</td>
<td>544</td>
</tr>
<tr>
<td>Humbert, P</td>
<td>574</td>
</tr>
<tr>
<td>Hunt, P</td>
<td>714</td>
</tr>
<tr>
<td>Hunt, SC</td>
<td>538</td>
</tr>
<tr>
<td>Hunter, CA</td>
<td>122</td>
</tr>
<tr>
<td>Hunter, L</td>
<td>168, 823</td>
</tr>
<tr>
<td>Hupe, M</td>
<td>042, 406, 415</td>
</tr>
<tr>
<td>Hug, S</td>
<td>815</td>
</tr>
<tr>
<td>Hur, J</td>
<td>258</td>
</tr>
<tr>
<td>Hur, S</td>
<td>704</td>
</tr>
<tr>
<td>Huter, EN</td>
<td>046</td>
</tr>
<tr>
<td>Hwang, H</td>
<td>874</td>
</tr>
<tr>
<td>Hwang, J</td>
<td>473, 857</td>
</tr>
<tr>
<td>Hwang, ST</td>
<td>148, p. 38</td>
</tr>
<tr>
<td>Ibrahim, SF</td>
<td>321</td>
</tr>
<tr>
<td>Ibrahim, SM</td>
<td>037</td>
</tr>
<tr>
<td>Icen, M</td>
<td>536</td>
</tr>
<tr>
<td>Ichihashi, M</td>
<td>250, 454, 858, 859</td>
</tr>
<tr>
<td>Igarashi, J</td>
<td>569</td>
</tr>
<tr>
<td>Iglesias de la Cruz, M</td>
<td>476</td>
</tr>
<tr>
<td>Igyarto, B</td>
<td>702, 703</td>
</tr>
<tr>
<td>Iizuka, H</td>
<td>457</td>
</tr>
<tr>
<td>Ikeda, K</td>
<td>198</td>
</tr>
<tr>
<td>Ikeda, M</td>
<td>572</td>
</tr>
<tr>
<td>Ikegami, M</td>
<td>147</td>
</tr>
<tr>
<td>Ikoma, A</td>
<td>461</td>
</tr>
<tr>
<td>Imai, Y</td>
<td>696</td>
</tr>
<tr>
<td>Inaba, T</td>
<td>545</td>
</tr>
<tr>
<td>Inada, H</td>
<td>696</td>
</tr>
<tr>
<td>Indelman, M</td>
<td>525</td>
</tr>
<tr>
<td>Ingwersen, J</td>
<td>115</td>
</tr>
<tr>
<td>Inoue, S</td>
<td>418</td>
</tr>
<tr>
<td>Inoue, A</td>
<td>506</td>
</tr>
<tr>
<td>Inoue, K</td>
<td>567, 663, 666</td>
</tr>
<tr>
<td>Inoue, S</td>
<td>695</td>
</tr>
<tr>
<td>Inoue, S</td>
<td>695</td>
</tr>
<tr>
<td>Inozume, T</td>
<td>679</td>
</tr>
<tr>
<td>Introcaso, C</td>
<td>264</td>
</tr>
<tr>
<td>Iordanov, H</td>
<td>502</td>
</tr>
<tr>
<td>Iotssova-Stone, V</td>
<td>199 (E - Johnson &amp; Johnson Consumer Companies)</td>
</tr>
<tr>
<td>Iriyama, S</td>
<td>438</td>
</tr>
<tr>
<td>Ishai, E</td>
<td>040</td>
</tr>
<tr>
<td>Ishida-Yamamoto, A</td>
<td>342</td>
</tr>
<tr>
<td>Ishihara, K</td>
<td>436</td>
</tr>
<tr>
<td>Ishihara, Y</td>
<td>569</td>
</tr>
<tr>
<td>Ishii, K</td>
<td>102</td>
</tr>
<tr>
<td>Ishii, M</td>
<td>198</td>
</tr>
<tr>
<td>Ishii, N</td>
<td>037, 093, 094, 511</td>
</tr>
<tr>
<td>Ishikawa, H</td>
<td>836</td>
</tr>
<tr>
<td>Ishikawa, J</td>
<td>402</td>
</tr>
<tr>
<td>Ishikawa, T</td>
<td>093, 094</td>
</tr>
<tr>
<td>Ishii, Y</td>
<td>601</td>
</tr>
<tr>
<td>Israeli, S</td>
<td>525</td>
</tr>
<tr>
<td>Isseroff, RR</td>
<td>064, 209, 577</td>
</tr>
<tr>
<td>Ito, M</td>
<td>663, 671, 858</td>
</tr>
<tr>
<td>Ito, S</td>
<td>402</td>
</tr>
<tr>
<td>Itoh, M</td>
<td>493</td>
</tr>
<tr>
<td>Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Iwakura, Y</td>
<td>075</td>
</tr>
<tr>
<td>Iwasaka, H</td>
<td>285</td>
</tr>
<tr>
<td>Iwatsuki, K</td>
<td>092, 280</td>
</tr>
<tr>
<td>Izutsu, Y</td>
<td>805, 834</td>
</tr>
<tr>
<td>Jackson, G</td>
<td>113</td>
</tr>
<tr>
<td>Jackson, M</td>
<td>104</td>
</tr>
<tr>
<td>Jacobsen, G</td>
<td>372</td>
</tr>
<tr>
<td>Jacques, SL</td>
<td>105, 892</td>
</tr>
<tr>
<td>Jadali, A</td>
<td>570</td>
</tr>
<tr>
<td>Jaeger, K</td>
<td>660</td>
</tr>
<tr>
<td>Jagdeo, J</td>
<td>256, 257</td>
</tr>
<tr>
<td>Jahoda, CA</td>
<td>551, 567, 663, 666</td>
</tr>
<tr>
<td>Jaleel, T</td>
<td>726</td>
</tr>
<tr>
<td>Jallili, A</td>
<td>867</td>
</tr>
<tr>
<td>James, G</td>
<td>001</td>
</tr>
<tr>
<td>James, GA</td>
<td>011</td>
</tr>
<tr>
<td>James, W</td>
<td>p. 26</td>
</tr>
<tr>
<td>James, Y</td>
<td>679</td>
</tr>
<tr>
<td>Janda, J</td>
<td>205</td>
</tr>
<tr>
<td>Jandova, J</td>
<td>144, 205, 774, 775</td>
</tr>
<tr>
<td>Janicic, N</td>
<td>149</td>
</tr>
<tr>
<td>Janjetovic, Z</td>
<td>848</td>
</tr>
<tr>
<td>Jans, R</td>
<td>423, 424</td>
</tr>
<tr>
<td>Jaskowski, T</td>
<td>054</td>
</tr>
<tr>
<td>Jassim, O</td>
<td>868</td>
</tr>
<tr>
<td>Javed, R</td>
<td>260 (E - Novartis Pharma Research)</td>
</tr>
<tr>
<td>Javelaud, D</td>
<td>876, 878</td>
</tr>
<tr>
<td>Jay, M</td>
<td>109</td>
</tr>
<tr>
<td>Jay, S</td>
<td>171</td>
</tr>
<tr>
<td>Je, J</td>
<td>407</td>
</tr>
<tr>
<td>Jean, C</td>
<td>802</td>
</tr>
<tr>
<td>Jee, S</td>
<td>139</td>
</tr>
<tr>
<td>Jenkins, G</td>
<td>287 (E - Unilever)</td>
</tr>
<tr>
<td>Jenkins, NC</td>
<td>827</td>
</tr>
<tr>
<td>Jensen, JD</td>
<td>400</td>
</tr>
<tr>
<td>Jeon, B</td>
<td>156, 223</td>
</tr>
<tr>
<td>Jeon, M</td>
<td>749</td>
</tr>
<tr>
<td>Jeong, M</td>
<td>295, 297, 334, 463, 465, 488</td>
</tr>
<tr>
<td>Jeong, S</td>
<td>073, 127, 334, 488</td>
</tr>
<tr>
<td>Jetten, AM</td>
<td>710, 711</td>
</tr>
<tr>
<td>Ji, F</td>
<td>772, 773</td>
</tr>
<tr>
<td>Jiang, H</td>
<td>422, 423</td>
</tr>
<tr>
<td>Jiang, Q</td>
<td>545</td>
</tr>
<tr>
<td>Jiang, X</td>
<td>712, 733, 762, 787, 847</td>
</tr>
<tr>
<td>Jiang, Y</td>
<td>043, 061, 279, 690</td>
</tr>
<tr>
<td>Jimenez, JJ</td>
<td>646</td>
</tr>
<tr>
<td>Jin, JY</td>
<td>158</td>
</tr>
<tr>
<td>Jin, S</td>
<td>224</td>
</tr>
<tr>
<td>Joachim, R</td>
<td>101</td>
</tr>
<tr>
<td>Johansen, F</td>
<td>412</td>
</tr>
<tr>
<td>John, D</td>
<td>754</td>
</tr>
<tr>
<td>Johnson, CC</td>
<td>372</td>
</tr>
<tr>
<td>Johnson, D</td>
<td>372</td>
</tr>
<tr>
<td>Johnson, DC</td>
<td>741</td>
</tr>
<tr>
<td>Johnson, JL</td>
<td>140</td>
</tr>
<tr>
<td>Johnson, MD</td>
<td>003</td>
</tr>
<tr>
<td>Johnson, T</td>
<td>541</td>
</tr>
<tr>
<td>Johnston, A</td>
<td>085, 098, 119, 125, 128, 555</td>
</tr>
<tr>
<td>Jolly, P</td>
<td>210</td>
</tr>
<tr>
<td>Jones, AM</td>
<td>133</td>
</tr>
<tr>
<td>Jones, D</td>
<td>232</td>
</tr>
<tr>
<td>Jones, IC</td>
<td>197, 198, 218, 219, 231</td>
</tr>
<tr>
<td>Jou, PC</td>
<td>810</td>
</tr>
<tr>
<td>Jourdan, MM</td>
<td>012</td>
</tr>
<tr>
<td>Jozwicki, W</td>
<td>849</td>
</tr>
<tr>
<td>Ju, EM</td>
<td>534</td>
</tr>
<tr>
<td>Juarranz, A</td>
<td>476</td>
</tr>
<tr>
<td>Judd, C</td>
<td>217</td>
</tr>
<tr>
<td>Jung, E</td>
<td>582</td>
</tr>
<tr>
<td>Jung, H</td>
<td>854</td>
</tr>
<tr>
<td>Jung, K</td>
<td>694</td>
</tr>
<tr>
<td>Jung, M</td>
<td>455, 584</td>
</tr>
<tr>
<td>Jung, T</td>
<td>715</td>
</tr>
<tr>
<td>Junqueira, AA</td>
<td>669, 822</td>
</tr>
<tr>
<td>Kabashima, K</td>
<td>286, 680, 695, 705</td>
</tr>
<tr>
<td>Kabashima, R</td>
<td>274, 286</td>
</tr>
<tr>
<td>Kabigting, F</td>
<td>104</td>
</tr>
<tr>
<td>Kacic, C</td>
<td>179</td>
</tr>
<tr>
<td>Kacic, S</td>
<td>102</td>
</tr>
<tr>
<td>Kaczmarek, E</td>
<td>188</td>
</tr>
<tr>
<td>Kaczynski, J</td>
<td>270 (E - Procter &amp; Gamble Company)</td>
</tr>
<tr>
<td>Kado, JA</td>
<td>151</td>
</tr>
<tr>
<td>Kadono, T</td>
<td>583</td>
</tr>
<tr>
<td>Kaesler, S</td>
