



Meeting Program

77TH ANNUAL MEETING

2019
CHICAGO

MAY 8-11, 2019

HILTON CHICAGO



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ACKNOWLEDGEMENTS

The organizers of the 2019 SID Annual Meeting gratefully acknowledge the sponsors, exhibitors, and participants whose attendance has helped to make this meeting possible.



www.sidnet.org



Welcome to Chicago

I'd like to personally welcome each of you to the Society for Investigative Dermatology (SID) Annual Meeting. This year marks our 77th meeting in our 81st year. Chicago is a fitting place for our global community to convene. Chicago has been central to the growth and history of the United States. It's central location upon waterways and connecting railroads propelled its economic growth. It bridges the eastern part of the US with the western half. Furthermore, events in Chicago have bridged our earlier history with contemporary events. One of Illinois most famous citizens, Abraham Lincoln was nominated as a candidate for President in 1860 at the Republican Convention hosted in Chicago, initially ushering in a transformational process of emancipation and inclusion, still a work in process today.

Like Chicago, the SID also serves as a connector and bridge. The SID is a central knowledge hub for interested in the study of skin health and disease, connecting basic researchers, clinicians, and trainees. The global community catalyzed by the SID continues to grow and evolve and the SID maintains its commitment to serve as the premier forum for the exchange of knowledge, advancing the cutting edge of the science cutaneous biology and skin therapeutics.

We anticipate a record number of attendees and presenters, hailing from nearly 30 countries, and representing specialties and disciplines ranging from Dermatology and Immunology, to Biomedical Engineering, Cell Biology and Genetics. We remain committed to nurturing a diverse community of skin biologists who can exchange information during our educational sessions in order to accelerate discovery. As we complete the second decade of the 21st Century, we look to our host city to inspire us to cultivate a culture of collegiality, inclusion and maintain our collective spirit of inquiry. I am so thrilled that you are here.



Robert A. Swerlick, MD
SID President



Meeting-At-A-Glance

TUESDAY, MAY 7, 2019

12:00 PM – 7:30 PM

Satellite Symposium on Skin Epigenetics
CONTINENTAL BALLROOM A

4:00 PM – 7:00 PM

Resident/PhD Retreat Sessions: *By Invitation Only*
MARQUETTE ROOM

WEDNESDAY, MAY 8, 2019

6:45 AM – 7:30 AM

Resident/PhD Retreat Breakfast: *By Invitation Only*
JOLIET ROOM

7:30 AM – 12:00 PM

Resident Retreat Program: *By Invitation Only*
MARQUETTE ROOM

7:30 AM – 12:00 PM

PhD Retreat Program: *By Invitation Only*
ASTORIA ROOM

11:00 AM – 7:00 PM

On-Site Registration
8TH ST. S. REGISTRATION AREA

2:00 PM – 4:30 PM

Translational Science Symposium: Single Cell Analysis: Insights into Disease
INTERNATIONAL BALLROOM NORTH

2:00 PM – 4:30 PM

Advancing Innovation in Dermatology: Translational Research and Academic - Industry Partnership
INTERNATIONAL BALLROOM SOUTH

4:30 PM – 5:30 PM

Clinical/Outcomes Scholars: Diving Skin-Deep into Databases and Inflammation
INTERNATIONAL BALLROOM NORTH

5:30 PM – 5:45 PM

President's Welcome
ROBERT A. SWERLICK, MD
INTERNATIONAL BALLROOM NORTH



5:45 PM – 6:15 PM

Naomi M. Kanof Lecture: *The Significance of Dermatology Outcomes Research - Beyond the H-Index and Impact Factor*
SUEPHY CHEN, MD/MS
INTERNATIONAL BALLROOM NORTH



6:30 PM – 8:30 PM

Welcome Reception
NORMANDIE LOUNGE

THURSDAY, MAY 9, 2019

7:00 AM – 6:00 PM

On-Site Registration
8TH ST. S. REGISTRATION AREA

7:30 AM – 8:30 AM

Irvin H. Blank Forum I: *Extracellular Vesicles in Cutaneous Homeostasis and Disease*
INTERNATIONAL BALLROOM NORTH

8:45 AM – 9:45 AM

Plenary Session I
INTERNATIONAL BALLROOM NORTH

9:45 AM – 10:15 AM

Julius Stone Lecture: *Skin Microbiota in Tissue Immunity and Repair*
YASMINE BELKAID, PHD
INTERNATIONAL BALLROOM NORTH



10:15 AM – 10:45 AM

William Montagna Lecture: *Regulatory T cells in Skin*
MICHAEL D. ROSENBLUM, MD/PHD
INTERNATIONAL BALLROOM NORTH



10:45 AM – 12:45 PM

Poster Session I/Coffee Break
STEVENS SALONS B/C/D
SEE PAGE 13 FOR POSTER NUMBER LISTINGS

11:15 AM – 12:45 PM

Aclaris Sponsored Symposium: *HIJAKing Topical Therapies for New Indications in Dermatology*
INTERNATIONAL BALLROOM NORTH

11:15 AM – 12:15 PM

Selected ePoster Discussions I
SEE PAGES 51-55 FOR ROOM LISTINGS

1:30 PM – 4:00 PM

Concurrent Minisymposium 1: Adaptive and Auto-Immunity
INTERNATIONAL BALLROOM NORTH

1:30 PM – 4:00 PM

Concurrent Minisymposium 2: Genetic Disease, Gene Regulation and Gene Therapy
CONTINENTAL BALLROOM A

1:30 PM – 4:00 PM

Concurrent Minisymposium 3: Growth Factors, Cell Adhesion and Matrix Biology
CONTINENTAL BALLROOM C

1:30 PM – 4:00 PM

Concurrent Minisymposium 4: Interventional Studies, Clinical and Patient Reported Outcomes
INTERNATIONAL BALLROOM SOUTH

1:30 PM – 4:00 PM

Concurrent Minisymposium 5: Photobiology
CONTINENTAL BALLROOM B

1:30 PM – 4:00 PM

Concurrent Minisymposium 6: Interdisciplinary Spotlight: Disease Models
WALDORF ROOM

4:15 PM – 4:45 PM

State-of-the-Art Plenary Lecture I: *Large-Scale Regeneration in the Skin*
MAKSIM PLIKUS, PHD
INTERNATIONAL BALLROOM NORTH



4:45 PM – 5:15 PM

State-of-the-Art Plenary Lecture II: *Immune Regulation of Skin Inflammation and Itch*
BRIAN KIM, MD/MTR
INTERNATIONAL BALLROOM NORTH



5:15 PM – 5:30 PM

LEO Foundation Award
INTERNATIONAL BALLROOM NORTH

7:00 PM – 10:30 PM

Social Event
MUSEUM OF SCIENCE AND INDUSTRY

Meeting-At-A-Glance

FRIDAY, MAY 10, 2019

7:00 AM – 7:00 PM

On-Site Registration
8TH ST. S. REGISTRATION AREA

7:30 AM – 8:30 AM

Irvin H. Blank Forum II: Modern Genetic Analysis Applied to Cutaneous Cancer
INTERNATIONAL BALLROOM NORTH

8:45 AM – 9:00 AM

American Skin Association (ASA) Awards
INTERNATIONAL BALLROOM NORTH

9:00 AM – 9:30 AM

Business Meeting for Members
INTERNATIONAL BALLROOM NORTH

9:30 AM – 9:45 AM

Stephen Rothman Memorial Award
RICHARD EDELSON, MD
INTERNATIONAL BALLROOM NORTH



9:45 AM – 10:45 AM

Plenary Session II
INTERNATIONAL BALLROOM NORTH

10:45 AM – 11:45 AM

Selected ePoster Discussions II
SEE PAGES 80-84 FOR ROOM LISTINGS

11:15 AM – 1:15 PM

Poster Session II/Coffee Break
STEVENS SALONS B/C/D
SEE PAGE 13 FOR POSTER NUMBER LISTINGS

11:45 AM – 1:15 PM

AbbVie Sponsored Symposium Hidradenitis Suppurativa: Translating Mechanisms and Basic Science into Improved Therapies
INTERNATIONAL BALLROOM NORTH

11:45 AM – 12:45 PM

Selected ePoster Discussions III
SEE PAGES 86-90 FOR ROOM LISTINGS

1:30 PM – 2:00 PM

Herman Beerman Lecture: *Understanding People*
ALEX PENTLAND, PHD
INTERNATIONAL BALLROOM NORTH



2:00 PM – 2:30 PM

Eugene M. Farber Lecture: *Towards Precision Therapeutics: A Systems Approach to Understanding Psoriasis Plaque Resolution and Endotype Analysis*
NICK REYNOLDS, MD
INTERNATIONAL BALLROOM NORTH



2:45 PM – 5:15 PM

Concurrent Minisymposium 7: Carcinogenesis and Cancer Genetics
CONTINENTAL BALLROOM A

2:45 PM – 5:15 PM

Concurrent Minisymposium 8: Epidemiology
INTERNATIONAL BALLROOM NORTH

2:45 PM – 5:15 PM

Concurrent Minisymposium 9: Epidermal Structure and Barrier Function
INTERNATIONAL BALLROOM SOUTH

2:45 PM – 5:15 PM

Concurrent Minisymposium 10: Neuro-Cutaneous Biology and Inflammation
CONTINENTAL BALLROOM C

2:45 PM – 5:15 PM

Concurrent Minisymposium 11: Pharmacology and Drug Development
CONTINENTAL BALLROOM B

2:45 PM – 5:15 PM

Concurrent Minisymposium 12: Skin of Color
WALDORF ROOM

5:45 PM – 6:15 PM

State-of-the-Art Plenary Lecture III: *Skin Microbiome: Opposing Roles in Barrier Function, Inflammation and Repair*
ELIZABETH GRICE, PHD
INTERNATIONAL BALLROOM NORTH



6:15 PM – 6:45 PM

State-of-the-Art Plenary Lecture IV: *Mining Nature's Chemistry: Ethnobotany and Drug Discovery for Dermatologic Applications*
CASSANDRA QUAVE, PHD
INTERNATIONAL BALLROOM NORTH



7:00 PM – 9:00 PM

Young Investigator Collegiality Reception: *Ticketed Event*
PRE-REGISTRATION REQUIRED
JOLIET & MARQUETTE

SATURDAY, MAY 11, 2019

7:00 AM – 12:00 PM

On-Site Registration
8TH ST. S. REGISTRATION AREA

8:00 AM – 8:30 AM

Albert M. Kligman/Phillip Frost Leadership Lecture: *25 Years of Riding the Hair Wave*
GEORGE COTSARELIS, MD
INTERNATIONAL BALLROOM NORTH



8:30 AM – 9:30 AM

Plenary Session III
INTERNATIONAL BALLROOM NORTH

9:30 AM – 10:00 AM

Diversity and Inclusion Session
INTERNATIONAL BALLROOM NORTH

10:00 AM – 12:30 PM

Concurrent Minisymposium 13: Innate Immunity, Microbiology, Microbiome
INTERNATIONAL BALLROOM NORTH

10:00 AM – 12:30 PM

Concurrent Minisymposium 14: Pigmentation and Melanoma
INTERNATIONAL BALLROOM SOUTH

10:00 AM – 12:30 PM

Concurrent Minisymposium 15: Skin, Appendages, and Stem Cell Biology
CONTINENTAL BALLROOM B

10:00 AM – 12:30 PM

Concurrent Minisymposium 16: Tissue Regeneration and Wound Healing
CONTINENTAL BALLROOM C

10:00 AM – 12:30 PM

Concurrent Minisymposium 17: Translational Studies
CONTINENTAL BALLROOM A

12:45 PM – 2:45 PM

Poster Session III/Coffee Break
STEVENS SALONS B/C/D
SEE PAGE 13 FOR POSTER NUMBER LISTINGS

Associate Groups: Meeting-At-A-Glance

TUESDAY, MAY 7, 2019

12:00 PM – 5:30 PM
International Pachyonychia Congenita Consortium (IPCC)
IPCC Symposium
 CONTINENTAL BALLROOM B

12:00 PM – 7:30 PM
Satellite Symposium on Skin Epigenetics
 CONTINENTAL BALLROOM A

WEDNESDAY, MAY 8, 2019

7:30 AM – 2:00 PM
International Pachyonychia Congenita Consortium (IPCC)
IPCC Symposium
 CONTINENTAL BALLROOM B

9:00 AM – 1:00 PM
International Psoriasis Council (IPC)
Cardiovascular Disease in Psoriasis: a Changing Paradigm
 CONTINENTAL BALLROOM A

9:00 AM – 12:00 PM
International Society for Cutaneous Lymphomas (ISCL)
ISCL Cutaneous T Cell Lymphoma Symposium
 INTERNATIONAL BALLROOM SOUTH

10:00 AM – 2:00 PM
American Acne & Rosacea Society (AARS)
8th Annual AARS Scientific Luncheon Symposium
 WALDORF ROOM

11:00 AM – 2:00 PM
International Eczema Council (IEC)
International Eczema Council Symposium
 CONTINENTAL BALLROOM C

THURSDAY, MAY 9, 2019

7:00 AM – 8:30 AM
Journal of Dermatological Science
JDS Editorial Board Meeting
 MCCORMICK BOARDROOM

7:00 AM – 8:30 AM
University of Washington School of Medicine
Photobiology Symposium
 CONTINENTAL BALLROOM A

7:00 AM – 8:30 AM
Medical Dermatology Society (MDS)
MDS Symposium
 CONTINENTAL BALLROOM B

5:30 PM – 6:30 PM
American Dermato-Epidemiology Network (ADEN)
 BOULEVARD BALLROOM B

5:30 PM – 6:30 PM
International Eczema Council Industry Liaisons Meeting
 BOULEVARD BALLROOM C

5:30 PM – 6:30 PM
International Immunosuppression & Transplant Skin Cancer
Collaborative: Transplant Dermatology Symposium
 CONTINENTAL BALLROOM C

5:30 PM – 6:30 PM
National Psoriasis Foundation
National Psoriasis Foundation Reception
 ASTORIA ROOM

FRIDAY, MAY 10, 2019

7:00 AM – 8:30 AM
Society for Pediatric Dermatology/PeDRA
Pediatric Dermatology at SID
 CONTINENTAL BALLROOM B

7:00 AM – 8:30 AM
Women's Dermatologic Society
WDS Networking Breakfast & Panel Discussion
 CONTINENTAL BALLROOM A

7:00 AM – 8:30 AM
Research in Cutaneous Surgery (RCS)
Research in Cutaneous Surgery Symposium
 CONTINENTAL BALLROOM C

7:00 PM – 10:00 PM
SATO Pharmaceutical CO., LTD.
SATO Japan Scientific Forum
 WALDORF ROOM

7:00 PM – 10:00 PM
debra of America
debra of America's EB Symposium
 CONTINENTAL BALLROOM C

7:00 PM – 10:00 PM
American Hair Research Society
American Hair Research Society Scientific Meeting & Annual General Meeting
 INTERNATIONAL BALLROOM NORTH

SATURDAY, MAY 11, 2019

7:00 AM – 9:00 AM
National Alopecia Areata Foundation
NAAF Research Advisory Council Meeting
 PDR ROOM 4

1:00 PM -4:00 PM
Chinese Society for Investigative Dermatology
Research Forum
 WALDORF ROOM

Notable Annual Meeting Programming

Translational Science Symposium

Wednesday, May 8, 2019 **2:00 PM – 4:30 PM**
INTERNATIONAL BALLROOM NORTH

The SID will feature the “Translational Science Symposium on Single Cell Analysis: Insights into Disease”. This dynamic session will feature novel methods employed by researchers to gain insight into wound healing, epidermal cell development, blood immune cells, the follicular stem cell niche, and tumor-specific T cells.

Clinical/Outcomes Scholars

Wednesday, May 8, 2019 **4:30 PM – 5:30 PM**
INTERNATIONAL BALLROOM NORTH

The Clinical/Outcomes Scholars, “Diving Skin-Deep into Databases, Inflammation, and Immunity”, will feature presentations on how to leverage large data sets, under-researched diseases such as Hidradenitis Suppurativa, and the relationship between glucose transport and metabolism and serious skin diseases.

Selected ePoster Discussions

Thursday, May 9, 2019 **11:15 AM – 12:15 PM**
Friday, May 10, 2019 **10:45 AM – 11:45 AM**
 & 11:45 AM – 12:45 PM

See room listings in individual daily tabs

In an effort to further increase participation and visibility of abstracts submitted, selected ePoster Discussions will take place during Poster Sessions at iPad terminals located inside various session rooms. The discussions will be thematic tours of selected electronic posters accompanied by a presenting author.

Social Event – Museum of Science and Industry (MSI)

Thursday, May 9, 2019 **7:00 PM – 10:30 PM**

This is a ticketed event and space is limited. Buses begin departures to MSI starting at 6:30 PM.

The 2019 Annual Meeting’s Social Event will take place at the Museum of Science & Industry, Chicago. One of the largest science museums in the world—it is home to more than 400,000 square feet of hands-on exhibits designed to spark scientific inquiry and creativity. Explore, dance and socialize with your fellow scientists while enjoying Taste of Chicago food stations and beer and wine.

Young Investigator Collegiality Reception

Friday, May 10, 2019 **7:00 PM – 9:00 PM**

Joliet and Marquette Rooms, Hilton Chicago

This is a ticketed event and space is limited.

The organizers of the 2019 SID Annual Meeting have arranged for a private reception for those registered as Resident’s, Post-Doc’s, and Students. The evening will feature food, drink, and the opportunity to informally network with your peers.



Going Mobile

Navigate the 2019 SID Annual Meeting from your mobile device! In partnership with Cadmium CD, the SID is proud to present the 2019 Annual Meeting mobile event app.

This year's app will make it easy for attendees, exhibitors, and speakers to connect. Attendees can access their personal schedules right from the palm of their hand.

Download the 2019 SID Annual Meeting Mobile app from the Apple iTunes and the Google Play Stores.

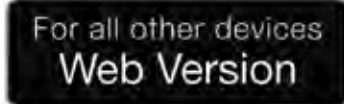
The event app can be found by searching for "MyItinerary by ScholarOne". Download the app and then select SID 2019 from the event list. Select Download to open the event.



<https://atlv.me/ep1>



<https://atlv.me/ep2>



<https://atlv.me/oil>



CME Statement and Objectives

The University of Rochester School of Medicine and Dentistry presents:

COMMERCIAL SUPPORT STATEMENT

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

STATEMENT OF NEED

The educational Programming of the 2019 SID MEETING is designed to develop, maintain, and/or increase the abilities, skills, and professional performance of its target audiences. 2019 SID MEETING 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 of skin disease.

TARGET AUDIENCE

The primary target audiences for 2019 SID MEETING CME activities include all of the sectors of the dermatology community, consisting of research investigators, clinicians, research and clinical trainees, members of industry, and community advocates for skin health/ disease.

LEARNING OBJECTIVES

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

- Identify which disease states require new or additional research
- Evaluate state-of-the-art information relating to basic skin biology research
- Describe how newly discovered, evidence-based scientific information may or may not be applied to the current practice of investigative or clinical dermatology
- Apply strategies to structure and design successful research proposals, abstracts, and manuscripts

- Facilitate interdisciplinary and/or collaborative investigation in clinical dermatology and skin biology to improve research hypotheses, processes and/or techniques

- Incorporate knowledge gained from interactions between basic scientists and clinicians into daily decision-making

FACULTY LISTING

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

SUMMARY OF FACULTY DISCLOSURE/ CONFLICT RESOLUTION

STAFF AND CONTENT VALIDATION REVIEWER DISCLOSURE

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

RESOLUTION OF CONFLICTS OF INTEREST

In accordance with the ACCME Standards for Commercial Support of CME, the University of Rochester School of Medicine and Dentistry will implement mechanisms, prior to the planning and implementation of this CME activity, to identify and resolve conflicts of interest for all individuals in a position to control content of this CME activity.

UNAPPROVED USE DISCLOSURE STATEMENT

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

DISCLAIMER

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

INSTRUCTIONS ON HOW TO RECEIVE CREDIT

In order to receive CME credit, participants must sign-in, review the CME information (accreditation, learning objectives, faculty disclosures, etc.) and attend the CME activity. To access the Program evaluation, claim CME credits, or print your certificate, please go to www.cme.urmc.edu and select "My Certificate." From the course listing, please find the course you attended.

ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the University of Rochester School of Medicine and Dentistry and the Society for Investigative Dermatology. The University of Rochester School of Medicine and Dentistry is accredited by the ACCME to provide continuing medical education for physicians.

AMA CREDIT STATEMENT

The University of Rochester School of Medicine and Dentistry designates this live activity for a maximum of *21.0 AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Planning Committee / Speaker Declarations

All of the planning committee members* and speaker listed below have disclosed that they have no relevant financial interests/arrangements or affiliations with organization(s) that could be perceived as a real or apparent conflict of interest in the context of the subject of their presentation(s).

Hasan Abaci, PhD
George Agak, PhD
Sarah Ahmed, BS
Kaushal Asrani, MBBS/PhD
Xiaomin Bao, PhD
John Barbieri, MD/MBA
Yasmine Belkaid, PhD
Allison Billi, MD/PhD
Nicholas Borcharding, MS
Neil Box, PhD
Morgan Brown, Pre-Doctoral Student
Mark Cameron, PhD
Brian Capell, MD/PhD
Srita Chakka, BA
Joanne Chan, PhD
An-Wen Chan, MD/DPhil
Alex Charruyer, PharmD/PhD
Mei Chen,
Yiyin Chen, MD/PhD
Suephy Chen, MD/MS
Raj Chovatiya, MD/PhD
Jonathan Cohen, BA
Idan Cohen, PhD
Megan Cole, PhD
Lydia Costello, Studying for PhD Biological Sciences
Pierre Coulombe, PhD
Michael Cross, BS
Yan-Hong Cui, PhD
Cristina de Guzman Strong, PhD
K. Sanjana P. Devi, PhD
Sally Dickinson, PhD
Erica Dommasch, MD/MPH
Robert Dorschner, MD
Christen Ebens, MD/MPH
Sarina Elmariah, MD/PhD
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Victoria Fang, PhD
Michelle Ferreira, BA
Ruben Ferrer, MD/PhD
Ignacia Fuentes, PhD
Keitaro Fukuda, MD/PhD
Khalid Garman, MD/PhD
Soha Ghanian, MD Candidate
Adam Gilmore, Bsc (Hons)/MRes
Amrita Goyal,
Linna Guan, BS
Christian Guerrero-Juarez , PhD
Rupali Gund, PhD
Elisabeth Haisma, PhD
Liang Han, PhD
Chelsea Handfield, BA
Takashi Hashimoto, MD/PhD
Helen He, BSc
Marihan Hegazy, BS
Lauren Herron, BSc
Natasha Hill, PhD
Toshiro Hirai, PhD
Daniel Hlavaty, BS
Allen Ho, MD/PhD
Jianhe Huang, PhD
Liselotte Jensen, PhD
Andrew Ji, MD
Anna Jussila, BA
Masaoki Kawasumi, MD/PhD
Tae-Gyun Kim, MD/PhD
Dongwon Kim, PhD
Doyoung Kim, MD/PhD
Mari Kishibe, MD/PhD
Heidi Kong, MD/MHSc
Nikhil Kulkarni, PhD
Kristina Lachance, MS
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Cheng Che Lan, MD/PhD
Alice Laphorn, BSc Biomedical Science
Robert Lavker, PhD
Lu Le, MD/PhD
Carolyn Lee, MD/PhD
Dong Hun Lee, MD/PhD
Randall Li, BSc
QILU Liu, MD
Haoming Liu, PhD
Qi Liu, PhD
Steve Lu, BS
Xiaoqun Luo, Doctor
Michael Mann, PhD
Patrick McGrath, PhD
Basia Michalski, MD
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Jung-Im Na, MD/PhD
Haley Naik, MD/MHSc
Motoki Nakamura, PhD
Teruaki Nakatsuji, PhD
Minakshi Nihal,
Wenxiu Ning, PhD
Kentaro Ohko, MD/ PhD
Alan O'Neill, PhD
Mark Osborn,
Auke Otten, PhD
Shivani Patel, MD
*Alice Pentland, MD
Alex Pentland, PhD
Bethany Perez White, PhD
Rolando Perez-Lorenzo, PhD
Darci Phillips, MD/PhD
Maksim Pliikus, PhD
Yuping Ran, MD/PhD
Michael Rendl,
Guillermo Rivera Gonzalez, PhD
Michelle Roberts, PhD
Katharina Rolfes,
Michael Rosenblum, MD/PhD
Rachel Rosenstein, MD/PhD
Keiko Sakamoto, MD
Brigitte Sallee, MD
Brigitte Sallee, MD
Paulene Sapao,
Andrea Schneider, BS
Sabine Schneider, M.Sc.
Yevgeniy Semenov, MD/MA
Andrey Sharov, MD/PhD
Mohammad Asif Sherwani, PhD
Zhenrui Shi, MD
Joseph Shin, BS
Wisoo Shin, BHSc
William Shipman, PhD
Cory Simpson, MD/PhD
Neha Singh, BS
Zurab Siprashvili, PhD
Pu Song, MD/PhD
Teresa Song, BS
Sara Stahley, PhD
Jennifer Strunck, BS
Tina Sumpter, MS/PhD
Thomas Sutter, PhD
Jutamas Suwanpradid, PhD
Katherine Szigety, MS
Tamara Terzian, PhD
Napatra Tovanabuttra, MD
Patrick Tran, BA
Jeffrey Travers, MD/PhD
Raghav Tripathi, MPH
Amanda Truong, BS
Nicole Urman, BS
Monique Verhaegen, PhD
*Kevin C. Wang, MD/PhD
Richard Wang, MD/PhD
Erica Wang, MD
Wang Wang, BS
Yu Wang, Master degree
Kevin Wang, MD/PhD
Mackenzie Wehner, MD/MPhil
Katherine Whang, BS
Melodi Whitley, MD/PhD
Sunny Wong, PhD
Julie Wu, BA
Zhubiao Ye, Pre-Doctoral Student
Jack You, Undergraduate
Jinlei Yu, Master
Lingjuan Zhang, PhD
Zhaolin Zhang, PhD
Dalong Zhi, MS
Youwen Zhou, MD/PhD

Planning Committee / Speaker Declarations

The following planning committee members and speakers have disclosed financial interest/ arrangements or affiliations with an organization that could be perceived as a real or apparent conflict of interest in the context of the subject of their presentation(s). Only current arrangements/ interests are included:

Katrina Abuabara, MD, MA, MSCE, Grant/ Research Support: National Institute of Health, Robert Wood Johnson Foundation, Pfizer, Consultant, TARGETPharma, POOJA AGARWAL, PhD, Other Financial or Material Support, Krystal Biotech, Inc, Other (please identify), Krystal Biotech, Inc Oleg Akilov, MD, PhD, Grant/Research Support: Trillium Therapeutics, Consultant, Trillium Therapeutics, Robert Bissonnette, MD, Consultant, Amgen, Eli-Lilly, Abbvie, Novartis, Bausch Health, Janssen, UCB, BMS, Celgene, , Innovaderm Research, *Vladimir Botchkarev, MD, PhD, Grant/ Research Support: Amway; Spouse, Natalia Botchkareva-employee at Monasterium Laboratory, Gmbx, Germany Anne Lynn Chang, MD, Grant/Research Support: Merck, Other (please identify), Expert Advisory Board member George Cotsarelis, MD, Grant/Research Support: Allergan, JW Pharma, Consultant, Lilly, Cassiopea, Other Financial or Material Support, Follica , Erle Dang, Ph.D, Grant/Research Support: National Natural Science Foundation of China, tatsuya dokoshi, PHD, Grant/Research Support: NIH, Lawrence F. Eichenfield, MD, Grant/Research Support: LEO Pharma; Sanofi/Regeneron, Consultant, Allergan; Anacor/Pfizer; Dermavant; Dermira; DS Biopharma; Forte; Galderma Incyte; LEO Pharma; Lilly, Matrisys, Medimetriks/Otsuka; Menlo; Novan; Novartis; Regeneron; Sanofi/Genzyme; TopMD; Ortho Dermatologics, Speakers' Bureau, Regeneron; Sanofi/Genzyme, Marlys Fassett, MD PhD, Consultant, Regeneron, Other Financial or Material Support, Sanofi, Michael Fessing, PhD, Grant/Research Support: Unilever UK, *Spiro Getsios, PhD, Major Stockholder: GlaxoSmithKline, Aspect Biosystems Elizabeth Grice, PhD, Consultant, Unilever, Emma Guttman, MD, PhD, Grant/Research Support: AbbVie, Asana Bioscience, Celgene, DBV, Dermavant, DS Biopharma, Galderma, Glenmark, Innovaderm, Janssen Biotech, LEO Pharmaceuticals, Lilly, Novan, Novartis, Ralexar, Regeneron, Pfizer, Union Therapeutics, Consultant, AbbVie, Amgen, Allergan, Asana Bioscience, Celgene, Concert, Dermira, DS Biopharma, Escalier, Galderma, Glenmark, Kyowa Kirin, LEO Pharmaceuticals,

Lilly, Mitsubishi Tanabe, Novartis, Pfizer, Regeneron, Sanofi, Union Therapeutics, Board membership: Allergan, Asana Bioscience, Celgene, DBV, Dermavant, Dermira, Escalier, Galderma, Glenmark, Kyowa Kirin, LEO Pharma, Lilly, Novartis, Pfizer, Regeneron, Sanofi Nikolas Haass, MD/PhD, Grant/Research Support: Scientific Research Fund Project Grant "Improving Immune Checkpoint Therapy of Melanoma" (CIA N.K. Haass), Australasian College of Dermatologists, 1/9/2018-31/8/2019 (AU\$ 25,000) Project Grant APP1165618 "Induction of endoplasmic reticulum stress to potentiate immunogenic cell death to improve melanoma therapy" (CIA N.K. Haass), Cancer Council Queensland, 1/1/2019-12/31/2020 (AU\$ 200,000 for two years), n/a, n/a, n/a, Other Financial or Material Support, n/a, n/a *Tissa Hata, MD, Grant/Research Support: Dermira, Colgate, Galderma, Janssen, Eli Lilly, Glaxosmithkline, Vanda, Pfizer, Bristol Meyers Squibb; Consultant: AbbVie Hisato Iriki, Research associate, Grant/ Research Support: LEO Pharma Research Foundation, *Daniel Kaplan, MD, PhD, Consultant: DMSB Hapten Pharmaceuticals, Consultant Eli Lily Brian Kim, MD, MTR, Grant/Research Support: LEO Pharma Research Grant, Consultant, AbbVie, Cara, Menlo, Pfizer, and Regeneron, Major Stock Shareholder, Locus Biosciences, Nuogen Pharma, Founder and Chief Scientific Officer of Nuogen Pharma Joanna Kreitinger, PhD, Grant/Research Support: Partially supported by NINDS Grant Number: 1R41NS105304 and NIAMS grant number: 2R44AR069416, *Ethan A. Lerner, MD/PhD, Grant/Research Support Dermira, Pfizer; Consultant Merck; Major Stock Shareholder Lerner Medical Devices; Scientific Advisory Board: Escient, Sienna Biopharmaceuticals Tomoko Maeda-Chubachi, MD, PhD, Grant/ Research Support: The research was funded by Novan, Inc, Other (please identify), Employee of Novan, Inc Kayleigh Mason, PhD, Grant/Research Support: The British Association of Dermatologists Biologics and Immunomodulators Register (BADBIR) is coordinated by the University of Manchester and funded by the British Association of Dermatologists (BAD). The BAD receives income from by AbbVie, Almirall, Celgene, Eli Lilly, Hexal AG, Janssen Cilag, Novartis, Pfizer, and Samsung Bioepis for providing pharmacovigilance services. This income finances a separate contract between the BAD and the University of Manchester who coordinate BADBIR. All decisions concerning analysis, interpretation, and publication are made independently of any industrial contribution. , Speakers' Bureau, I (Kayleigh