<td>697, 728, 730</td>
</tr>
<tr>
<td>Kagami, S</td>
<td>105, 729</td>
</tr>
<tr>
<td>Kagan, V</td>
<td>815</td>
</tr>
<tr>
<td>Kajita, A</td>
<td>280</td>
</tr>
<tr>
<td>Kajiy, K</td>
<td>013</td>
</tr>
<tr>
<td>Kakeda, M</td>
<td>095, 689, 696</td>
</tr>
<tr>
<td>Kakodkar, S</td>
<td>365</td>
</tr>
<tr>
<td>Kalantari, M</td>
<td>126</td>
</tr>
<tr>
<td>Kalb, M</td>
<td>108</td>
</tr>
<tr>
<td>Kalies, K</td>
<td>034</td>
</tr>
<tr>
<td>Kalthoff, F</td>
<td>276, 524</td>
</tr>
<tr>
<td>Kalthoff, FS</td>
<td>260, 275, 277 (E, SH - Novartis Pharma Scientist)</td>
</tr>
<tr>
<td>Kamalpour, J</td>
<td>387</td>
</tr>
<tr>
<td>Kamata, Y</td>
<td>436</td>
</tr>
<tr>
<td>Kambe, N</td>
<td>736</td>
</tr>
<tr>
<td>Kamegawa, A</td>
<td>695</td>
</tr>
<tr>
<td>Kamenisch, Y</td>
<td>512, 513</td>
</tr>
<tr>
<td>Kamiwada, R</td>
<td>850</td>
</tr>
<tr>
<td>Kamiya, K</td>
<td>092</td>
</tr>
<tr>
<td>Hammerbauer, C</td>
<td>056</td>
</tr>
<tr>
<td>Kammeyer, A</td>
<td>816</td>
</tr>
<tr>
<td>Kamp, M</td>
<td>745, 746</td>
</tr>
<tr>
<td>Kanazawa, N</td>
<td>736</td>
</tr>
<tr>
<td>Kanda, N</td>
<td>722, 830</td>
</tr>
<tr>
<td>Kanda, T</td>
<td>075</td>
</tr>
<tr>
<td>Kandyba, E</td>
<td>665</td>
</tr>
<tr>
<td>Kaneko, N</td>
<td>360</td>
</tr>
<tr>
<td>Kanekura, T</td>
<td>846, 850</td>
</tr>
<tr>
<td>Kang, MC</td>
<td>002</td>
</tr>
<tr>
<td>Kang, S</td>
<td>263, 292, 331, 343, 344, 727, p. 38</td>
</tr>
<tr>
<td>Kanno, Y</td>
<td>595</td>
</tr>
<tr>
<td>Kanzler, M</td>
<td>370, 393, 394</td>
</tr>
<tr>
<td>Kaplan, DH</td>
<td>702, 703, 708</td>
</tr>
<tr>
<td>Kaplan, MH</td>
<td>692</td>
</tr>
<tr>
<td>Kapur, P</td>
<td>134, 821</td>
</tr>
<tr>
<td>Karakhanova, S</td>
<td>082</td>
</tr>
<tr>
<td>Karashima, T</td>
<td>093, 094</td>
</tr>
<tr>
<td>Karnik, P</td>
<td>613, 812, 825</td>
</tr>
<tr>
<td>Kashiwagi, M</td>
<td>647</td>
</tr>
<tr>
<td>Kaspar, RL</td>
<td>560, 561, 562, p. 27</td>
</tr>
<tr>
<td>Kasperkiewicz, M</td>
<td>034, 037</td>
</tr>
<tr>
<td>Kast, D</td>
<td>086, 326, 375</td>
</tr>
<tr>
<td>Katayama, N</td>
<td>095</td>
</tr>
<tr>
<td>Katsuy, SK</td>
<td>249, 768, 769</td>
</tr>
<tr>
<td>Katsuoka, K</td>
<td>735</td>
</tr>
<tr>
<td>Katz, A</td>
<td>p. 25 (C - LifeNet Health; SH - PluroGen Therapeutics Inc.; P - The GID Group; P - Artecel Inc.)</td>
</tr>
<tr>
<td>Katz, SI</td>
<td>100, 707, p. 38</td>
</tr>
<tr>
<td>Kaufman, M</td>
<td>216</td>
</tr>
<tr>
<td>Kaur, M</td>
<td>290, 302 (E - Merz Pharmaceuticals, LLC)</td>
</tr>
<tr>
<td>Kaur, S</td>
<td>020, 053, 427, 734</td>
</tr>
<tr>
<td>Kautz-Neu, K</td>
<td>754</td>
</tr>
</tbody>
</table>
Kavlick, K 375
Kawada, A 198
Kawahara, K 846
Kawamura, T 738
Kawamura, M 180
Kawashima, K 803
Kawasumi, M 180
Kayed, R 071
Ke, F 071
Ke, H 869
Keene, D 342
Keiser, E 299, 307, 370, 393, 394
Kellar, R 637 (C - Histogen, Inc.)
Kelleher, J 276 (E, SH - Novartis Pharma Scientist)
Kelly, B 113
Kemperman, P 432
Kennedy, WR 822
Keren, DG 035
Kern, E 326, 375
Kern, MJ 649
Kerrigan, D 623
Kerscher, M 480
Kezic, S 432, 816
Khadge, S 755
Khan, S 003, 452 (E - Quinnova Pharmaceuticals, Inc.)
Khan, SG 143, 364, 780
Kharidia, R 734
Khatcherian, A 273
Khavari, PA 186, 519
Khnykin, D 412
Khosrotehrani, M 005, 835
Kianifard, F 328
Kielmanowicz, MG 202 (E - ColBar LifeScience Ltd)
Kim, AL 159, 160, 162, 165
Kim, B 627, 854, 870
Kim, C 449, 857, 871, 872
Kim, D 242
Kim, D 281
Kim, D 407
Kim, D 890
Kim, D 295, 297
Kim, D 627, 854, 890
Kim, E 264
Kim, E 295, 297
Kim, E 527, 528
Kim, H 073, 127, 334, 406, 488, 870
Kim, H 177, 718
Kim, H 458, 459
Kim, H 551, 553
Kim, H 627, 854
Kim, J 069
Kim, J 258
Kim, J 605
Kim, J 748
Kim, J 870
Kim, J 871
Kim, J 284, 315
Kim, J 416, 857
Kim, J 627, 890
Kim, J 627, 890
Kim, K 786, 790
Kim, M 064
Kim, M 672
Kim, M 777
Kim, M 870
Kim, M 242, 857, 871, 872
Kim, N 365
Kim, S 284
Kim, S 449
Kim, S 527
Kim, S 642
Kim, S 527, 528
Kim, T 848
Kim, T 156, 223, 456, 539
Kim, T 704, 749
Kim, Y 429
Kim, Y 582
Kimball, AB 262, 269, p. 26 (C, G, A, I - Nu Skin)
Kimmel, S 355
King, L 656
Kini, S 387
Kinsoshiba, T 426
Kitania, U 358
Kita, R 473
Kitagawa, H 689, 696
Kitahara, T 402
Kitamura, Y 192
Kitano, S 095
Knapp, BF 121
Klaquost, J 025, 232
Klausner, M 559, 565
Klapp, BF 099, 101
Klopfeinstein, N 308 (E - Array BioPharma)
Knaggs, He 504, 505
Knellinger, M 131
Knoberl, R 271 (C - Therakos Inc.)
Knoch, J 513
Knizev, J 475
Knutsen, D 019
Ko, J 258
Ko, M 612
Kobayashi, H 198
Kobayashi, M 286
Kobielak, K 665
Koch, PJ 235
Kochovar, I 252
Kochovar, J 252
Koga, H 093, 094
Koglin, S 056, 732
Koh, J 470
Koh, S 284
Koh, J 034
Kohlhofer, S 715
Kohl, N 365
Kohne, Z 792
Kohno, M 569
Kohsaka, H 067
Kohwi-Shigematsu, T 634
Koizuma, S 208
Kojima, T 047
Kolbe, L 843
Kollmann, K 222
Kollman, N 253, 338, 798, 799, 820 (E - Johnson & Johnson)
Kondo, N 402
Kondo, T 763
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee, H</td>
<td>254, 685</td>
</tr>
<tr>
<td>Lee, J</td>
<td>039</td>
</tr>
<tr>
<td>Lee, J</td>
<td>224</td>
</tr>
<tr>
<td>Lee, J</td>
<td>456</td>
</tr>
<tr>
<td>Lee, J</td>
<td>582</td>
</tr>
<tr>
<td>Lee, J</td>
<td>694</td>
</tr>
<tr>
<td>Lee, J</td>
<td>777</td>
</tr>
<tr>
<td>Lee, J</td>
<td>870</td>
</tr>
<tr>
<td>Lee, J</td>
<td>242, 872</td>
</tr>
<tr>
<td>Lee, J</td>
<td>295, 297</td>
</tr>
<tr>
<td>Lee, J</td>
<td>527, 528</td>
</tr>
<tr>
<td>Lee, J</td>
<td>857, 871</td>
</tr>
<tr>
<td>Lee, K</td>
<td>672</td>
</tr>
<tr>
<td>Lee, K</td>
<td>224, 284, 439</td>
</tr>
<tr>
<td>Lee, KC</td>
<td>374</td>
</tr>
<tr>
<td>Lee, KS</td>
<td>002</td>
</tr>
<tr>
<td>Lee, M</td>
<td>407</td>
</tr>
<tr>
<td>Lee, M</td>
<td>295, 297</td>
</tr>
<tr>
<td>Lee, S</td>
<td>118 (E - Signum Biosciences)</td>
</tr>
<tr>
<td>Lee, S</td>
<td>406</td>
</tr>
<tr>
<td>Lee, S</td>
<td>429</td>
</tr>
<tr>
<td>Lee, S</td>
<td>073, 127, 315, 334, 455, 463, 465, 470, 473, 488, 870</td>
</tr>
<tr>
<td>Lee, S</td>
<td>439, 468</td>
</tr>
<tr>
<td>Lee, S</td>
<td>627, 854, 890</td>
</tr>
<tr>
<td>Lee, W</td>
<td>777, 786, 790</td>
</tr>
<tr>
<td>Lee, W</td>
<td>766</td>
</tr>
<tr>
<td>Lee, W</td>
<td>370, 393</td>
</tr>
<tr>
<td>Lee, W</td>
<td>627, 854, 890</td>
</tr>
<tr>
<td>Lee, Y</td>
<td>242</td>
</tr>
<tr>
<td>Lee, Y</td>
<td>704</td>
</tr>
<tr>
<td>Lee, Y</td>
<td>810</td>
</tr>
<tr>
<td>Lee, Y</td>
<td>871</td>
</tr>
<tr>
<td>Lee, Y</td>
<td>156, 223, 456</td>
</tr>
<tr>
<td>Lee, Y</td>
<td>224, 455</td>
</tr>
<tr>
<td>Lee, Y</td>
<td>786, 790</td>
</tr>
<tr>
<td>Lee-Keltner, I</td>
<td>390</td>
</tr>
<tr>
<td>Lefkowitz, GK</td>
<td>673</td>
</tr>
<tr>
<td>Lehman, P</td>
<td>452</td>
</tr>
<tr>