Mason) have received honoraria from Eli Lilly and Janssen Cilag., Zamaneh Mikhak, MD, Other Financial or Material Support, Employee of Kiniksa Pharmaceuticals, *Lloyd Miller, MD, PhD, Grant/Research Support: MedImmune, Boehringer Ingelheim, Pfizer, Regeneron Pharmaceuticals, Moderna Therapeutics; Major Stock Shareholder: Noveome Biotherapeutics; Scientific Advisory Board: Integrated Biotherapeutics Cassandra Quave, PhD, Grant/Research Support: NatureX iHealth The Coca Cola Company Alira Health, Consultant, The Coca Cola Company, Other (please identify), PhytoTEK LLC (CEO of startup company) Vijay Ramani, Ph.D., VA, Maiko Sasaki, M.S., Grant/Research Support: National Institute of Health, Tiffany Scharschmidt, M.D., Other Financial or Material Support, Speaker honoraria: Nestle Skin Health SHIELD and Sanofi Regeneron, Takashi Shimbo, PhD, Other Financial or Material Support, StemRIM Shionogi, Jonathan Silverberg, MD, PHD, MPH, Grant/ Research Support: Galderma, Pfizer, Consultant, Abbvie, AnaptysBio, Asana, Arena, Boehringer-Ingelheim, Dermavant, Eli Lilly, Galderma, GlaxoSmithKline, Glenmark, Incyte, Kiniksa, Leo, Menlo, Novartis, Pfizer, Regeneron-Sanofi, Realm, Speakers' Bureau, Regeneron-Sanofi, Junko Takeshita, MD PhD MSCE, Grant/ Research Support: Pfizer Inc (to the Trustees of the University of Pennsylvania), Viktor Todorovic, PhD, Grant/Research Support: AbbVie, Inc., *Marjana Tomic-Canic, PhD, Grant/Research Support: MV Tissues, Osiris; Consultant: Molnlycke *Kenneth Y. Tsai, MD, PhD, Consultant: Skincential , Inc., NFlection Therapeutics, Inc., Merck Sharp & Dohme, Inc. Matthew Vesely, MD, PhD, Other (please identify), Spouse is an employee at Regeneron Pharmaceuticals Nicole Ward, PhD, Consultant, Thync, Other Financial or Material Support, Eli Lilly Amgen, Victoria Werth, M.D., Grant/Research Support: Corbus Pharmaceuticals, Michael Williams, Ph.D., Other (please identify), My work is under the guidance of my mentor Dr Richard Gallo who is part of MatriSys Bioscience Shuai Xu, MD, Grant/Research Support: Pfizer, Novartis, Leo, Consultant, Aclaris, Major Stock Shareholder, Sibel Inc, Sonica LLC,

* Planning Committee Members

SID Retreat Attendees & Travel Awardees

2019 ALBERT M. KLIGMAN/ SID TRAVEL FELLOWSHIP AWARDEES

Sarah Ahmed
Allison Billi, MD/PhD
Morgan Brown
Laura Cau, PhD
Srita Chakka
Yiyin Chen, MD/PhD
Raj Chovatiya, MD/PhD
Jonathan Cohen
Megan Cole, PhD
Michael Cross
Yan-Hong Cui, PhD
Erle Dang, PhD
K. Sanjana Devi, PhD
Nicole Diette, PhD
Danni Dong
Robert Dorschner, MD
Amarachi Eseonu, MD
Victoria Fang, PhD
Michelle Ferreira
Ruben Ferrer, MD/PhD
Khalid Garman, MD/PhD
Soha Ghanian
Adam Gilmore
Amrita Goyal, MD
Linna Guan
Rupali Gund, PhD
Chelsea Handfield
Natasha Hill, PhD
Alexander Hinbest, MSc/BSc
Toshiro Hirai, PhD
Daniel Hlavaty
Allen Ho, MD/PhD
Anna Jussila, PhD
Masaoki Kawasumi, MD/PhD
Dongwon Kim, PhD
Tae-Gyun Kim, MD/PhD
Nikhil Kulkarni, PhD
Alice Laphorn, BSc
Eunice Lee
Steve Lu
Dan Luo, MD/PhD
Kayleigh Mason, PhD
Basia Michalski, MD
Angelica Misitzis, MD
Motoki Nakamura, PhD
Wenxiu Ning, PhD
Alan O'Neill, PhD
Mark Osborn, PhD
Auke Otten, PhD
Shivani Patel, MD
Rolando Perez-Lorenzo, PhD

Darci Phillips, MD/PhD
Muthukumar Ramanathan, MD/PhD
Vijay Ramani, PhD
Guillermo Rivera Gonzalez, PhD
Michelle Roberts, PhD
Katharina Rolfes, MSc
Brigitte Sallee, MD
Paulene Sapao
Sabine Schneider, MSc
Yevgeniy Semenov, MD
M Asif Sherwani, PhD
Zhenrui Shi, MD
Joseph Shin
Wisoo Shin
William Shipman, PhD
Pu Song, MD/PhD
Sara Stahley, PhD
Tina Sumpter, MS/PhD
Jutamas Suwanpradid, PhD
Katherine Szigety
Amanda Truong
Nicole Urman
Wang Wang
Yu Wang
Mackenzie Wehner, MD/MPhil
Katherine Whang
Melodi Whitley, MD/PhD
Michael Williams, PhD
Julie Wu
Zhubiao Ye
Jinlei Yu
Dalong Zhi

2019 RETREAT ATTENDEES

Ritesh Agnihotri, MD
Laila Al-Eryani, PhD
Holly Anderton, BA/BSc
Kaushal Asrani, MBBS/PhD
Stephen C. Balmert, PhD
Adrienne Barry, MD/PhD
Navaneetha Krishnan Bharathan, PhD
Matthew Brewer, PhD
Yichun Angela Chen, MD
Julia Dai, MD
Roxana Daneshjou, MD/PhD
Dawn Eichenfield, MD/PhD
Christoph Ellebrecht, MD
Erin Foster, MD/PhD
Christiane Fuchs, PhD
Khalid Garman, MD/PhD
Anna Cristina Garza-Mayers, MD/PhD
Jeff Gehlhausen, MD/PhD
Alec Gramann, BS
Kelly Haas, PhD
Hans Harn, PhD

Caitlin Haydek, MD
Edward Herman, MD/PhD
Noah Hornick, MD/PhD
Audrey Jacobsen, MD/MPH
Anna Kersh, MD/PhD
Manao Kinoshita, MD/PhD
Byron Knowles, MD/PhD
Keidai Komakura, MD
Nikifor K. Konstantinov, MD
Jessica Labadie, MD
Ernest Lee, PhD
Noah Levit, MD/PhD
Xiaoxiao Li, MD/PhD
Linsey Lindley, MD/PhD
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Anthony Mak, MD/PhD
Rabia Z. Mayer, MD/PhD
Emily Merkel, MD
Matilde Miranda, BS
Neera Nathan, MD/MSHS
Wenxiu Ning, PhD
Jack O'Brien, MD
Auke Otten, PhD
Saleh Rachidi, MD/PhD
Tova Rogers, MD/MFA
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Rosa Ventrella, PhD
Ha Linh Vu, MD/PhD
Frances Walocko, MD
Sheng-Pei Wang, MD
Melodi Javid Whitley, MD/PhD
Eric Wier, PhD
Erik Williams, MD
Benedict Wu, DO/PhD
Jennifer Yeh, MD/PhD
Chang Zeng, PhD
Abigail Zieman, PhD

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The SID wishes to acknowledge the following for their support in providing travel grants to the 2019 SID Annual Meeting:

- Sloman Foundation
- Albert M. Kligman Foundation

Abstract Presentation Information

ORAL TYPE PRESENTATIONS

All oral presentations will take place at the Hilton Chicago.

Plenary And Concurrent Minisymposium

Oral presentations are scheduled at the rate of five (5) per hour. This allows for ten (10) minutes of presentation and two (2) minutes for discussion. In order to coordinate sessions, the time limit will be strictly adhered to, or you will be asked to terminate your presentation by the session moderator(s).

Selected ePoster Discussions. Each poster presenter will be asked to briefly describe their work (one slide only) for up to three (3) minutes, followed by a short group discussion of up to three (3) minutes in length. There will be a moderator to assist with the timing. If your poster has been selected for the ePoster Discussions, please join the assigned category group at the relevant ePoster kiosk. Please reference the daily schedule for dates, times, category, locations, featured posters, and moderators.

LCD Projectors will be available in each lecture room. There will be resources to display both IBM and Mac Based platforms and software. The computer technicians will be able to download zip and CD/DVD files. **All Oral Presentations are also to be presented as Posters.**

All presentations must be uploaded at least six (6) hours prior to your presentation and uploads are to be completed in the Buckingham Room (around the corner from the Meeting Registration Counters) on the main floor of the hotel. Technical support will be available.

CONFLICT OF INTEREST

Due to CME Guidelines, all oral presentations must include a disclosure slide at the beginning of your presentation. If there is a real or perceived conflict of interest pertaining to your work, an announcement must be made prior to your oral presentation and also displayed on your poster.

SPEAKER READY ROOM WILL BE LOCATED IN THE BUCKINGHAM ROOM, LOCATED ON MAIN FLOOR (NEAR THE MEETING REGISTRATION COUNTERS).

The room will be available to all presenters during the following hours:

- Wednesday, May 8, 2019 12:00 PM - 6:00 PM
- Thursday, May 9, 2019 7:00 AM - 5:30 PM
- Friday, May 10, 2019 7:00 AM - 6:30 PM
- Saturday, May 11, 2019 7:00 AM - 12:30 PM

POSTER PRESENTATIONS

All posters will be displayed until Saturday, May 11, 2019 at 2:45 PM in Stevens Salons B-D. Posters will be viewed in three (3) sessions as outlined below. Presenters should be at their posters for their entire discussion session and should not be removed early. The organizers of the 2019 Annual Meeting are not responsible for posters left unclaimed as of 3:00 PM on Saturday, May 11, 2019. Unclaimed posters will not be returned.

Install all Posters

Wednesday, May 8, 2019 2:00 PM – 6:00 PM

Poster Session I

Thursday, May 9, 2019 10:45 AM – 12:45 PM
 Odd Poster #'s 351 - 697
 Even Poster #'s 002 - 348
 Even Late-Breaking Poster #'s LB 1046-1144

Poster Session II

Friday, May 10, 2019 11:15 AM – 1:15 PM
 Odd Poster #'s 001 - 349
 Even Poster #'s 698 - 1044
 Odd Late-Breaking Poster #'s LB 1047-1143

Poster Session III

Saturday, May 11, 2019 12:45 PM – 2:45 PM
 Odd Poster #'s 699 - 1045
 Even Poster #'s 350 - 696

Dismantle All Posters

Saturday, May 11, 2019 2:45 PM – 3:00 PM

Sponsor and Exhibitor Information

2019 SID SPONSORS

(AS OF APRIL 9, 2019)

- AbbVie
- Aclaris Therapeutics
- Bausch Health US
- Mary Kay
- Rodan & Fields
- SILAB

EDUCATIONAL GRANTS-RESIDENT RETREAT

- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
- LEO Foundation

COMMERCIAL SUPPORT OF CME SESSIONS

AS OF (APRIL 9, 2019)

- AbbVie
- Bausch Health US
- Dermira
- Janssen
- LEO Pharma
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TABLE TOP EXHIBITORS

- Aclaris Therapeutics, Inc.
- Canadian Dermatology Foundation
- Coalition of Skin Diseases
- Cutaneous Lymphoma Foundation
- Dermatology Nurses' Association
- National Eczema Association
- National Alopecia Areata Foundation (NAAF)
- National Foundation for Ectodermal Dysplasias (NFED)
- International Pemphigus and Pemphigoid Foundation (IPPF)
- ITSAN
- PC Project

TECHNICAL EXHIBITS

Exhibits will be staffed during the following times in Southwest Hall, Salon D:

Thursday, May 9, 2019	10:30 AM-12:30 PM
Friday, May 10, 2019	11:15 AM-1:15 PM
Saturday, May 11, 2019	12:45 PM-2:45 PM

2019 SID WELCOMES EXHIBITORS FROM THE FOLLOWING ORGANIZATIONS

Booth	Company
100	FIBROTX
101	ZenBio, Inc
102	INNOVADERM Recherches Inc.
103	Bioalternatives, Inc.
104	Gpower Inc.
106	Genoskin
109	Regeneron and Sanofi Genzyme
111	Imabiotech
112	Genemarkers
113	MatTek Corporation
114	Lipotype GmbH



Meeting Information & Policies

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Any photography, filming, taping, recording, or reproduction in any medium of any of the Programs, exhibits, or lectures (oral or posters) presented at the 2019 SID Annual Meeting without written permission is strictly prohibited. Failure to comply with this rule may lead to removal of your meeting credentials.



ON-SITE REGISTRATION

On-site registration will take place at the Meeting Registration Counters in the 8th Street South Foyer area (on the main level of the Hilton Chicago) during the following hours:

Wednesday, May 8, 2019	11:00 AM – 7:00 PM
Thursday, May 9, 2019	7:00 AM – 6:00 PM
Friday, May 10, 2019	7:00 AM – 7:00 PM
Saturday, May 11, 2019	7:00 AM – 12:00 PM

BADGES

Badges for both pre- and on-site registration can be picked up at the Registration Counters in the 8th Street South Foyer area (on the main level of the Hilton Chicago). Meeting attendees are always required to wear their badges for entry into all sessions and meeting activities.

SPECIAL SERVICES FOR THE PHYSICALLY CHALLENGED

The Hilton Chicago is fully accessible to the physically challenged. Should you have any special needs, please stop at the Registration Counters and notify available staff.

WI-FI

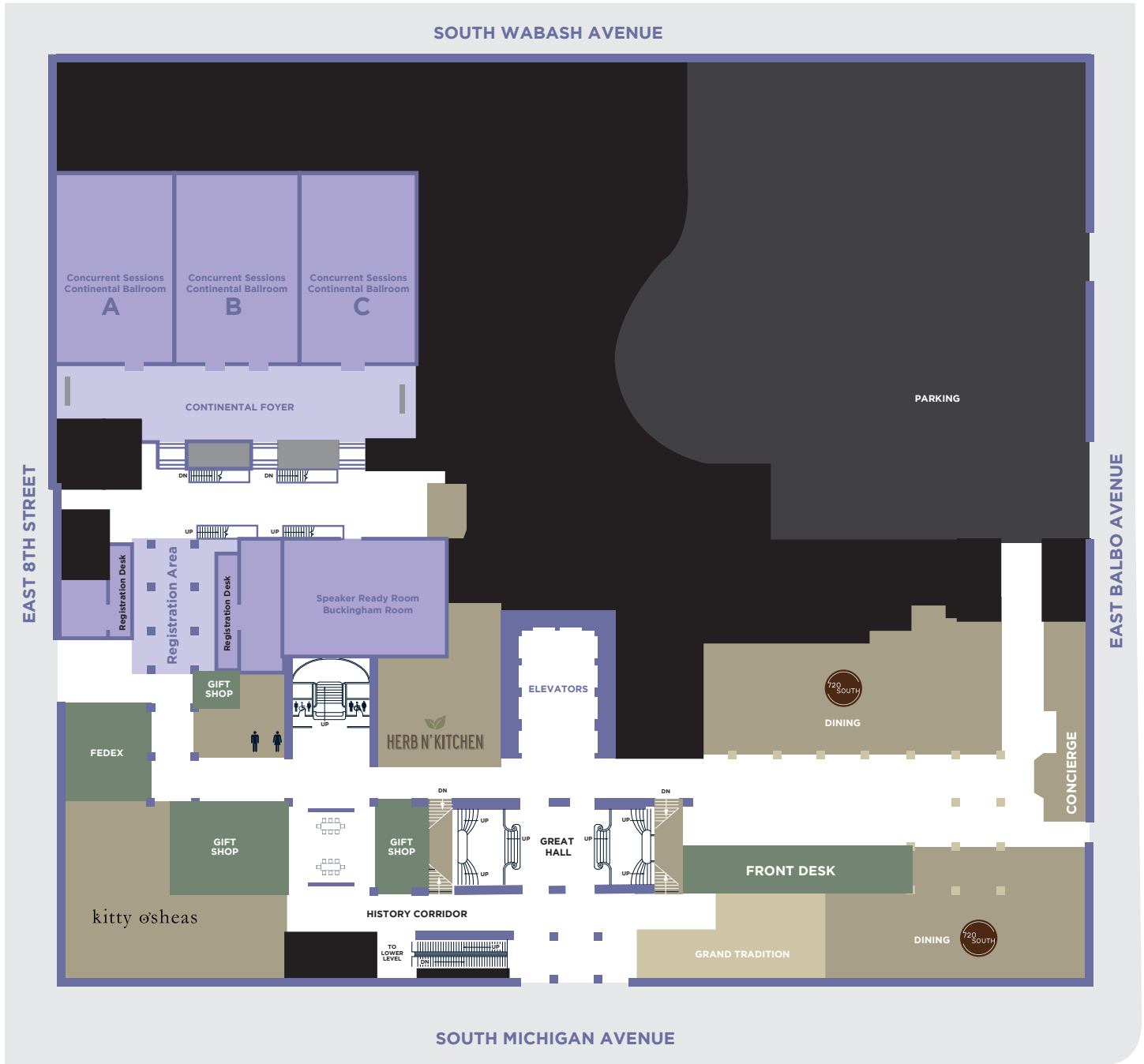
Wi-Fi will be available in all the Meeting spaces.

NURSING MOTHERS

As a part of a family-friendly meeting experience, the SID supports breastfeeding mothers by accommodating the mother who wishes to express breast milk during her meeting participation when separated from her newborn child. Nursing mothers wishing to use this space must request/reserve the room by contacting SID Staff at the Registration Counter.



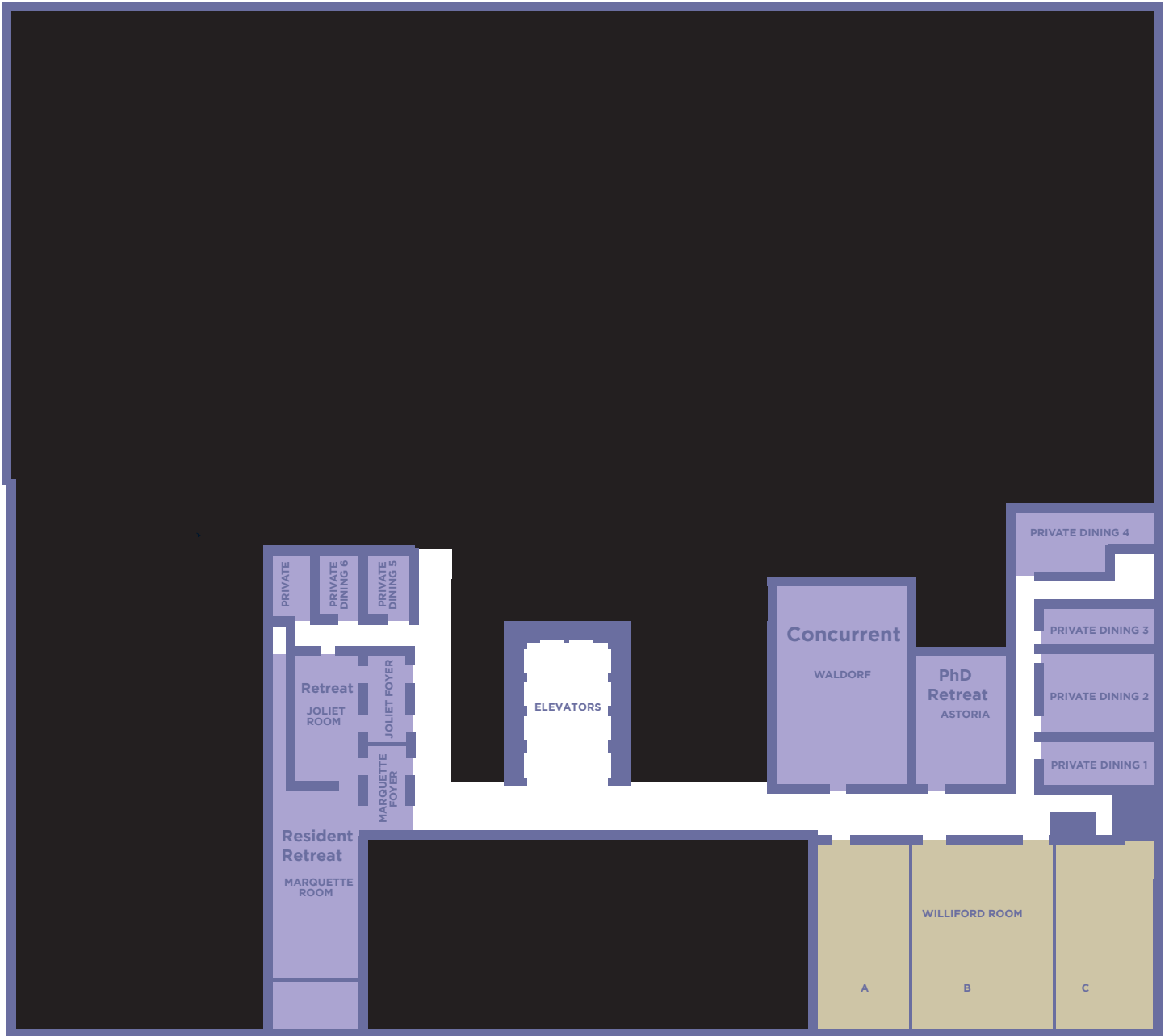
Hilton Map - Lobby Level



Hilton Map - Second Floor



Hilton Map - Third Floor



Hilton Map - Lower Level





Tuesday Sessions

PAGE TITLE

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|----|--|
| 23 | Satellite Symposium on Skin Epigenetics |
| 24 | International Pachyonychia Congenita Consortium (IPCC) Symposium |

Future SID Annual/ISID Meetings



2020 Annual Meeting
May 13-16, 2020

The Westin Kierland Resort & Spa
Scottsdale, Arizona



2021 Annual Meeting
May 5-8, 2021

Hilton Chicago
Chicago, Illinois



2022 Annual Meeting
May 18-21, 2022

Oregon Convention Center
Portland, Oregon



ISID 2023
May 10-13, 2023

Keio Plaza Hotel
Tokyo, Japan

Satellite Symposium on Skin Epigenetics

TUESDAY, MAY 7, 2019

12:00 PM – 7:30 PM

CONTINENTAL BALLROOM A

SYMPOSIUM ORGANIZERS:

Vladimir Botchkarev (Bradford/Boston)

Elena Ezhkova (New York)

Sarah Millar (New York)

12:00 PM - 1:00 PM

POSTERS + LUNCH

1:00 PM - 1:05 PM

INTRODUCTORY REMARKS

Sarah Millar, SID Vice-President Elect

1:05 PM - 1:35 PM

KEYNOTE LECTURE

Ali Shilatifard (Northwestern Univ)

"Principles of Epigenetics and Chromatin in Development and Human Disease"

1:35 PM - 1:55 PM

SHORT TALK 1

Paul Khavari (Stanford)

"Single-cell epigenomic profiling of combinatorial transcription factor knockouts in epidermal differentiation"

1:55 PM - 2:15 PM

SHORT TALK 2

Chen-Ming Chuong (Univ Southern California)

"Epigenetic regulation of keratin gene clusters orchestrate skin regional specificity"

2:15 PM - 2:35 PM

SHORT TALK 3

Bogi Andersen (UC Irvine)

"Grhl3-epigenetic interactions in wound healing"

2:35 PM - 2:55 PM

SHORT TALK 4

Tudorita Tumber (Cornell)

"Histone H3 methyl arks in adult hair cycle and wound healing"

2:55 PM - 3:15 PM

SHORT TALK 5

Elena Ezhkova (Mount Sinai)

"Polycomb complexes in skin development and skin stem cell control"

3:15 PM - 3:35 PM

SHORT TALK 6

Sarah Millar (Mount Sinai)

"HDAC functions in epidermal development and disease"

3:35 PM - 4:00 PM

COFFEE BREAK

4:00 PM - 4:25 PM

YOUNG INVESTIGATOR LECTURE

Ed Chuong (UColorado)

"Genome regulatory landscapes shaped by transposable elements"

4:25 PM - 4:40 PM

SHORT TALK 7

Andrey Sharov (Boston Univ)

"Does epigenetic regulation of transposable elements prevent complex disorders of the epidermis?"

4:40 PM - 4:55 PM

SHORT TALK 8

George Sen (UCSD)

"Regulation of epidermal stem and progenitor cell self-renewal through HNRNPK"

4:55 PM - 5:15 PM

SHORT TALK 9

Tony Oro (Stanford)

"Chromatin dynamic transcription networks during skin development"

5:15 PM - 5:30 PM

SHORT TALK 10

Kevin Wang (Stanford)

"Modulation of 3D chromosomal architecture as an epigenetic reProgramming strategy"

5:30 PM - 5:45 PM

SHORT TALK 11

Cristina de Guzman-Strong (Washington Univ)

"In vivo enhancer deletion in the EDC results in decreased proximal gene expression associated with less chromatin accessibility"

5:45 PM - 6:00 PM

SHORT TALK 12

Brian Capell (UPenn)

"Enhancing the barrier: Epigenetic enhancer regulation in epidermal development and carcinogenesis"

6:00 PM - 6:15 PM

GENERAL DISCUSSION/CLOSING REMARKS

(Vladimir/Elena/Sarah)

6:15 PM - 7:30 PM

POSTERS + DRINKS



International Pachyonychia Congenita Consortium (IPCC) Symposium

TUESDAY, MAY 7, 2019

12:00 PM - 5:00 PM

CONTINENTAL BALLROOM B

12:00 PM

LUNCH, PC PROJECT WELCOME & OVERVIEW

Janice Schwartz, Executive Director, PC Project

SESSION ONE: BUILDING THE FOUNDATION FOR SUCCESSFUL PC STUDIES

Session Chair:

Edel O'Toole, MD/PhD/FRCP, Queen Mary University of London

12:30 PM

Integrating the Keratinopathies

E. Birgitte Lane, PhD/FRSE/FMedSci, Skin Research Institute of Singapore

1:00 PM

Novel roles for keratin in epidermal homeostasis and their significance for PC pathophysiology

Pierre A. Coulombe, PhD, University of Michigan

1:25 PM

Keratin 1/10 A11 heterotetramer crystal structures provide a molecular basis for a novel knob-pocket mechanism governing intermediate filament assembly

Christopher G. Bunick, MD/PhD, Yale University

1:50 PM

Toward a compound-based approach for treatment of dominant keratin disorders

Thomas M. Magin, PhD, University of Leipzig

2:15 PM

BREAK

2:30 PM

iRhom2 and the keratinocyte stress response

David P. Kelsell, PhD, Queen Mary University of London

2:55 PM

Next generation ASOs for treatment of PC

Robyn P. Hickerson, PhD, University of Dundee

3:15 PM

Opening a window into skin structure and function

Michael Conneely, PhD, University of Dundee

3:30 PM

Revisiting pachyonychia congenita: a case cohort study in 815 patients

Liat Samuelov, MD, Tel-Aviv Medical Center

3:50 PM

Pain mechanisms in palmoplantar keratoderms

Michael J. Caterina, MD/PhD, Johns Hopkins

4:15 PM

Quantifying plantar pain

Edel O'Toole, MD/PhD/FRCP, Queen Mary University of London

4:35 PM

PERP, a novel gene causing Olmsted Syndrome

Alain Hovnanian, MD/PhD, Imagine Institute, Necker Hospital

5:00 PM

MEETING ADJOURNED



Wednesday Sessions

PAGE	TITLE
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30	International Pachyonychia Congenita Consortium (IPCC) Symposium
31	Cardiovascular Disease in Psoriasis: A Changing Paradigm
32	ISCL Cutaneous T Cell Lymphoma Symposium
33	8th Annual AARS Scientific Symposium Agenda
34	International Eczema Council at the SID Meeting
35	Translational Science Symposium
36	Advancing Innovation in Dermatology
37	Clinical/Outcomes Scholars
38	Naomi M. Kanof Lecture

OPEN TO ALL MEETING ATTENDEES

Welcome Reception

WEDNESDAY, MAY 8, 2019

6:30 PM – 8:30 PM

NORMANDIE LOUNGE
(2ND FLOOR)

All registered 2019 Meeting Attendees are invited to come to the Welcome Reception to kick off the Annual Meeting. Gather with your colleagues following the Kanof Lecture.

Fun, food, and collegiality will be the order of the night.

This event is free of charge (beverage tokens can be found in your meeting registration materials). Companions are welcome to attend for a cost of \$50 per person. Please purchase a companion ticket at the Meeting Registration Counter in advance of the reception.



Meeting-At-A-Glance

WEDNESDAY, MAY 8, 2019

6:45 AM — 7:30 AM

Resident/PhD Retreat Breakfast: *By Invitation Only*
JOLIET ROOM

7:30 AM — 12:00 PM

Resident Retreat Program: *By Invitation Only*
MARQUETTE ROOM

7:30 AM — 12:00 PM

PhD Retreat Program: *By Invitation Only*
ASTORIA ROOM

11:00 AM — 7:00 PM

On-Site Registration
8TH ST. S. REGISTRATION AREA

2:00 PM — 4:30 PM

**Translational Science Symposium: Single Cell Analysis:
Insights into Disease**
INTERNATIONAL BALLROOM NORTH

2:00 PM — 4:30 PM

**Advancing Innovation in Dermatology:
Translational Research and Academic - Industry Partnership**
INTERNATIONAL BALLROOM SOUTH

4:30 PM — 5:30 PM

**Clinical/Outcomes Scholars: Diving Skin-Deep into
Databases and Inflammation**
INTERNATIONAL BALLROOM NORTH

5:30 PM — 5:45 PM

President's Welcome
ROBERT A. SWERLICK, MD
INTERNATIONAL BALLROOM NORTH



5:45 PM — 6:15 PM

**Naomi M. Kanof Lecture: *The Significance of
Dermatology Outcomes Research - Beyond the
H-Index and Impact Factor***
SUEPHY CHEN, MD/MS
INTERNATIONAL BALLROOM NORTH



6:30 PM — 8:30 PM

Welcome Reception
NORMANDIE LOUNGE

ASSOCIATE GROUP PROGRAMMING IS TAKING PLACE TODAY.
SEE PAGE 6 FOR DAILY SCHEDULE.



International Pachyonychia Congenita Consortium (IPCC) Symposium

WEDNESDAY, MAY 8, 2019

7:30 AM - 2:00 PM

CONTINENTAL BALLROOM B

7:30 AM

BREAKFAST

SESSION TWO: PC AND THE THERAPEUTIC HORIZON

Session Chair:

Amy Paller, MD/PhD, Northwestern University

8:30 AM

An alternative method for delivering keratinocytes derived from patient-specific gene-edited iPSCs generated from patients with inherited epidermal fragility disorders

Dennis Roop, PhD, University of Colorado

9:00 AM

Topical application of DNA for dermatology

David A. Giljohann, PhD, CEO, Exicure

9:25 AM

Developing mechanism-based therapies for rare skin diseases

Mark P. de Souza, PhD, CEO, FIBRX Derm, Inc.

9:50 AM

BREAK

10:10 AM

Update on PTX-022 (QTORINTM rapamycin formulation) for Pachyonychia Congenita

Wesley Kaupinen, CEO, Palvella Therapeutics

10:45 AM

The Orphan Disease Business Model: One size does not fit all

John D. Doux, MD, Palo Alto Investors

11:15 AM

Helping PCers: Can hope be turned into reality?

Roger Kaspar, PhD, CEO, Ayni Therapeutics

11:40 AM

GROUP DISCUSSION: MOVING FORWARD

C. David Hansen, MD, University of Utah

12:30 PM

CLOSE OF MEETING: BOX LUNCHES AVAILABLE FOR REGISTERED ATTENDEES

12:45 PM

PC PROJECT MEDICAL AND SCIENTIFIC ADVISORY BOARD MEETING



Advancing Knowledge
Enhancing Care

OPEN TO ALL MEETING ATTENDEES

Cardiovascular Disease in Psoriasis: A Changing Paradigm

WEDNESDAY, MAY 8, 2019

9:00 AM - 1:00 PM

CONTINENTAL BALLROOM A

AGENDA

PROGRAM OVERVIEW:

This symposium will explore recent advances in the understanding of the association of cardiovascular disease and psoriasis, with the aim to present evidence from mechanistic models, epidemiological data, imaging studies and immuno-intervention strategies of this complex scenario. Part 1 of this event will feature five faculty presentations with expert panel discussion. Part 2 will include a series of selected poster presentations that provide additional insights into disease mechanisms that contribute to psoriasis.

PROGRAM CHAIRS:

April Armstrong, MD/MPH - University of Southern California, Los Angeles, United States

Johann Gudjonsson, MD/PhD - University of Michigan, Michigan, United States

Nehal Mehta, MD/MSCE/FAHA - National Heart, Lung and Blood Institute, Maryland, United States

9:00 AM

WELCOME AND OVERVIEW

PART I: LECTURES

9:05 AM

Immunopathogenesis of atherosclerotic disease: where are we now?

Hafid Ait-Oufella, MD/PhD - European Georges Pompidou Hospital, Paris, France

9:30 AM

Epidemiology of cardiovascular disease in psoriasis

April Armstrong, MD/MPH - University of Southern California, Los Angeles, United States

9:55 AM

Is psoriasis an independent risk factor for cardiovascular ischemic disease?

Marlies Wakkee, MD/PhD - Erasmus MC University Medical Center, Rotterdam, Netherlands

10:20 AM

BREAK

10:35 AM

In vivo studies of cardiovascular disease in psoriasis: An update

Nehal Mehta, MD/MSCE/FAHA - National Heart, Lung and Blood Institute, Maryland, United States

11:00 AM

Effect of psoriasis treatment on cardiovascular risk: Reconciling clinical trials and observational studies

Joel Gelfand, MD/MSCE - University of Pennsylvania, Philadelphia, United States

11:25 AM

PANEL DISCUSSION AND SUMMARY

PART II: POSTERS

11:55 AM

SELECTED POSTERS

12:55 PM

CLOSING COMMENTS



International Society for Cutaneous Lymphomas

ISCL Cutaneous T Cell Lymphoma Symposium

WEDNESDAY, MAY 8, 2019

9:00 AM - 12:00 PM

INTERNATIONAL BALLROOM SOUTH

9:00 AM	Welcome, ISCL Announcements & Business Meeting, Board Awards Joan Guitart
9:15 AM	The Future of CTCL Therapy: Challenges and Opportunities Moderator: Joan Guitart
9:15 AM	The Future of Personalized Therapies in CTCL Larisa Geskin
9:30 AM	Sequencing CTCL Where We Are and Where We Need To Go Jae Choi
9:45 AM	The Future of Clinical Trial: What's in the Pipeline Youn Kim
10:00 AM	High Throughput Sequencing of TCR in CTCL: Beyond Defining the Clone Lanny Kirsch
10:15 AM	Q&A
10:30 AM	Coffee Break
11:00 AM	Abstract Presentations 8 minutes for presentation + 2 minutes for Q&A and change of speaker
11:00 AM	01-Cutaneous Lymphoma Foundation Young Investigator's Award: TBA
11:10 AM	02-TBA
11:20 AM	03-TBA
11:30 AM	04-TBA
11:40 AM	05-TBA
11:50 AM	06-TBA

Visit www.cutaneouslymphoma.org for more information about the ISCL and membership!



8th Annual AARS Scientific Symposium Agenda

WEDNESDAY, MAY 8, 2019

10:00 AM - 2:00 PM

WALDORF ROOM

10:00 AM

Welcome

Mark Jackson, MD, AARS President

10:10 AM

Autophagy Regulates Lipid Production and Contributes to the Sebosuppressive Effect of Retinoic Acid in Human SZ95 Sebocytes, Sang Eun Lee, MD/PhD, Assistant Professor, Dermatology, Yonsei University College of Medicine, Seoul, Korea

10:20 AM

Distinguishing Type II from Type I Cutibacterium Acnes: An Efficient Method for Studying C. Acnes Interaction, Kelsey Ouyang, BS, Division of Dermatology, UCLA, Los Angeles, California, USA

10:30 AM

Mechanistic Investigations of Cutibacterium Acnes Community Remodeling in AcneRemission, William H. McCoy, IV, MD/PhD, Research Instructor in Medicine, Department of Medicine, Washington University School of Medicine, St. Louis, Missouri, USA

10:40 AM

Panel Q&A

10:50 AM

Measuring Activation of the NLRP Inflammasomes In Vitro Via Active Caspase-1 Release: Implications in Understanding Epidermal Inflammatory Responses, Vince Gruber, PhD, Director of New Technologies, Jeen International/BotanicalsPlus, Fairfield, New Jersey, USA

11:00 AM

Deciphering the Mechanism of Action of Isotretinoin in Acne Patients Using Next Gene Sequencing Technologies, Amanda Nelson, PhD, Assistant Professor, Department of Dermatology, Penn State College of Medicine, Hershey, Pennsylvania, USA

11:10 AM

Development and Validation of a Comprehensive Acne Grading System Linking Visual Acne Characteristics to Clinician Recommended Treatment Choices, Elena Bernardis, PhD, Dermatology, University of Pennsylvania, Philadelphia, USA

11:20 AM

Development and Characterization of a 3D In Vitro Model Mimicking Acneic Skin, Brigitte Closs, Saint Viance, France

11:30 AM

Panel Q&A

11:40 AM

Characterization of International Oral Antibiotic Use for Acne, Chante Karimkhani, MD, Department of Dermatology, University of Colorado, Aurora, Colorado, USA

11:50 AM

Microbial Dysbiosis in the Skin and the Gastrointestinal Tract of Acne Patients, Anna L. Chien, MD, Associate Professor, Johns Hopkins Department of Dermatology, Baltimore, Maryland, USA

12:00 PM

Prevalence of Moderate-to-Severe Acne in Transgender Adults, Howa Yeung, MD, Assistant Professor of Dermatology, Emory University School of Medicine, Atlanta, Georgia, USA

12:10 PM

Variability in Skin Microbiota Between Smokers, Former Smokers, and Non-Smokers, Sewon Kang, MD, MPH, Johns Hopkins Department of Dermatology, Baltimore, Maryland, USA

12:20 PM

Panel Q&A

12:30 PM

Lunch Break

1:00 PM

Alterations of Gene Expression in Papulopustular Rosacea by Whole Transcriptome Analysis, Yi-Hsien Shih, MD, Dermatology, Stanford University School of Medicine, Redwood City, California, USA

1:10 PM

Human Cathelicidin LL37 Binds to Scavenger Receptors in Inflammatory Human Skin Diseases, Ryo Amagai, MD, Dermatology, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan

1:20 PM

Comparison of the Skin Microbiota in Acne and Rosacea, Katherine G. Thompson, Research Trainee, Johns Hopkins Department of Dermatology, Baltimore, Maryland, USA

1:30 PM

Skin Microbiota Perturbations Are Clinical Severity-Dependent in Hidradenitis Suppurativa, Haley Naik, MD/MHSc, Assistant Professor of Dermatology, University of California, San Francisco, California, USA

1:40 PM

Panel Q&A

1:55 PM

Closing Remarks, Diane Thiboutot, MD, AARS Past President

JOIN THE AARS MEMBERSHIP TODAY!

www.acneandrosacea.org

INTERNATIONAL ECZEMA COUNCIL AT THE SID MEETING

WEDNESDAY MAY 8, 2019

11:00 AM - 2:00 PM

CONTINENTAL BALLROOM C

11:00 AM

Welcome and Overview

Emma Guttman, New York, NY

11:05 AM

Program Overview

Amy Paller, Chicago, IL

11:10 AM

Basic structure of the epidermis

Akiharo Kubo, Tokyo, Japan

11:30 AM

Role of ephrins in tight junction function,

Bethany Perez-White, Chicago, IL

11:45 AM

Abstract Presentations: Part 1,

Moderator: **Lisa Beck**

Abstract #324:

A potential role of galectin-7 as a stabilizer for IL-4/IL-13-induced barrier disruption in atopic dermatitis. Takatoshi Shimauchi et al., Hamamatsu University School of Medicine, Hamamatsu, Japan

Abstract #565:

Improvement in skin Inflammation and barrier function biomarkers with crisaborole treatment in atopic dermatitis (AD). E. Guttman-Yassky, A.B. Pavel et al. Icahn School of Medicine at Mount Sinai, New York, United States

12:05 PM

Lunch

12:25 PM

Stratum corneum proteins, Matthias Schmuth, Innsbruck, Austria

12:45 PM

Epidermal proteases, Alain Hovnanian, Paris, France

1:05 PM

Abstract Presentations - Part 2, Moderator: **Masa Amagai**

Abstract #993:

Molecular abnormalities of early-onset pediatric atopic dermatitis are captured by tape strips; Aisleen Diaz et al. Icahn School of Medicine at Mount Sinai, New York, New York, United States

1:15 PM

Organization of epidermal lipids,

Jeroen van Smeden, Leiden, The Netherlands

1:35 PM

Measurement of barrier components and function,

Eric Simpson, Portland, OR

1:50 PM

Closing comments,

Kenji Kabashima, Kyoto, Japan

Program Co-Chairs:

Amy Paller, Lisa Beck, Masayuki Amagai,
and **Kenji Kabashima**



Special thanks to the International Eczema Council for supporting this session

Translational Science Symposium

Single Cell Analysis: Insights into Disease

WEDNESDAY, MAY 8, 2019

2:00 PM – 4:30 PM

INTERNATIONAL BALLROOM NORTH

2:00 PM

Welcome & Introduction

Richard D. Granstein, MD, Professor and Chair, Department of Dermatology, Weill Cornell Medicine, New York



Dr. Granstein's research interests center on the regulation of immunity within the skin and the relationship of the skin immune system to the development of skin cancers. He also has a special research interest in the regulation of the immune system by stress and the nervous system. His clinical interests include autoimmune disorders of the skin, skin cancer and psoriasis.

2:10 PM

Samantha Riesenfeld, PhD, Postdoctoral Fellow, Broad Institute of MIT and Harvard, Cambridge, MA



“Using topic models to analyze the transcriptional spectrum of ILCs in healthy and psoriatic skin”

Dr. Riesenfeld is a postdoctoral associate in the Regev lab at the Broad Institute and the Kuchroo lab at Brigham and Women's Hospital and Harvard Medical School. Her research focuses on developing and using data science approaches to analyze single-cell transcriptomic data, with the goal of learning about the intra- and intercellular circuits that regulate gene expression and cellular function.

2:35 PM

Ansuman Satpathy, MD/PhD, Assistant Professor, Department of Pathology, Stanford University, Stanford, CA



“Dissection of the Cancer Immunotherapy Response with Single-Cell Genome Technologies”

Dr. Satpathy's research focuses on developing single-cell and three-dimensional genome sequencing technologies to study immune system function and dysfunction directly in cancer patients. Dr. Satpathy completed M.D. and Ph.D. degrees at Washington University in St. Louis, clinical residency in pathology at Stanford Hospital and Clinics, and postdoctoral training in genetics at Stanford University.

3:00 PM

Rui Yi, PhD, Associate Professor, Molecular, Cellular & Developmental Biology, University of Colorado Boulder, Boulder, CO



“Single Cell Analysis of Transcriptome and Open Chromatin Reveals Distinct Regulatory Networks in Embryonic Skin and Adult Epithelial Stem Cells”

Dr. Rui Yi, PhD is the Principal Investigator at the Yi Laboratory at the University of Colorado Boulder where he is leading a group of passionate scientists to decode the fundamental mechanisms in gene expression regulation in mammals. He obtained his BSc at Peking University and his PhD at Duke University. At Duke, he studied RNA nuclear export for cellular and viral mRNAs as well as miRNA precursors in Bryan Cullen's lab. During his postdoc training with Elaine Fuchs at the Rockefeller University, he began to investigate miRNAs and their functions in mammalian skin.

3:25 PM

Michael Rendl, MD, Associate Professor, Cell, Developmental and Regenerative Biology, and Department of Dermatology, University of Miami, Miami, FL



“Single Cell Resolution of Dermal Condensate Fate Specification”

Dr. Rendl is a stem cell researcher internationally recognized for his work on dermal papilla (DP) cell functions as instructive niche for hair follicle stem cells and progenitors. His laboratory pioneered cellular and molecular studies of the DP and Dermal Condensates, the embryonic DP precursor cells that orchestrate hair follicle morphogenesis. New mechanistic and functional insights continue to build a platform for developing future hair regenerative therapies.

3:50 PM

Chloe Villani, PhD, Assistant Professor of Medicine, Mass General Hospital, Charlestown, MA



“Single cell genomics—Using finer lenses to unravel features of human immunity”

The Villani Laboratory is developing and implementing single-cell 'omics' strategies and systems immunology approaches to further unravel the players and rules governing human immune response regulation as a foundation for deciphering human traits and diseases.

4:15 PM

Q & A

Advancing Innovation in Dermatology Translational Research and Academic - Industry Partnership

WEDNESDAY, MAY 8, 2019

2:00 PM - 4:30 PM

INTERNATIONAL BALLROOM SOUTH

2:00 PM

Opening Remarks**William Ju, MD**

William Ju, MD, FAAD is a board-certified dermatologist and has over 20 years of biopharmaceutical experience in a wide variety of therapeutic areas, including dermatology. He is president and a co-founding trustee of Advancing Innovation in Dermatology, Inc. Dr. Ju has been president and chief executive officer of Follica, Inc. and chief operating officer at PTC Therapeutics, Inc. (PTCT).



2:10 PM

Protecting the Commercial Potential of InnovationModerator: **Lilit Garibyan, MD/PhD**

2:10 PM

Intellectual Property: From a Researcher's Perspective**Lilit Garibyan, MD/PhD**

Dr. Garibyan is currently an Assistant Professor at Harvard Medical School in Department of Dermatology at Massachusetts General Hospital (MGH) and at the Wellman Center for Photomedicine at MGH working in Dr. Rox Anderson's laboratory as junior faculty. Her research focuses on innovative biomedical translational discoveries aimed at identifying novel treatments for dermatologic diseases and beyond.



2:30 PM

The Basics of Intellectual PropertyModerator: **Raymond Miller, JD**

Mr. Miller is a partner and member of the Leadership Team of the Health Sciences Department of Pepper Hamilton LLP, resident in the Pittsburgh office. A registered patent attorney, Mr. Miller focuses his practice on identifying, protecting, securing and maximizing the value of clients' intellectual property. Mr. Miller is a former member of the firm's Executive Committee and was previously co-chair of the firm's Intellectual Property Department.



2:45 PM

Aligning IP Strategy Between the University and Its StartupsModerator: **Duke Leahey**

Mr. Leahey is the Co-Founder and President of Nuogen Pharma, Inc. which is focused on the development of JAK inhibitors for the treatment of chronic pruritus. With over four decades of experience, he held increasingly responsible Program management positions in the USAF, Science Applications Inc., Emerson Electric, Washington University, and Monsanto, where he became President of G.D. Searle & Co IP Holding Company.



3:05 PM

Open Q&A

3:15 PM

Early Stage Funding for Academics: SBIRs, STTRs, and IndustryPartnerships Moderator: **Steve Xu, MD**

3:15 PM

Early Stage Funding: SBIRs, STTRs and IncubatorsModerator: **Steve Xu, MD**

Dr. Xu is Medical Director, Center for Biointegrated Electronics at Northwestern University and Instructor, Department of Dermatology at Northwestern's Feinberg School of Medicine. Dr. Xu has authored more than 70 peer-reviewed publications and listed as an inventor on 13 granted and pending patents. Dr. Xu, as both PI and co-investigator, has successfully won 7 SBIRs/STTRs including both Phase I and Phase II awards.



3:45 PM

Academia & Industry Collaborations During Early-Stage Product DevelopmentModerator: **Alex Costa**

Mr. Costa is Principal Technology & Innovation Manager at the LEO Science & Tech Hub. At the hub he leads the innovation strategy and has a big focus on building innovation ecosystems around dermatology. He joined LEO Pharma in 2014 in Copenhagen and has worked in different functions within innovation and medical affairs. In the past he has worked with implementation of LEO's open innovation platform.



4:00 PM

An Industry Perspective on Target ValidationModerator: **Edward Hsia, PhD**

Dr. Hsia is currently VP, External Research & Innovation, at Amiral where he leads the identification and evaluation of early stage external innovation opportunities. Dr. Hsia is responsible for developing a network within academia, research institutions, biotech/pharma companies, and start-up firms that will ultimately help strengthen Amiral's early stage pipeline.



4:15 PM - 4:25 PM

Open Q&A

4:25 - 4:30 PM

Concluding Remarks

Clinical/Outcomes Scholars**Diving Skin-Deep into Databases and Inflammation**

WEDNESDAY, MAY 8, 2019

4:30 PM - 5:30 PM

INTERNATIONAL BALLROOM NORTH

4:30 PM

Welcome & Introduction**Heidi H. Kong, MD/MHSc**

Dr. Kong is Head of the Cutaneous Microbiome and Inflammation Section and Investigator, Dermatology Branch, NIAMS, NIH. Dr. Kong's research on the human microbiome focuses on understanding host-microbial relationships, particularly of human skin.



4:35 PM

Robert A. Swerlick, MD, Professor and Chair, Department of Dermatology, Emory University

“American Academy of Dermatology (AAD) Data-Derm™ Clinical Data Registry”

Dr. Swerlick is the current President of the SID and former Secretary Treasurer. He currently is Co-Chair of the Ad hoc Task Force for Data Collection of the American Academy of Dermatology (AAD) which has overseen the development and deployment the national dermatology patient data registry (DataDerm™). He is the Chair of the Data Governance Committee of the DataDerm registry. His current research interests focus on outcomes research and the development of standardized data collection tools which can be deployed in clinical practice.



4:50 PM

Haley B. Naik, MD /MHSc, Assistant Professor, Dermatology, Department of Dermatology, University of California San Francisco, San Francisco, CA

“Hidradenitis Suppurativa Update”

Dr. Naik's research focuses on understanding the role of the human microbiome in hidradenitis suppurativa (HS). She is also the principal investigator for HS PROGRESS, a multi-institutional prospective observational registry and biospecimen repository dedicated to improving understanding of HS clinical course and treatment outcomes and driving understanding of HS disease mechanisms. She established and directs the UCSF Hidradenitis Suppurativa Clinic and serves on the board of the Hidradenitis Suppurativa Foundation.

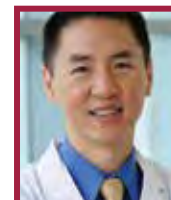


5:05 PM

Richard Wang, MD/PhD, Assistant Professor, Department of Dermatology, University of Texas Southwestern, Dallas, TX

“Inhibiting Glucose Transport and Metabolism to Treat Inflammatory Skin Disease”

Dr. Wang completed his MD at Cornell Medical College and his PhD at the Rockefeller University. He returned to Texas to complete his Dermatology Residency at UT Southwestern Medical Center. After completing a postdoctoral fellowship, he started his own lab in the Department of Dermatology. His lab studies both DNA tumor viruses and glucose transport and metabolism, and how these factors contribute to the development of skin diseases, particularly non-melanoma skin cancer.



5:20 PM

Q & A

NAOMI M. KANOF LECTURE***The Significance of Dermatology Outcomes Research -
Beyond the H-Index and Impact Factor***

WEDNESDAY, MAY 8, 2019

5:45 PM - 6:15 PM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Robert A. Swerlick, MD****Suephy Chen, MD/MS**Emory University
Atlanta, GA

Suephy C. Chen, MD/MS is Professor of Dermatology and Vice Chair at Emory University in Atlanta, GA and also serves as the Director of TeleDermatology at the Regional TeleHealth Services of the Veterans Integrated Service Network 7. Dr. Chen attended the Massachusetts Institute of Technology and Johns Hopkins University Medical School before completing her Dermatology Residency at Emory and Health Services Research training at Stanford. Dr. Chen was one of the first formally trained Health Services researchers in Dermatology. After joining the faculty at Emory University she created the Dermatology Center for Outcomes Research and Safety (which is focused on investigating the real-world impact of dermatologic intervention). She is committed to better quantifying the quality of life impact of skin conditions on patients by developing several widely-used instruments such as the ItchyQoL. Dr. Chen is also dedicated to investigating how technology and policy can be harnessed to help not only patients but dermatologists.

**LECTURESHIP HISTORY**

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

Thursday Sessions

PAGE	TITLE
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45	Medical Dermatology Society Mini Symposium
46	Irvin H. Blank Forum I
47	Plenary Session I
48	Julius Stone Lecture
49	William Montagna Lecture
50	Aclaris Sponsored Symposium
51-55	Selected ePoster Discussions I <ul style="list-style-type: none">• Adaptive and Auto-Immunity• Genetic Disease, Gene Regulation and Gene Therapy• Growth Factors, Cell Adhesion and Matrix Biology• Interventional Studies, Clinical and Patient Reported Outcomes• Photobiology
56	Concurrent Minisymposium 1: Adaptive and Auto-Immunity
57	Concurrent Minisymposium 2: Genetic Disease, Gene Regulation, and Gene Therapy
58	Concurrent Minisymposium 3: Growth Factors, Cell Adhesion, and Matrix Biology
59	Concurrent Minisymposium 4: Interventional Studies, Clinical and Patient Reported Outcomes
60	Concurrent Minisymposium 5: Photobiology
61	Concurrent Minisymposium 6: Interdisciplinary Spotlight: Disease Models
62	State-Of-The-Art Plenary Lectures in Recognition of Dr. Stephen I. Katz
63	LEO Foundation Award - 100,000 USD Region Americas
64	The International Immunosuppression & Transplant Skin Cancer Collaborative (ITSCC)
65	American Dermato-Epidemiology Network (ADEN) Symposium
66	National Psoriasis Foundation



TICKETED EVENT: PRE-REGISTRATION REQUIRED

Social Event

THURSDAY, MAY 9, 2019

7:00 PM - 10:30 PM

MUSEUM OF SCIENCE
AND INDUSTRY

Join us on Thursday, May 9, 2019 from 7:00 PM - 10:30 PM at the Museum of Science and Industry (MSI). One of the largest science museums in the world—it is home to more than 400,000 square feet of hands-on exhibits designed to spark scientific inquiry and creativity. Explore, dance and socialize with your fellow scientists while enjoying Taste of Chicago food stations and beer and wine.



Meeting-At-A-Glance

THURSDAY, MAY 9, 2019

7:00 AM – 6:00 PM

On-Site Registration
8TH ST. S. REGISTRATION AREA

7:30 AM – 8:30 AM

Irvin H. Blank Forum I:
Extracellular Vesicles in Cutaneous Homeostasis and Disease
INTERNATIONAL BALLROOM NORTH

8:45 AM – 9:45 AM

Plenary Session I
INTERNATIONAL BALLROOM NORTH

9:45 AM – 10:15 AM

Julius Stone Lecture: *Skin Microbiota in Tissue Immunity and Repair*
YASMINE BELKAID, PHD
INTERNATIONAL BALLROOM NORTH



10:15 AM – 10:45 AM

William Montagna Lecture: *Regulatory T cells in Skin*
MICHAEL D. ROSENBLUM, MD/PHD
INTERNATIONAL BALLROOM NORTH



10:45 AM – 12:45 PM

Poster Session I/Coffee Break
STEVENS SALONS B/C/D
SEE PAGE 13 FOR POSTER NUMBER LISTINGS

11:15 AM – 12:45 PM

Aclaris Sponsored Symposium: *HiJAKing Topical Therapies for New Indications in Dermatology*
INTERNATIONAL BALLROOM NORTH

11:15 AM – 12:15 PM

Selected ePoster Discussions I
SEES PAGE 51-55 FOR ROOM LISTINGS

1:30 PM – 4:00 PM

Concurrent Minisymposium 1: Adaptive and Auto-Immunity
INTERNATIONAL BALLROOM NORTH

1:30 PM – 4:00 PM

Concurrent Minisymposium 2: Genetic Disease, Gene Regulation and Gene Therapy
CONTINENTAL BALLROOM A

1:30 PM – 4:00 PM

Concurrent Minisymposium 3: Growth Factors, Cell Adhesion and Matrix Biology
CONTINENTAL BALLROOM C

1:30 PM – 4:00 PM

Concurrent Minisymposium 4: Interventional Studies, Clinical and Patient Reported Outcomes
INTERNATIONAL BALLROOM SOUTH

1:30 PM – 4:00 PM

Concurrent Minisymposium 5: Photobiology
CONTINENTAL BALLROOM B

1:30 PM – 4:00 PM

Concurrent Minisymposium 6: Interdisciplinary Spotlight: Disease Models
WALDORF ROOM

4:15 PM – 4:45 PM

State-of-the-Art Plenary Lecture I: *Large-Scale Regeneration in the Skin*
MAKSIM PLIKUS, PHD
INTERNATIONAL BALLROOM NORTH



4:45 PM – 5:15 PM

State-of-the-Art Plenary Lecture II: *Immune Regulation of Skin Inflammation and Itch*
BRIAN KIM, MD/MTR
INTERNATIONAL BALLROOM NORTH



5:15 PM – 5:30 PM

LEO Foundation Award
INTERNATIONAL BALLROOM NORTH

7:00 PM – 10:30 PM

Social Event
MUSEUM OF SCIENCE AND INDUSTRY

ASSOCIATE GROUP PROGRAMMING IS TAKING PLACE TODAY.
SEE PAGE 6 FOR DAILY SCHEDULE.

Photobiology Symposium

THURSDAY, MAY 9, 2019

7:00 AM – 8:30 AM

CONTINENTAL BALLROOM A

ORGANIZERS

Masaaki Kawasumi, MD/PhD, University of Washington, Seattle, WA

Yu-Ying He, PhD, University of Chicago, Chicago, IL

7:00 AM

Opening Remarks (Masaaki Kawasumi, MD, PhD)



7:03 AM

Kenneth H. Kraemer, MD, National Cancer Institute, Bethesda, MD

High frequency of xeroderma pigmentosum causing mutations in large databases



7:17 AM

Thomas M. Runger, MD/PhD, Lahey Hospital & Medical Center, Burlington, MA

RNA – target and mediator of cellular responses to ultraviolet radiation



7:31 AM

Masaaki Kawasumi, MD/PhD, University of Washington, Seattle, WA

Targeting the DNA damage response to suppress UV-induced skin carcinogenesis



7:45 AM

Yu-Ying He, PhD, University of Chicago, Chicago, IL

Autophagy pathways in UV damage response and tumorigenesis



7:59 AM

Georg T. Wondrak, PhD, University of Arizona, Tucson, AZ

Redox-directed molecular interventions targeting cutaneous photodamage and carcinogenesis



8:13 AM

Akimichi Morita, MD/PhD, Nagoya City University, Nagoya, Japan

Dual wavelength photodynamic therapy using a flexible light-emitting diode unit

8:27 AM

Closing Remarks

Yu-Ying He, PhD

SPONSORS





OPEN TO ALL MEETING ATTENDEES

MEDICAL DERMATOLOGY SOCIETY MINI SYMPOSIUM

THURSDAY, MAY 9, 2019

7:00 AM – 8:30 PM

CONTINENTAL BALLROOM B

MILAN ANADKAT, MD**MDS Board of Directors**

Washington University School of Medicine in St. Louis

ADELA RAMBI CARDONES, MD**MDS Board of Directors**

Duke University School of Medicine

JANET FAIRLEY, MD**MDS Past-President**

University of Iowa Hospitals and Clinics

DANIELA KROSHINSKY, MD/MPH**MDS Past-President**

Massachusetts General Hospital, Harvard Medical School

Members of the Medical Dermatology Society (MDS) represent the heart and soul of our specialty: Medical Dermatology. The MDS is made up of the thought leaders of clinical dermatology and the teachers of the next generation of practicing dermatologists. Our members include academicians, private practitioners, and resident physicians. We specialize in the care of patients with serious dermatologic diseases. Our mission is to improve the care of patients with these conditions.

Dermatologists are encouraged to pursue a career in medical dermatology by:

- Encouraging resident presentations at our Annual Meeting
- Developing Advanced Medical Dermatology Rotations for residents to work with experts in our field across the country
- Encouraging dermatology Programs to sponsor 5-year combined Internal Medicine/Dermatology training Programs
- Coordinating and providing lectures and sessions on medical dermatology topics at major dermatology meetings
- Providing lectures, discussions and case presentations at the annual Medical Dermatology Society Meeting

7:00 AM

Introduction and Welcome

7:05 AM

Abstract #480

The characteristics of patients with persistent HHV-6 infection after drug-induced hypersensitivity syndrome/drug reaction with eosinophilia and systemic symptoms (DIHS/DRESS)

Hideo Asada, Nara Medical University, Japan

7:17 AM

Abstract #057

Interleukin-6 regulates psoriasis-like dermatitis induced by blockade of Programmed cell death 1 signaling

Ryota Tanaka, University of Tsukuba, Japan

7:29 AM

Abstract #628

Magnetic resonance imaging for assessment of disease activity in morphea

Jack Christopher O'Brien, University of Texas, Southwestern

7:41 AM

Abstract #917

Frontal fibrosing alopecia scalp profiling links Th1/Th2 and JAK3 activation with fibrosis and loss of follicular stem cells

Ester Del Duca, MD, Laboratory of Inflammatory Skin Diseases at Mount Sinai

7:52 AM

Abstract #868

Histologic progression of hidradenitis suppurativa: Implications for future therapeutic intervention

Robert W. Dunstan, DVM, MS, DACVP, Senior Research Fellow, AbbVie, Chicago, Illinois

8:04 AM

Abstract #547

Effectiveness of etanercept in the treatment of toxic epidermal necrolysis

Biagio Didona, University Hospital Marburg, Germany

8:16 AM

Abstract #626

Assessing the incidence of skin and soft tissue infection in patients on biologics

Emily Nguyen, Massachusetts General Hospital, Harvard Medical School

8:28 AM

Discussion and Concluding Remarks

Irvin H. Blank Forum I***Extracellular Vesicles in Cutaneous Homeostasis and Disease***

THURSDAY, MAY 9, 2019

7:30 AM - 8:30 AM

INTERNATIONAL BALLROOM NORTH



7:30 AM

Welcome & Introduction**Evangelos Badiavas, MD/PhD**, Professor, Department of Dermatology and Cutaneous Surgery, University of Miami

Dr. Badiavas is a board certified dermatologist and dermatopathologist with specialized interest in wounds. He heads a federally-funded wound healing research laboratory focused on the role of bone marrow and stem cells in wound healing, regenerative medicine, and gene therapy.



7:35 AM

Mỹ Mahoney, PhD, Professor, Department of Dermatology and Cutaneous Biology, Thomas Jefferson University***“Extracellular Vesicle Biogenesis and Function in Squamous Cell Carcinomas”***

The goal of Dr. Mahoney's research is to understand at the molecular and cellular level, signaling during normal skin development and pathogenic signaling during disease progression. Her work has identified the desmosomal cadherin, desmoglein 2 (Dsg2) as a novel marker that correlates with poor prognosis in various human cancers including basal and squamous cell carcinomas and melanomas.



7:55 AM

Jeffrey B. Travers, MD/PhD, Professor and Chair, Pharmacology & Toxicology Professor, Dermatology, Wright State University***“Keratinocyte Microvesicles as Effectors for Environmental Stressor Responses”***

Jeffrey B. Travers MD/PhD, is a dermatologist -scientist who serves as Chairman of the Department of Pharmacology & Toxicology, Boonshoft School of Medicine at Wright State University in Dayton, Ohio. Dr. Travers has expertise in lipid biochemistry and pharmacology as it relates to skin disorders, in particular environmental stressors including UV light.