<td>Lehmann, B</td>
<td>732</td>
</tr>
<tr>
<td>Lehrer, R</td>
<td>p. 36</td>
</tr>
<tr>
<td>Leigh, IM</td>
<td>430, 447</td>
</tr>
<tr>
<td>Lemoine, B</td>
<td>087</td>
</tr>
<tr>
<td>Lequoy, V</td>
<td>864</td>
</tr>
<tr>
<td>Lerner, EA</td>
<td>116, 598</td>
</tr>
<tr>
<td>Leshin, B</td>
<td>158</td>
</tr>
<tr>
<td>Leslie, KS</td>
<td>052, 714</td>
</tr>
<tr>
<td>Letavernier, E</td>
<td>005</td>
</tr>
<tr>
<td>Leube, RE</td>
<td>533</td>
</tr>
<tr>
<td>Leung, DY</td>
<td>741</td>
</tr>
<tr>
<td>Leung, N</td>
<td>320</td>
</tr>
<tr>
<td>Leung, Y</td>
<td>665</td>
</tr>
<tr>
<td>Levy, B</td>
<td>565</td>
</tr>
<tr>
<td>Levy, R</td>
<td>261 (SH, E - Incyte Corp)</td>
</tr>
<tr>
<td>Lewis, DA</td>
<td>172, 819</td>
</tr>
<tr>
<td>Lewis, J</td>
<td>760, 770</td>
</tr>
<tr>
<td>Lewis, JD</td>
<td>354</td>
</tr>
<tr>
<td>Lewis, K</td>
<td>337</td>
</tr>
<tr>
<td>Ley, K</td>
<td>068</td>
</tr>
<tr>
<td>Li, AG</td>
<td>617</td>
</tr>
<tr>
<td>Li, C</td>
<td>177</td>
</tr>
<tr>
<td>Li, C</td>
<td>621, 622</td>
</tr>
<tr>
<td>Li, G</td>
<td>852</td>
</tr>
<tr>
<td>Li, H</td>
<td>716</td>
</tr>
<tr>
<td>Li, H</td>
<td>736</td>
</tr>
<tr>
<td>Li, J</td>
<td>270 (E - Procter &amp; Gamble Company)</td>
</tr>
<tr>
<td>Li, J</td>
<td>852</td>
</tr>
<tr>
<td>Li, J</td>
<td>887</td>
</tr>
<tr>
<td>Li, J</td>
<td>772, 773</td>
</tr>
<tr>
<td>Li, K</td>
<td>298 (E - Centocor Research &amp; Development, Inc)</td>
</tr>
<tr>
<td>Li, K</td>
<td>708</td>
</tr>
<tr>
<td>Li, K</td>
<td>295, 297</td>
</tr>
<tr>
<td>Li, L</td>
<td>187</td>
</tr>
<tr>
<td>Li, M</td>
<td>025</td>
</tr>
<tr>
<td>Li, N</td>
<td>114, 233</td>
</tr>
<tr>
<td>Li, Q</td>
<td>063</td>
</tr>
<tr>
<td>Li, Q</td>
<td>071</td>
</tr>
<tr>
<td>Li, Q</td>
<td>870</td>
</tr>
<tr>
<td>Li, Q</td>
<td>424</td>
</tr>
<tr>
<td>Li, Q</td>
<td>449, 515, 516, 530, 531, 532, 545</td>
</tr>
<tr>
<td>Li, S</td>
<td>016</td>
</tr>
<tr>
<td>Li, S</td>
<td>815</td>
</tr>
<tr>
<td>Li, S</td>
<td>021</td>
</tr>
<tr>
<td>Li, S</td>
<td>588</td>
</tr>
<tr>
<td>Li, W</td>
<td>060, 848</td>
</tr>
<tr>
<td>Li, W</td>
<td>201, 632, 794 (E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Li, W</td>
<td>621, 622</td>
</tr>
<tr>
<td>Li, Y</td>
<td>228</td>
</tr>
<tr>
<td>Li, Y</td>
<td>588</td>
</tr>
<tr>
<td>Li, Y</td>
<td>366, 367, 377, 386</td>
</tr>
<tr>
<td>Liang, X</td>
<td>126</td>
</tr>
<tr>
<td>Liao, H</td>
<td>546</td>
</tr>
<tr>
<td>Liao, W</td>
<td>145, p. 36 (c - Kinemed Inc.; A - PsoriasisDX; S - GlaxoSmithKline)</td>
</tr>
<tr>
<td>Libove, E</td>
<td>340</td>
</tr>
<tr>
<td>Lichti, U</td>
<td>610</td>
</tr>
<tr>
<td>Lichtman, M</td>
<td>043, 061, 279, 690</td>
</tr>
<tr>
<td>Liebel, F</td>
<td>053, 799</td>
</tr>
<tr>
<td>Liezmann, C</td>
<td>099, 101</td>
</tr>
<tr>
<td>Lijuan, H</td>
<td>789</td>
</tr>
<tr>
<td>Lim, HW</td>
<td>372</td>
</tr>
<tr>
<td>Lim, K</td>
<td>694</td>
</tr>
<tr>
<td>Lima, HC</td>
<td>262</td>
</tr>
<tr>
<td>Lima, XT</td>
<td>262, 269 (G - Centocor)</td>
</tr>
<tr>
<td>Limtrakul, P</td>
<td>433</td>
</tr>
<tr>
<td>Lin, AM</td>
<td>124, 717</td>
</tr>
<tr>
<td>Lin, C</td>
<td>199</td>
</tr>
<tr>
<td>Lin, C</td>
<td>469</td>
</tr>
<tr>
<td>Lin, CB</td>
<td>201, 202, 203, 842 (E - Johnson &amp; Johnson Consumer Companies)</td>
</tr>
<tr>
<td>Limrhoos, J</td>
<td>058</td>
</tr>
<tr>
<td>Linos, E</td>
<td>370, 371, 393, 394</td>
</tr>
<tr>
<td>Lippens, S</td>
<td>432, 587, 633</td>
</tr>
<tr>
<td>Lisa, L</td>
<td>713</td>
</tr>
<tr>
<td>Litzner, B</td>
<td>889</td>
</tr>
<tr>
<td>Liu, F</td>
<td>577, 599</td>
</tr>
<tr>
<td>Liu, H</td>
<td>843</td>
</tr>
<tr>
<td>Liu, J</td>
<td>523, 591</td>
</tr>
<tr>
<td>Liu, L</td>
<td>195, 712, 762</td>
</tr>
<tr>
<td>Liu, P</td>
<td>336</td>
</tr>
<tr>
<td>Liu, S</td>
<td>701</td>
</tr>
<tr>
<td>Liu, T</td>
<td>827</td>
</tr>
<tr>
<td>Liu, W</td>
<td>089, 577</td>
</tr>
<tr>
<td>Liu, Y</td>
<td>228, 376</td>
</tr>
<tr>
<td>Liu, Z</td>
<td>114, 233, 765</td>
</tr>
<tr>
<td>Lloyd, K</td>
<td>599</td>
</tr>
<tr>
<td>Lloyd, S</td>
<td>140 (E, I - Restoration Genetics, Inc)</td>
</tr>
<tr>
<td>Loiacono, N</td>
<td>626</td>
</tr>
<tr>
<td>Lo, BK</td>
<td>152</td>
</tr>
<tr>
<td>Lo, C</td>
<td>723</td>
</tr>
<tr>
<td>Lo, RS</td>
<td>831</td>
</tr>
<tr>
<td>Loewe, R</td>
<td>828</td>
</tr>
<tr>
<td>Lofland, JH</td>
<td>381 (E - Centocor Ortho Biotech Services, LLC)</td>
</tr>
<tr>
<td>Loh, YH</td>
<td>642</td>
</tr>
<tr>
<td>Lohse, CM</td>
<td>380</td>
</tr>
<tr>
<td>LoMonico, J</td>
<td>059, 806</td>
</tr>
<tr>
<td>Lomonte, E</td>
<td>314</td>
</tr>
<tr>
<td>Long, HA</td>
<td>063</td>
</tr>
<tr>
<td>Longley, B</td>
<td>888</td>
</tr>
<tr>
<td>Longley, JB</td>
<td>883</td>
</tr>
<tr>
<td>Lonsdorf, AS</td>
<td>012</td>
</tr>
<tr>
<td>Lopez, A</td>
<td>194</td>
</tr>
<tr>
<td>Lorenz, B</td>
<td>756</td>
</tr>
<tr>
<td>LoRusso, PM</td>
<td>301 (H, SB - Genentech, Inc.; C, A, G - Genentech, Inc.)</td>
</tr>
<tr>
<td>Loser, K</td>
<td>057</td>
</tr>
<tr>
<td>Lotti, R</td>
<td>592</td>
</tr>
<tr>
<td>Lou, K</td>
<td>631</td>
</tr>
<tr>
<td>Lovata, P</td>
<td>058</td>
</tr>
<tr>
<td>Low, IA</td>
<td>301 (E - Genentech, Inc.; SH - Roche, Inc.)</td>
</tr>
<tr>
<td>Lowell, BC</td>
<td>140</td>
</tr>
<tr>
<td>Lowenstein, E</td>
<td>247, 357</td>
</tr>
<tr>
<td>Lowes, MA</td>
<td>033, 107, 110, 323</td>
</tr>
<tr>
<td>Lowy, D</td>
<td>p. 23 (P - National Institutes of Health)</td>
</tr>
<tr>
<td>Loy, C</td>
<td>842 (E - Johnson &amp; Johnson Consumer Companies)</td>
</tr>
<tr>
<td>Loy, E</td>
<td>615</td>
</tr>
<tr>
<td>Lu, KQ</td>
<td>120</td>
</tr>
<tr>
<td>Lu, M</td>
<td>004</td>
</tr>
<tr>
<td>Lu, Q</td>
<td>123</td>
</tr>
<tr>
<td>Lu, R</td>
<td>778</td>
</tr>
<tr>
<td>Lu, S</td>
<td>772, 773</td>
</tr>
<tr>
<td>Luan, L</td>
<td>166, 656</td>
</tr>
<tr>
<td>Luchi, M</td>
<td>261 (SH, E - Incyte Corp)</td>
</tr>
<tr>
<td>Ludwig, RJ</td>
<td>034, 037</td>
</tr>
<tr>
<td>Lugter, TA</td>
<td>057</td>
</tr>
<tr>
<td>Luke, C</td>
<td>553</td>
</tr>
<tr>
<td>Lunny, D</td>
<td>566</td>
</tr>
<tr>
<td>Luo, K</td>
<td>878</td>
</tr>
<tr>
<td>Luo, Y</td>
<td>089, 153, 304, 305, 337</td>
</tr>
<tr>
<td>Lupescu, A</td>
<td>697</td>
</tr>
<tr>
<td>Lustiger, E</td>
<td>667</td>
</tr>
<tr>
<td>Luttefai, S</td>
<td>158, 187</td>
</tr>
<tr>
<td>Luu, D</td>
<td>472</td>
</tr>
<tr>
<td>Luyet, C</td>
<td>466</td>
</tr>
<tr>
<td>Lv, Z</td>
<td>621, 622</td>
</tr>
<tr>
<td>Lyga, I</td>
<td>206, 433</td>
</tr>
<tr>
<td>Lyga, JW</td>
<td>211 (E - Avon Products, Inc.)</td>
</tr>
<tr>
<td>Lyons, JG</td>
<td>133</td>
</tr>
<tr>
<td>Lyte, P</td>
<td>053, 734</td>
</tr>
</tbody>
</table>