8:15 AM

Q & A

Plenary Session I

THURSDAY, MAY 9, 2019

8:45 AM – 9:45 AM

INTERNATIONAL BALLROOM NORTH

Presiders: **Dan Kaplan, MD/PhD** and **Ethan Lerner, MD/PhD**

8:45 AM

Abstract #589: Early baseline imaging is indicated in Merkel cell carcinoma, even for patients without clinically evident nodal involvement

N. Singh¹, K. Lachance¹, C. Lewis¹, S. Bhatia², P. T. Nghiem¹, K. Paulson²

¹Dermatology, UW, Seattle, Washington, United States, ²Fred Hutchison Cancer Research Center, Seattle, Washington, United States

8:57 AM

Abstract #071: Single-cell transcriptome and epitope classification of atypical inflammatory diseases for therapeutic intervention

J. B. Cheng^{1, 2}, J. Lee^{1, 2}, P. Harirchian^{1, 2}, J. Choi^{3, 4}, R. Cho¹

¹Dermatology, University of California San Francisco, San Francisco, California, United States, ²Veterans Affairs Medical Center, San Francisco, California, United States, ³Dermatology, Northwestern University, Chicago, Illinois, United States, ⁴Biochemistry and Molecular Genetics, Northwestern University, Chicago, Illinois, United States

9:09 AM

Abstract #955: Altered expression of *SPAG17*, a cilia-related gene, in scleroderma and spontaneous skin fibrosis in *Spag17* knockout mice suggests that scleroderma is a unique ciliopathy

P. A. Sapao^{1, 4}, B. Shi², E. Roberson³, J. Atkinson³, J. F. Strauss⁴, M. E. Teves⁴, J. Varga²

¹Chemistry, Virginia Commonwealth University, Richmond, Virginia, United States, ²Rheumatology, Northwestern University, Chicago, Illinois, United States, ³Division of Rheumatology, Washington University, St. Louis, Missouri, United States, ⁴Obstetrics and Gynecology, Virginia Commonwealth University, Richmond, Virginia, United States

9:21 AM

Abstract #472: Differential inflammatory responses induced by *Cutibacterium acnes* are not dependent on strain-types but are associated with the presence of a linear plasmid

A. O'Neill, M. R. Williams, L. Tong, T. Hata, R. L. Gallo

Dermatology, University of California San Diego, San Diego, California, United States

9:33 AM

Abstract #448: Understanding commensal-host communication through genetic engineering of *Staphylococcus epidermidis*

Y. E. Chen^{1, 2}, N. Bouladoux³, Y. Belkaid³, M. Fischbach¹

¹Bioengineering, Stanford University, San Francisco, California, United States, ²Dermatology, SF VA Medical Center, San Francisco, California, United States, ³National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, United States

JULIUS STONE LECTURE

Skin Microbiota in Tissue Immunity and Repair

THURSDAY, MAY 9, 2019

9:45 AM - 10:15 AM

INTERNATIONAL BALLROOM NORTH

Introduction By: **Richard Gallo, MD/PhD****Yasmine Belkaid, PhD**National Institutes of Health (NIH)
Bethesda, MD

Dr. Yasmine Belkaid obtained her PhD in 1996 from the Pasteur Institute in France. Following a postdoctoral fellowship at NIAID on immune regulation during infection, she joined the Children's Hospital Research Foundation in Cincinnati. In 2005, she began work at the Laboratory of Parasitic Diseases at NIAID and was appointed Senior Investigator in 2008. Dr. Belkaid also holds an appointment at the University of Pennsylvania. She is currently the Director of the NIAID Microbiome Program and the Director of the NIH Center for Human Immunology. Her laboratory has defined fundamental mechanisms that regulate tissue homeostasis and host immune responses and uncovered key roles for the microbiota and dietary factors in the maintenance of tissue immunity and protection to pathogens. Dr. Belkaid published over 200 peer review manuscripts and is a member of the National Academy of Sciences.

**LECTURESHIP HISTORY**

The Julius Stone Lectureship is intended to promote the advancement of knowledge in immunology as it relates to the skin and skin disease. The Lectureship is intended to honor Dr. Julius Stone, whose great commitment to the application of new principles of immunology to the benefit of patients with skin disorders is recognized by this award.

WILLIAM MONTAGNA LECTURE

Regulatory T-Cells in Skin

THURSDAY, MAY 9, 2019

10:15 AM - 10:45 AM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Richard Granstein, MD**



Michael D. Rosenblum, MD/PhD

University of California, San Francisco
San Francisco, CA

Dr. Rosenblum's research focuses on understanding the fundamental mechanisms of how immune responses are regulated in peripheral tissues, and how this knowledge can be exploited to treat human disease. Using transgenic mouse model systems to mechanistically dissect how regulatory T cells (Tregs) function in tissues, Dr. Rosenblum has discovered that Tregs can differentiate into memory cells that utilize unique pathways for their establishment and long-term maintenance. In skin, these cells play major roles in wound healing and mediating tolerance to commensal microbes. Most recently, he has discovered that skin-resident Tregs augment the function of epithelial stem cells during both hair follicle regeneration and epidermal barrier repair. Dr. Rosenblum also functionally investigates Tregs in human tissues and has discovered that human skin contains a unique population of tissue-resident Tregs. He has found that these Tregs are dysfunctional in patients with psoriasis, scleroderma, and melanoma. He recently helped to generate and validate a novel therapeutic molecule that selectively activates human Tregs which is currently being tested in clinical trials in patients with autoimmune diseases.



LECTURESHIP HISTORY

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



Aclaris Sponsored Symposium

HiJAKing Topical Therapies for New Indications in Dermatology

THURSDAY, MAY 9, 2019

11:15 AM - 12:45 PM

INTERNATIONAL BALLROOM NORTH

11:15 AM

Welcome and Overview

TBD

Part I: Building a Topical JAK Inhibitor by Design

Moderator: TBD

11:20 AM

Speaker 1: TBN JAK Chemistry Expert

11:35 AM

Speaker 2: TBN Topical Delivery Expert

Part II: New Indications for JAK Inhibitors

Moderator: TBD

12:00 PM

FINAL ID: 479

Janus kinase inhibition significantly reduces vaccinia virus infectivity of th2 stimulated keratinocytes

Lisa Beck Lab - Rochester

12:09 PM

FINAL ID: 147

Ruxolitinib reverses accelerated tumor growth of RDEB-cSCCs in a xenograft mouse model

Angela Christiano Lab - New York

12:18 PM

FINAL ID: 044

IFN- γ enhances cell-mediated cytotoxicity against keratinocytes via JAK2/STAT1 in lichen planus

Johann Gudjonsson Lab - Michigan

12:27 PM

FINAL ID: 958

TITLE: Pharmacological inhibition of JAK/STAT signaling by tofacitinib prevents organ fibrosis: Novel therapy for scleroderma

John Varga Lab - Chicago

12:36 PM

FINAL ID: 667

Targeting the JAK/STAT pathway for CTCL therapy

Larisa Geskin Lab - New York

Selected ePoster Discussions I

Adaptive and Auto-Immunity

Studies of adaptive immune responses involving T and B lymphocytes, dendritic cells, other antigen presenting cells, and antigen processing and presentation; Basic and pre-clinical experimental studies focused on autoimmunity

THURSDAY, MAY 9, 2019

11:15 AM - 12:15 PM

STEVENS SALON D

Moderator: **Michel Gilliet, MD**

11:15 AM - 11:21 AM

Abstract #088: Skin delivery of modified vaccinia ankara (MVA) virus generates superior protective pulmonary immunity

Y. Pan, T. Tian, C. Park, C. A. Stingley, A. de Masson, T. Kupper
Dermatology, BWH/HMS, Boston, Massachusetts, United States

11:21 AM - 11:27 AM

Abstract #065: Microneedle arrays engineer the skin microenvironment to promote allergen tolerance

S. C. Balmert, C. D. Carey, G. Erdos, S. R. Little, L. D. Falo
University of Pittsburgh, Pittsburgh, Pennsylvania, United States

11:27 AM - 11:33 AM

Abstract #018: Langerhans cells suppress CD8 T cells in situ during acute graft-versus-host disease-like autoimmune mucocutaneous disease

N. Kubota¹, A. Saito¹, R. Tanaka¹, B. E. Clausen², M. Fujimoto¹, N. Okiyama¹

¹Department of Dermatology, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan, ²Institute for Molecular Medicine, University Medical Center of the Johannes Gutenberg-University Mainz, Mainz, Germany

11:33 AM - 11:39 AM

Abstract #064: Mucosal-associated invariant T (MAIT) cell-derived IL-17A and IL-17F production is IL-23-independent and biased towards IL-17F

S. Cole¹, C. Simpson¹, R. Okoye¹, M. Griffiths¹, D. Baeten², S. Shaw¹, A. Maroof¹

¹UCB Pharma, Slough, United Kingdom, ²UCB Pharma, Brussels, Belgium

11:39 AM - 11:45 AM

Abstract #068: MiRNA-21 overexpression promotes T follicular helper cells mediated autoimmune response in systemic lupus erythematosus

X. Gao, J. Wu, L. Liu, Y. Li, L. Yang, H. Wu, Q. Lu, M. Zhao
Department of Dermatology, the Second Xiangya Hospital of Central South University, Changsha, Hunan, China

11:45 AM - 11:51 AM

Abstract #092: Approaches to generating protective T cell vaccines to conserved influenza epitopes using Modified Vaccinia Ankara (MVA) vector vaccines delivered through skin

T. Tian, Y. Pan, C. A. Stingley, J. Zhao, T. Kupper
Dermatology, BWH/HMS, Boston, Massachusetts, United States

11:51 AM - 11:57 AM

Abstract #106: Investigating the role of integrins $\alpha\beta6$ and $\alpha\beta8$ in CD8+ resident memory T-Cell and langerhan cell migration

J. S. De La Cruz Diaz, D. H. Kaplan
Dermatology/Immunology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States

11:57 AM - 12:03 PM

Abstract #090: IL-23 regulates cutaneous CD4 T cell responses to Candida albicans

S. K. Whitley^{1,2}, X. Geng¹, D. H. Kaplan^{1,2}
¹Dermatology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States, ²Immunology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States

12:03 PM - 12:09 PM

Abstract #057: Interleukin-6 regulates psoriasis-like dermatitis induced by blockade of Programmed cell death 1 signaling

R. Tanaka, M. Fujimoto, N. Okiyama
Department of Dermatology, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan

12:09 PM - 12:15 PM

Abstract #013: NETs generate structured antimicrobial peptide-nucleosome immune complexes with inter-DNA spacings optimal for TLR9 activation

E. Y. Lee^{1,2}, A. Leforestier³, J. Di Domizio⁴, T. Curk⁵, L. Abbaspour⁶, N. Berezhnoy⁷, H. Fazli⁶, L. Nordenskiold⁷, J. Dobnikar⁵, M. Gilliet⁴, G. C. Wong¹

¹Dept. of Bioengineering, UCLA, Los Angeles, California, United States, ²UCLA-Caltech Medical Scientist Training Program, UCLA, Los Angeles, California, United States, ³Laboratoire de Physique des Solides, Université Paris Sud, Orsay, France, ⁴Department of Dermatology, Lausanne University Hospital, Lausanne, Switzerland, ⁵Beijing National Laboratory for Condensed Matter Physics & CAS Key Laboratory of Soft Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing, China, ⁶Dept. of Physics, Institute for Advanced Studies in Basic Sciences, Zanjan, Iran (the Islamic Republic of), ⁷School of Biological Sciences, Nanyang Technological University, Singapore, Singapore

Selected ePoster Discussions I

Genetic Disease, Gene Regulation and Gene Therapy

Studies on cutaneous gene expression and genetic diseases including gene therapy

THURSDAY, MAY 9, 2019

11:15 AM - 12:15 PM

CONTINENTAL BALLROOM A

Moderator: **Johann Gudjonsson, MD/PhD**

11:15 AM - 11:21 AM

Abstract #386: Autocrine IFN- κ restricts CRISPR-Cas9 keratinocyte transfection

M. K. Sarkar¹, R. Uppala¹, S. Shao¹, M. Kahlenberg², J. Gudjonsson¹

¹Dermatology, University of Michigan, Ann Arbor, Michigan, United States, ²Department of Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, Michigan, United States

11:21 AM - 11:27 AM

Abstract #371: The use of human skin equivalents to evaluate the effectivity of QR-313, an antisense oligonucleotide, in gel formulation

M. Hogervorst², M. van Berkel², C. Oort², M. P. Marinkovich³, D. Keene¹, T. Ritsema², J. Swildens², I. Haisma²

¹Shriners Hospital for Children, Portland, Oregon, United States, ²ProQR Therapeutics, Leiden, Netherlands, ³Stanford University School of Medicine, Stanford, California, United States

11:27 AM - 11:33 AM

Abstract #370: Genetically corrected autologous keratinocyte epidermal grafts improve wound healing and patient reported outcomes in patients with recessive dystrophic epidermolysis bullosa

S. Eichstadt¹, M. Barriga¹, C. Teng¹, N. T. Nguyen¹, E. Gorell¹, Z. Siphshvili¹, K. Loutit¹, Y. Dutt-Singh¹, J. Nazaroff¹, M. P. Marinkovich^{1,2}, J. Tang¹

¹Dermatology, Stanford University, Stanford, California, United States, ²Dermatology, Veteran's Affairs Hospital, Stanford, California, United States

11:33 AM - 11:39 AM

Abstract #384: First in human use of a novel in vivo gene therapy to successfully correct recessive dystrophic epidermolysis bullosa (RDEB) skin: Results of a phase 1/2 placebo controlled trial

M. P. Marinkovich¹, K. Sridhar¹, I. Gurevich¹, A. Ponakala¹, S. Boddu¹, D. Keene³, S. Vinzant², P. Agarwal², S. Krishnan²

¹Dermatology, Stanford University, Stanford, California, United States, ²Krystal Biotech, Inc, Pittsburgh, Pennsylvania, United States, ³Shriners Hospital, Portland, Oregon, United States

11:39 AM - 11:45 AM

Abstract #380: KB104: an HSV-based gene therapy vector engineered to deliver functional SPINK5 for the treatment of Netherton Syndrome

M. Bustos, C. Freedman, A. Majumdar, P. Zhang, T. Parry, S. Coghlan, S. Krishnan, P. Agarwal

Krystal Biotech, Inc, Pittsburgh, Pennsylvania, United States

11:45 AM - 11:51 AM

Abstract #418: Population-specific calibration of the human skin barrier by recent evolution of eQTLs that modulate involucrin expression

E. A. Brettmann, Z. Goodwin, C. de Guzman Strong

Medicine, Washington University School of Medicine, St. Louis, Missouri, United States

11:51 AM - 11:57 AM

Abstract #398: Neutrophil extracellular trap-dependent Th17 polarization of memory T-cells requires monocyte-T-cell contact and stimulates cytokine gene expression in an Act1D10N-dependent manner

S. Lambert, L. Tsoi, R. P. Nair, J. T. Elder

Dermatology, University of Michigan, Ann Arbor, Michigan, United States

11:57 AM - 12:03 PM

Abstract #392: Altered keratinocyte differentiation is an early driver of keratin mutation-based palmoplantar keratoderma lesions

A. G. Zieman^{1,2}, B. G. Poll^{2,3}, J. Ma¹, P. A. Coulombe^{1,2}

¹Cell and Developmental Biology, University of Michigan, Ann Arbor, Michigan, United States, ²Biochemistry and Molecular Biology, Bloomberg School of Public Health Johns Hopkins University, Baltimore, Maryland, United States, ³Physiology, School of Medicine Johns Hopkins University, Baltimore, Maryland, United States

12:03 PM - 12:09 PM

Abstract #410: Pysin-associated auto-inflammation with neutrophilic dermatosis (PAAND): Novel autosomal recessive MEFV mutation and successful treatment with colchicine

S. Shahrokh¹, M. Faghankhani², A. Jazayeri³, L. Youssefian², H. Vahidnezhad², V. Ziaee⁴, A. H. Saeidian², S. Zeinali⁵, J. Uitto²

¹Rowan University School of Osteopathic Medicine, Stratford, New Jersey, United States, ²Dermatology and Cutaneous Biology, Thomas Jefferson University, Philadelphia, Pennsylvania, United States, ³Drexel University, Philadelphia, Pennsylvania, United States, ⁴Tehran University of Medical Sciences, Tehran, Iran (the Islamic Republic of), ⁵Pasteur Institute of Iran, Tehran, Iran (the Islamic Republic of)

12:09 PM - 12:15 PM

Abstract #390: Second-hit, post-zygotic PMVK and MVD mutations cause linear porokeratosis

L. Atzmony², H. Khan², Y. H. Lim^{2,3,5}, A. S. Paller¹, J. Levinsohn^{2,3,5}, K. E. Holland⁴, F. Nadeem Mirza², E. Yin², C. Ko^{2,3}, J. S. Leventhal², K. A. Choate^{2,3,5}

¹Dermatology, Northwestern University, Chicago, Illinois, United States, ²Dermatology, Yale University, Orange, Connecticut, United States, ³Pathology, Yale University, New Haven, Connecticut, United States, ⁴Department of Dermatology, Medical College of Wisconsin, Milwaukee, Wisconsin, United States, ⁵Department of Genetics, Yale University, New Haven, Connecticut, United States

Selected ePoster Discussions I

Growth Factors, Cell Adhesion and Matrix Biology

Studies on growth factors and the interactions of cells with their local cellular and extracellular environment that affect signaling, adhesion, migration and development

THURSDAY, MAY 9, 2019

11:15 AM - 12:15 PM

CONTINENTAL BALLROOM C

Moderator: **Martine Dunnwald, PhD**

11:15 AM - 11:21 AM

Abstract #441: Targeting glycolysis metabolism prevents the onset of alopecia areata in C3H/HeJ mice

Z. Dai, W. Zeng, A. Christiano

Dermatology, Columbia University, New York, New York, United States

11:21 AM - 11:27 AM

Abstract #444: Interferon Regulatory Factor 6 is required for proper cell-cell junctions

A. Antiguas¹, E. A. Sander², S. Halberg², M. Dunnwald¹

¹Anatomy and Cell Biology, The University of Iowa, Iowa City, Iowa, United States, ²Biomedical engineering, The University of Iowa, Iowa City, Iowa, United States

11:27 AM - 11:33 AM

Abstract #431: Desmosomes pattern cell mechanics to govern epidermal tissue form and function

J. A. Broussard^{1,2}, J. Koetsier¹, K. Green^{1,2}

¹Pathology, Northwestern University, Chicago, Illinois, United States, ²Dermatology, Northwestern University, Chicago, Illinois, United States

11:33 AM - 11:39 AM

Abstract #433: Pemphigus vulgaris patient disease severity correlates with in vitro assessments of desmosomal function

A. L. Caldara¹, M. F. Warren², A. Cho², S. E. Zimmer², R. J. Feldman², R. Swerlick², J. Wrammert², A. P. Kowalczyk²

¹Cell Biology Department, Emory University, Atlanta, Georgia, United States, ²Emory University, Atlanta, Georgia, United States

11:39 AM - 11:45 AM

Abstract #425: RNA-seq transcriptomic profiling of diffuse and limited cutaneous systemic sclerosis

S. Khattri¹, H. He¹, S. Noda^{2,3}, Y. Asano³, S. Sato³, J. Han¹, A. B. Pavel¹, J. G. Krueger², E. Guttman-Yassky^{1,2}

¹Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²The Rockefeller University, New York, New York, United States, ³The University of Tokyo, Tokyo, Japan

11:45 AM - 11:51 AM

Abstract #442: Laminin alpha 5 in skin microvascular endothelial cell function and angiogenesis

J. Li, T. Cui

Dermatology, University of Miami, Miami, Florida, United States

11:51 AM - 11:57 AM

Abstract #421: Pemphigus vulgaris IgG autoantibodies directly inhibit heterophilic desmoglein 3-desmocollin 3 adhesion by steric hindrance

K. Ishii¹, J. Yamagami², M. Amagai², J. R. Stanley³, A. Ishiko¹

¹Dermatology, Toho University, Tokyo, Japan, ²Dermatology, Keio University, Tokyo, Japan, ³Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States

11:57 AM - 12:03 PM

Abstract #443: Oxidative exposure elevates intracellular ROS through impairing ROS conversion/reduction

T. He, J. Voorhees, G. J. Fisher

Department of Dermatology, University of Michigan Medical School, Ann Arbor, Michigan, United States

12:03 PM - 12:09 PM

Abstract #434: Novel anti-ageing function discovered in skin for the long non coding RNA nc886

H. Chajra¹, D. Garandeanu¹, C. Delluc¹, K. Lee², E. Jung², M. Frechet¹

¹Clariant Active Ingredient, Toulouse, France, ²Biospectrum, Gyeonggi-do, Korea (the Democratic People's Republic of)

Selected ePoster Discussions I

Interventional Studies, Clinical and Patient Reported Outcomes

Studies involving interventional trials, clinical outcomes and patient reported outcomes research

THURSDAY, MAY 9, 2019

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INTERNATIONAL BALLROOM SOUTH

Moderator: **Eric Simpson, MD**

11:15 AM - 11:21 AM

Abstract #565: Improvement in skin inflammation and barrier function biomarkers with crisaborole treatment in atopic dermatitis (AD)

E. Guttman-Yassky¹, A. B. Pavel¹, A. Diaz¹, J. L. Werth², C. Zang², I. Vranic³, V. S. Purohit⁴, M. A. Zielinski², B. Vlahos², Y. Estrada¹, E. Saint-Cyr-Proulx⁵, W. C. Ports⁴, R. Bissonnette⁵
¹Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²Pfizer Inc., Collegeville, Pennsylvania, United States, ³Pfizer Inc., Walton Oaks, Surrey, United Kingdom, ⁴Pfizer Inc., Groton, Connecticut, United States, ⁵Innovaderm Research, Montreal, Quebec, Canada

11:21 AM - 11:27 AM

Abstract #632: Cutaneous immune-related adverse events in 1,857 patients treated with anti-PD-1 therapy at an academic center

T. Le¹, S. Kaul¹, L. Cappelli², J. Naidoo³, S. G. Kwatra¹
¹Department of Dermatology, Johns Hopkins University, Baltimore, Maryland, United States, ²Department of Rheumatology, Johns Hopkins University, Baltimore, Maryland, United States, ³Department of Oncology, Johns Hopkins University, Baltimore, Maryland, United States

11:27 AM - 11:33 AM

Abstract #578: Addressing the missing components for appropriate surveillance of Merkel cell carcinoma patients: Detailed recurrence data and an integrated risk analysis approach

A. McEvoy⁴, K. Lachance⁴, D. S. Hippe¹, N. Singh⁴, N. Alexander⁴, G. Bischak⁴, K. Baker², M. Redman², T. Gooley², M. W. Kattan³, P. T. Nghiem⁴
¹Radiology, UW, Seattle, Washington, United States, ²Clinical Research, Fred Hutch CRC, Seattle, Washington, United States, ³Quantitative Health Sciences, Cleveland Clinic, Cleveland, Ohio, United States, ⁴Dermatology, UW, Seattle, Washington, United States

11:33 AM - 11:39 AM

Abstract #620: Initial validation of the IGA x BSA in atopic dermatitis

C. Topham, D. Haynes, M. Brazil, E. L. Simpson
 Dermatology, Oregon Health & Science University, Portland, Oregon, United States

11:39 AM - 11:45 AM

Abstract #621: Dupilumab in adolescents with moderate-to-severe atopic dermatitis and a history of inadequate response, or intolerance to cyclosporine: subgroup analysis from a pivotal 16-week trial

A. S. Paller¹, E. L. Simpson², M. de Bruin-Weller³, J. Weisman⁴, B. Lockshin⁵, T. Huiltsch⁶, Z. Chen⁷, P. Mina-Osorio⁷, A. B. Rossi⁶, L. Eckert⁸, A. Gadkari⁷, A. Bansal⁷
¹Department of Dermatology, Northwestern University Feinberg School of Medicine, Chicago, Illinois, United States, ²Oregon Health and Science University, Portland, Oregon, United

States, ³Department of Dermatology & Allergology, University Medical Center Utrecht, Utrecht, Netherlands, ⁴Advanced Medical Research, PC, Atlanta, Georgia, United States, ⁵U.S. Dermatology Partners, Rockville, Maryland, United States, ⁶Sanofi Genzyme, Cambridge, Massachusetts, United States, ⁷Regeneron Pharmaceuticals Inc., Tarrytown, New York, United States, ⁸Sanofi, Chilly-Mazarin, France

11:45 AM - 11:51 AM

Abstract #550: Efficacy and toxicity of hypofractionated adjuvant radiotherapy in Merkel cell carcinoma

M. M. Cook¹, S. K. Schaub², S. Park¹, D. S. Hippe³, J. J. Liao², S. Apisarnthanarax², S. Bhatia⁴, P. T. Nghiem¹, Y. D. Tseng², U. Parvathaneni²
¹Dermatology, University of Washington, Seattle, Washington, United States, ²Radiation Oncology, University of Washington, Seattle, Washington, United States, ³Radiology, University of Washington, Seattle, Washington, United States, ⁴Medical Oncology, University of Washington, Seattle, Washington, United States

11:51 AM - 11:57 AM

Abstract #594: Gentamicin therapy induces functional laminin 332 and improves wound healing in junctional epidermolysis bullosa patients harboring nonsense mutations
A. Kwong, J. Cogan, Y. Hou, V. Lincoln, G. Kim, Q. Chen, D. Woodley, M. Chen

University of Southern California, Los Angeles, California, United States

11:57 AM - 12:03 PM

Abstract #532: Switching from calcineurin inhibitors to belatacept decreases keratinocyte carcinomas incidence rate in kidney transplant recipients

M. Wang¹, A. Mittal¹, O. Colegio^{2,1}
¹Dermatology, Yale School of Medicine, New Haven, Connecticut, United States, ²Dermatology, Roswell Park Comprehensive Cancer Center, Buffalo, New York, United States

12:03 PM - 12:09 PM

Abstract #574: Comparative analysis of quality of life impact in patients with autoimmune blistering disease

S. Alshamekh², T. M. DeGrazia¹, S. C. Chen², Y. Liu¹, R. Feldman²
¹Emory, Atlanta, Georgia, United States, ²Dermatology, Emory University, Atlanta, Georgia, United States

12:09 PM - 12:15 PM

Abstract #555: Association of aromatic antiepileptic drugs induced severe cutaneous adverse reactions and HLA allele or a new susceptibility gene, CGREF1

Y. Liang, L. Ma
 Dermatology, Beijing Children's Hospital, Capital Medical University; National Center for Children's Health, Beijing, China

Selected ePoster Discussions I

Photobiology

Studies on biological, biochemical, and molecular responses to ultraviolet radiation in cells, animals and humans

THURSDAY, MAY 9, 2019

11:15 AM - 12:15 PM

CONTINENTAL BALLROOM B

Moderator: **Robert Knobler, MD**

11:15 AM - 11:21 AM

770 CYP11A1-derived vitamin D3 hydroxyderivatives protect against UVB-induced skin inflammation through the modulation of NF- κ B signaling pathway in human keratinocytes

A. Chaiprasongsuk^{3,1}, Z. Janjetovic³, T. Kim³, R. C. Tuckey², U. Panich¹, A. T. Slominski^{3,4}

¹Department of Pharmacology, Faculty of Medicine Siriraj Hospital, MU, Bangkok, Thailand, ²UWA, Crawley, Western Australia, Australia, ³Dermatology, UAB, Birmingham, Alabama, United States, ⁴VA, Birmingham, Alabama, United States

11:21 AM - 11:27 AM

Abstract #734: Exosome-mediated miR-4655-3p contributes to UV-radiation induced bystander effects by targeting E2F2

B. Zhou, D. Luo

Nanjing Medical University, Nanjing, China

11:27 AM - 11:33 AM

Abstract #765: UVB radiation induces abnormal epidermal proliferation, impaired differentiation, and tumorigenesis through the autophagy and p62 pathway

L. Qiang, Z. Yang, S. Yang, Y. He

University of Chicago, Chicago, Illinois, United States

11:33 AM - 11:39 AM

Abstract #767: Regulation of XPC by 7-dehydrocholesterol in keratinocytes and fibroblasts

T. K. Oberoi^{1,2}, C. Wong¹, D. H. Oh^{1,2}

¹San Francisco VA Health Care System, San Francisco, California, United States, ²Department of Dermatology, University of California, San Francisco, San Francisco, California, United States

11:39 AM - 11:45 AM

Abstract #760: Melanin may mediate visible light induced phototoxicity in darker skin types

H. Y. Lim, M. L. Kerns, S. Kang, A. L. Chien

Derm, Johns Hopkins Univ School of Med, Baltimore, Maryland, United States

11:45 AM - 11:51 AM

Abstract #733: Potent immunogenic cell death (ICD) caused by UVA-Activated 8-Methoxypsoralen (8-MOPA)

K. Tatsuno¹, D. Hanlon¹, T. Yamazaki², L. Galluzzi^{2,3}, R. Edelson¹

¹Dermatology, Yale University, Hamden, Connecticut, United States, ²Radiation Oncology, Weill Cornell Medical College, New York, New York, United States, ³Sandra and Edward Meyer Cancer Center, New York, New York, United States

11:51 AM - 11:57 AM

Abstract #755: Effects of repeated visible light irradiation across skin types

S. Kim, I. D. Brown, F. Succaria, C. Dillen, S. Kang, A. L. Chien
Dermatology, Johns Hopkins University, Baltimore, Maryland, United States

11:57 AM - 12:03 PM

Abstract #730: Long-term effect of 222-nm ultraviolet lamp on mice highly susceptible to developing ultraviolet-induced skin tumors

A. Yamano¹, M. Kunisada¹, S. Kaizu², K. Sugihara², A. Nishiaki-Sawada³, H. Ohashi³, A. Yoshioka¹, T. Igarashi³, M. Tanito², C. Nishigori¹

¹Kobe University Graduate School of Medicine, Kobe, Hyogo, Japan, ²Ophthalmology, Shimane University Graduate School of Medicine, Izumo, Shimane, Japan, ³USHIO INC., Chiyoda-ku, Tokyo, Japan

12:03 PM - 12:09 PM

Abstract #743: Serotonin level alterations after treatment with extracorporeal photopheresis

A. Cho, R. Knobler, C. Jantschitsch

Dermatology, Medical University of Vienna, Vienna, Austria

12:09 PM - 12:15 PM

Abstract #761: The impact of 308-nm excimer laser on human keratinocytes of organ cultured human skin

A. Okazaki, K. Sugawara, D. Tsuruta

Dermatology, Osaka City University Graduate School of Medicine, Osaka, Japan

Concurrent Minisymposium 1**Adaptive and Auto-Immunity**

Studies of adaptive immune responses involving T and B lymphocytes, dendritic cells, other antigen presenting cells, and antigen processing and presentation; Basic and pre-clinical experimental studies focused on autoimmunity

THURSDAY, MAY 9, 2019

1:30 PM - 4:00 PM

INTERNATIONAL BALLROOM NORTH

Presider(s): **Thomas Kupper, MD and Alicia Mathers, PhD**

1:30 PM - 1:42 PM

Abstract #030: Single-cell transcriptomic level reconstruction of human psoriatic skin

T. Kim^{1,2}, S. Kim², Y. Hong⁴, J. Park², J. Oh², S. Song³, D. Kim², W. Park⁴, H. Lee⁴, M. Lee²

¹Microbiology and Immunology, Yonsei University College of Medicine, Seoul, Korea (the Republic of), ²Dermatology, Yonsei University College of Medicine, Seoul, Korea (the Republic of), ³Plastic Surgery, Yonsei University College of Medicine, Seoul, Korea (the Republic of), ⁴Samsung Genome Institute, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea (the Republic of)

1:42 PM - 1:54 PM

Abstract #047: Autoantigen Keratin 17 presented by keratinocytes directs T cell auto-reactivity in psoriasis

E. Dang, C. Xiao, G. Wang

Department of Dermatology, Xijing Hospital, Fourth Military Medical University, Xi'an, Shaanxi, China

1:54 PM - 2:06 PM

Abstract #076: IL-36 signaling is essential for psoriatic inflammation through the augmentation of innate immune responses

K. Ohko, K. Nakajima, S. Kataoka, M. Takaishi, S. Sano

Department of Dermatology, Kochi Medical School, Kochi University, Nankoku, Kochi, Japan

2:06 PM - 2:18 PM

Abstract #101: CD1a tetramers identify bacterial phospholipid-specific T cells in human skin and blood

G. C. Monnot¹, B. Sallee¹, A. R. Abdelaziz¹, C. H. Rohde², L. A. Bordone¹, A. de Jong¹

¹Dermatology, Columbia University, New York, New York, United States, ²Plastic Surgery, Columbia University, New York, New York, United States

2:18 PM - 2:30 PM

Abstract #070: Antimicrobial Th17CTL targeting both Gram-positive and Gram-negative bacteria.