| Mackenzie, DC | 253, 469 |
| Mackenzie, IC | 200 |
| Mackey, HM | 301 (E - Genentech, Inc.; SH - Roche, Inc.) |
| MacLeod, DT | 190, 240 |
| Madanikia, S | 023 |
| Maddison, B | 462 |
| Maddox, KM | 012 |
| Maeda, A | 804 |
| Maeda, Y | 426 |
| Maffei, VI | 597 |
| Maggio, K | 167 |
| Maginness, M | 029 (E - Healionics) |
| Mahalingam, M | 826 |
| Mahlke, K | 079, 082, 541 |
| Mahoney, MG | 234, 800 |

<p>| Maini, PK | 662 |
| Maize, J | 239 |
| Majora, M | 791, 792 |
| Makino, T | 405, 409, 763, 824 |
| Malbasa, C | 812 |
| Malbasa, CG | 341 |
| Malbasa, CL | 810 |
| Mammon, T | 250 |
| Man, M | 042, 406, 408, 554, 765 |
| Man, W | 042 |
| Man, X | 621, 622 |
| Mancianti, ML | 479, 483 |
| Mandl-Levin, R | 303 (E - Merz Pharmaceuticals, LLC) |
| Mane, S | 179 |
| Manicone, A | 130 |
| Mannheimer, A | 487 |
| Manni, M | 050, 677, 678 |
| Mansbridge, J | 637 (E - Histogen, Inc.) |
| Mantena, SK | 769 |
| Mao, X | 212 |
| Maquart, F | 207 |
| Marchenko, S | 038 |
| Marconi, A | 574, 592 |
| Mardaryev, AN | 017, 634, 639 |
| Marek, M | 168 |
| Margolis, DI | 354, 355, p. 36 |
| Marinkovich, MP | 619 |
| Markioli, P | 314 |
| Markova, A | 358 |
| Marret, LD | 362 |
| Marshall, A | 029 (E - Healionics) |
| Marshall, C | 176 |
| Marshall, J | 772, 773 |
| Martin, DA | 273 |
| Martin, E | 278, 279 |
| Martin, JN | 714 |
| Martin, K | 253 (E - Johnson &amp; Johnson) |
| Martin, S | 548 |
| Martin-Ezquerra, G | 042, 406 |
| Martini, M | 837, 838 |
| Martinka, M | 852 |
| Martires, KJ | 341, 397, 886 |
| Maruyama, I | 846 |
| Maruziva, D | 462 |
| Marzani, B | 607, 608 (E - Giuliani S.p.A) |
| Masaki, H | 805, 834 |
| Mascolo, A | 608 (E - Giuliani S.p.A) |
| Masukawa, Y | 402 |
| Matheny, CM | 019, 098, 125, 701 |
| Matsi, H | 545 |
| Matsi, K | 763 (E - Estee Lauder Companies) |
| Matsi, MS | 250, 359, 360, 454, 812, 858, 859 |
| Matsukuma, S | 735 |
| Matsunaga, K | 824 |
| Matsushima, H | 686 |
| Matsuishi, S | 846 |
| Matthews, L | 141 |
| Matthews, MR | 141 |
| Mattia, A | 780 |
| Matz, H | 435 |
| Matzner, N | 697 |
| Maurer, M | 674 |
| Maurer, T | 714 |
| Mauro, LM | 646 |
| Mauro, T | 073, 321, 415, 419 |
| Mauro, TM | 406 |
| Mauviel, A | 876, 878 |
| Mayer, FK | 150 (C - Lumavita AG) |
| Maytin, EV | 027, 784, 817 |
| Mazurier, F | 162, 225 |
| McCrath, G | 831 |
| McCauley, M | 772, 773 |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages/References</th>
</tr>
</thead>
<tbody>
<tr>
<td>McClain, S</td>
<td>066</td>
</tr>
<tr>
<td>McClellan, LA</td>
<td>510</td>
</tr>
<tr>
<td>McCormick, TS</td>
<td>086, 326, 375, 701, 771, 825 (P - Pc 4; SH, F - Fluence Therapeutics)</td>
</tr>
<tr>
<td>McCullough, AK</td>
<td>140 (E - Restoration Genetics, Inc)</td>
</tr>
<tr>
<td>McDonald, LA</td>
<td>133</td>
</tr>
<tr>
<td>McElwae, KJ</td>
<td>091, 152, 853</td>
</tr>
<tr>
<td>McGilligan, VE</td>
<td>546</td>
</tr>
<tr>
<td>McGirt, LY</td>
<td>499</td>
</tr>
<tr>
<td>McGrath, JA</td>
<td>342, 518, 526, 550</td>
</tr>
<tr>
<td>McGuire, C</td>
<td>633</td>
</tr>
<tr>
<td>McGuire, J</td>
<td>130</td>
</tr>
<tr>
<td>McLean, I</td>
<td>546</td>
</tr>
<tr>
<td>McLean, W</td>
<td>533</td>
</tr>
<tr>
<td>McLean, WI</td>
<td>564, pp. 23, 37</td>
</tr>
<tr>
<td>McMlremore, M</td>
<td>007</td>
</tr>
<tr>
<td>McLeod, DT</td>
<td>740</td>
</tr>
<tr>
<td>McVeant, M</td>
<td>308 (E - Array BioPharma)</td>
</tr>
<tr>
<td>Medhat, W</td>
<td>234</td>
</tr>
<tr>
<td>Meepansan, J</td>
<td>437</td>
</tr>
<tr>
<td>Mehregan, DR</td>
<td>151</td>
</tr>
<tr>
<td>Meier, B</td>
<td>642</td>
</tr>
<tr>
<td>Meier, NT</td>
<td>542, 648</td>
</tr>
<tr>
<td>Melilik, B</td>
<td>435</td>
</tr>
<tr>
<td>Meinagassner, JM</td>
<td>275, 277 (E, SH - Novartis Pharma Scientist)</td>
</tr>
<tr>
<td>Melendez, J</td>
<td>001</td>
</tr>
<tr>
<td>Meller, S</td>
<td>077</td>
</tr>
<tr>
<td>Meltzer, P</td>
<td>143</td>
</tr>
<tr>
<td>Mendel, I</td>
<td>040</td>
</tr>
<tr>
<td>Mendo, R</td>
<td>149</td>
</tr>
<tr>
<td>Menon , G</td>
<td>214, 440</td>
</tr>
<tr>
<td>Menter, A</td>
<td>087</td>
</tr>
<tr>
<td>Menu, F</td>
<td>324</td>
</tr>
<tr>
<td>Mera, K</td>
<td>846</td>
</tr>
<tr>
<td>Merghob, T</td>
<td>731</td>
</tr>
<tr>
<td>Merinville, E</td>
<td>882</td>
</tr>
<tr>
<td>Merlino, GT</td>
<td>845, 874</td>
</tr>
<tr>
<td>Merlo, G</td>
<td>626</td>
</tr>
<tr>
<td>Mesa-Garza, I</td>
<td>833</td>
</tr>
<tr>
<td>Mesfin, M</td>
<td>331</td>
</tr>
<tr>
<td>Mesnard, L</td>
<td>835</td>
</tr>
<tr>
<td>Messingham, K</td>
<td>183</td>
</tr>
<tr>
<td>Messingham, KA</td>
<td>049</td>
</tr>
<tr>
<td>Messingham, KN</td>
<td>109</td>
</tr>
<tr>
<td>Metz, M</td>
<td>674 (H - Essex Pharma; H - Novartis Pharma)</td>
</tr>
<tr>
<td>Metze, D</td>
<td>529</td>
</tr>
<tr>
<td>Meurer, M</td>
<td>115, 732</td>
</tr>
<tr>
<td>Meyer, KC</td>
<td>542, 551, 630</td>
</tr>
<tr>
<td>Meyer, Lj</td>
<td>054</td>
</tr>
<tr>
<td>Meyer, RG</td>
<td>055</td>
</tr>
<tr>
<td>Meyrignac, C</td>
<td>444, 446, 451, 624, 625, 628</td>
</tr>
<tr>
<td>Meys, R</td>
<td>157, 745, 746</td>
</tr>
<tr>
<td>Mi, Q</td>
<td>708</td>
</tr>
<tr>
<td>Michael, LE</td>
<td>661</td>
</tr>
<tr>
<td>Michl, J</td>
<td>256, 257</td>
</tr>
<tr>
<td>Mickel, L</td>
<td>524</td>
</tr>
<tr>
<td>Mikkola, ML</td>
<td>640</td>
</tr>
<tr>
<td>Miliani de Marval, P</td>
<td>158</td>
</tr>
<tr>
<td>Millar, SE</td>
<td>636, 645, 654, 662, 671, 751</td>
</tr>
<tr>
<td>Miller, D</td>
<td>060, 848</td>
</tr>
<tr>
<td>Miller, J</td>
<td>104 (I - Amgen)</td>
</tr>
<tr>
<td>Miller, LS</td>
<td>748</td>
</tr>
<tr>
<td>Miller, SA</td>
<td>318</td>
</tr>
<tr>
<td>Millerman, B</td>
<td>472</td>
</tr>
<tr>
<td>Millerman, E</td>
<td>547</td>
</tr>
<tr>
<td>Millikan, RC</td>
<td>362</td>
</tr>
<tr>
<td>Mills, A</td>
<td>626</td>
</tr>
<tr>
<td>Milner, Y</td>
<td>097</td>
</tr>
<tr>
<td>Millstone, LM</td>
<td>403, 533, 544, p. 27</td>
</tr>
<tr>
<td>Ming, M</td>
<td>155</td>
</tr>
<tr>
<td>Ming, ME</td>
<td>369</td>
</tr>
</tbody>
</table>
Müller, EJ 466, 494
Muizzuddin, N 250
Mukherjee, PK 810
Mukhopadhyay, A 657, 673
Mukhtar, H 829, 844
Mukuno, A 735
Mullenders, LH 512
Müller, S 037
Mummert, ME 268
Mur, L 015, 864
Murakami, T 636
Murphy, GF 642
Murphy, J 667
Muto, J 191
Myung, P 671
N
Na, K 749
Naaimi, D 474
Nabatian, A 044
Nace, A 616 (E - Aderans Research Institute, Inc.)
Nadem, C 780
Nagao, K 036, 747
Nagaoka, H 510
Nagao, A 636, 645, 654
Nair, RJ 717