G. Agak, N. Ceja-Garcia, P. Dang, D. Shah, R. Teles, A. Mouton, M. Morselli, M. Qin, J. Kim, M. Pellegrini, R. Modlin

Medicine, UCLA, Los Angeles, California, United States

2:30 PM - 2:42 PM

Abstract #104: CD8+CD69+CD103+/- T cells in the tumor microenvironment and in the skin of memory-conditioned mice are expanded by anti-PD1

K. P. Devi¹, T. Kim², Y. Liu¹, K. Pradhan¹, N. Anandasabapathy¹

¹Dermatology, Weill Cornell Medical Center, New York, New York, United States, ²Dermatology, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts, United States

2:42 PM - 2:54 PM

Abstract #035: AIM2 regulates anti-tumor immunity from dendritic cell vaccination within the melanoma microenvironment

K. Fukuda¹, R. Riding¹, A. Khvorova², K. Fitzgerald³, J. E. Harris¹

¹Dermatology, UMASS Medical School, Worcester, Massachusetts, United States, ²Molecular Medicine, UMASS Medical School, Worcester, Massachusetts, United States

States, ³Infectious Diseases and Immunology, UMASS Medical School, Worcester, Massachusetts, United States

2:54 PM - 3:06 PM

Abstract #043: Keratinocyte-mediated activation of TGFβ maintains skin-recirculating memory CD8+ T cells

T. Hirai¹, Y. Zenke^{1,2}, Y. Yang^{1,3,4}, L. Bartholin⁵, L. Beura⁶, D. Masopust⁶, D. H. Kaplan¹

¹Departments of Dermatology and Immunology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States, ²Department of Dermatology, St. Luke's International Hospital, Tokyo, Japan, ³Department of Dermatology, Xiangya Hospital, Central South University, Changsha, Hunan, China, ⁴The Third Xiangya Hospital, Central South University, Changsha, Hunan, China, ⁵Centre de Recherche en Cancérologie de Lyon, Lyon, France, ⁶Departments of Microbiology and Immunology, Center for Immunology, University of Minnesota, Minneapolis, Minnesota, United States

3:06 PM - 3:18 PM

Abstract #063: The DC-HIL/syndecan-4 (SD4) pathway regulates trafficking of effector T-lymphocytes from blood to skin

V. Ramani¹, J. Chung¹, M. Kobayashi¹, P. Cruz¹, K. Ariizumi²

¹UT Southwestern Medical Center, Dallas, Texas, United States, ²Dermatology, UT Southwestern Medical Center, Dallas, Texas, United States

3:18 PM - 3:30 PM

Abstract #087: Molecular and cellular mechanisms of tolerogenic signature induction in CD4+ T cells by apoptotic cells

A. Ho^{1,2,3}, S. Xiao^{2,3}, A. Madi^{2,3}, N. Chihara^{2,3}, A. Regev³, V. Kuchroo^{2,3}

¹Dermatology, Brigham and Women's Hospital, Boston, Massachusetts, United States, ²Evergrande Center for Immunologic Diseases, Brigham and Women's Hospital / Harvard Medical School, Boston, Massachusetts, United States, ³Broad Institute, Cambridge, Massachusetts, United States

3:30 PM - 3:42 PM

Abstract #010: IL-27 in macrophages mediates T cell survival and dermal cluster formation in allergic contact hypersensitivity

J. Suwanpradid¹, P. Hoang¹, J. Kwock¹, L. Floyd¹, J. Smith¹, R. Kedi², A. Atwater¹, S. Rajagopal¹, D. Corcoran¹, A. S. MacLeod¹

¹Duke University, Durham, North Carolina, United States, ²University of Colorado Denver, Aurora, Colorado, United States

3:42 PM - 3:54 PM

Abstract #012: Dynamics of alpha beta T cell accumulation in human fetal skin

M. O. Dhariwala¹, K. S. Vasquez^{2,1}, M. L. Pauli¹, M. Rosenblum¹, T. C. Scharschmidt¹

¹Dermatology, UCSF, San Francisco, California, United States, ²Stanford University, Palo Alto, California, United States

Concurrent Minisymposium 2

Genetic Disease, Gene Regulation, and Gene Therapy

Studies on cutaneous gene expression and genetic diseases including gene therapy

THURSDAY, MAY 9, 2019

1:30 PM - 4:00 PM

CONTINENTAL BALLROOM A

Presider(s): **Brian Capell, MD/PhD and Kavita Sarin, MD/PhD**

1:30 PM - 1:42 PM

Abstract #400: Transcription termination regulates keratinocyte proliferation and differentiation

X. Bao, X. Chen, S. Lloyd

Molecular Biosciences, Northwestern University, Evanston, Illinois, United States

1:42 PM - 1:54 PM

Abstract #397: Uncovering causative, noncoding genetic variants in cutaneous diseases

G. Wozniak, Y. Shen, A. Rubin, P. Neela, P. Khavari

Stanford University, Stanford, California, United States

1:54 PM - 2:06 PM

Abstract #365: Multivalent chromatin looping orchestrates cellular reprogramming for advanced gene therapy

K. Wang, D. Le

Dermatology, Stanford University, Stanford, California, United States

2:06 PM - 2:18 PM

Abstract #417: Combined RNA-based gene editing and reprogramming of iPSCs for the modeling and treatment of genetic diseases

P. S. McGrath^{1,2,3}, K. Butterfield^{1,2,3}, M. Pavlova^{1,2}, D. Roop^{1,2}, G. Bilousova^{1,2,3}, I. Kogut^{1,2,3}

¹Dermatology, University of Colorado AMC, Aurora, Colorado, United States, ²Charles C. Gates Center for Regenerative Medicine, University of Colorado AMC, Aurora, Colorado, United States, ³Stem Cell Biobank and Disease Modeling Core, University of Colorado AMC, Aurora, Colorado, United States

2:18 PM - 2:30 PM

Abstract #374: CRISPR/Cas9-base editing mediated correction for recessive dystrophic epidermolysis bullosa

M. Osborn¹, G. Newby², F. Knipping¹, D. Liu², J. Tolar¹

¹University of Minnesota, Minneapolis, Minnesota, United States, ²Broad Institute of MIT and Harvard and HHMI, Cambridge, Massachusetts, United States

2:30 PM - 2:42 PM

Abstract #363: NF1 heterozygosity fosters de novo tumorigenesis but impairs malignant transformation

J. Brosseau¹, C. Liao¹, Y. Wang¹, V. Ramani¹, T. Vandergriff¹, M. Lee¹, A. Patel¹, K. Ariizumi¹, L. Le^{1,2,3}

¹Dermatology, UT Southwestern Medical Center, Dallas, Texas, United States, ²Simmons Comprehensive Cancer Center, UT Southwestern Medical Center, Dallas, Texas, United States, ³Hamon Center for Regenerative Science and Medicine, UT Southwestern Medical Center, Dallas, Texas, United States

2:42 PM - 2:54 PM

Abstract #420: Investigating new molecular pathways in skin vascular formation and disease

R. Mylavarapu¹, M. Plehaty¹, N. Sobhani¹, W. Stevens¹, R. Flores¹, J. Finlon², N. Box¹, F. Kiefer³, B. Tamburini², T. Terzian¹

¹Dermatology, University of Colorado, Aurora, Colorado, United States, ²DOM division of Gastroenterology, University of Colorado, Aurora, Colorado, United States, ³European Institute for Molecular imaging, University of Münster, Münster, Germany

2:54 PM - 3:06 PM

Abstract #382: Searching for targets to combat fibrosis in RDEB patients

I. Fuentes, T. Webster, A. South

Dermatology, Thomas Jefferson University, Philadelphia, Pennsylvania, United States

3:06 PM - 3:18 PM

Abstract #412: Differential chromatin accessibility in skin-homing vs. non-skin homing CD4+ T cells

Z. Zhang¹, L. Tsoi¹, R. P. Nair¹, P. E. Stuart¹, X. Wen², J. T. Elder¹

¹Dermatology, Univ of Michigan, Ann Arbor, Michigan, United States, ²Biostatistics, Univ of Michigan, Ann Arbor, Michigan, United States

3:18 PM - 3:30 PM

Abstract #383: Preclinical safety and pharmacology of KB105, an HSV-based gene therapy vector for the treatment of autosomal recessive congenital ichthyosis (ARCI)

P. Zhang, A. Majumdar, C. Freedman, S. Yogesha, S. Ramasamy, S. Krishnan, P. Agarwal

Krystal Biotech, Inc, Pittsburgh, Pennsylvania, United States

3:30 PM - 3:42 PM

Abstract #405: Adenovirus-mediated ABCC6 gene therapy prevents ectopic mineralization in an Abcc6^{-/-} mouse model of pseudoxanthoma elasticum

J. Huang¹, A. Snook², J. D. Jacobs¹, J. Uitto¹, Q. Li¹

¹Dermatology and Cutaneous Biology, Thomas Jefferson University, Philadelphia, Pennsylvania, United States, ²Pharmacology and Experimental Therapeutics, Thomas Jefferson University, Philadelphia, Pennsylvania, United States

3:42 PM - 3:54 PM

Abstract #373: Comparative analysis of acne and rosacea transcriptomes identifies compounds that target distinct disease-specific signatures of pathogenic inflammation and lipid biosynthesis

R. Stone, M. Tomic-Canic, J. Keri

Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, Florida, United States

Concurrent Minisymposium 3

Growth Factors, Cell Adhesion, and Matrix Biology

Studies on growth factors and the interactions of cells with their local cellular and extracellular environment that affect signaling, adhesion, migration and development

THURSDAY, MAY 9, 2019

1:30 PM - 4:00 PM

CONTINENTAL BALLROOM C

Presider(s): **Peter Koch, PhD and Cory Simpson, MD/PhD**

1:30 PM - 1:42 PM

Abstract #422: Functional analysis of Collagen Type VII without exon 80 to evaluate the potential of antisense oligonucleotide therapy for RDEB

I. Haisma¹, O. Bornert², M. Schuijt¹, T. Ritsema¹, A. Nyström²

¹ProQR Therapeutics, Leiden, Netherlands, ²Department of Molecular Dermatology, University of Freiburg, Freiburg, Germany

1:42 PM - 1:54 PM

Abstract #438: Pharmacological inhibition of leptin delays anagen in the murine hair cycle

E. Y. Lee¹, A. Christiano²

¹Columbia University Vagelos College of Physicians and Surgeons, New York, New York, United States, ²Dermatology, Columbia University, New York, New York, United States

1:54 PM - 2:06 PM

Abstract #427: Blockade of autophagy accelerates the development of alopecia areata

R. Gund¹, S. O. Erjavec², A. Christiano¹

¹Dermatology, Columbia University, New York, New York, United States, ²Genetics & Development, Columbia University, New York, New York, United States

2:06 PM - 2:18 PM

Abstract #429: mTORC1 feedback to AKT modulates MiT/TFE-driven lysosomal biogenesis and EGFR degradation

K. Asrani¹, A. Sood¹, S. Murali¹, C. Na¹, H. Kaur¹, Z. Khan¹, B. Lam¹, P. Phatak², M. Noë¹, R. K. Anchoori¹, C. C. Talbot Jr.¹, B. Smith¹, M. Skaro¹, T. Lotan¹

¹Johns Hopkins Medicine, Baltimore, Maryland, United States, ²University of Maryland Baltimore, Baltimore, Maryland, United States

2:18 PM - 2:30 PM

Abstract #436: The role of the endosomal trafficking complex, the retromer, in regulating desmoglein-1 localization

M. Hegazy¹, O. Nekrasova¹, J. Koetsier¹, J. A. Broussard^{1, 2}, L. Godsel^{1, 2}, K. Green^{1, 2}

¹Department of Pathology, Northwestern University, Chicago, Illinois, United States, ²Department of Dermatology, Northwestern University, Chicago, Illinois, United States

2:30 PM - 2:42 PM

Abstract #440: Planar cell polarity-disrupting mutation alters Celsr1-mediated cell adhesion and dynamics

S. N. Stahley, D. Devenport

Princeton, Princeton, New Jersey, United States

2:42 PM - 2:54 PM

Abstract #437: Development and characterization of biomimetic dermal matrices to study the impact of aging on human fibroblast function

M. Cole, G. J. Fisher, J. Voorhees

Department of Dermatology, University of Michigan Medical School, Ann Arbor, Michigan, United States

2:54 PM - 3:06 PM

Abstract #439: Mechanism for loss of intradermal fat accompanying skin fibrosis

A. R. Jussila¹, M. Steele¹, G. DiNuoscio¹, E. Hamburg¹, J. Yoon¹, R. Atit^{1, 2, 3}

¹Biology, Case Western Reserve University, Cleveland, Ohio, United States, ²Genetics, Case Western Reserve University, Cleveland, Ohio, United States, ³Dermatology, Case Western Reserve University, Cleveland, Ohio, United States

3:06 PM - 3:18 PM

Abstract #428: Itraconazole inhibits the PDGF-D/PI3K/Akt/mTOR pathway in vitro and down-regulates serum PDGF-A of infantile hemangioma via oral administration

Y. Ran¹, X. Xu¹, K. Zhuang¹, S. Chen^{1, 3, 2}, X. Ran¹, P. Sushmita¹, B. Zheng³

¹Dermatovenereology, West China Hospital, Sichuan University, Chengdu, Sichuan, China, ²Dermatology, The First Affiliated Hospital of Chongqing Medical University, Chongqing, China, ³Dermatovenereology, Massachusetts General Hospital and Harvard Medical School, Cutaneous Biology Research Center, Boston, Massachusetts, United States

3:18 PM - 3:30 PM

Abstract #435: Epigenetic activation of a novel TGFβ2 enhancer sustains dermal fibrosis in systemic sclerosis

J. Y. Shin, J. Beckett, H. C. Dietz

Johns Hopkins University School of Medicine, Baltimore, Maryland, United States

Concurrent Minisymposium 4**Interventional Studies, Clinical and Patient Reported Outcomes**

Studies involving interventional trials, clinical outcomes and patient reported outcomes research

THURSDAY, MAY 9, 2019

1:30 PM - 4:00 PM

INTERNATIONAL BALLROOM SOUTH

Presider(s): **Joseph Merola, MD and Elizabeth Wallace, MD****1:30 PM - 1:42 PM****Abstract #544: Alopecia areata lesions show significant changes in immune and keratin biomarkers that correlate with clinical improvement with oral Janus kinase inhibitors PF-06651600 (JAK3) and PF-06700841 (TYK2/JAK1)****E. Guttman-Yassky¹, A. B. Pavel¹, K. Page², A. Diaz¹, A. Banerjee², B. King³, W. Zhang², L. Zhu², C. Banfield², L. A. Cox², M. Vincent², M. Dowty², E. Peeva²**¹Icahn School of Medicine, New York, New York, United States, ²Pfizer, Cambridge, Massachusetts, United States, ³Yale University School of Medicine, New Haven, Connecticut, United States**1:42 PM - 1:54 PM****Abstract #534: Effects on CD3, Treg and TH17 cell numbers in skin biopsies after 16-week mirikizumab treatment, evaluated by an epigenetic assay****R. Bissonnette², J. Schmitz¹, D. Patel¹, R. E. Higgs¹, H. H. Sonnergren¹, K. H. Liu¹, K. Reich³**¹Eli Lilly and Company, Indianapolis, Indiana, United States, ²Innovaderm Research, Montreal, Quebec, Canada, ³University Clinic Hamburg-Eppendorf, Hamburg, Germany**1:54 PM - 2:06 PM****Abstract #560: KPL-716, anti-Oncostatin M receptor beta antibody, reduced pruritus in atopic dermatitis****Z. Mikhak¹, R. Bissonnette², D. Siri³, S. K. Tying⁴, E. Tessari¹, R. Gandhi¹, F. Fang¹, J. F. Paolini¹**¹Kiniksa, Lexington, Massachusetts, United States, ²Innovaderm, Montreal, Quebec, Canada, ³SWIA Research Center, Normal, Illinois, United States, ⁴University of Texas Health Science Center - Center for Clinical Studies, Houston, Texas, United States**2:06 PM - 2:18 PM****Abstract #586: Topical nitric oxide releasing therapy with 2% SB414 cream downregulated major gene expressions in patients with atopic dermatitis****E. Guttman-Yassky², A. B. Pavel², T. Durham¹, T. Maeda-Chubachi¹**¹Novan, Inc, Morrisville, North Carolina, United States, ²Icahn School of Medicine at Mount Sinai Medical Center, New York, New York, United States**2:18 PM - 2:30 PM****Abstract #562: Mini-punch grafting for the treatment of refractory and stable vitiligo****T. Zhao, Z. Ye, T. Gao, S. Li, C. Li**

Xijing Hospital, Fourth Military Medical University, Xian, China

2:30 PM - 2:42 PM**Abstract #556: Evaluating important change and clearance of disease activity as clinical efficacy measures for clinical trials in dermatomyositis****S. Ahmed^{1,2}, S. Chakka^{1,2}, R. Krain^{1,2}, R. Feng², V. P. Werth^{1,2}**¹CMCVAMC, Philadelphia, Pennsylvania, United States, ²University of Pennsylvania, Philadelphia, Pennsylvania, United States**2:42 PM - 2:54 PM****Abstract #564: Temporal outcomes and factors predictive of remission and relapse after rituximab therapy of pemphigus vulgaris (PV)****N. Tovanabutra^{1,2}, C. Kushner¹, A. Payne¹**¹University of Pennsylvania, Philadelphia, Pennsylvania, United States, ²Chiang Mai University, Chiang Mai, Thailand**2:54 PM - 3:06 PM****Abstract #533: Pembrolizumab with or without vismodegib for advanced basal cell carcinoma: An investigator-initiated, proof-of-concept study****A. Chang¹, D. C. Tran¹, J. Cannon¹, S. Li¹, M. Jeng¹, K. Rieger¹, K. Y. Sarin¹, K. Yost¹, A. Satpathy³, S. Reddy², A. Colevas²**¹Dermatology, Stanford University School of Medicine, Redwood City, California, United States, ²Medicine - Oncology, Stanford University School of Medicine, Stanford, California, United States, ³Pathology, Stanford University School of Medicine, Stanford, California, United States**3:06 PM - 3:18 PM****Abstract #590: Detecting Merkel cell carcinoma recurrence using a blood test: Outcomes from 774 patients****K. Lachance³, T. Akaike³, K. Cahill³, L. Zawacki³, N. Singh³, C. Doolittle-Amieva^{3,4}, S. Park³, C. Morishima¹, K. W. Hutchinson¹, J. J. Cater⁵, D. A. Galloway⁵, K. Paulson^{2,4}, P. T. Nghiem^{3,4}**¹Laboratory Medicine, UW, Seattle, Washington, United States, ²Medical Oncology, UW, Seattle, Washington, United States, ³Dermatology, UW, Seattle, Washington, United States, ⁴SCCA, Seattle, Washington, United States, ⁵Human Biology, FHCR, Seattle, Washington, United States**3:18 PM - 3:30 PM****Abstract #570: Safety and efficacy of bertilimumab, a human anti-eotaxin-1 monoclonal antibody, in bullous pemphigoid in a phase 2a study****A. S. Fiorino¹, S. Baum², A. Czernik³, R. Hall⁴, T. Zeeli⁵, A. Baniel⁵, A. A. Sinha⁶, K. Seiffert-Sinha⁶, B. Kolatch¹, Z. Zhang¹, E. Sprecher⁵**¹Immune Pharmaceuticals, Inc., Fort Lee, New Jersey, United States, ²Tel Aviv University, Tel Aviv, Israel, ³Mount Sinai School of Medicine, New York, New York, United States, ⁴Duke University Medical Center, Durham, North Carolina, United States, ⁵Tel Aviv Medical Center, Tel Aviv, Israel, ⁶University of Buffalo, Buffalo, New York, United States**3:30 PM - 3:42 PM****Abstract #587: Evaluating meaningful change in disease activity as a clinical efficacy measure for clinical trials in cutaneous lupus erythematosus****S. Chakka^{1,2}, R. Krain^{1,2}, S. Ahmed^{1,2}, R. Feng², V. P. Werth^{1,2}**¹CMCVAMC, Philadelphia, Pennsylvania, United States, ²University of Pennsylvania, Philadelphia, Pennsylvania, United States**3:42 PM - 3:54 PM****Abstract #610: Safety and efficacy of lenabasum in refractory skin-predominant dermatomyositis subjects treated on an open-label extension of trial JBT101-DM-001****V. P. Werth^{1,2}, D. Pearson^{1,2}, J. Okawa^{1,2}, R. Feng¹, J. Concha^{1,2}, B. Patel^{1,2}, E. Hejazi^{1,2}, C. Cornwall³, S. Constantine³, B. White³**¹UPenn, Philadelphia, Pennsylvania, United States, ²CMCVAMC, Philadelphia, Pennsylvania, United States, ³Corbus Pharmaceuticals, Norwood, Massachusetts, United States

Concurrent Minisymposium 5

Photobiology

Studies on biological, biochemical, and molecular responses to ultraviolet radiation in cells, animals and humans

THURSDAY, MAY 9, 2019

1:30 PM - 4:00 PM

CONTINENTAL BALLROOM B

Presider(s): **Amanda MacLeod, MD and Taihao Quan, MD/PhD**

1:30 PM - 1:42 PM

Abstract #766: NRF2-mediated inhibition of UVB-induced hyperpigmentation by topical sulforaphane is dependent on upregulation of IL6R α expression on keratinocytes

M. L. Kerns, R. Miller, N. Archer, A. S. Byrd, M. Mazhar, L. Miller, A. L. Chien, S. Kang

Department of Dermatology, Johns Hopkins University School of Medicine, Baltimore, Maryland, United States

1:42 PM - 1:54 PM

Abstract #731: Circular RNA expression profile in human fibroblast premature senescence after repeated UVB irradiations revealed by microarray

D. Luo¹, Z. C. Si¹, B. Zhou²

¹Dermatology, The First Affiliated Hospital of Nanjing Medical University, Nanjing, Jiangsu, China, ²Nanjing Medical University, Nanjing, China, ³Dermatology, Nanfang Medical University, Guangdong, China

1:54 PM - 2:06 PM

Abstract #751: A comparative analysis of skin aging-associated secreted proteins (SAASP) produced by dermal fibroblasts from intrinsically versus extrinsically aged human skin

S. Schneider, J. Tigges, M. Knechten, A. Marini, J. Krutmann

IUF, Düsseldorf, Germany

2:06 PM - 2:18 PM

Abstract #768: Type I interferons modulate ultraviolet radiation induced suppression of immune responses via Stimulator of Interferon Genes (STING)

M. Sherwani¹, K. Yang¹, C. Raman², C. Elmets^{1,3}, N. Yusuf⁴

¹Dermatology, UAB, Birmingham, Alabama, United States, ²Clinical Immunology and Rheumatology, UAB, Birmingham, Alabama, United States, ³Birmingham VA Medical Center, Birmingham, Alabama, United States, ⁴Dermatology, UAB, Birmingham, Alabama, United States

2:18 PM - 2:30 PM

Abstract #771: Increased PD-L1 expression in human skin acutely and chronically exposed to UV irradiation

S. Dickinson^{4,3}, M. Krutzsch⁴, M. Yozwiak⁴, K. Saboda⁴, E. Petricoin¹, V. Calvert¹, C. Curiel-Lewandrowski^{4,2}

¹George Mason Univ., Manassas, Virginia, United States, ²U of AZ Dept. of Medicine, Tucson, Arizona, United States, ³Pharmacology, Univ. of Arizona, Tucson, Arizona, United States, ⁴Univ. of Arizona Cancer Center, Tucson, Arizona, United States

2:30 PM - 2:42 PM

Abstract #748: Duplex sequencing reveals the effects of caffeine on reducing UV-induced mutations of cancer-relevant genes

D. Rokunohe¹, K. Ratnakumar¹, B. F. Kohn², K. Loubet-Seneard², J. Shen², L. A. Loeb², P. Nghiem¹, M. Kawasumi¹

¹Dermatology, University of Washington, Seattle, Washington, United States, ²Pathology, University of Washington, Seattle, Washington, United States

2:42 PM - 2:54 PM

Abstract #750: Ultraviolet irradiation modulates appetite and energy homeostasis in mice by hormonal regulation

E. Kim^{1,2,3}, Y. Kim^{1,2,3}, S. Kim^{1,2,3}, Q. Quan^{1,2,3}, Y. Tian^{1,2,3}, C. Shin^{1,2,3}, D. Lee^{1,2,3}, J. Chung^{1,2,3}

¹Department of Dermatology, Seoul National University College of Medicine, Seoul, Korea (the Republic of), ²Laboratory of Cutaneous Aging Research, Biomedical Research Institute, Seoul National University Hospital, Seoul, Korea (the Republic of), ³Institute of Human-Environment Interface Biology, Seoul National University, Seoul, Korea (the Republic of)

2:54 PM - 3:06 PM

Abstract #772: Age-associated alterations in pro-inflammatory cytokine signaling as well as UV-induced DNA damage contribute to increased basal cell carcinoma (BCC) tumor burden in Ptch1+/-SKH-1 mice

A. L. Kim, D. Owens, Y. Zhu, D. R. Bickers

Dermatology, Columbia University Irving Medical Center, New York, New York, United States

3:06 PM - 3:18 PM

Abstract #728: LL-37 promotes endothelial photo-sensitivity and adhesion molecule expression in Rosacea

N. N. Kulkarni, T. Takahashi, L. Tong, J. Y. Cheng, R. L. Gallo

Dermatology, UC San Diego, San Diego, California, United States

3:18 PM - 3:30 PM

Abstract #741: UV-induced CD39 expression on immunosuppressive memory T cells in human cutaneous squamous cell carcinoma

M. J. Whitley¹, C. Lai², J. Suwanpradid¹, R. R. Rudolph³, D. Zelac³, W. Havran⁴, J. Cook¹, D. Erdmann⁵, H. Levinson³, E. P. Healy², A. S. MacLeod¹

¹Dermatology, Duke University, Durham, North Carolina, United States, ²Dermatopharmacology, University of Southampton, Southampton, United Kingdom, ³Plastic Surgery, Scripps Clinic, La Jolla, California, United States, ⁴Immunology and Microbiology, The Scripps Research Institute, La Jolla, California, United States, ⁵Plastic Surgery, Duke University, Durham, North Carolina, United States

3:30 PM - 3:42 PM

Abstract #753: The UVB-induced tryptophan photoproduct 6-formylindolo[3,2-]carbazole (FICZ) activates aryl hydrocarbon receptor (AHR) signaling in keratinocytes to prevent UVA-induced apoptosis

K. M. Rolfes¹, M. Nakamura², J. Krutmann¹, T. Haarmann-Stemmann¹

¹IUF - Leibniz Research Institute for Environmental Medicine, Düsseldorf, Germany, ²Department of Geriatric and Environmental Dermatology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Aichi, Japan

3:42 PM - 3:54 PM

Abstract #759: Protection of geriatric skin from abnormal procarcinogenic UVB responses by dermal wounding strategies which upregulate IGF-1 levels

J. B. Travers^{1,2}, M. G. Kemp¹, D. F. Spandau³

¹Pharmacology, Wright State University, Dayton, Ohio, United States, ²Dermatology, Dayton VA Medical Center, Dayton, Ohio, United States, ³Dermatology, Indiana University, Indianapolis, Indiana, United States

Concurrent Minisymposium 6

Interdisciplinary Spotlight: Disease Models

Studies involving model systems of skin disease including organotypic, innovative murine models, xenograft studies, 3-dimensional tissue culture approaches and 'omics approaches for predicting biomarkers of disease

THURSDAY, MAY 9, 2019

1:30 PM - 4:00 PM

WALDORF ROOM

Presider(s): **Robert Dorschner, MD** and
Bethany Perez-White, PhD

1:30 PM - 1:42 PM

Abstract #052: Regulatory T cell-mediated, OX40-dependent peripheral tolerance to autoantigen, desmoglein 3

H. Iriki¹, H. Takahashi¹, N. Wada¹, S. Hori², M. Amagai^{1,3}

¹Dermatology, Keio University School of Medicine, Tokyo, Japan, ²Graduate School of Pharmaceutical Sciences, University of Tokyo, Tokyo, Japan, ³Laboratory for Skin Homeostasis, RIKEN IMS, Yokohama, Japan

1:42 PM - 1:54 PM

Abstract #391: Validating causative mutations in patients with Ehlers-Danlos Syndrome using a novel xenograft model
N. Diette, A. Frieman, A. Rozhok, D. Roop, I. Kogut, G. Bilousova

Gates Center for Regenerative Medicine, University of Colorado, Aurora, Colorado, United States

1:54 PM - 2:06 PM

Abstract #450: The skin microbiome promotes the pathogenesis of Netherton syndrome

M. R. Williams¹, Y. Wang², D. Kaul³, C. Dupont³, A. Hovnanian², R. L. Gallo¹

¹Dermatology, University of California San Diego, La Jolla, California, United States, ²Department of Genetics, Imagine Institute, Paris, France, ³J. Craig Venter Institute, La Jolla, California, United States

2:06 PM - 2:18 PM

Abstract #361: Ephrin-A1 ligand strengthens tight junction function and prevents Th2 cytokine-induced barrier collapse
B. E. Perez White

Northwestern U., Chicago, Illinois, United States

2:18 PM - 2:30 PM

Abstract #492: Identification of skin-resident Treg cells in allergen-specific immunotherapy mouse model

Z. Sun¹, K. Zhang¹, H. Chu¹, T. Kim¹, K. Lee¹, T. Kupper², C. Park¹

¹Department of Dermatology, Yonsei University College of Medicine, Seoul, Korea (the Republic of), ²Department of Dermatology, Brigham and Women's Hospital, Boston, Massachusetts, United States

2:30 PM - 2:42 PM

Abstract #992: A new innovative approach combining comparative transcriptomics from three unique psoriasis models to identify predictive PsA biomarkers

W. R. Swindell^{1,2}, J. Gudjonsson², N. L. Ward³

¹Ohio University, Athens, Ohio, United States, ²University of Michigan, Ann Arbor, Michigan, United States, ³Case Western Reserve University, Cleveland, Ohio, United States

2:42 PM - 2:54 PM

Abstract #369: Permanent alteration of Abcc6 with in vivo CRISPR-Cas9 genome editing

D. Zhi, E. Dang, G. Wang

Department of Dermatology, Xijing Hospital, Fourth Military Medical University, Xi'an, Shaanxi, China

2:54 PM - 3:06 PM

Abstract #908: Bioengineering a novel in vitro model to study ageing in human skin

L. F. Costello¹, N. Fullard¹, M. Roger¹, B. Hulette², D. S. Hill³, C. Bascom², T. Dicolandrea², R. Isfort², P. Lovat³, S. Przyborski^{1,4}

¹Department of Biosciences, Durham University, Durham, United Kingdom, ²Mason Business Centre, Procter and Gamble, Cincinnati, Ohio, United States, ³Institute of Cellular Medicine, Newcastle University, Newcastle upon Tyne, United Kingdom, ⁴Reprocell Europe, Sedgefield, United Kingdom

3:06 PM - 3:18 PM

Abstract #927: The path from skin to fat: Is adipocyte differentiation the default lineage for embryonic dermal cells?