Nair, RP 119, 538
Nakagawa, H 147
Nakahigashi, K 695
Nakai, K 569
Nakajima, K 075, 416, 426, 578
Nakama, T 093
Nakamatsu, GY 614
Nakamura, M 286, 383, 873
Nakanishi, K 095
Nakano, T 735
Nakatsuji, T 240, 753
Nalbandian, A 772, 773
Nam, H 527, 528
Nan, H 849
Nandakumar, V 249
Nanney, L 656, 889
Naoe, A 402
Napier, C 308 (E - Array BioPharma)
Nardone, B 837
Nardonne, B 838
Närhi, K 640
Nassar, D 005
Nasti, TH 811, 877
Nätebus, M 529
Natsukawa, Y 094
Natsugake, K 063, 506
Naughton, G 637 (E, B - Histogen, Inc.)
Nave, P 222
Navarini, AA 077
Navarrete-Solís, J 833
Navid, F 706
Nazar, R 831
Nega, M 728
Neidrauer, M 808
Niemann, AL 378
Nelson, EA 707
Nelson, KC 265, 839, 851, 875
Nelson, M 745, 746
Nelson, S 831
Nemazee, D 683
Nemgar, RY 380
Neuhaus, I 321
Neumann, C 434
Neumuller, K 828
Newman, R 558 (E - Life Technologies)
Newton, R 261 (SH, E - Incyte Corp)
Newton-West, M 329, 597
Ng, A 221, 537
Ng, AK 688
Nghiem, P 180, 690, p. 25
Nguyen, J 350, 671
Nguyen, K 806
Nguyen, LP 826
Nguyen, MN 848
Nguyen-Thi, KT 880
Ni Rachael, S 322
Ni, X 137, 709 (G, I - Therakos)
Nickoloff, BJ 863
Nicolás, B 699
Nicolaj, J 314 (E - Exsymol)
Niederleithner, H 828
Niemann, C 651
Niesner, R 448
Niessen, C 651
Nikolovski, J 440
Nimmojar, F 300
Nishiie, W 063, 506
Nishigori, C 274, 682
Nishihiro, J 824
Nishiokawa, K 428
Nishioka, A 090
Nishioka, M 736
Nkengne, A 202 (E - Johnson & Johnson Consumer Companies)
Nobeyama, Y 147
Noelle, G 440
Noffsinger, R 300
Noguera, KE 033, 107, 110
Nogues, KK 241
Noh, J 224
Nomura, T 506
Nomura, Y 286
Noordegraaf, M 754
Noor, S 255
Norberg, SM 615
Norisugi, O 824
Norris, DA 089, 304, 337, 342, 551, 884
Norsgaard, H 058
Nouri, K 464
Nousebeck, J 435
Novitskaya, I 273
Nowak, P 088
Nowakowski, M 766
Nugent, J 658
Nürnberg, G 529
Nusrat, A 222
Nwaneishi, A 467
Nyirady, J 328
O
Obermoser, G 087
Oberto, G 288, 289, 291, 294, 797
Ocampo-Candiani, J 550, 556
Ochoa, MT 716
Oda, Y 406, 419, 554
Oddos, T 202, 207 (E - Johnson & Johnson Consumer Companies)
Ogawa, Y 738
Ogura, K 682
Oh, D 258
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sobiesiak, M</td>
<td>697</td>
<td></td>
</tr>
<tr>
<td>Sohn, K</td>
<td>857, 871</td>
<td></td>
</tr>
<tr>
<td>Soldin, S</td>
<td>149</td>
<td></td>
</tr>
<tr>
<td>Solomon, C</td>
<td>395</td>
<td></td>
</tr>
<tr>
<td>Solitani, K</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Solitani-Arabshahi, R</td>
<td>538</td>
<td></td>
</tr>
<tr>
<td>Soma, Y</td>
<td>244</td>
<td></td>
</tr>
<tr>
<td>Soman, A</td>
<td>368</td>
<td></td>
</tr>
<tr>
<td>Somani, A</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>Sommer, P</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Song, H</td>
<td>254</td>
<td></td>
</tr>
<tr>
<td>Song, PI</td>
<td>737</td>
<td></td>
</tr>
<tr>
<td>Song, S</td>
<td>765</td>
<td></td>
</tr>
<tr>
<td>Soroka, Y</td>
<td>831, p. 25</td>
<td></td>
</tr>
<tr>
<td>Sotiriou, M</td>
<td>054</td>
<td></td>
</tr>
<tr>
<td>Sou, PW</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>South, AP</td>
<td>548, 550</td>
<td></td>
</tr>
<tr>
<td>Southall, MD</td>
<td>020, 053, 427, 471, 692, 734, 798, 799</td>
<td>(E - Johnson &amp; Johnson Consumer &amp; Personal Products Worldwide)</td>
</tr>
<tr>
<td>Southwell, H</td>
<td>321</td>
<td></td>
</tr>
<tr>
<td>Souza, L</td>
<td>007</td>
<td></td>
</tr>
<tr>
<td>Spallone, G</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Spandau, DF</td>
<td>172, 819</td>
<td></td>
</tr>
<tr>
<td>Spatz, K</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Speaker, TJ</td>
<td>561</td>
<td></td>
</tr>
<tr>
<td>Sperandeo, M</td>
<td>281</td>
<td></td>
</tr>
<tr>
<td>Spiegel, JM</td>
<td>328</td>
<td>(G - Novartis; G - Ception; G - NIH; C - DBV)</td>
</tr>
<tr>
<td>Spiegelman, VS</td>
<td>146, 844, 862</td>
<td></td>
</tr>
<tr>
<td>Spitzer, R</td>
<td>561, 562</td>
<td></td>
</tr>
<tr>
<td>Sprecher, E</td>
<td>283, 435, 515, 525, 540, 545</td>
<td></td>
</tr>
<tr>
<td>Spritz, RA</td>
<td>508</td>
<td></td>
</tr>
<tr>
<td>Srikantha, RN</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>St. Clair, WE</td>
<td>510</td>
<td></td>
</tr>
<tr>
<td>Stahle, M</td>
<td>523</td>
<td></td>
</tr>
<tr>
<td>Stamatias, GN</td>
<td>253, 259, 414, 744</td>
<td>(E - Johnson &amp; Johnson Consumer France)</td>
</tr>
<tr>
<td>Stanley, JR</td>
<td>102, pp. 23, 38</td>
<td></td>
</tr>
<tr>
<td>Stanton, DC</td>
<td>615</td>
<td></td>
</tr>
<tr>
<td>Stary, G</td>
<td>524, 715</td>
<td></td>
</tr>
<tr>
<td>Steele, S</td>
<td>828</td>
<td></td>
</tr>
<tr>
<td>Steinhoff, M</td>
<td>018, 088, 220, 461, 585, 700, 865</td>
<td>(E - Aderans Research Institute, Inc.)</td>
</tr>
<tr>
<td>Stenn, K</td>
<td>616</td>
<td>(E - Aderans Research Institute, Inc.)</td>
</tr>
<tr>
<td>Stetler-Stevenson, W</td>
<td>595</td>
<td></td>
</tr>
<tr>
<td>Stewart, PS</td>
<td>011</td>
<td></td>
</tr>
<tr>
<td>Stegmann, R</td>
<td>894</td>
<td></td>
</tr>
<tr>
<td>Stingl, G</td>
<td>108, 524, 715, 867</td>
<td>(G - Novartis)</td>
</tr>
<tr>
<td>Stock, JB</td>
<td>761</td>
<td>(E - Signum Biosciences)</td>
</tr>
<tr>
<td>Stock, M</td>
<td>118, 724, 761</td>
<td>(SH, E - Signum Biosciences, Inc.)</td>
</tr>
<tr>
<td>Stoff, B</td>
<td>379</td>
<td></td>
</tr>
<tr>
<td>Stohl, LL</td>
<td>050, 677, 678</td>
<td></td>
</tr>
<tr>
<td>Stojadinovic, O</td>
<td>024, 759</td>
<td></td>
</tr>
<tr>
<td>Stokes, N</td>
<td>611</td>
<td></td>
</tr>
<tr>
<td>Stoll, SW</td>
<td>606</td>
<td></td>
</tr>
<tr>
<td>Stolper, G</td>
<td>025</td>
<td></td>
</tr>
<tr>
<td>Stone, G</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Storm, K</td>
<td>304</td>
<td></td>
</tr>
<tr>
<td>Stottlemeyer, J</td>
<td>815</td>
<td></td>
</tr>
<tr>
<td>Strachan, LR</td>
<td>479</td>
<td></td>
</tr>
<tr>
<td>Strange, JC</td>
<td>667</td>
<td></td>
</tr>
<tr>
<td>Stremlitz, C</td>
<td>477, 816</td>
<td></td>
</tr>
<tr>
<td>Strozyk, E</td>
<td>865</td>
<td></td>
</tr>
<tr>
<td>Stuchlik, P</td>
<td>277</td>
<td>(E - Novartis Pharma Scientist)</td>
</tr>
<tr>
<td>Stuetz, A</td>
<td>260, 275, 276, 277, 524</td>
<td>(E, SH - Novartis Pharma Research)</td>
</tr>
<tr>
<td>Stutz, NC</td>
<td>184</td>
<td></td>
</tr>
<tr>
<td>Su, Y</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>Suárez-Fariñas, M</td>
<td>028, 033, 107, 110, 241, 298, 323, 345, 417</td>
<td>(I - Centocor Research &amp; Development, Inc)</td>
</tr>
</tbody>
</table>

T

<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tada, A</td>
<td>428</td>
<td></td>
</tr>
<tr>
<td>Tada, K</td>
<td>846</td>
<td></td>
</tr>
<tr>
<td>Tadeu, A</td>
<td>481</td>
<td></td>
</tr>
<tr>
<td>Taguchi, K</td>
<td>682</td>
<td></td>
</tr>
<tr>
<td>Taieb, A</td>
<td>526</td>
<td></td>
</tr>
<tr>
<td>Taieb, A</td>
<td>162, 225</td>
<td></td>
</tr>
<tr>
<td>Taira, B</td>
<td>014</td>
<td></td>
</tr>
<tr>
<td>Takagi, M</td>
<td>013</td>
<td></td>
</tr>
<tr>
<td>Takahara, M</td>
<td>074, 076</td>
<td></td>
</tr>
<tr>
<td>Takahashi, H</td>
<td>036, 681</td>
<td></td>
</tr>
<tr>
<td>Takahashi, M</td>
<td>735</td>
<td></td>
</tr>
<tr>
<td>Takahashi, M</td>
<td>075, 426, 572, 578</td>
<td></td>
</tr>
<tr>
<td>Takakashi, M</td>
<td>272, 686, 778</td>
<td></td>
</tr>
<tr>
<td>Takakashi, A</td>
<td>436</td>
<td></td>
</tr>
<tr>
<td>Takeda, A</td>
<td>305, 682</td>
<td></td>
</tr>
<tr>
<td>Takeda, M</td>
<td>402</td>
<td></td>
</tr>
<tr>
<td>Takekino, Y</td>
<td>671</td>
<td></td>
</tr>
<tr>
<td>Takeda, Y</td>
<td>671</td>
<td></td>
</tr>
<tr>
<td>Takeuchi, H</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Takeuchi, S</td>
<td>074, 076</td>
<td></td>
</tr>
<tr>
<td>Tam, O</td>
<td>645</td>
<td></td>
</tr>
<tr>
<td>Takam, K</td>
<td>583</td>
<td></td>
</tr>
<tr>
<td>Tamir, S</td>
<td>097</td>
<td></td>
</tr>
<tr>
<td>Tamura, D</td>
<td>143, 364, 780</td>
<td></td>
</tr>
<tr>
<td>Tan, X</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Tanaka, A</td>
<td>089, 526</td>
<td></td>
</tr>
<tr>
<td>Tang, J</td>
<td>311, 348, 370, 393, 394, p. 27</td>
<td></td>
</tr>
<tr>
<td>Tang, L</td>
<td>887</td>
<td></td>
</tr>
<tr>
<td>Tang, M</td>
<td>564</td>
<td></td>
</tr>
<tr>
<td>Tang, X</td>
<td>159, 160</td>
<td></td>
</tr>
<tr>
<td>Tangpricha, V</td>
<td>391</td>
<td></td>
</tr>
</tbody>
</table>
W

Waaga-Gasser, AM 687
Wagers, A 712
Waggoner, L 731
Wagner, C 867
Wagner, EF 660
Wagner, JA 050
Wagner, R 113
Wagner, S 861
Wagner, SN 867
Wahl, JK 236
Wainwright, LJ 287 (E - Unilever)
Wajid, M 559, 668
Wakatabi, K 437
Walker, LC 510, 534, 535
Walker, R 143
Walker, T 529
Walkosz, BJ 400
Walli, R 792
Walsh, J 128
Walsh, M 278
Wan, H 195
Wan, Y 772, 773
Wang, E 091
Wang, F 263, 292, 727, 731
Wang, G 063
Wang, GY 340
Wang, H 071
Wang, H 708
Wang, H 332, 335, 601
Wang, J 016
Wang, J 365
Wang, L 690 (C, A - Endra)
Wang, LC 688
Wang, LV 868
Wang, P 520
Wang, Q 831
Wang, RC 141
Wang, S 168, 823
Wang, T 376
Wang, X 700
Wang, X 072, 376
Wang, X 502, 591
Wang, X 537, 548
Wang, Y 103
Wang, Y 260 (E - Novartis Pharma Research)
Wang, Y 701
Wang, Z 520
Wang, Z 740
Ward, NL 019, 085, 098, 125, 555, 701
Warner, JA 318
Warton, M 348
Wassmann, K 304
Watanabe, R 043, 061, 278, 279, 690
Watanabe, S 722, 830
Waters, H 381 (E - Centocor Ortho Biotech Services, LLC)
Watkins, K 616 (E - Aderans Research Institute, Inc.)
Watson, MK 766
Wattendorf, D 143
Waxweiler, W 362
Webster, DE 519
Wegner-Kops, J 055
Wei, B 384
Wei, H 384
Wei, L 595, 779, 789
Wei, M 779, 781, 793, 795, 796
Wei, ML 893
Wei, Y 145, 807
Weigl, R 271
Weinberg, J 390
Weinberg, WC 171
Weinstein, J 548
Weinstock, MA 358, 373, 374, 385
Weir, L 009, 430, 447
Weisman, J p. 26
Weiss, J 614
Welcher, AA 273
Wells, R 855
Wen, X 422
Wende, S 034
Wendelschafer-Crabb, G 822
Weng, Z 177, 821
Werfel, T 096
Werner, S 017
Werth, B 467
Werth, VP 044, 059, 069, 213, 299, 319, 467, 806, p. 26
West, DP 266, 267, 365, 837, 838
West, J 356
Westcot, SE 568
Westermann, J 034, 037
Westman, S 170
Wetherington, S 391
Wheeler, A 195
Wherry, EJ 122
White, E 395
White, KJ 329, 597
White, TR 033
Whiteside, TL 333
Wichmann, K 096
Wickless, H 266, 267
Wickliffe, J 168, 233
Widelitz, RB 662
Widlund, HR 185
Widmer, A 052 (E - Novartis)
Widom, R 207
Wieder, T 164
Wiehr, S 131
Wilcox, GL 822
Wilcox, H 362
Wilkerson, M 113, 168, 823
Wille, JJ 243 (E - Bioderm technologies, Inc.)
Williams, LH 395
Williams, MV 698
Williams, W 261 (SH, E - Incyte Corp)
Willoughby, L 507
Wilson, B 642
Wilson, C 817
Wilson, L 558 (E - Life Technologies)
Wilson, NJ 544
Wipf, P 815
Witherden, D 068
Wlodarczyk, B 617
Woelbing, F 742
Wolber, R 843
Wolbing, F 697
Wolchok, J 847
Wolff, D 055
Wolff-Winiski, B 275 (E - Novartis Pharma Scientist)
Won, Y 842 (E - Johnson & Johnson Consumer Companies)
Wondimu, A 009
Wondrak, GT 296, 891
Wong, B 128
Wong, DJ 186
Wong, H 178
Wong, L 558 (E - Life Technologies)
Wong, MV 698
Wong, W 261 (SH, E - Incyte Corp)
Wu, C 004, 807
Wu, J 173
Wu, L 246
Wu, S 603
Wu, S 145, 807
Wu, X 148
Wu, Y 654
Wu, X 847
Wu, X 260, 276 (E - Novartis Pharma Research)
Wu, Y 219
Wunderlich, J 679
Wysocka, M 306
Xi, N 070
Xia, W 227, 228, 589
Xiao, TZ 888
Xiao, Y 026
Xie, D 602
Xie, J 366
Xie, W 331
Xin, H 863
Xing, X 085, 119, 125
Xu, A 772, 773
Xu, J 177
Xu, L 613, 635, 825
Xu, W 423
Xu, Y 230, 589
Yadav, V 154
Yahagi, S 805, 834
Yamada, T 036
Yamagami, J 102
Yamamoto, M 436, 464
Yamamoto, T 092
Yamana, K 095, 689, 696
Yamanishi, K 095
Yamasaki, K 191, 240, 280, 753
Yamauchi, M 510
Yamazaki, F 285
Yamazaki, M 244
Yamazaki, S 192, 193
Yan, Q 591
Yancey, KB 141
Yang, B 254
Yang, C 670
Yang, H 209, 458
Yang, J 080, 237, 458, 459, 527, 528, 687, 750
Yang, R 070, 577, 599
Yang, S 521, 522, 826
Yang, X 176
Yang, X 621
Yang, Y 023
Yao, M 252
Yao, Y 084, 782, 783
Yarosh, DB 226, 250, 454, 484, 490, 812, 858, 859 (E - Estee Lauder Companies)
Yasumoto, S 093, 094, 511
Yau, N 432
Yau, R 301 (E - Genentech, Inc.; SH - Roche, Inc.)
Ye, R 472
Yee, CL 167
Yeh, B 455
Yehuda, H 097
Yeilding, N 347 (E - Centocor Research & Development, Inc.)
Yen, C 620
Yeowell, HN 510, 534, 535
Yi, T 439, 772
Yin, B 787
Yin, Y 469
Yingying, G 779
Yodoi, J 682
Yokogawa, M 578
Yokouchi, M 747
Yokozeki, H 067
Yoneda, K 569
Yoo, H 156, 223
Yoo, J 130
Yoo, S 365
Yoon, G 890
Yoon, H 429, 777, 786, 788
Yoon, J 871
Yoon, T 857, 871, 872
Yoshida, H 418
Yoshida, K 747
Yoshida, M 454, 858, 859
Yoshida, T 193
Yoshida, T 498, 752
Yoshidai, Y 763, 824
Yoshiki, R 274
Yoshino, T 735
Yoshizaki, A 836
Yosipovitch, G 332, 335, 462, 486, 518, 601
You, Z 382
Youn, J 022
Young, CN 327
Yu, BD 657, 673
Yu, H 145, 258, 807
Yu, L 599
Yu, M 091, 152, 853
Yu, T 381 (I - Centocor Ortho Biotech Services, LLC)
Yu, X 682
Abstract Reviewers

The SID is grateful to the following individuals for review of abstracts.