A. C. Gilmore¹, J. D. Glover², D. J. Headon², C. A. Jahoda¹

¹Department of Biosciences, Durham University, Durham, United Kingdom, ²The Roslin Institute, University of Edinburgh, Edinburgh, United Kingdom

3:18 PM - 3:30 PM

Abstract #1014: Anti-CD47 immunotherapy is mediated by cytotoxic NK cells and can be potentiated by IFN- α in the murine model of cutaneous lymphoma

O. Kruglov, O. E. Akilov

Dermatology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States

3:30 PM - 3:42 PM

Abstract #161: Harnessing Sleeping Beauty transposon mutagenesis to model tumor heterogeneity in melanoma preclinical models

A. M. Contreras-Sandoval¹, M. B. Mann^{1,2}

¹Molecular Oncology, H. Lee Moffitt Cancer Center and Research Institute, Tampa, Florida, United States, ²Cutaneous Oncology, H. Lee Moffitt Cancer Center and Research Institute, Tampa, Florida, United States

STATE-OF-THE-ART PLENARY LECTURES

In Recognition of Dr. Stephen I. Katz

LECTURE I

Large-Scale Regeneration in the Skin

THURSDAY, MAY 9, 2019

4:15 PM – 4:45 PM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Alexander Enk, MD**



Maksim Plikus, PhD

University of California, Irvine
Irvine, CA

Maksim Plikus, PhD has been selected to deliver the State-of-the-Art Plenary Lecture I at the 2019 SID Annual Meeting, on Thursday, May 9, 2019. Dr. Plikus completed his PhD in Pathology in 2007 at the University of Southern California, before joining laboratory of Dr. George Cotsarelis at the University of Pennsylvania for post-doctoral training. He joined the University of California Irvine (UCI) in 2012, where he is now an Associate Professor in the Department of Developmental and Cell Biology. During his Ph.D. studies, Dr. Plikus showed that regeneration in a population of hair follicles is coordinated by a large-scale signaling mechanism, with skin adipocyte- and hair follicle-derived inhibitory and activating signals at its core. Works on this topic helped to recognize pattern formation as a generic mechanism for integrating activities of multiple stem cells in large organs, such as skin. During his post-doctoral training, he studied the mechanism of adipocyte regeneration in adult skin wounds. These studies showed that myofibroblasts are the principal progenitors for newly regenerating adipocytes and that hair follicle-derived signals drive the myofibroblast-to-adipocyte reProgramming. His lab at UCI continues to study several aspects of skin regeneration during homeostasis and after wounding, with primary focus on hair follicle and adipocyte biology. The SID looks forward to having Dr. Plikus as a part of the 2019 SID Annual Meeting

LECTURE II

Immune Regulation of Skin Inflammation and Itch

THURSDAY, MAY 9, 2019

4:45 PM – 5:15 PM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Alice Pentland, MD**



Brian Kim, MD/MTR

Washington University in St. Louis
St. Louis, MO

Dr. Brian Kim is Assistant Professor of Dermatology, Anesthesiology, Pathology and Immunology, and Co-Director of the Center for the Study of Itch at Washington University School of Medicine in St. Louis. His laboratory focuses on innate immune mechanisms that underlie skin inflammation and the sensation of itch. Specifically, the Kim Lab identified previously unrecognized contributions of group 2 innate lymphoid cells (ILC2s) and basophils to the pathogenesis of atopic dermatitis (AD) in both mice and humans. These cells have emerged as critical sources of the type 2 cytokines IL-4, IL-5, and IL-13, which are now among the most important targets for biologic therapy in AD and other allergic disorders. More recently, the Kim Lab was the first to identify functionality of IL-4 receptor alpha (IL-4Ra) and Janus kinases (JAKs) in sensory neurons as master regulators of chronic itch in AD and other disorders. These studies have immediate clinical implications as type 2 cytokine and JAK blockade have emerged as some of the most efficacious therapeutics in AD. His research on the immune regulation of AD and itch has led to awards and funding from the National Institutes of Health, Doris Duke Charitable Foundation, American Skin Association, American Academy of Dermatology, and the American Society for Clinical Investigation.



LEO FOUNDATION

OPEN TO ALL MEETING ATTENDEES

LEO Foundation Award – 100,000 USD Region Americas

THURSDAY, MAY 9, 2019

5:15 PM – 5:30 PM

INTERNATIONAL BALLROOM NORTH

The LEO Foundation presents the 2019 LEO Foundation Award of 100,000 USD to a young researcher from Region Americas whose work represent extraordinary contributions to medical research. Thursday, May 9, Chief Grant Officer Ida Brams will announce the Awardee at the event, and the Awardee will give a short talk about his or her research – and its future perspectives. The other two awards will be presented later this year – for Region EMEA at the ESDR meeting in September in Bordeaux – France, and for Region Asia-Pacific at the JSID meeting in November in Aomori – Japan.



Region	Americas	EMEA	Asia-Pacific
Application deadline	Passed	31 May 2019	9 August 2019

A global review panel has been appointed with the kind support from the investigative dermatology societies across the three regions:

Cheng-Che Eric Lan (Taiwan/TSID)	Manabu Fujimoto (Japan/JSID)	Robert Swerlick (US/SID)
Edel O'Toole (UK/ESDR)	Nicole Ward (US/SID)	Sabine Eming (Germany/ESDR)
Eli Sprecher (Israel/ESDR)	Richard Gallo (US/SID)	Soyun Cho (Korea/KSID)

ABOUT THE LEO FOUNDATION

The LEO Foundation provides philanthropic grants and awards to some of the world's leading scientists within skin research, combating the impact of skin diseases. Our mission is to support the best international research in skin diseases and make Denmark a global beacon for skin research.

The LEO Foundation is one of Denmark's largest commercial foundations. Established in 1984, its main objective is to ensure the long-term independence and success of the global, research-based pharmaceutical company LEO Pharma. The LEO Foundation is the sole shareholder of LEO Pharma and is independent from heirs, outside shareholders, and other interests.

In addition to the ownership of LEO Pharma, the LEO Foundation owns financial assets of around 18 billion DKK. The main objectives of the investments are to provide capability to support LEO Pharma's long-term continuation and strategic development, as well as provide funds for the Foundation's philanthropic activities.

The LEO Foundation also provides open competition grants to support the best dermatology research projects worldwide. Read more about the LEO Foundation grants and awards here:





The International immunosuppression & Transplant Skin Cancer Collaborative (ITSCC) 4th Annual Transplant Symposium

THURSDAY, MAY 9, 2019

5:30 PM - 6:30 PM

CONTINENTAL BALLROOM C

5:30 PM

Welcome**John Carucci**

5:40 PM

Abstract #135

Defining the T cell landscape and neoantigens via T-cell receptor sequencing and gene expression profiling in cutaneous squamous cell carcinoma

N.A. Doudican, A. Santana, J. Carucci, D. Felsen, A. Khodadadi-Jamayran, A. Tsirigos

5:52 PM

Abstract #253

Incidence of multiple primary keratinocyte carcinomas in organ transplant patients

M.R. Wehner, D. Margolis, T.M. Shin, L. Wheless, L. Wang

6:04 PM

Abstract #532

Switching from calcineurin inhibitors to belatacept decreases keratinocyte carcinomas incidence rate in kidney transplant recipients

M. Wang, A. Mittal, O.R. Colegio

6:16 PM

Abstract #672

Pramlintide produces immunomodulatory effects on myeloid-derived suppressor cells and T-cells in squamous cell carcinoma in-vivo

L. Tordesillas, B. Sell, K. Nguyen, E. Flores, K.Y. Tsai

6:28 PM

Closing Remarks**John Carucci**

The International immunosuppression & Transplant Skin Cancer Collaborative (ITSCC) is an organization comprised of dermatologic surgeons, dermatologists, clinicians and researchers from multiple disciplines dedicated to advancing the care and understanding of skin cancer in organ transplant recipients.

To learn more, visit: www.itsc.org.



American Dermato-Epidemiology Network (ADEN) Symposium

THURSDAY, MAY 9, 2019

5:30 PM - 6:30 PM

BOULEVARD B

AGENDA

5:30 PM

Welcome and introductions

5:35 PM

Founder's Award

5:40 PM

Trainee Award

5:45 PM

TED-Style talks with interactive question and answer session

5:45 PM

Association of particulate matter air pollution and itch: a digital epidemiology approach

Shawn Kwatra

5:55 PM

Comorbidity clusters in hidradenitis suppurativa in a large commercially insured population in the US

Vivian Hua

6:05 PM

Characterizing Amelanotic melanoma and factors associated with survival-

Ryan Carlisle

6:15 PM

ADEN Business meeting

6:25 PM

Social



National Psoriasis Foundation

THURSDAY, MAY 9, 2019

5:30 PM - 6:30 PM

ASTORIA ROOM

RECEPTION AT SID



HILTON CHICAGO, ASTORIA ROOM

THURSDAY, MAY 9, 2019

5:30 - 6:30 PM

JOIN US FOR AN EXCITING EVENT TO NETWORK
AND LEARN ABOUT NPF'S RESEARCH, GRANTS
AND FELLOWSHIPS, PATIENT ENGAGEMENT AND
MEMBERSHIP OPPORTUNITIES.

HOSTED BAR AND LIGHT HORS D'OEUVRES
WILL BE PROVIDED.

QUESTIONS? EMAIL THE NPF AT
RESEARCH@PSORIASIS.ORG

Friday Sessions

PAGE	TITLE
71	Meeting-At-A-Glance
72	WDS, Networking Breakfast & Panel Discussion
73	Pediatric Dermatology at the Society for Investigative Dermatology Meeting
74	Research in Cutaneous Surgery
75	Irvin H. Blank Forum II
76	American Skin Association (ASA) Awards
77	Business Meeting for Members
78	Stephen Rothman Memorial Award
79	Plenary Session II
80-84	Selected ePoster Discussions II <ul style="list-style-type: none">• Carcinogenesis and Cancer Genetics• Epidemiology• Epidermal Structure and Barrier Function• Neuro-Cutaneous Biology and Inflammation• Pharmacology and Drug Development
85	AbbVie Sponsored Symposium
86-90	Selected ePoster Discussions III <ul style="list-style-type: none">• Innate Immunity, Microbiology, Microbiome• Pigmentation and Melanoma• Skin, Appendages, and Stem Cell Biology• Tissue Regeneration and Wound Healing• Translational Studies
91	Herman Beerman Lecture
92	Eugene M. Farber Lecture
93	Concurrent Minisymposium 7: Carcinogenesis and Cancer Genetics
94	Concurrent Minisymposium 8: Epidemiology
95	Concurrent Minisymposium 9: Epidermal Structure and Barrier Function
96	Concurrent Minisymposium 10: Neuro-Cutaneous Biology and Inflammation
97	Concurrent Minisymposium 11: Pharmacology and Drug Development
98	Concurrent Minisymposium 12: Skin of Color
99	State-Of-The-Art Plenary Lectures in Recognition of Dr. Stephen I. Katz
100	Progress in Epidermolysis Bullosa debra Symposium
101	American Hair Research Society Scientific Meeting and Annual General Meeting
102	SATO Scientific Forum at SID 2019



Things To Do In Chicago



Meeting-At-A-Glance

FRIDAY, MAY 10, 2019

7:00 AM – 7:00 PM

On-Site Registration
8TH ST. S. REGISTRATION AREA

7:30 AM – 8:30 AM

Irvin H. Blank Forum II: Modern Genetic Analysis Applied to Cutaneous Cancer
INTERNATIONAL BALLROOM NORTH

8:45 AM – 9:00 AM

American Skin Association (ASA) Awards
INTERNATIONAL BALLROOM NORTH

9:00 AM – 9:30 AM

Business Meeting for Members
INTERNATIONAL BALLROOM NORTH

9:30 AM – 9:45 AM

Stephen Rothman Memorial Award
RICHARD EDELSON, MD
INTERNATIONAL BALLROOM NORTH



9:45 AM – 10:45 AM

Plenary Session II
INTERNATIONAL BALLROOM NORTH

10:45 AM – 11:45 AM

Selected ePoster Discussions II
SEE PAGE 80-84 FOR ROOM LISTINGS

11:15 AM – 1:15 PM

Poster Session II/Coffee Break
STEVENS SALONS B/C/D
SEE PAGE 13 FOR POSTER NUMBER LISTINGS

11:45 AM – 1:15 PM

AbbVie Sponsored Symposium Hidradenitis Suppurativa: Translating Mechanisms and Basic Science into Improved Therapies
INTERNATIONAL BALLROOM NORTH

11:45 AM – 12:45 PM

Selected ePoster Discussions III
SEE PAGES 86-90 FOR ROOM LISTINGS

1:30 PM – 2:00 PM

Herman Beerman Lecture: *Understanding People*
ALEX PENTLAND, PHD
INTERNATIONAL BALLROOM NORTH



2:00 PM – 2:30 PM

Eugene M. Farber Lecture: *Towards Precision Therapeutics: A Systems Approach to Understanding Psoriasis Plaque Resolution and Endotype Analysis*
NICK REYNOLDS, MD
INTERNATIONAL BALLROOM NORTH



2:45 PM – 5:15 PM

Concurrent Minisymposium 7: Carcinogenesis and Cancer Genetics
CONTINENTAL BALLROOM A

2:45 PM – 5:15 PM

Concurrent Minisymposium 8: Epidemiology
INTERNATIONAL BALLROOM NORTH

2:45 PM – 5:15 PM

Concurrent Minisymposium 9: Epidermal Structure and Barrier Function
INTERNATIONAL BALLROOM SOUTH

2:45 PM – 5:15 PM

Concurrent Minisymposium 10: Neuro-Cutaneous Biology and Inflammation
CONTINENTAL BALLROOM C

2:45 PM – 5:15 PM

Concurrent Minisymposium 11: Pharmacology and Drug Development
CONTINENTAL BALLROOM B

2:45 PM – 5:15 PM

Concurrent Minisymposium 12: Skin of Color
WALDORF ROOM

5:45 PM – 6:15 PM

State-of-the-Art Plenary Lecture III: *Skin Microbiome: Opposing Roles in Barrier Function, Inflammation and Repair*
ELIZABETH GRICE, PHD
INTERNATIONAL BALLROOM NORTH



6:15 PM – 6:45 PM

State-of-the-Art Plenary Lecture IV: *Mining Nature's Chemistry: Ethnobotany and Drug Discovery for Dermatologic Applications*
CASSANDRA QUAVE, PHD
INTERNATIONAL BALLROOM NORTH



7:00 PM – 9:00 PM

Young Investigator Collegiality Reception: *Ticketed Event*
PRE-REGISTRATION REQUIRED
JOLIET & MARQUETTE

ASSOCIATE GROUP PROGRAMMING IS TAKING PLACE TODAY.
SEE PAGE 6 FOR DAILY SCHEDULE.



OPEN TO ALL MEETING ATTENDEES

WDS, Networking Breakfast & Panel Discussion

FRIDAY MAY 10, 2019

7:00 AM - 8:30 AM

CONTINENTAL BALLROOM A

7:00 AM - 7:30 AM

Breakfast & Networking

7:30 AM - 8:00 AM

Panel Discussion

8:00 AM - 8:30 AM

Q&A



Pediatric Dermatology at the Society for Investigative Dermatology Meeting

FRIDAY, MAY 10, 2019

7:00 AM – 8:30 AM

CONTINENTAL BALLROOM B

7:00 AM

Welcome

Amy Paller, MD, Northwestern University

Yvonne Chiu, MD, Medical College of Wisconsin

7:05 AM

Pediatric Dermatology Roadmap

Yvonne Chiu, MD, Medical College of Wisconsin

7:20 AM

Abstract #213

Red cell distribution width may mark cardiovascular risk among pediatric psoriasis patients¹

Rosalynn Conic, MD, Case Western Reserve University

7:30 AM

Abstract #251

Natural history of wounds in patients with recessive dystrophic epidermolysis bullosa²

Claudia Teng, BA, Stanford University

7:40 AM

Immune Regulation of Atopic Dermatitis and Itch

Brian Kim, MD, Washington University

8:10 AM

Abstract #484

*Diversity and adaptation of *S. aureus* on lesions of children with atopic dermatitis*

Maria Teresa Garcia Romero, MD/MPH, National Institute for Pediatrics, Mexico

8:20 AM

Abstract #390

Second-hit, post-zygotic pmVK and MVD mutations cause linear porokeratosis

Lihi Atzmony-Maoz, MD, Yale University

Special thanks to the Society for Pediatric Dermatology (SPD) and the Pediatric Dermatology Research Alliance (PeDRA) for supporting these sessions.

RESEARCH IN CUTANEOUS SURGERY

FRIDAY, MAY 10, 2019

7:00 AM - 8:30 AM

CONTINENTAL BALLROOM C

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

Moderator: Murad Alam, MD

Co-Moderators: Catherine DiGiorgio, MD and Kira Minkis, MD

1. **7:00 AM**
Sun protective behaviors and development of keratinocyte carcinomas in high-risk patients in the VAKCC (Veterans Affairs Keratinocyte Carcinoma Chemoprevention) Trial
Meghan Beatson
2. **7:11 AM**
Correlates of multiple cutaneous squamous cell carcinoma
Yuhree Kim
3. **7:22 AM**
Incidence of multiple primary keratinocyte carcinomas in organ transplant patients
Mackenzie R. Wehner
4. **7:33 AM**
Use of immunohistochemical staining in basal cell carcinomas treated with Mohs micrographic surgery: A case-control study
Shannon Zullo
5. **7:44 AM**
Sentinel events in dermatology: Beware of the three wrongs
James Taylor
6. **7:56 AM**
Topical minoxidil adherence in alopecia patients
Brianna De Souza
7. **8:07 AM**
Low-level laser therapy for the treatment of male and female-pattern hair loss: A review of literature
Divya Aickara
8. **8:18 AM**
Differences in cosmetic motivations based on demographic variables
Kelly A. Reynolds

Irvin H. Blank Forum II***Modern Genetic Analysis Applied to Cutaneous Cancer***

FRIDAY, MAY 10, 2019

7:30 AM - 8:30 AM

INTERNATIONAL BALLROOM NORTH

7:30 AM**Welcome & Introduction****Cristina de Guzman Strong, PhD**

Dr. de Guzman Strong is an Assistant Professor in the Division of Dermatology and the Center of Pharmacogenomics in the John T. Milliken Department of Medicine at Washington University in St. Louis School of Medicine. She is also a Core Faculty Member in the Center for the Study of Itch at WUSM. She received a B.S. in Biology from Emory University and Ph.D. in Human Genetics from the University of Alabama at Birmingham and completed her post-doctoral training in the Epithelial Biology Section at the National Human Genome Research Institute (NHGRI). Dr. de Guzman Strong has a long-standing interest in the genetics and genomics of the skin with focused studies on the Epidermal Differentiation Complex (EDC) locus. She has been internationally recognized for the molecular discoveries of enhancer-mediated chromatin modeling and genetic macroevolution of the EDC and the translational discoveries for filaggrin stop-gain variants in underserved populations of atopic dermatitis.

**7:35 AM****Carolyn Lee, MD/PhD**, Assistant Professor, Department of Dermatology, Stanford University, Stanford, CA**“Identifying Novel Cancer Genes that Drive Cutaneous Squamous Cell Carcinoma.”**

Her current research is focused on discovering and functionally characterizing new oncogenes and tumor suppressor genes in skin cancer, with particular emphasis on high-risk cutaneous squamous cell carcinoma associated with poor clinical outcomes. As a board-certified dermatologist, Dr. Lee’s clinical focus is the management of patients at high risk of developing skin cancer, such as individuals on immune suppression therapy following organ transplant.

**7:55 AM****Kojo Elenitoba-Johnson, MD**, Professor, Department of Pathology and Laboratory Medicine, University of Pennsylvania, Philadelphia, PA

His research focuses on the pathogenesis of human malignant lymphomas, biomarker discovery by genomic and proteomic profiling, and cancer

8:15 AM**Q & A**



American Skin Association

OPEN TO ALL MEETING ATTENDEES

American Skin Association (ASA) Awards

FRIDAY, MAY 10, 2019

8:45 AM - 9:00 AM

INTERNATIONAL BALLROOM NORTH

David Martin Carter Mentor Award

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

ASA is delighted to present its 2019 David Martin Carter Mentor Awards to:

Luis Diaz, MD

University of North Carolina - Chapel Hill

John Stanley, MD

University of Pennsylvania

Research Achievement Awards

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

ASA is delighted to present its 2019 Research Achievement Awards to:

Nicole Ward, PhD

Case Western Reserve University
Research Achievement Award in Psoriasis

Victoria Werth, MD

University of Pennsylvania

Research Achievement Award in Autoimmune and Inflammatory Skin Disorders

Paul Nghiem, MD/PhD

University of Washington

Research Achievement Award in Melanoma and Skin Cancer

William Pavan, PhD

National Institutes of Health

Research Achievement Award in Vitiligo and Pigment Cell Biology

Mary-Margaret Chren, MD

Vanderbilt University Medical Center

Research Achievement Award in Public Policy and Medical Education

Business Meeting for Members

FRIDAY, MAY 10, 2019

9:00 AM - 9:30 AM

INTERNATIONAL BALLROOM NORTH

Honorary Membership is one of the highest honors the Society for Investigative Dermatology (SID) bestows. Each of the following SID Members has made sustained and important contributions to the research base in cutaneous biology and has contributed to the organizational success of the SID. Each has also excelled in their role as a mentor to numerous individuals over the course of their academic career.

Congratulations to Kathleen Green, PhD, S. Wright Caughman, MD, Alexander Enk, MD, and Masayuki Amagai, MD/PhD on their selection to SID Honorary Membership!



Masayuki Amagai, MD/PhD
Professor and Chair of the Department
and Dean at the Keio University School
of Medicine, Tokyo



Alexander Enk, MD/PhD
Chairman of Dermatology and
Venerology of Ruprecht-Karls-University,
Heidelberg



S. Wright Caughman, MD
Emory University School of
Medicine, Atlanta



Kathleen Green, PhD
Northwestern University, Chicago

STEPHEN ROTHMAN MEMORIAL AWARD

FRIDAY, MAY 10, 2019

9:30 AM – 9:45 AM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Robert A. Swerlick, MD**



Richard Edelson, MD

Yale University
New Haven, CT

Following his graduation from Yale Medical School (YMS), Dr. Edelson did his Internal Medicine internship at the University of Chicago, his Dermatology residency at Harvard and his post-doctoral fellowship in Immunology at the National Institutes of Health. He then spent the next decade on the faculty of Columbia University's College of Physicians and Surgeons, rising to the level of Professor, while serving as Deputy Director of that institution's General Clinical Research Center, the Leader of the Immunology Program of its Comprehensive Cancer Center and Director of Dermatologic Research. In 1986, he returned to Yale University, as Professor and Chairman of its Department of Dermatology, a position he has held continuously from 1986 to present. From 2000-2003, he also served as YMS Deputy Dean for Clinical Affairs, and from 2003 to 2009 as the Director of the Yale University Comprehensive Cancer Center. He has been honored with several national and international awards, including Castle Connolly's "National Physician of the Year", the Dermatology Foundation's "Discovery Award" and the American Skin Foundation's "Mentor of the Year".

His career links five synergistic clinical, research and educational themes. First, he has focused on the development and implementation of cellular immunotherapy for lymphoma, cutaneous T cell lymphoma (CTCL), which he originally identified, named and scientifically elucidated. Second, he was the originator of extracorporeal photochemotherapy (ECP), the first FDA-approved cellular immunotherapy for any cancer. That therapy has to date been administered more than three million times in over 400 university medical centers worldwide, in the care for more than 60 thousand individuals as treatment for CTCL, transplant recipients and autoimmune patients. Third, his team determined that the scientific basis of ECP's efficacy is its physiologic generation of monocyte conversion to immunologically tunable dendritic antigen presenting cells, the master-switches of the immune system. Fourth, through application of those revealed scientific principles, he is leading the new effort to therapeutically apply ECP to a much broader spectrum of immunogenic cancers and autoreactive disorders. Because of the scope of those opportunities, he considers the current period of his career its most exciting phase yet. Fifth, he is especially delighted by the accomplishments and the prominence of the faculty and graduates of the Yale Dermatology Department.



LECTURESHIP HISTORY

The Stephen Rothman Memorial Award is presented annually for distinguished service to investigative cutaneous medicine. The recipient of this award has made major scientific achievements and excelled as a teacher and recruiter of outstanding dermatologists. The recipient is an individual who has distinctly altered the course and image of dermatology or its allied fields. It is the Society's highest honor.

Plenary Session II

FRIDAY, MAY 10, 2019

9:45 AM - 10:45 AM

INTERNATIONAL BALLROOM NORTH

Presiders: **Lloyd Miller, MD/PhD and Kevin Wang, MD/PhD**

9:45 AM - 9:57 AM

Abstract #200: Risks and timing of future skin cancers in patients with actinic keratosis

M. R. Wehner, D. Margolis

Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States

9:57 AM - 10:09 AM

Abstract #655: Cutaneous nociceptors trigger protective type-17 immunity through a nerve reflex arc

J. A. Cohen¹, T. N. Edwards², A. Liu¹, T. Hirai³, M. Ritter-Jones⁴, J. Wu¹, Y. Li⁵, J. Ho¹, B. Davis⁴, K. Albers⁴, D. H. Kaplan¹

¹Dermatology, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, United States, ²Dermatology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States, ³Departments of Dermatology and Immunology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States, ⁴Neurobiology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States, ⁵Vascular Medicine, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, United States

10:09 AM - 10:21 AM

Abstract #663: Activation of Trpv1+ nociceptive fibers stimulates an innate antiviral immune response following skin injury

C. Handfield¹, J. Kwock¹, P. Hoang², A. S. MacLeod^{2,3}

¹Dermatology, Duke School of Medicine, Durham, North Carolina, United States, ²Dermatology, Duke, Durham, North Carolina, United States, ³Immunology, Duke, Durham, North Carolina, United States

10:21 AM - 10:33 AM

Abstract #193: Atopic eczema in adulthood and the risk of dementia: A population-based cohort study

A. Magyari¹, V. Lam¹, M. R. Wehner², D. Margolis², S. Langan³, K. Abuabara¹

¹Dermatology, UCSF, San Francisco, California, United States, ²Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States, ³LSHTM, London, United Kingdom

10:33 AM - 10:45 AM

Abstract #991: Deep neural networks empower medical professionals in diagnosing skin cancer and predicting treatment options for general skin disorders

S. Han¹, I. Park⁴, S. Chang³, J. Na²

¹ Dermatology, Seoul, Korea (the Republic of), ²Dermatology, Seoul National University Bundang Hospital, Seoul, Korea (the Republic of), ³Dermatology, Asan Medical Center, Ulsan University College of Medicine, Seoul, Korea (the Republic of), ⁴Radiology, Chonnam National University Medical School and Hospital, Gwangju, Korea (the Republic of)

Selected ePoster Discussions II

Carcinogenesis and Cancer Genetics

Studies on the genetics and other causes of cancer as well as mechanisms relevant to metastasis

FRIDAY, MAY 10, 2019

10:45 AM - 11:45 AM

CONTINENTAL BALLROOM A

Moderator: **Carlo Pincelli, MD**

10:45 AM - 10:51 AM

Abstract #117: Small non-coding RNA SNORA12 effects MAPK1 signaling

Z. Sibrashvili¹, R. M. Shenoy¹, L. Elcavage¹, P. A. Khavari^{1,2}

¹Dermatology, Stanford University, Stanford, California, United States, ²VA Palo Alto Healthcare System, Palo Alto, California, United States

10:51 AM - 10:57 AM

Abstract #111: Systemic chemotherapy promotes HIF-1 α mediated glycolysis and IL-17F pathways in mycosis fungoides
B. Wang^{1,2}, X. Shen², J. Zheng²

¹Internal Medicine, Lincoln Medical Center, New York, New York, United States, ²Dermatology, Ruijin Hospital, Shanghai, China

10:57 AM - 11:03 AM

Abstract #135: Defining the T cell landscape and neoantigens via T-cell receptor sequencing and gene expression profiling in cutaneous squamous cell carcinoma

N. A. Doudican¹, A. Santana¹, D. Felsen², A. Khodadadi-Jamayran³, A. Tsirigos³, J. Carucci¹

¹Dermatology, NYU Langone Med Cntr, New York, New York, United States, ²Inst Ped Urol, Weill Cornell Medicine, New York, New York, United States, ³Applied Bioinformatics, NYU Langone Med Cntr, New York, New York, United States

11:03 AM - 11:09 AM

Abstract #118: Inhibition of p38 re-expresses e-cadherin and prevents vascular invasion in melanoma

J. Wenzina¹, S. Holzner¹, A. Forsthuber¹, E. Puujalka¹, P. Petzelbauer^{1,2}

¹Skin and Endothelium Research Department, Medical University of Vienna, Vienna, Austria, ²Division of General Dermatology and Dermatocology, Medical University of Vienna, Vienna, Austria

11:09 AM - 11:15 AM

Abstract #139: Transforming growth factor- β 1 secreted by dermal fibroblasts induces an epithelial-to-mesenchymal transition in recessive dystrophic epidermolysis bullosa squamous cell carcinoma

W. Chen¹, K. Twaroski², M. Pickett-Leonard¹, J. Tolar^{3,1}

¹University of Minnesota Stem Cell Institute, Minneapolis, Minnesota, United States, ²University of Minnesota Stem Cell Institute, Minneapolis, Minnesota, United States, ³Pediatrics, University of Minnesota, Minneapolis, Minnesota, United States

11:15 AM - 11:21 AM

Abstract #163: The H3K27 Demethylase UTX regulates skin carcinogenesis possibly through a HOXB9 pathway

Y. Yang², C. Sarantopoulos¹, H. Peng¹, C. Yin¹, Y. Yao¹, C. Li², L. Zhou¹, Q. Mi¹

¹Dermatology, Henry Ford Health System, Detroit, Michigan, United States, ²Dermatology, The PLA General Hospital, Beijing, China

11:21 AM - 11:27 AM

Abstract #156: Conditional expression of oncogenic Kras^{G12D} and Hras^{G12V} alleles in mouse keratinocytes reveals a dose dependent requirement for tumor formation

C. Cataisson¹, L. Li¹, A. Lee¹, M. Pan¹, S. Korkmaz¹, A. Mizes¹, A. Michalowski¹, S. Yuspa¹

Laboratory of Cancer Biology and Genetics, National Cancer Institute, Rockville, Maryland, United States

11:27 AM - 11:33 AM

Abstract #113: PRKAR2B is regulated by TOX and overexpressed in early stage mycosis fungoides

J. Liu¹, C. Chi¹, Y. Luo¹, Z. Liu¹, S. T. Hwang², Y. Liu¹

¹Dermatology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China, Beijing, China, ²Department of Dermatology, School of Medicine, University of California Davis, Sacramento, California, United States

11:33 AM - 11:39 AM

Abstract #115: Activation of CD271 neurotrophin receptor favors differentiation and reduces invasiveness of squamous cell carcinoma by *in vitro* and *in vivo* studies

E. Palazzo¹, M. Quadri¹, R. Lotti¹, N. Tiso², A. Marconi¹, C. Pincelli¹

¹University of Modena, Modena, Italy, ²University of Padua, Padua, Italy

11:39 AM - 11:45 AM

Abstract #123: Ubiquitination control of tumor proliferation, metastasis and immune escape via prohibitin/stat3/PD-L1 axis in melanoma

J. Ma, W. Guo, S. Guo, C. Li

Dermatology, Xijing Hospital, Xi'an, Shaanxi, China

Selected ePoster Discussions II

Epidemiology

Studies on the genetics and other causes of cancer as well as mechanisms relevant to metastasis

FRIDAY, MAY 10, 2019

10:45 AM – 11:45 AM

STEVENS SALON D

Moderator: **Haley Naik, MD**

10:45 AM - 10:51 AM

Abstract #217: Real-world chemotherapy adherence for Kaposi's sarcoma in Sub-Saharan Africa

L. Oyesiku¹, S. Regan², N. Busakhala³, F. Asirwa^{3,5}, M. Wenger⁴, A. Semeere^{4,6}, K. Wools-Kaloustian⁵, I. Bassett², J. Martin⁴, E. Freeman¹

¹Mass. General Hospital, Boston, Massachusetts, United States, ²Mass. General Hospital, Boston, Massachusetts, United States, ³AMPATH, Moi University, Eldoret, Kenya, ⁴UCSF, San Francisco, California, United States, ⁵Indiana University, Indianapolis, Indiana, United States, ⁶Infectious Disease Institute, Kampala, Uganda

10:51 AM - 10:57 AM

Abstract #188: Predictors of healthcare utilization in US adults with atopic dermatitis

J. Silverberg¹, J. M. Gelfand², D. J. Margolis², M. Boguniewicz³, L. Fonacier⁴, M. H. Grayson⁵, P. Y. Ong⁶, Z. C. Chiesa Fuxench², E. L. Simpson⁷

¹Northwestern Univ Feinberg School of Medicine, Chicago, Illinois, United States, ²Univ of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania, United States, ³National Jewish Health; Univ of Colorado School of Medicine, Denver, Colorado, United States, ⁴NYU Winthrop Hospital, Mineola, New York, United States, ⁵Nationwide Children's Hospital; Ohio State Univ College of Medicine, Columbus, Ohio, United States, ⁶Children's Hospital Los Angeles, Univ of Southern California, Keck School of Medicine, Los Angeles, California, United States, ⁷Oregon Health & Science Univ, Portland, Oregon, United States

10:57 AM - 11:03 AM

Abstract #275: Predictors of basal cell carcinoma and implications for follow up in high-risk patients in the VAKCC Trial

M. Beatson^{1,2}, A. Misitzis^{1,2}, S. Landow^{1,2}, H. Higgins¹, R. Lew³, M. Weinstock^{1,2}

¹Brown University Department of Dermatology, Providence, Rhode Island, United States, ²VA Medical Center Department of Dermatoepidemiology, Providence, Rhode Island, United States, ³VA Healthcare System, Boston, Massachusetts, United States

11:03 AM - 11:09 AM

Abstract #247: The administrative burden and costs of prior authorizations in dermatology

R. P. Carlisle¹, N. D. Flint¹, Z. H. Hopkins², M. J. Eliason³, K. C. Duffin³, A. M. Secrest³

¹School of Medicine, University of Utah, Salt Lake City, Utah, United States, ²Department of Internal Medicine, University of Utah, Salt Lake City, Utah, United States, ³Department of Dermatology, University of Utah, Salt Lake City, Utah, United States

11:09 AM - 11:15 AM

Abstract #213: Red cell distribution width may mark cardiovascular risk among pediatric psoriasis patients

R. Conic¹, G. Damiani¹, T. McCormick¹, K. Cooper^{1,2}

¹Dermatology, CWRU, Cleveland, Ohio, United States, ²Dermatology, Univ. Hospitals Cleveland Medical Center, Cleveland, Ohio, United States

11:15 AM - 11:21 AM

Abstract #251: Natural history of wounds in patients with recessive dystrophic epidermolysis bullosa

C. Teng, D. Solis, J. Tang, M. Barriga, M. P. Marinkovich

Dermatology, Stanford University, Palo Alto, California, United States

11:21 AM - 11:27 AM

Abstract #207: Gender equality among award winners and leaders at the Society for Investigative Dermatology meetings

N. Shukla¹, M. R. Wehner², L. Morrison¹, H. Naik¹, E. Linos¹

¹Dermatology, UCSF, San Francisco, California, United States, ²Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States

11:27 AM - 11:33 AM

Abstract #186: Factors causing lack of diversity in dermatology residency Programs: Medical students' perspectives

N. Sanchez, B. W. Burroway, V. Cassidy, A. Nichols

Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, Florida, United States

11:33 AM - 1:39 AM

Abstract #245: Validation and interpretation of short form 12 and comparison with dermatology life quality index in adult atopic dermatitis

J. Silverberg⁵, J. M. Gelfand⁷, D. J. Margolis⁷, M. Boguniewicz¹, L. Fonacier², M. H. Grayson³, P. Y. Ong⁶, Z. C. Chiesa⁷, E. L. Simpson⁴

¹Univ of Colorado, Denver, Colorado, United States, ²NYU Winthrop Hospital, Mineola, New York, United States, ³Ohio State Univ, Columbus, Ohio, United States, ⁴Oregon Health & Science Univ, Portland, Oregon, United States, ⁵Northwestern Univ, Chicago, Illinois, United States, ⁶Univ. Southern California, Los Angeles, California, United States, ⁷Univ of Pennsylvania, Philadelphia, Pennsylvania, United States

11:39 AM - 11:45 AM

Abstract #255: Prospective evaluation of body mass index, sun-protective behavior and keratinocyte carcinoma risk

A. Misitzis^{1,2}, M. Beatson^{1,2}, M. Tajalli¹, S. Landow^{1,2}, M. Weinstock^{1,2}

¹Brown University, Department of Dermatology, Providence, Rhode Island, United States, ²VA Medical Center, Department of Dermatoepidemiology, Providence, Rhode Island, United States

Selected ePoster Discussions II

Epidermal Structure and Barrier Function

Research on the components or regulation of keratinocyte proliferation, differentiation, including epidermal barrier function

FRIDAY, MAY 10, 2019

10:45 AM - 11:45 AM

INTERNATIONAL BALLROOM SOUTH

Moderator: **Maria Morasso, PhD**

10:45 AM - 10:51 AM

Abstract #354: Capturing epithelial-immune interactions to maintain tissue homeostasis

S. Park, C. Martone, V. Greco

Genetics, Yale University, New Haven, Connecticut, United States

10:51 AM - 10:57 AM

Abstract #334: The desmosome is a mesoscale lipid raft-like membrane domain

A. L. Caldera¹, J. D. Lewis¹, S. E. Zimmer¹, A. Seybold², N. L. Strong¹, S. N. Stahley¹, A. S. Frangakis², I. Levental³, J. K. Wahl⁴, A. L. Mattheyses¹, T. Sasaki⁵, K. Nakabayashi⁵, K. Hata⁶, Y. Matsubara⁶, A. Ishida-Yamamoto⁷, M. Amagai⁵, A. Kubo⁵, A. P. Kowalczyk¹

¹Emory University, Atlanta, Georgia, United States, ²Goethe University Frankfurt, Frankfurt, Germany, ³University of Texas Health Science Center at Houston, Houston, Texas, United States, ⁴University of Nebraska Medical Center, USA, Nebraska, United States, ⁵Keio University School of Medicine, Tokyo, Japan, ⁶National Research Institute for Child Health and Development, Tokyo, Japan, ⁷Asahikawa Medical University, Asahikawa, Japan

10:57 AM - 11:03 AM

Abstract #314: Loricrin protects against chemical carcinogenesis but affects cancer immunoediting

T. Ogawa¹, Y. Ishitsuka¹, D. Roop², M. Fujimoto¹

¹Dermatology, University of Tsukuba, Tsukuba, Japan, ²Dermatology, University of Colorado, Denver, Colorado, United States

11:03 AM - 11:09 AM

Abstract #337: The calcium sensing receptor regulates epidermal intracellular Ca²⁺ signaling and re-epithelialization in aged epidermis

A. Celli¹, C. Tu², W. Chang^{3,4}, T. M. Mauro⁵

¹Dermatology, UCSF, San Francisco, California, United States, ²Endocrinology, VA Med Ctr/UCSF, San Francisco, California, United States, ³Medicine, UCSF, San Francisco, California, United States, ⁴Endocrinology, VA Med Ctr, San Francisco, California, United States, ⁵Dermatology, VA Med Ctr/UCSF, San Francisco, California, United States

11:09 AM - 11:15 AM

Abstract #341: Epidermal nuclear degradation during terminal differentiation involves cytoplasmic dispersal of lamina proteins and rapid nuclear shrinkage

C. Rogerson, R. O'Shaughnessy

Blizard Institute, Queen Mary University of London, London, United Kingdom

11:15 AM - 11:21 AM

Abstract #288: DLX3- A Homeobox protein modulating regulatory networks and signaling pathways crucial for epidermal homeostasis

D. Bajpai¹, S. Mehdizadeh¹, C. Cataisson², S. Yuspa², T. Efimova³, E. Palazzo¹, M. Kellet¹, M. Morasso¹

¹NIAMS/NIH, Bethesda, Maryland, United States, ²NCI/NIH, Bethesda, Maryland, United States, ³GW Cancer Center, Washington, Maryland, United States

11:21 AM - 11:27 AM

Abstract #308: Beneficial effect of coumestrol on the psychological stress-induced skin barrier dysfunction through inhibition of 11 β -hydroxysteroid dehydrogenase type 1

E. Choi¹, J. Kim², Y. Kang¹, S. Choe³, G. Cho¹, J. Kim¹, S. Kim², E. Choi³, W. Park¹, H. Kim¹, E. Son¹

¹AmorePacific Corporation, Yongin-si, Gyeonggi-do, Korea (the Republic of), ²Natural Products Research Institute, Korea Institute of Science and Technology, Gangneung, Korea (the Republic of), ³Department of Dermatology, Yonsei University Wonju College of Medicine, Wonju, Korea (the Republic of)

11:27 AM - 11:33 AM

Abstract #333: Ciliophagy governs transdifferentiation of multiciliated cells in *Xenopus* embryonic skin

R. Ventrella, B. J. Mitchell

Department of Cellular and Molecular Biology, Northwestern University, Chicago, Illinois, United States

11:33 AM - 11:39 AM

Abstract #353: Sphingosine 1-phosphate receptor 2 (S1PR2) deficiency alters skin barrier homeostasis

S. Igawa, Z. Wang, Y. Chang, C. Wu, A. Di Nardo

Dermatology, UC San Diego, San Diego, California, United States

Selected ePoster Discussions II

Neuro-Cutaneous Biology and Inflammation

Basic, pre-clinical and clinical studies on skin Inflammation, crosstalk between the nervous and immune systems, and the relationship between cutaneous nerves and all aspects of skin biology including itch, pain, skin homeostasis and development

FRIDAY, MAY 10, 2019

10:45 AM - 11:45 AM

CONTINENTAL BALLROOM C

Moderator: **Ralf Paus, MD**

10:45 AM - 10:51 AM

Abstract #656 Psoriasis and obesity: Stearoyl-CoA desaturase 1 deficient mice are resistant to imiquimod-induced psoriasiform dermatitis

V. M. Adhami¹, H. M. Buerger-Cole¹, A. F. Pasterz¹, A. Mui¹, L. A. O'Brien¹, J. M. Ntambi², H. Mukhtar¹

¹Dermatology, University of Wisconsin, Madison, Wisconsin, United States, ²Biochemistry, University of Wisconsin, Madison, Wisconsin, United States

10:51 AM - 10:57 AM

Abstract #637: Oncostatin M induction of monocyte chemoattractant protein 1 (MCP-1) in human epidermal keratinocytes is inhibited by anti-oncostatin M receptor β monoclonal antibody KPL-716

C. D. Richards¹, R. Gandhi², F. Botelho¹, L. Ho¹, J. F. Paolini²

¹McMaster Immunology Research Centre, McMaster University, Hamilton, Ontario, Canada, ²Kiniksa Pharmaceuticals Corporation, Lexington, Massachusetts, United States

10:57 AM - 11:03 AM

Abstract #662: Extracellular ATP released from *Candida albicans* activates non-peptidergic nerves to augment skin immunity

T. N. Edwards¹, S. Zhang¹, S. Mogavero², M. Bougnoux³, J. Berman⁴, B. Hube², C. d'Enfert³, D. H. Kaplan¹

¹Dermatology and Immunology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States, ²Hans Knöll Institute, Jena, Germany, ³Institut Pasteur, Paris, France, ⁴Tel Aviv University, Ramat Aviv, Israel

11:03 AM - 11:09 AM

Abstract #661: Development of a novel humanized mouse model for atopic dermatitis

A. Keren^{1,2}, C. Riethmüller³, Y. Ullmann^{2,1}, R. Paus⁴, A. Gilhar^{1,2}

¹Technion, Haifa, Israel, ²Rambam, Haifa, Israel, ³Serendip GmbH, Münster, Germany, Münster, Germany, ⁴University of Miami, Miami, Florida, United States

11:09 AM - 11:15 AM

Abstract #646: Activated-Grape Seed Extract (AGSE) inhibits oxidative stress and demethylation of PP2A in human skin

K. L. Huber¹, C. Webb¹, J. R. Fernandez¹, J. R. Healy¹, M. Stock¹, J. B. Stock², E. Perez¹

¹Signum Dermalogix, Monmouth Junction, New Jersey, United States, ²Molecular Biology, Princeton University, Princeton, New Jersey, United States

11:15 AM - 11:21 AM

Abstract #657: IL-17A upregulates endothelin-1 in keratinocytes in the pathogenesis of Prurigo nodularis

L. Wong², C. Lee¹

¹Dermatology, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan, ²Dermatology, Chang Gung Memorial Hospital-Kaohsiung Medical Center, Kaohsiung, Taiwan

11:21 AM - 11:27 AM

Abstract #643: Skin cells can sense and integrate signals coming from eucalyptus extract to combat environmental insults and regenerate from within

K. Stafa, J. Huang, C. Chen, D. Vetter, W. Eagle, E. C. Goyarts, N. Pernodet

Advanced Technologies, Estee Lauder Companies, Melville, New York, United States

11:27 AM - 11:33 AM

Abstract #666: Role for epidermal keratinocytes in small fiber degeneration in diabetic peripheral neuropathy

A. Belmadani¹, N. Jayaraj², D. Ren¹, D. George², A. S. Paller³, R. Miller¹, D. Menichella²

¹Pharmacology, Northwestern University, Chicago, Illinois, United States, ²Neurology, Northwestern University, Chicago, Illinois, United States, ³Dermatology, Northwestern University, Chicago, Illinois, United States

Selected ePoster Discussions II

Pharmacology and Drug Development

Basic and preclinical studies aimed at developing therapeutics, elucidating their mechanisms of action, and identifying biomarkers of drug activity

FRIDAY, MAY 10, 2019

10:45 AM - 11:45 AM

CONTINENTAL BALLROOM B

Moderator: **Adam Raff, MD/PhD**

10:45 AM - 10:51 AM

Abstract #701: High dimensional peripheral blood immune cell profiling of atopic dermatitis patients unveiled IL21 cytokine activation

H. Kim¹, N. Kameyama¹, J. Glickman¹, H. He¹, T. Czarnowicki¹, A. B. Pavel¹, Y. Estrada¹, J. Gonzalez², B. Lee¹, A. Rahman¹, M. Merad¹, J. G. Krueger², E. Guttman-Yassky¹

¹Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²Rockefeller University, New York, New York, United States

10:51 AM - 10:57 AM

Abstract #667: Targeting the JAK/STAT pathway for CTCL therapy

Y. Gu¹, P. Perez-Duran², K. Oshima², J. Rodriguez-Cortes², A. Ferrando², T. Palomero², L. J. Geskin³

¹Vagelos College of Physicians & Surgeons, Columbia University, New York, New York, United States, ²Institute for Cancer Genetics, Columbia University, New York, New York, United States, ³Department of Dermatology, Columbia University, New York, New York, United States

10:57 AM - 11:03 AM

Abstract #693: BET inhibitor OTX015 reduces imiquimod-induced mouse psoriasisform dermatitis

X. Wu, S. Yu, Z. Shi, M. Huynh, J. Chong, S. T. Hwang

Dermatology, UCDAVIS, Sacramento, California, United States

11:03 AM - 11:09 AM

Abstract #706: Predictive modeling of patient response to JAK/STAT inhibitors and dynamic patient-matching

J. C. Chen, A. Christiano

Dermatology, Columbia University, New York, New York, United States

11:09 AM - 11:15 AM

Abstract #695: Selectively targeting JAK1 or JAK3 pathway is sufficient to reverse alopecia areata

Z. Dai, E. Loesch, J. C. Chen, E. Wang, E. Lee, A. Christiano

Dermatology, Columbia University, New York, New York, United States

11:15 AM - 11:21 AM

Abstract #702: Plasma exosomal miR-375-3p regulates mitochondria-dependent keratinocyte apoptosis by targeting XIAP in SJS/TEN

C. Zhang, G. Wang, M. Fu

Dermatology, Xijing Hospital, Fourth Military Medical University, Xi'an, China, Xi'an, ShaanXi, China

11:21 AM - 11:27 AM

Abstract #708: Promotion of hair growth in alopecia areata by topical treatment of HDAC inhibitors

E. Wang¹, J. C. Chen², A. Christiano¹

¹Dermatology, Columbia University, New York, New York, United States, ²Systems Biology, Columbia University, New York, New York, United States

11:27 AM - 11:33 AM

Abstract #676: Exploring novel therapeutic targets in the treatment of cutaneous T-cell lymphoma

S. Yumeen¹, A. O. King¹, S. Kim¹, J. Lewis¹, K. Carlson¹, S. Umlauf², Y. Surovtseva², F. Foss¹, M. Girardi¹

¹Yale School of Medicine, New Haven, Connecticut, United States, ²Yale Center for Molecular Discovery, West Haven, Connecticut, United States

11:33 AM - 11:39 AM

Abstract #672: Pramlintide produces immunomodulatory effects on myeloid-derived suppressor cells and T-cells in squamous cell carcinoma in-vivo

L. Tordesillas, B. Sell, K. Nguyen, E. Flores, K. Y. Tsai

Moffitt Cancer Center, Riverview, Florida, United States

11:39 AM - 11:39 AM

Abstract #727: Use of PI3K/mTOR/Akt inhibitors as skin protectors to spare skin from glucocorticoid-induced atrophy
S. Agarwal¹, S. Mirzoeva¹, B. Readhead^{2, 4}, E. Lesovaya³, J. T. Dudley⁴, I. Budunova¹

¹Dermatology, Northwestern University, Chicago, Illinois, United States, ²Banner Neurodegenerative Disease Research Center, ASU, Tempe, Arizona, United States, ³Blokhin Cancer Center, Moscow, Russian Federation, ⁴Icahn School of Medicine at Mount Sinai, New York, New York, United States

AbbVie Sponsored Symposium

Hidradenitis Suppurativa: Translating Mechanisms and Basic Science into Improved Therapies

FRIDAY, MAY 10, 2019

11:45 AM - 1:15 PM

INTERNATIONAL BALLROOM NORTH

11:45 AM

Welcome & Introduction

Amanda MacLeod, MD, Assistant Professor, Department of Dermatology, Duke University, Durham, NC



Michael Rosenblum, MD/PhD, Assistant Professor, Department of Dermatology, University of California San Francisco, San Francisco, CA



11:50 AM

Kathleen M. Smith, PhD, Principal Research Scientist Immunology Systems Computational Biology Dermatology Lead, AbbVie



Dr. Smith received her PhD in Immunology from the University of California, San Francisco and did her post-doctoral work at DNAX Research Institute. She has a broad expertise in clinical study design and execution, human tissue acquisition, and data analysis and interpretation with a focus on human inflammatory skin diseases. She is currently a member of the Immunology Systems Computational Biology Group at AbbVie in Cambridge, MA where she works closely with the Discovery Dermatology and Fibrosis team in the Chicago area studying disease mechanisms in psoriasis, atopic dermatitis, and hidradenitis suppurativa with the goal of identifying therapies which will help patients live better lives.

11:55 AM

Michelle Lowes, MD/PhD, Associate Professor of Clinical Investigation, Laboratory for Investigative Dermatology, The Rockefeller University, New York, NY



“Pathogenesis of hidradenitis suppurativa”

Dr. Lowes is an investigative dermatologist with a long-term goal to understand the contribution of the skin immune system to health and disease. She has predominantly studied psoriasis, a common inflammatory skin disease, in the Laboratory of Investigative Dermatology at The Rockefeller University. In recent years, Dr. Lowes has turned her attention to investigate hidradenitis suppurativa. She is now on the medical board of the Hidradenitis Suppurativa Foundation (HSF) and committed to the mission of the HSF: to support patient care, promote physician and patient education, and to encourage research aimed at the control and cure of HS.

Angel Byrd, MD/PhD, Assistant Professor, Department of Dermatology, Howard University, Washington, DC



“From biobank to bedside - Neutrophil extracellular traps and Type 1 Interferons contribute to immune dysregulation in Hidradenitis Suppurativa”

Dr. Byrd recently completed the Ethnic Skin Postdoctoral Fellowship at Johns Hopkins University School of Medicine, Department of Dermatology, studying immune mechanisms in Hidradenitis suppurativa under the mentorship of Dr. Ginette Okoye. Currently, she is an Assistant Professor at Howard University College of Medicine and an Adjunct Assistant Professor at Johns Hopkins, Departments of Dermatology, where she is pioneering research efforts to further understand immunopathological mechanisms in ethnic skin diseases.

12:30 PM

Margaret Lowe, PharmD/PhD Elucidating the Immunopathogenesis of Hidradenitis Suppurativa at the Cellular and Molecular Levels



Margaret Lowe obtained her PharmD from the University of North Carolina, Chapel Hill in 2008 and her PhD in 2013 from the University of California, San Francisco (UCSF). She did her post-doctoral training in the laboratory of Dr. Michael Rosenblum and currently holds a Professional Researcher position in the Cutaneous Immunology group at UCSF. Margaret's research focuses on understanding how immune cells function in healthy and diseased skin in the context of human autoimmunity and chronic inflammatory diseases. Her most recent studies have centered around investigating the overarching immunopathology of hidradenitis suppurativa. With the support of the UCSF Hidradenitis Suppurativa Center, she has comprehensively interrogated the immune infiltrate in HS skin at both the phenotypic and functional levels. In this capacity, her research is providing novel insights into the major cell types and molecular pathways underlying the pathogenesis of HS and the influence of specific immunomodulatory therapies on these processes.

12:50 PM

Heidi Kong, MD “The skin microbiome in hidradenitis suppurativa”



Dr. Kong is Head of the Cutaneous Microbiome and Inflammation Section and Investigator in the Dermatology Branch, NIAMS, NIH. Her research on the human microbiome focuses on understanding host-microbial relationships, particularly of human skin. Dr. Kong's work includes investigations in the microbiome of inflammatory skin diseases including atopic dermatitis and in patients with primary immunodeficiency syndromes.

1:10 PM

Q & A

Amanda MacLeod, MD
Michael Rosenblum, MD/PhD

Selected ePoster Discussions III

Innate Immunity, Microbiology, Microbiome

Studies of cells, receptors and effector molecules of the innate immune response; studies on skin microbes, microbiome and infectious processes of the skin

FRIDAY, MAY 10, 2019

11:45 AM - 12:45 PM

STEVENS SALON D

Moderator: **Maria T. Garcia-Romero, MD/MPH**

11:45 AM - 11:51 AM

Abstract #522: Gut microbiota is required for the development of alopecia areata

R. Perez-Lorenzo¹, E. Wang¹, Z. Dai¹, A. R. Abdelaziz¹, B. Sallee¹, J. C. Chen¹, J. P. Estrada¹, A. Uhlemann², A. Christiano¹

¹Dermatology, Columbia University, New York, New York, United States, ²Medicine, Columbia University, New York, New York, United States

11:51 AM - 11:57 AM

Abstract #457: Epidermal IκBζ is indispensable for induction of psoriasisform dermatitis and protection from bacterial infection

Y. Koyama², H. Terui¹, N. Hachome¹, K. Yamasaki¹, S. Aiba¹

¹Dermatology, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan, ²Tohoku University School of Medicine, Sendai, Japan

11:57 AM - 12:03 PM

Abstract #531: Resident skin bacteria produce “human” immunomodulatory lipids

K. N. Haas^{1,2}, R. Sivamani^{1,2}

¹Dermatology, UC Davis Medical Center, Davis, California, United States, ²Biology, CSUS, Sacramento, California, United States

12:03 PM - 12:09 PM

Abstract #468: Neutrophil extracellular traps exacerbate psoriasis via activating inflammasomes of keratinocytes

X. Yuan, G. Wang

Dermatology, Xijing Hospital, Fourth Military Medical University, Xi'an, Shaanxi, China

12:09 PM - 12:15 PM

Abstract #485: Mast cells in neonatal skin are functionally immature and hardly sensitized with IgE

T. Honda, Y. Honda, S. Ono, K. Kabashima

Dermatology, Kyoto University, Kyoto, Japan

12:15 PM - 12:21 PM

Abstract #446: T-cell receptor diversity before and after systemic treatment in psoriasis patients

S. Liu^{1,2}, H. Yu⁵, Y. Huang³, Y. Huang⁴

¹Far Eastern Memorial Hospital, New Taipei City, Taiwan, ²National Yang Ming University, Taipei, Taiwan, ³Chang Gung Memorial Hospital, Taoyuan, Taiwan, ⁴Chang Gung Memorial Hospital, Taipei, Taiwan, ⁵Chang Gung University, Taoyuan, Taiwan

12:21 PM - 12:27 PM

Abstract #482: GRL-142, a novel HIV-1 protease inhibitor, potently blocks HIV-1 *ex vivo* infection of Langerhans cells within epithelium

Y. Ogawa¹, S. Shimada¹, H. Mitsuya², T. Kawamura¹

¹Dermatology, University of Yamanashi, Yamanashi, Japan,

²National Center for Global Health and Medicine Research Institute, Tokyo, Japan

12:27 PM - 12:33 PM

Abstract #486: Histone Deacetylase 3 regulates the ontogeny and maintenance of tissue-resident macrophages

Y. Yao¹, Q. Liu¹, F. Geissmann², L. Zhou¹, Q. Mi¹

¹Center for Cutaneous Biology and Immunology Research, Department of Dermatology, Henry Ford Health System, Detroit, Michigan, United States, ²Immunology Program, Sloan Kettering Institute, Memorial Sloan Kettering Cancer Center, New York, New York, United States

12:33 PM - 12:39 PM

Abstract #460: DDX5 regulates REG3A mRNA splicing to control wound healing in skin

H. Li, Y. Lai

East China Normal University, Shanghai, China

12:39 PM - 12:45 PM

Abstract #484: Diversity and adaptation of *S. aureus* on lesions of children with atopic dermatitis

F. M. Key¹, C. Romo-González², A. Martínez-Gayosso³, A. Gerónimo-Gallegos², T. C. Lynn¹, T. Lieberman¹, M. T. Garcia-Romero³

¹Institute for Medical Engineering and Sciences, Massachusetts Institute of Technology, Cambridge, Massachusetts, United States, ²Bacteriology, National Institute for Pediatrics, Mexico City, Mexico, ³Dermatology, National Institute for Pediatrics, Mexico City, Mexico

Selected ePoster Discussions III

Pigmentation and Melanoma

Studies on all aspects of cutaneous and extracutaneous pigmentation; molecular cellular and biological facets of melanoma

FRIDAY, MAY 10, 2019

11:45 AM - 12:45 PM

INTERNATIONAL BALLROOM SOUTH

Moderator: TBD

11:45 AM - 11:51 AM

Abstract #789: Immune checkpoint therapy polarizes fibroblasts into a proinflammatory state

J. Ramseier¹, D. Thakral^{1,2}, W. Damsky¹, M. Bosenberg³

¹Department of Dermatology, Yale School of Medicine, New Haven, Connecticut, United States, ²Department of Genetics, Yale School of Medicine, New Haven, Connecticut, United States, ³Departments of Dermatology, Pathology, and Immunobiology, Yale School of Medicine, New Haven, Connecticut, United States

11:51 AM - 11:57 AM

Abstract #840: Aberrant differentiation as a novel mechanism for lentiginos and hair graying

K. Lambert, A. Almeida, N. Mukherjee, N. Goldstein, S. A. Birlea, S. Webb, P. J. Koch, M. Koster, D. A. Norris, T. Pacheco, Y. Shellman

Dermatology, University of Colorado AMC, Aurora, Colorado, United States

11:57 AM - 12:03 PM

Abstract #826: The Role of TRAF6 in the tumor microenvironment of melanoma

Y. Guo, X. Zhang, X. Chen, X. Xu, C. Peng

Dermatology, Xiangya Hospital, Central South University, Changsha, Hunan, China

12:03 PM - 12:09 PM

Abstract #778: Risk of second primary cutaneous melanoma by anatomic region among melanoma survivors: A nationwide U.S. population study

T. Erickson, Y. Ali, C. Kosche, E. C. Gwillim, A. C. Figueiredo, L. M. Sadowsky, J. Jimenez, A. E. Laumann, D. P. West, B. Nardone

Dermatology, Northwestern University, Feinberg School of Medicine, Chicago, Illinois, United States

12:09 PM - 12:15 PM

Abstract #791: Up-regulated SIRT7 expression contributed to melanoma growth by promoting MITF expression

S. Wang, W. Guo, J. Ma, H. Wang, T. Gao, C. Li

Department of Dermatology, Xijing Hospital, Fourth Military Medical University, 127 Changle Western Road, Xi'an, China

12:15 PM - 12:21 PM

Abstract #784: A new immune evasion mechanism in melanoma

K. A. Tran^{2,3}, J. E. Sligh³, E. Maverakis¹

¹Dermatology, UC Davis, Sacramento, California, United States, ²College of Medicine, University of Arizona, Tucson, Arizona, United States, ³University of Arizona Cancer Center, Tucson, Arizona, United States

12:21 PM - 12:27 PM

Abstract #792: Oxidative stress-induced IL-15 trans-presentation in keratinocytes contributes to CD8+ T cells activation via JAK-STAT pathway in vitiligo

X. Chen, W. Guo, Y. Chang, J. Chen, P. Kang, S. Li, X. Yi, G. Wang, T. Gao, L. Liu, C. Li

Department of Dermatology, Xijing Hospital, Xi'an, Shaanxi, China

12:27 PM - 12:33 PM

Abstract #836: EPAC2/RABGEF4 promotes cell cycle progression selectively in primary melanoma cells by regulating cellular and mitochondrial metabolism

A. Bhasker, A. Krishnan, D. Mikheil, E. Castro-Perez, V. Setaluri

Dermatology, University of Wisconsin-Madison, Madison, Wisconsin, United States

12:33 PM - 12:39 PM

Abstract #777: Enhanced recovery of PD-1 expression on the cell surface of PD-1 negative T cells in nivolumab-treated advanced melanoma patients

R. Takahashi¹, Y. Sato², M. Kimishima², M. Ohyama^{1,2}

¹Flow Cytometry Core Facility, Kyorin University School of Medicine, Mitaka, Tokyo, Japan, ²Department of Dermatology, Kyorin University School of Medicine, Mitaka, Tokyo, Japan

12:39 PM - 12:45 PM

Abstract #780: Novel mechanism of UVB-mediated pigmentation through the axis of ATP-P2X7

E. Lee¹, J. Kim¹, Y. Ahn¹, B. Lee², Y. Heo³, S. Hwang¹, S. Lee⁴, J. Lee³, G. Chung², S. Oh¹

¹Yonsei University College of Medicine, Seoul, Korea (the Republic of), ²Seoul National University School of Dentistry, Seoul, Korea (the Republic of), ³Yonsei University College of Pharmacy, Incheon, Korea (the Republic of), ⁴Seoul National University Hospital, Seoul, Korea (the Republic of)

Selected ePoster Discussions III

Skin, Appendages, and Stem Cell Biology

Studies on the hair follicle, sebaceous gland, and other skin appendages; developmental biology of skin and hair; roles of stem cells in pre and post-natal growth and development

FRIDAY, MAY 10, 2019

11:45 AM - 12:45 PM

CONTINENTAL BALLROOM B

Moderator: **Marta Bertolini, PhD****11:45 AM - 11:51 AM**

Abstract #909: PPAR γ stimulation protects from cyclophosphamide-induced hair follicle cytotoxicity and bulge stem cell damage

I. Piccini¹, J. Chéret^{1, 2}, S. Ghatak¹, M. Alam³, J. Hardmann⁴, H. Erdmann⁵, F. Jimenez⁶, C. Ward¹, R. Paus^{2, 4}, M. Bertolini¹

¹Monasterium Laboratory, Skin and Hair Research Solutions, Muenster, Germany, ²University of Miami, Miami, Florida, United States, ³Mediteknia Skin & Hair Lab, Gran Canaria, Spain, ⁴University of Manchester, Manchester, United Kingdom, ⁵Clinica Joelle, Dubai, United Arab Emirates, ⁶Mediteknia Clinic, Gran Canaria, Spain

11:51 AM - 11:57 AM

Abstract #921: Generation of a new rodent model of scleroderma

J. Quaggin-Smith², R. M. Lavker¹, H. Peng¹, M. Kelly², V. Hranis-Eremina³, J. Varga¹, S. Quaggin²

¹Northwestern University, Chicago, Illinois, United States, ²Feinberg Cardiovascular & Renal Res. Inst., Chicago, Illinois, United States, ³Samuel Lunenfeld Res. Inst., Toronto, Ontario, Canada

11:57 AM - 12:03 PM

Abstract #878: Keratin 17 upregulate the expression of CXCL1 in human psoriatic keratinocyte cells through going the nucleus

Y. Luo, Z. Zhu, E. Dang, G. Wang

Department of Dermatology, Xijing Hospital, Fourth Military Medical University, Xi' an, Shaanxi, China

12:03 PM - 12:09 PM

Abstract #924: Efficient genome editing using CRISPR/Cas9 ribonucleoprotein approach in iPS cells for recessive dystrophic epidermolysis bullosa

J. Jackow¹, Z. Guo¹, H. E. Abaci¹, Y. Doucet¹, J. Shin¹, C. Hansen¹, Y. Kabata³, S. Shinkuma³, J. Salas-Alanis², A. Christiano¹

¹Dermatology, Columbia University, New York, New York, United States, ²School of Medicine and Health Sciences TecSalud ITESM, Monterrey, Mexico, ³Dermatology, Niigata University, Niigata, Japan

12:09 PM - 12:15 PM

Abstract #869: The specification of Merkel cell in the back skin and glabrous paw skin is controlled by FGFR2-mediated signaling

M. B. Nguyen¹, I. Cohen¹, J. Valdes^{1, 2}, Z. Xu³, C. Bar¹, K. Dauber¹, P. Tsai⁴, D. Zhao^{5, 7, 8}, D. Zheng⁶, Y. Hsu⁴, T. Chen³, E. Ezhkova¹

¹Developmental & Regenerative Biology, Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²Department of Cell Biology and Development, Instituto de Fisiologia Celular, UNAM, Mexico City, Mexico, ³National Institute of Biological Sciences Beijing, Beijing, China, ⁴Department of Stem Cell and Regenerative

Biology, Harvard Stem Cell Institute, Cambridge, Massachusetts, United States, ⁵Department of Genetics, Yale University School of Medicine, New Haven, Connecticut, United States, ⁶Departments of Genetics, Neurology, and Neuroscience, Albert Einstein College of Medicine, New York, New York, United States, ⁷Albert Einstein College of Medicine, New York, New York, United States, ⁸Yale Center for Genome Analysis, Yale University, New Haven, Connecticut, United States

12:15 PM - 12:21 PM

Abstract #913: Gorab regulates dermal papilla cell migration through the cytoskeleton and extracellular matrix

X. Chen, J. Chen

Departments of Dermatology and Pathology, Stony Brook University, Stony Brook, New York, United States

12:21 PM - 12:27 PM

Abstract #923: Molecular phenotyping of lichen planopilaris revealed dysregulation of cholesterol/fatty acid metabolism, fibrosis and mast cell pathways

B. Sallee, E. H. Wang, J. C. Chen, L. A. Bordone, A. Christiano

Columbia University, New York, New York, United States

12:27 PM - 12:33 PM

Abstract #867: Contraction of myoepithelial cells in human eccrine sweat glands, revealed by 3D live imaging

K. Nakashima¹, R. Kurata^{1, 2}, F. Fujita^{1, 2}, F. Okada^{1, 2}, A. Tanemura³, H. Murota³, K. Sekiguchi⁴

¹Laboratory of Advanced Cosmetic Science, Graduate School of Pharmaceutical Sciences, Osaka University, Suita, Osaka, Japan, ²Fundamental Research Institute, Mandom Corporation, Osaka, Osaka, Japan, ³Department of Dermatology, Graduate School of Medicine, Osaka University, Suita, Osaka, Japan, ⁴Division of Matrixome Research and Application, Institute for Protein Research, Osaka University, Suita, Osaka, Japan

12:33 PM - 12:39 PM

Abstract #880: Gasdermin A3-mediated cell death causes niche collapse and precocious activation of hair follicle stem cells

S. Li¹, W. Suen¹, C. Kao², M. Yang¹, P. Lin¹, L. Yang¹

¹Inst. of Cellular and System Medicine, National Health Research Institutes, Zhunan, Miaoli County, Taiwan, ²Center of General Education, Chang Gung University, Taoyuan, Taiwan

12:39 PM - 12:45 PM

Abstract #884: LRRK1 regulates hair follicle (HF) growth via coordinating Wnt and SHH signaling

H. Peng¹, N. Kaplan¹, W. Yang¹, R. M. Lavker²

¹Dermatology, Northwestern University, Chicago, Illinois, United States, ²Northwestern University, Chicago, Illinois, United States

Selected ePoster Discussions III

Tissue Regeneration and Wound Healing

Wound healing and regeneration studies; processes/signaling that regulate vascular development and angiogenesis; interactions between different skin components (epithelial cells, dermal cells, nerves, vasculature, melanocytes, fat) in homeostasis and regeneration

FRIDAY, MAY 10, 2019

11:45 AM - 12:45 PM

CONTINENTAL BALLROOM C

Moderator: **Mayumi Ito, PhD**

11:45 AM - 11:51 AM

Abstract #954 MagneTEskin - Orientation matters

C. Fuchs^{1,2}, Y. Wang¹, W. A. Farinelli¹, R. R. Anderson^{1,2}, J. Tam^{1,2}

¹Wellman Center for Photomedicine, Boston, Massachusetts, United States, ²Department of Dermatology, Harvard Medical School, Boston, Massachusetts, United States

11:51 AM - 11:57 AM

Abstract #960: Innate immune antimicrobial response by retinoic acid during reactive adipogenesis is dependent on HIF1 α

M. C. Liggins, L. Zhang, F. Li, R. L. Gallo

Dermatology, University of California, San Diego, Vista, California, United States

11:57 AM - 12:03 PM

Abstract #950: Autophagy is inhibited in keloid-derived fibroblasts

M. Jiang, M. Li, H. Gu, X. Chen

Institute of Dermatology, Chinese Academy of Medical Sciences and Peking Union Medical College, Nanjing, Jiangsu, China

12:03 PM - 12:09 PM

Abstract #969: Wounding response and wound healing in a novel tension-based skin explant model

D. Grussu¹, M. Conneely¹, L. Nicholson¹, K. Hirata¹, D. Lamont¹, D. Lunny², W. McLean¹, R. Hickerson¹

¹School of Life Science, University of Dundee, Dundee, United Kingdom, ²Skin Research Institute of Singapore, A*STAR, Singapore, Singapore

12:09 PM - 12:15 PM

Abstract #948: CD44 regulates α -SMA gene expression via a novel G-actin/MRTF mediated pathway that requires TGF β R/p38MAPK activity in murine skin fibroblasts.