Committee on Scientific Programs
Philip Fleckman, MD, Co-Chair
Xiao-Jing Wang, MD/PhD, Co-Chair
Jack Arbiser, MD/PhD
James T. Elder, MD/PhD
Michael Girardi, MD
Christina Herrick, MD/PhD
Julie Segre, PhD
Richard Clark, MD, ex officio
Kathleen Green, PhD, ex officio
Russell P. Hall, MD, ex officio
Robert Swerlick, MD, ex officio

Ad Hoc Reviewers
Masashi Akiyama, MD/PhD
Maryam Asgari, MD/MPH
Dan Bikle, MD/PhD
Andrew Blauvelt, MD
Supey Chen, MD
Rachael Clark, MD/PhD
Mitchell Denning, PhD
Anand Ganesan, MD
Sipro Getsios, MD
Jonathan Jones, PhD
Daniel Kaplan, MD/PhD
Maranke Koster, PhD
Stuart Lessin, MD
Peter Marinkovich, MD
Tom McCormick, PhD
Sarah Millar, PhD
Lloyd Miller, MD/PhD
Dennis Oh, MD/PhD
Abrar Qureshi, MD/MPH
Matthias Schmutz, MD
John Seykora, MD/PhD
Eli Sprecher, MD/PhD
Laura Timares, PhD
Erwin Tschachler, MD
Esther Von Stebut, MD
Nicole Ward, PhD
Maria Wei, MD/PhD

Goverance

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

Directors
Angela Cristiano, PhD
Lisa Beck, MD
Richard Eckert, PhD
Richard Gallo, MD/PhD
Sewon Kang, MD
Alexa Kimball, MD
Brian Nickoloff, MD/PhD
David Rubenstein, MD/PhD
Anton Stuetz, PhD
Mark Udey, MD/PhD
Keith Choate, MD
Todd Becker, MD

Staff
Robyn Cipolletti,
Director, Association Services
Tracy Martin,
Manager, Membership & Association Services
Rebecca Minnillo, DM/MPA
Executive Director, Chief Program and Development Officer
Jim Rumsey,
Executive Director, Chief Operating Officer

Carolyn Slade,
Director, Meetings and Educational Programs

Journal Editors
Paul Bergstresser, MD
Editor-in-Chief
Angela Cristiano, PhD
Deputy Editor
John McGrath, MD
Deputy Editor
Kim B. Yancey, MD
Deputy Editor
Elizabeth Nelson Blalock,
Managing Editor
Mary Annino,
Editorial Assistant

Section Editors
Masayuki Amagai
Stefan Beissert
Andrew Blauvelt
Richard Clark
Meenhard Herlyn
Thomas Krieg
Ralf Paus
Thomas Schwarz
Robert Swerlick
Jouni Uitto
Martin Weinstock
Hywel Williams
Stuart Yuspa

Associate Editors
Rhoda M. Alani
Jack L. Arbiser
Boris C. Bastian
Lisa A. Beck
Jürgen Becker
Mark Berneburg
Luca Borradori
Vladimir A. Botchkarev
Joke Bouwstra
Paul E. Bowden
Jan Buer
Supey Chen
Mary-Margaret Chren
Cheng-Ming Chuong
George Cotsarelis
Jeffrey Davidson
Robert Dellavalle
Mitchell F. Denning
Andrzej A. Dlugosz
Richard L. Eckert
James Elder
Kenneth Feingold
David E. Fisher
Gary Fisher
Lars E. French
Robert Fuhlbrigge
Anthony A. Gaspari
Neil K. Gibbs
Michel F. Gilliet
Michael Girardi
Adam Glick
Kathleen Green
Christopher E.M. Griffiths
Gary M. Halliday
Michael Hertl
Sam Hwang
Rikah Isseroff
Kenji Kabashima
Veli-Matti Kähäri
Sarolta K. Karpati
Kenneth Katz
David P. Kelsell
Reinhard Kirnbauer
Robert S. Kirner
Martin S. Kluger
Andrew P. Kowalczyk
Kenneth H. Kraemer
Jerry Krueger
Robert M. Lavker
Phil LeBoit
Mý G. Mahoney
David Margolis
Alain Mauviel
Estela Medrano
Maria I. Morasso
Luigi Naldi
Julia A. Newton-Bishop
Tamar Nijsten
Amy Paller
Vincent Piguet
Ehrhardt Proksch
Jonathan L. Rees
Gabriele Richard
Martin Röcken
Axel Roers
Thomas Runger
Lynn Y. Sakai
Stefan W. Schneider
Glynis Scott
Julia A. Segre
Hiroshi Shimizu
Braham Shroot
Jan C. Simon
Eli Sprecher
Standing Committees

Auditing Committee
Tom McCormick, PhD
Eliot Mostow, MD
James S. Taylor, MD
Jim Rumsey, Staff Liaison

Committee on Education
Sancy Leachman, MD, Chair
Hensin Tsao, MD, PhD
Rachael Clark, MD, PhD
Oscar Colegio, MD
Heidi Jacobe, MD
Paul Bergstresser, MD, ex officio

Executive Committee
Paul Bergstresser, MD, ex officio
Richard Clark, MD
Kathleen Green, PhD
Russell P. Hall, MD
Sewon Kang, MD
Thomas Lawley, MD
Robert A. Swerlick, MD
Becky Minnillo, ex officio
Jim Rumsey, ex officio

Committee on Finances
Joyce Rico, MD
Stuart Lessin, MD
Brian Nickoloff, MD
Sewon Kang, MD
Paul Bergstresser, MD, ex officio
Russell P. Hall, MD, ex officio
Robert Swerlick, MD, ex officio
Jim Rumsey, Staff Liaison

Committee on Membership
Hensin Tsao, MD, PhD
Murad Alam, MD
Martin Kluger, MD
Robert Swerlick, MD, ex officio
Becky Minnillo, Staff Liaison

Committee on Nominations
Amy Paller, MD
Alice Pentland, MD
John Stanley, MD
Becky Minnillo, Staff Liaison

Committee on Scientific Programs
Philip Fleckman, MD, Co-Chair
Xiao-Jing Wang, MD/PhD, Co-Chair
James T. Elder, MD/PhD
Michael Girardi, MD
David Margolis, MD/PhD
Anthony Oro, MD/PhD
Tom Hornyak, MD
Julia Segre, PhD
Jack Arbiser, MD/PhD
Christina Herrick, MD/PhD
Thomas Lawley, MD, ex officio
Robert Swerlick, MD, ex officio
Jim Rumsey, Staff Liaison
Carolyn Slade, Staff Liaison

Former Officers
Former Presidents
G. MacKee 1938
J. Klauder 1939
J. Stokes 1940
J. Shelmire 1941
F. Wise 1942
F. Weidman 1944
H. Michelson 1946
H. Beerman 1947
S. Becker, Sr. 1948
S. Rothman 1949
D. Pillsbury 1950
M. Sulzberger 1951
S. Peck 1952
T. Cornbleet 1953
A. Curtis 1954
C. Livingood 1955
J. Callaway 1956
M. Obermeyer 1957
W. Lobitz, Jr. 1958
H. Pinkus 1959
T. Fitzpatrick 1960
H. Blank 1961
W. Shelley 1962
H. Mescon 1963
R. Baer 1964
I. Blank 1965
E. Van Scott 1966
E. Farber 1967
A. Lerner 1968
W. Lever 1969
W. Montagna 1970
R. Winkelman 1971
G. Hambrick, Jr. 1972
R. Goltz 1973
R. Stoughton 1974
C. Wheeler, Jr. 1975
J. Strauss 1976
R. Dobson 1977
A. Kligman 1978
G. Odland 1979
J. Smith, Jr. 1980
W. Sams, Jr. 1981
I. Freedberg 1982
L. Harber 1983
R. Freinkel 1984
W. Epstein 1985
D. Carter 1986
K. Wuepper 1987
J. McGuire 1988
A. Eisen 1989
H. Baden 1990
I. Gigli 1991
E. Epstein, Jr. 1992
I. Braverman 1993
S. Katz 1994
L. Goldsmith 1995
E. Bauer 1996
J. Voorhees 1997
G. Lazarus 1998
D. Norris 1999
B. Dicker 2000
A. Pentland 2001
A. Paller 2002
T. Lawley 2003

Former Vice Presidents
J. Klauder 1938
E. Abramowitz 1939
H. Montgomery 1940
E. Netherton 1941
C. Finerud 1942
H. Foerster, Sr. 1944
H. Beerman 1946
H. Templeton 1947
J. Lamb 1948
M. Sullivan 1949
G. Andrews 1950
N. Anderson 1951
J. Haserick 1952
W. Lobitz, Jr. 1953
F. Lynch 1954
J. Wilson 1955
S. Johnson 1956
R. Baer 1957
H. Pinkus 1958
T. Fitzpatrick 1959
H. Blank 1960
S. Epstein 1961
H. Mescon 1962
A. Kligman 1963
I. Blank 1964
E. Van Scott 1965
E. Farber 1966
R. Stoughton 1967
W. Lever 1968
W. Montagna 1969
R. Winkelman 1970
G. Hambrick, Jr. 1971
N. Kanof 1972
A. Lorincz 1973
I. Bernstein 1974
F. Daniels 1975
A. Rostenberg 1976
F. Hu 1977
R. Suskind 1978
F. Malkinson 1979
J. Epstein 1980
K. Hashimoto 1981
W. Quevedo 1982
L. Miller 1983
M. Karasek 1984
P. Weyer 1985
M. Pathak 1986
P. Pochi 1987
K. Fukuyama 1988
A. Mosher 1989
R. Fleischmajer 1990
G. Weinstein 1991
J. Kenney 1992
T. Provost 1993
R. Jordon 1994
M. Dahl 1995
J. Hanifin 1996
N. Soter 1997
L. King, Jr. 1998
A. Briggaman 1999
B. Wintroub 2000
B. Jegasothy 2001
K. Holbrook 2002
W. Weston 2003
J. Bolognia 2004
B. Jegasothy 2005
L. Diaz 2006
A. Pentland 2007
A. Paller 2008
T. Lawley 2009

Former Secretary-Treasurers
S. Becker, Sr. 1938-1939
J. Hopkins 1939-1947
S. Peck 1947-1949
H. Beerman 1949-1964
G. Hambrick 1964-1969
J. Strauss 1969-1974
W. Sams, Jr. 1974-1979
K. Wuepper 1979-1984
E. Epstein, Jr. 1984-1989
D. Bickers 1989-1999
P. Bergstresser 1999-2004
S. W. Caughman 2003-2008

Former Members of the Board
G. Anhalt
H. Baden
R. Baer
E. Bauer
S. Becker, Sr.
H. Beerman
P. Bergstresser
I. Bernstein
D. Bickers
I. Blank
H. Blank
J. Bologna
I. Braverman
R. Briggaman
J. Callaway
D. Carter
S. W. Caughman
K. Cooper
T. Cornbleet
L. Cornelius
R. Crounse
P. Cruz
B. Dale
F. Daniels, Jr.
L. Diaz
C. Dillaha
R. Dobson
M. Duvic
W. Eaglstein
A. Eisen
F. Ellis
W. Epstein
E. Farber
T. Fitzpatrick
H. Foerster, Sr.
C. Frazier
I. Freedberg
R. Freinkel
K. Fukuyama
R. Geronomus
I. Gigli
B. Gilchrest
J. Gilliam
L. Goldman
L. Goldsmith
R. Goltz
R. Granstein
K. Green
R. Hall
K. Halprin
G. Hambrick
J. Hanifin
L. Harber
J. Hearndon
K. Holbrook
J. Hopkins
R. Isseroff
G. Jansen
B. Jegasothy
S. Johnson
H. Jones
R. Jordan
S. Katz
J. Kenney
L. King
A. Kligman
J. Knox
A. Kopf
G. Krueger
T. Kupper
R. Lawer
T. Lawley
G. Lazarus
L. Lee
A. Lerner
W. Lever
G. Lewis
W. Lobitz, Jr.
A. Lorincz
D. Lowy
F. Lynch
F. Malkinson
J. McGuire
R. Modlin
W. Montagna
H. Montgomery
T. Nigra
J. Nordlund
G. Odland
A. Paller
F. Parker
A. Pentland
L. Peterson
D. Pillsbury
S. Pinnell
P. Pochi
T. Provost
W. Quevedo
T. Rea
R. Reisner
D. Roop
A. Rostenberg, Jr.
S. Rothman
W. Shelley
B. Shroot
J. Smith, Jr.
J. Stanley
K. Stenn
T. Sternberg
J. Stokes
R. Stoughton
G. Stricklin
J. Straus
M. Sulzberger
T.-T. Sun
R. Suskind
H. Templeton
R. Tigelaar
J. Uttke
F. Urbach
E. Van Scott
J. Voorhees
S. Way
P. Weary
G. Weinsteine
W. Weston
C. Wheeler, Jr.
J. Wilson
R. Winkelmann
B. Wintroub
D. Woodley
K. Wuepper
A. Zelickson

Former Editors of the JID
M. Sulzberger 1938-1948
N. Kanof 1948-1967
R. Stoughton 1967-1972
I. Freedberg 1972-1977
R. Freinkel 1977-1982
H. Baden 1982-1987
D. Norris 1987-1992
C. Hauser 1997-2002
L. Goldsmith 2002-2007

Association Members

Former Editors of the JID
H. Baden
E. Beutner
O. Braun-Falco
I. Braverman
A. Breantach
W. Bullough
L. H. Chiu
E. Christophers
R. Degos
R. Dobson
A. Eisen
A. ElMofty
J. Fernandez
I. Freedberg
R. Freinkel
I. gigli
R. Goltz
M. Greaves
H. Green
G. Hambrick, Jr.
F. Hu
Y. Ishibashi
S. Jablonska
R. Jordan
A. Kligman
A. Kukita
C. Lapierre
G. Lazarus
A. Lerner
J. Leyden
W. Lobitz, Jr.
I. Magnus
Y. Mishima
S. Ofuji
M. Prunieras
W. Quevedo, Jr.
N. Thyresson
E. Van Scott

Former Resident/Fellow Directors
J. Arbiser
J. Bernhard
M. Buxman
S. Caughman
D. Chu
J. Dechard
J. Fenyk
R. Gallo
J. Gelfand
M. Goldyne
R. Hall
G. Herron
D. Hurwitz
S. Jamal
J. Lee
K. Lu
M. P. Marinkovich
J. McCarty
T. Nguyen
S. Orlow
A. Oro
B. Randazzo
C. Robinson
L. Sibrack
R. Sontheimer
F. Tausk
R. S. Taylor
P. Walker
K. Yancey

Former Editors
M. Sulzberger 1938-1948
N. Kanof 1948-1967
R. Stoughton 1967-1972
I. Freedberg 1972-1977
R. Freinkel 1977-1982
H. Baden 1982-1987
D. Norris 1987-1992
C. Hauser 1997-2002
L. Goldsmith 2002-2007

Association Members

Honorary Members
H. Baden
E. Beutner
O. Braun-Falco
I. Braverman
A. Breantach
W. Bullough
L. H. Chiu
E. Christophers
R. Degos
R. Dobson
A. Eisen
A. ElMofty
J. Fernandez
I. Freedberg
R. Freinkel
I. gigli
R. Goltz
M. Greaves
H. Green
G. Hambrick, Jr.
F. Hu
Y. Ishibashi
S. Jablonska
R. Jordan
A. Kligman
A. Kukita
C. Lapierre
G. Lazarus
A. Lerner
J. Leyden
W. Lobitz, Jr.
I. Magnus
Y. Mishima
S. Ofuji
M. Prunieras
W. Quevedo, Jr.
N. Thyresson
E. Van Scott
SID Awards

**Stephen Rothman Memorial Award Recipients**
Presented for distinguished service to investigative cutaneous medicine.
1967 Marion Sulzberger
1968 Donald Pillsbury
1969 Harvey Blank
1970 Thomas Fitzpatrick
1971 Aaron Lerner
1972 William Montagna
1973 Rudolf Baer
1974 Hermann Pinkus
1975 Eugene Van Scott
1976 Albert Kligman
1977 Irvin Blank
1978 George Odland
1979 Clayton Wheeler, Jr.
1980 Clarence Livingood
1981 Isadore Bernstein
1982 J. Lamar Callaway
1983 Richard Stoughton
1984 A Gedeon Matoltsy
1985 Herman Beerman
1986 Otto Braun-Falco
1987 Walter Shelley
1988 John Strauss
1989 Walter Lobitz, Jr.
1990 Walter Lever
1991 Robert Goltz
1992 Irwin Freedberg
1993 Arthur Eisen
1994 Ruth Freinkel
1995 Howard Baden
1996 Irma Gigli
1997 Stephen Katz
1998 Klaus Wolff
1999 Lowell Goldsmith
2000 Richard Dobson
2001 Robert Briggaman
2002 Eugene Bauer
2003 Georg Stingl
2004 Stuart Yusu
2005 John Voorhees
2006 Thomas Lawley
2007 Barbara Gilchrest
2009 Luis Diaz

**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

**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

**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 J.G.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 Rudelle
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

**Eugene M. Farber Psoriasis Research Award**
2003 David Jones
2004 Edmund Lee
2005 Curdlin Conrad
2006 Helen Young
2007 Rajan Nair
2008 Enno Christophers
2009 James T. Elder

**SID/Galderma Acne Research Award**
2002 Diane Thiboutot
2003 Jenny Kim
2004 Michaela Downie
2005 Andreej Dlugosz
2006 Sewon Kang
2007 Philip Liu

**SID/Galderma Rosacea Research Award**
2009 Kenshi Yamakazi

**Albert M. Kligman / Phillip Frost Leadership Lecture & Award**
2008 Jouni Uitto
2009 Stephen Katz
Join us for the 2011 SID Annual Meeting

May 4 – 7, 2011

JW Marriott Desert Ridge Resort and Spa
Phoenix, Arizona
The Epidermal and Sensory Research and Investigation Centre (Centre de Recherches et Investigations Épidermiques et Sensorielles) CE.R.I.E.S. is the healthy skin research centre of CHANEL, whose mission is to perform and encourage research of the physiology and biology of healthy skin. In addition to conducting its own independent research, the CE.R.I.E.S. is funding an annual award.

The CE.R.I.E.S. Research Award of 40,000 € is intended to honour a scientific researcher with a proven track record in fundamental or clinical research work, for a one year period, on the subject of:

PHYSIOLOGY OR BIOLOGY OF HEALTHY SKIN AND/OR ITS REACTIONS TO ENVIRONMENTAL FACTORS

The awardee will be selected by an international jury consisting of the members of the Scientific Advisory Board of the CE.R.I.E.S.

Previous CE.R.I.E.S. Research Award Winners:

2010 To be determined
2009 Sabine Werner, Ph.D., Zurich, Switzerland
2008 Paul A. Khavari, M.D., Ph.D., Stanford, USA
2007 Richard L. Gallo, M.D., Ph.D., San Diego, USA
2006 Irwin McLean, Ph.D., DSc, FRSE, Dundee, Scotland, UK
2005 Masayuki Amagai, M.D., Ph.D. Tokyo, Japan
2004 Thomas Schwarz, M.D. Kiel, Germany
2003 Angela M. Christiano, Ph.D., New York, USA
2002 Dennis R. Roop, Ph.D., Houston, USA
2001 Fiona M. Watt, D. Phil., London, UK
2000 Michael Karin, Ph.D., San Diego, USA
1999 Jonathan Rees, M.D., Edinburgh, UK
1998 Jean Krutmann, M.D., Düsseldorf, Germany
1997 Jens-Michael Schröder, Ph.D., Kiel, Germany
1996 Akira Takashima, M.D., Ph.D., Texas, USA

Deadline for applications: June 4th, 2010

Requests for application forms must be addressed to:

www.ceries.com