Y. Wang¹, J. Mack², E. Maytin²

¹Dept. Biomedical Engineering, Cleveland Clinic, Cleveland, Ohio, United States, ²Dept. BME, Dept. Dermatology, Cleveland Clinic, Cleveland, Ohio, United States

12:15 PM - 12:21 PM

Abstract #970: Distinct angiogenic profiles between papillary and reticular fibroblasts

C. Mainzer¹, A. Mauroux^{2,3,4}, L. Verzeaux², S. Bordes², F. Ruggiero³, L. Muller⁴, B. Closs²

¹SILAB Inc, East Brunswick, New Jersey, United States, ²R&D Department, SILAB, Brive, France, ³UMR5242 CNRS - ENS - UCBL - USC INRA, IGFL, Lyon, France, ⁴Collège de France, CNRS, INSERM, PSL Research University, CIRB, Paris, France

12:21 PM - 12:27 PM

Abstract #959: Regulation of IL36-mediated skin regeneration by non-coding RNA sensing

N. Islam¹, R. Silverman³, H. Liu¹, L. Miller¹, W. Huang², M. Kane², D. Kim¹, L. Garza¹

¹Johns Hopkins School of Medicine, Baltimore, Maryland, United States, ²University of Maryland School of Pharmacy, Baltimore, Maryland, United States, ³Cleveland Clinic, Cleveland, Ohio, United States

12:27 PM - 12:33 PM

Abstract #958: Pharmacological inhibition of JAK/STAT signaling by tofacitinib prevents organ fibrosis: Novel therapy for scleroderma

S. Bhattacharyya¹, W. Wang¹, A. Yeldandi¹, R. Goncalves Marangoni¹, C. Feghali-Bostwick², J. Wei¹, J. Varga¹

¹Feinberg School of Medicine, Northwestern University, Chicago, Illinois, United States, ²Medical University of South Carolina, Charleston, South Carolina, United States

12:33 PM - 12:39 PM

Abstract #938: The skin transcriptome in hidradenitis suppurativa uncovers an antimicrobial and sweat gland gene signature that has distinct overlap with wounded skin

M. Coates¹, D. Corcoran², P. Rosa Coutinho Goulart Mariottoni¹, T. Jaleel¹, D. Brown⁶, J. Murray¹, M. Morasso³, A. S. MacLeod^{4,5}

¹Dermatology, Duke University, Durham, North Carolina, United States, ²Duke Center for Genomic and Computational Biology, Duke University, Durham, North Carolina, United States, ³Laboratory of Skin Biology, NIH, Bethesda, Maryland, United States, ⁴Dermatology, Duke, Durham, North Carolina, United States, ⁵Immunology, Duke University, Durham, North Carolina, United States, ⁶Plastic Surgery, Duke University, Durham, North Carolina, United States

12:39 PM - 12:45 PM

Abstract #942: Hedgehog stimulates hair follicle neogenesis by creating inductive dermis during murine skin wound healing

C. Lim¹, Q. Sun¹, K. Ratti¹, S. Lee¹, Y. Zheng², M. Takeo¹, W. Lee¹, P. Rabbani¹, M. Plikus³, J. Cain⁴, D. Wang⁵, N. Watkins⁶, S. Millar², M. Taketo⁷, P. Myung⁸, G. Cotsarelis², M. Ito¹

¹New York University, New York, New York, United States, ²University of Pennsylvania, Philadelphia, Pennsylvania, United States, ³University of California, Irvine, California, United States, ⁴Monash University, Clayton, Victoria, Australia, ⁵University of Texas Southwestern Medical Center, Dallas, Texas, United States, ⁶Garvan Institute of Medical Research, Darlinghurst, New South Wales, Australia, ⁷Kyoto University, Kyoto, Japan, ⁸Yale University, New Haven, Connecticut, United States

Selected ePoster Discussions III

Translational Studies

Including studies involving human tissue and human cells including biomarker studies that furthers our understanding of skin disease

FRIDAY, MAY 10, 2019

11:45 AM - 12:45 PM

CONTINENTAL BALLROOM A

Moderator: **Carolyn Jack, MD/PhD**

11:45 AM - 11:51 AM

Abstract #996: Epidermal AMBRA1 and Loricrin; A paradigm shift in prognostication and stratification of AJCC stage I melanoma

R. Ellis¹, A. McConnell¹, D. Tang¹, B. Nasr¹, A. Greenwood¹, G. Watson², P. Barrett⁴, S. Horswell³, M. Labus¹, P. Lovat¹

¹Newcastle University, Newcastle upon Tyne, United Kingdom, ²James Cook University Hospital, Middlesbrough, United Kingdom, ³The Francis Crick Institute, London, United Kingdom, ⁴University Hospital North Durham, Durham, United Kingdom

11:51 AM - 11:57 AM

Abstract #1044: Human skin tissue-specific T cell dysregulation: A model for adult atopic dermatitis

C. Jack

Dermatology, McGill, Montreal, Quebec, Canada

11:57 AM - 12:03 PM

Abstract #1038: Convergent molecular and histologic profiles of guttate and plaque psoriasis

J. E. Hawkes¹, S. Garcet¹, X. Zheng¹, G. G. Krueger², K. Callis Duffin², J. G. Krueger¹

¹Rockefeller University, New York, New York, United States, ²University of Utah, Salt Lake City, Utah, United States

12:03 PM - 12:09 PM

Abstract #1011: Evaluation of a skin microsampling clinical trial design for temporal/spatial molecular profiling in topically treated photoaged skin

T. Prow

Future Industries Institute, University of South Australia, Adelaide, South Australia, Australia

12:09 PM - 12:15 PM

Abstract #1033: The potential pro-proliferative role of polo-like kinase 4 in non-melanoma skin cancer

D. R. Garvey, M. A. Ndiaye, N. Ahmad

Dermatology, University of Wisconsin-Madison, Madison, Wisconsin, United States

12:15 PM - 12:21 PM

Abstract #1037: Transcriptome analysis in Sézary syndrome and lymphocytic variant hyper eosinophilic syndrome identify common and unique genes

A. Moerman-Herzog¹, D. Acheampong^{1, 2}, A. Brooks¹, S. Blair¹, H. K. Wong¹

¹Dermatology, University of Arkansas for Medical Science, Little Rock, Arkansas, United States, ²Program in Bioinformatics, University of Arkansas at Little Rock, Little Rock, Arkansas, United States

12:21 PM - 12:27 PM

Abstract #993: Molecular abnormalities of early-onset pediatric atopic dermatitis are captured by tape strips

A. Diaz¹, A. B. Pavel¹, R. Li^a, M. Fernandes¹, X. Peng¹, Y. Estrada¹, J. G. Krueger³, A. S. Paller², E. Guttman-Yassky¹

¹Dermatology, Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²Dermatology, Northwestern University, Chicago, Illinois, United States, ³Dermatology, The Rockefeller University, New York, New York, United States

12:27 PM - 12:33 PM

Abstract #1015: Radiation therapy eradicates malignant T cells and is associated with improved survival in early-stage mycosis fungoides

J. T. O'Malley², A. de Masson¹, E. Jalbert², A. Giobbie-Hurder³, A. Gehad², E. Seger², N. LeBoeuf², C. Larocca², J. E. Teague², T. Kupper², P. M. Devlin⁴, R. A. Clark⁵

¹Dermatology, Saint-Louis Hospital, Paris, France, ²Dermatology, Brigham and Women's Hospital/Harvard Medical School, Boston, Massachusetts, United States, ³Statistics, Dana-Farber Cancer Institute, Boston, Massachusetts, United States, ⁴Radiation-Oncology, Brigham and Women's Hospital/HMS, Boston, Massachusetts, United States, ⁵Dermatology, Brigham and Women's Hospital, Boston, Massachusetts, United States

12:33 PM - 12:39 PM

Abstract #1030: A minimally-invasive method for the quantification of lymphatic vessel function in the skin

A. Polomska¹, S. T. Proulx¹, D. Fehr², M. Bonmarin², J. Leroux¹, M. Detmar¹

¹Institute of Pharmaceutical Sciences, ETH Zurich, Zurich, Switzerland, ²Zurich University of Applied Sciences, Winterthur, Switzerland

12:39 PM - 12:45 PM

Abstract #1029: High throughput TCR sequencing greatly improves prediction of recurrence in primary melanomas

W. Pruessmann¹, J. Rytlewski², J. Wilmott³, M. Mihm¹, B. Dyring-Andersen¹, R. A. Clark¹, H. Robins², R. Scolyer³, T. Kupper¹

¹Dermatology, BWH/HMS, Boston, Massachusetts, United States, ²Adaptive Biotechnologies, Seattle, Washington, United States, ³Melanoma Institute Australia, Sydney, New South Wales, Australia

HERMAN BEERMAN LECTURE

Understanding People

FRIDAY, MAY 10, 2019

1:30 PM – 2:00 PM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Ponciano Cruz, MD**



Alex Pentland, PhD

Massachusetts Institute of Technology
Cambridge, MA

Alex Pentland, PhD has been selected to be the 2019 Herman Beerman Lecture recipient. Dr. Pentland received his bachelor's degree from the University of Michigan and later obtained his PhD in Psychology from Massachusetts Institute of Technology (MIT) in 1982.

He started as lecturer at Stanford University in both computer science and psychology, and joined the MIT faculty in 1986, where he became Academic Head of the Media Laboratory and received the Toshiba Chair in Media Arts and Sciences. He serves on the Boards of the UN Global Partnership for Sustainable Development Data, the American Bar Association, AT&T, and several of the startup companies he has co-founded. He previously co-founded and co-directed the Media Lab Asia laboratories at the Indian Institutes of Technology and Strong Hospital's Center for Future Health.

He directs the MIT Media Lab Human Dynamics Lab and MIT Connection Science Program which explore the use of big data and AI to better understand human society, and the Trust Data Alliance which is an alliance of companies and nations building open-source software that makes AI and big data safe, trusted and secure. He also manages the MIT Media Lab Entrepreneurship Program which creates ventures to take cutting edge technologies into the real world. He also serves as Academic Director of Data-Pop Alliance, a joint project on big data and human development co-created by the MIT Media Lab, the Harvard Humanitarian Initiative and the Overseas Development Institute.

In 2011 Forbes named him one of the world's seven most powerful data scientists along with a founder of Google and the CTO of the United States. His most recent books are 'Social Physics,' published by Penguin Press, and 'Honest Signals,' published by MIT Press. The SID looks forward to welcoming Dr. Pentland to the 2019 SID Annual Meeting.



LECTURESHIP HISTORY

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

EUGENE M. FARBER LECTURE***Towards Precision Therapeutics: A Systems Approach to Understanding Psoriasis Plaque Resolution and Endotype Analysis***

FRIDAY, MAY 10, 2019

2:00 PM – 2:30 PM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Nicole Ward, PhD****Nick Reynolds, MD**Newcastle University
Newcastle upon Tyne, UK

Nick Reynolds is Professor of Dermatology and Director of the MRC/EPSRC Molecular Pathology Node in Newcastle where he also leads a multi-disciplinary psoriasis service for patients with severe disease. After qualifying in medicine from the University of London, he received his dermatology and academic training in Bristol, Ann Arbor Michigan, USA and Newcastle upon Tyne, with research fellowship support from the British Association of Dermatologists, the Psoriasis Association and the Wellcome Trust.

Nick Reynolds' current research is focused on the mechanism of action of therapeutic agents in psoriasis and atopic eczema, human models of skin disease, systems biology and precision medicine. His group published one of the first personalized medicine studies in Dermatology – a randomised controlled trial of azathioprine in atopic eczema that utilised pharmacogenetic-based dosimetry (Lancet). His interdisciplinary and computer modelling studies of UVB phototherapy in psoriasis identified apoptosis as a biomarker of response and as a key mechanism involved in plaque remodelling. He has been a member of BADBIR's (British Association of Dermatologists Biologics Intervention Register) Steering Committee since its inception and has chaired the Research Committee since 2009. As work-strand lead in a multi-centre stratified medicine Programme – PSORT (Psoriasis Stratification to Optimise Relevant Therapy), he has contributed particularly to transcriptomic and systems analyses as well as working closely with patient groups. In 2016 he was appointed Director of Newcastle's MRC/EPSRC Molecular Pathology Node, one of six units established in the UK to bring researchers, clinicians and industry together to develop molecular diagnostic tools for personalized medicine.

He was the inaugural Chair of UK TREND (Translational Research Network in Dermatology) and is past president of the European Society for Dermatological Research (ESDR).

LECTURESHIP HISTORY

The Eugene M. Farber endowment was established by the family of Dr. Farber who devoted his scientific career to understanding the pathogenesis of psoriasis. In 2007, the SID Board of Directors voted to create the Eugene M. Farber Endowed Lecture. It is presented at the Society's Annual Meeting by an investigator whose work is relevant to expanding our insights into the pathophysiology and treatment of psoriasis.

Concurrent Minisymposium 7

Carcinogenesis and Cancer Genetics

Studies on the genetics and other causes of cancer as well as mechanisms relevant to metastasis

FRIDAY, MAY 10, 2019

2:45 PM - 5:15 PM

CONTINENTAL BALLROOM A

Presider(s): **Raymond Cho, MD and Carolyn Lee, MD/PhD**

2:45 PM - 2:57 PM

Abstract #130: Novel method for non-invasive assessment of molecular markers of UV exposure in normal skin

E. Muradova^{1,2}, S. Ojeda³, B. Sell², M. B. Mann², N. Patel^{1,2}, K. Y. Tsai²

¹College of Medicine, University of South Florida, Tampa, Florida, United States, ²Moffitt Cancer Center, Tampa, Florida, United States, ³MD Anderson Cancer Center, Houston, Texas, United States

2:57 PM - 3:09 PM

Abstract #169: Single-cell profiling of cutaneous T-cell lymphoma reveals underlying heterogeneity predicting disease progression

N. Borchering^{1,4,5}, A. Voigt⁵, V. Liu^{1,3,4}, B. Link^{6,4}, W. Zhang², A. Jabbari^{3,4,7}

¹Pathology, University of Iowa, Iowa City, Iowa, United States, ²Pathology, Immunology and Laboratory Medicine, University of Florida, Gainesville, Florida, United States, ³Dermatology, University of Iowa, Iowa City, Iowa, United States, ⁴Holden Comprehensive Cancer Center, University of Iowa, Iowa City, Iowa, United States, ⁵Medical Scientist Training Program, University of Iowa, Iowa City, Iowa, United States, ⁶Internal Medicine, University of Iowa, Iowa City, Iowa, United States, ⁷Interdisciplinary Program in Immunology, University of Iowa, Iowa City, Iowa, United States

3:09 PM - 3:21 PM

Abstract #110: Multiparameter tissue imaging reveals the cutaneous T cell lymphoma microenvironment in response to immunotherapy

D. Phillips, C. Schuerch, M. Khodadoust, Y. Kim, G. Nolan

Stanford, Stanford, California, United States

3:21 PM - 3:33 PM

Abstract #120: The novel AKT inhibitor afuresertib inhibits Merkel cell carcinoma through targeting TSC-mTOR and GSK-3 pathways

J. Wu, A. Limmer, H. Doan, R. Simonette, P. Rady, S. Tyring

UT Health Science Center, Houston, Texas, United States

3:33 PM - 3:45 PM

Abstract #131: Loss of PD-L1 expression in metastatic Merkel cell carcinoma strongly correlates with a poor prognosis

M. Nakamura¹, Y. Teramoto², M. Yasuda³, H. Wada⁴, T. Ozawa⁵, Y. Umemori⁶, D. Ogata⁷, T. Kobayashi⁸, M. Hata⁹, A. Morita¹

¹Nagoya City University, Nagoya, Japan, ²Saitama Medical University International Medical Center, Hidaka, Japan, ³Gunma University, Maebashi, Japan, ⁴Yokohama City University, Yokohama, Japan, ⁵Osaka City University, Osaka, Japan, ⁶Nagaoka Red Cross Hospital, Nagaoka, Japan, ⁷Saitama Medical University, Irima, Japan, ⁸Kanazawa University, Kanazawa, Japan, ⁹Gifu Prefectural General Medical Center, Gifu, Japan

3:45 PM - 3:57 PM

Abstract #132: Atoh1 is required for maintenance of Merkel cell carcinoma lineage identity

M. E. Verhaegen¹, D. Mangelberger¹, D. Wilbert¹, J. VanGoor¹, P. Harms², A. A. Dlugosz¹

¹Dermatology, University of Michigan, Ann Arbor, Michigan, United States, ²Pathology, University of Michigan, Ann Arbor, Michigan, United States

3:57 PM - 4:09 PM

Abstract #133: Translation and transforming activity of a circular RNA from human papillomavirus

J. Zhao¹, E. Lee¹, J. Kim², B. Chamseddin¹, R. Yang¹, M. Kim², X. Zhan², L. Laimins³, R. Wang¹

¹Dermatology, UT Southwestern Medical Center, Dallas, Texas, United States, ²Quantitative Biomedical Research Center, UT Southwestern Medical Center, Dallas, Texas, United States, ³Microbiology-Immunology, Northwestern University, Chicago, Illinois, United States

4:09 PM - 4:21 PM

Abstract #136: Dissecting intratumoral heterogeneity and microenvironment interactions in SCC through single-cell RNA-sequencing

A. Ji¹, A. Rubin¹, D. Reynolds¹, M. Guo¹, A. Bhaduri¹, B. George¹, S. Hollmig¹, S. Aasi¹, P. Khavari^{1,2}

¹Dermatology, Stanford University, Stanford, California, United States, ²Dermatology, VA Palo Alto Healthcare System, Palo Alto, California, United States

4:21 PM - 4:33 PM

Abstract #138: LAP2 proteins chaperone GLI1 movement between the lamina and chromatin to regulate transcription

A. N. Mirza

Department of Dermatology, Stanford School of Medicine, Stanford, California, United States

4:33 PM - 4:45 PM

Abstract #140: Paranuclear dot sequesters death receptors to inhibit apoptosis in Merkel cell carcinoma

N. T. Hill¹, L. Collado¹, K. Nagashima², P. Harms³, I. Brownell¹

¹Dermatology, National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, Maryland, United States, ²Frederick National Laboratory for Cancer Research, National Cancer Institute, Frederick, Maryland, United States, ³Department of Pathology, University of Michigan Medicine, Ann Arbor, Michigan, United States

4:45 PM - 4:57 PM

Abstract #143: Molecular targeting of the DNA binding domain of TOX protein results in selective inhibition of cutaneous T cell lymphoma cells

Y. Huang^{1,2}, V. Agrawal³, M. Su¹, A. Cherkasov³, Y. Zhou^{1,4}

¹Dermatology and Skin Science, University of British Columbia, Vancouver, British Columbia, Canada, ²Medicine, University of Toronto, Toronto, Ontario, Canada, ³Urological Science, University of British Columbia, Vancouver, British Columbia, Canada, ⁴Dermatologic Oncology, BC Cancer, Vancouver, British Columbia, Canada

4:57 PM - 5:09 PM

Abstract #160: Mechanisms governing promoter methylation and apoptosis in cutaneous T-cell lymphoma: implications for therapy with methotrexate and JAK-inhibitors

M. Nihal¹, J. Wu¹, G. S. Wood^{1,2}

¹Dermatology, University of Wisconsin, Madison, Wisconsin, United States, ²Dermatology, William S. Middleton VA Medical Center, Madison, Wisconsin, United States

Concurrent Minisymposium 8**Epidemiology**

Epidemiological research on any aspect of skin disease

FRIDAY, MAY 10, 2019

2:45 PM - 5:15 PM

INTERNATIONAL BALLROOM NORTH

Presider(s): **Zelma Chiesa Fuxench, MD and Aaron Drucker, MD****2:45 PM - 2:57 PM****Abstract #258: Temporal trends and abnormal values for laboratory monitoring during isotretinoin therapy for acne**
J. S. Barbieri, S. Wang, D. B. Shin, D. J. Margolis, J. Takeshita
University of Pennsylvania, Philadelphia, Pennsylvania, United States**2:57 PM - 3:09 PM****Abstract #227: Real-world drug discontinuation of acitretin (ACI), ciclosporin (CsA), fumaric acid esters (FAE) and methotrexate (MTX) in patients with moderate-severe psoriasis****K. J. Mason**

BADBIR Study Group, London, United Kingdom

3:09 PM - 3:21 PM**Abstract #189: Risk of serious infection in patients on systemic medications for the treatment of psoriasis: an observational comparative cohort study****E. Dommasch^{1,2}, M. P. Lee^{3,4}, J. J. Gagne^{2,3}**¹Dermatology, Beth Israel Deaconess Medical Center, Boston, Massachusetts, United States, ²Harvard Medical School, Boston, Massachusetts, United States, ³Division of Pharmacoepidemiology and Pharmacoeconomics, Dept of Medicine, Brigham and Women's Hospital, Boston, Massachusetts, United States, ⁴Dept of Epidemiology, University of North Carolina, Chapel Hill, North Carolina, United States**3:21 PM - 3:33 PM****Abstract #277: Heritability of tanning addiction: A prospective twin concordance study****R. Tripathi, K. D. Knusel, H. H. Ezaldein, J. S. Bordeaux, J. F. Scott**

Dermatology, Case Western Reserve University and University Hospitals Cleveland Medical Center, Cleveland, Ohio, United States

3:33 PM - 3:45 PM**Abstract #278: Incidence rates for cutaneous melanoma subtypes by US geographic region: analysis of data from the NCI nationwide SEER Program utilizing regional UV Index data****M. Murphrey¹, C. Rauck¹, T. Erickson¹, Y. Ali¹, E. C. Gwillim¹, J. Jimenez¹, W. Liszewski², D. P. West¹, J. K. Robinson¹, B. Nardone¹**¹Dermatology, Feinberg School of Medicine, Northwestern University, Chicago, Illinois, United States, ²Dermatology, University of Minnesota, Minneapolis, Minnesota, United States**3:45 PM - 3:57 PM****Abstract #170: Impact of congenital cutaneous hemangiomas on newborn care in the United States****R. Tripathi, K. Knusel, H. H. Ezaldein, J. S. Bordeaux, J. F. Scott**
Dermatology, Case Western Reserve University/University Hospitals, Cleveland, Ohio, United States**3:57 PM - 4:09 PM****Abstract #236: Morbidity and mortality of measles in US inpatients****R. Chovatiya, J. Silverberg**

Dermatology, Northwestern University, Chicago, Illinois, United States

4:09 PM - 4:21 PM**Abstract #191: Incidence, survival, and demographics of primary cutaneous gamma/delta T-cell lymphoma in the United States from 2006-2015: A surveillance, epidemiology, and end results-18 analysis****A. Goyal, K. Bohjanen, D. Pearson**

Dermatology, University of Minnesota, Minneapolis, Minnesota, United States

4:21 PM - 4:33 PM**Abstract #172: Associations of primary site and laterality on regional or distant metastases in Merkel cell carcinoma using a retrospective single-center database and SEER registry****S. Ghanian, J. Rhee, E. Cho, J. Walker**

Department of Dermatology, Brown University, Providence, Rhode Island, United States

4:33 PM - 4:45 PM**Abstract #226: Using a skin cancer polygenic risk score to stratify high- and low-risk individuals****M. R. Roberts¹, P. Kraft², M. Asgari¹**¹Dermatology, Massachusetts General Hospital, Boston, Massachusetts, United States, ²Biostatistics, Harvard TH Chan School of Public Health, Boston, Massachusetts, United States**4:45 PM - 4:57 PM****Abstract #272: Predictors of squamous cell carcinoma and implications for follow-up in high-risk patients in the Veterans Affairs Keratinocyte Carcinoma Chemoprevention (VAKCC) Trial****A. Misitzis^{1,4}, M. Beatson^{1,4}, S. Landow^{1,4}, R. Lew³, H. Higgins¹, M. Weinstock^{1,2}**¹Brown University Department of Dermatology, Providence, Rhode Island, United States, ²VA Medical Center, Department of Dermatology, Providence, Rhode Island, United States, ³VA Healthcare System, Boston, Massachusetts, United States, ⁴VA Medical Center Department of Dermatoepidemiology, Providence, Rhode Island, United States**4:57 PM - 5:09 PM****Abstract #194: Dermatologic assessment is associated with improved melanoma outcomes: population-based cohort study****P. Fleming¹, K. Fung², A. Chan^{1,2,3}**¹Medicine (Dermatology), Women's College Hospital, Toronto, Ontario, Canada, ²ICES, Toronto, Ontario, Canada, ³University of Toronto, Toronto, Ontario, Canada

Concurrent Minisymposium 9

Epidermal Structure and Barrier Function

Research on the components or regulation of keratinocyte proliferation, differentiation, including epidermal barrier function

FRIDAY, MAY 10, 2019

2:45 PM - 5:15 PM

INTERNATIONAL BALLROOM SOUTH

Presider(s): **Bogi Andersen, MD and Anna Mandinova, MD/PhD**

2:45 PM - 2:57 PM

Abstract #339: Keratin 1-keratin 10 helix 1B tetramer crystal structures reveal a knob-pocket mechanism important for proper assembly of intermediate filaments

A. J. Hinbest¹, M. Ho¹, S. A. Eldirany¹, I. B. Lomakin², C. G. Bunick^{1,2}

¹Dermatology, Yale University, New Haven, Connecticut, United States, ²Molecular Biophysics and Biochemistry, Yale University, New Haven, Connecticut, United States

2:57 PM - 3:09 PM

Abstract #346: The role of Ndel1 and Nde1 in regulating keratin assembly at the desmosome

Y. Kim, D. Hlavaty, J. Maycock, T. Lechler

Duke University, Durham, North Carolina, United States

3:09 PM - 3:21 PM

Abstract #358: Bioinformatic analysis of keratinocyte differentiation from induce pluripotent stem cells

Z. Guo, J. Jackow, D. Delorenzo, R. Hayashi, A. Christiano, A. Rami

Dermatology, Columbia University, New York, New York, United States

3:21 PM - 3:33 PM

Abstract #332: A noncoding RNA CRISPR-interference screen identifies novel regulators and pathways of human epidermis formation

A. Otten¹, P. Cai², B. Cheng¹, M. A. Ishii¹, K. Qu², B. Sun¹

¹Dermatology, University of California, San Diego, La Jolla, California, United States, ²Division of Molecular Medicine, University of Science and Technology of China, Hefei, Anhui, China

3:33 PM - 3:45 PM

Abstract #309: Differentiation-dependent expression of NIX promotes mitochondrial fission via dynamin-related protein 1 in epidermal keratinocytes

C. L. Simpson², E. L. Holzbaur¹

¹Physiology, Univ. of Pennsylvania, Philadelphia, Pennsylvania, United States, ²Dermatology, Univ. of Pennsylvania, Philadelphia, Pennsylvania, United States

3:45 PM - 3:57 PM

Abstract #290: Glycolytic control of keratinocyte differentiation

C. Sutter, K. Olesen, J. Bhujji, Z. Guo, T. Sutter

University of Memphis, Memphis, Tennessee, United States

3:57 PM - 4:09 PM

Abstract #310: Staphylococcus epidermidis cysteine protease EcpA is an epidermal barrier penetration enzyme

L. Cau^{1,2}, M. R. Williams¹, T. Nakatsuji¹, C. Mainzer⁴, B. Closs², A. Horswill³, R. L. Gallo¹

¹Dermatology, UCSD, La Jolla, California, United States, ²SILAB R&D, St. Viance, France, ³Immunology & Microbiology, UC Denver, Denver, Colorado, United States, ⁴SILAB Inc, East Brunswick, New Jersey, United States

4:09 PM - 4:21 PM

Abstract #312: Epigenetic modules governing skin epidermal homeostasis

S. Nayak¹, M. A. Cross¹, S. Brooks², P. Bible¹, K. Jiang², S. Dell'Orso³, G. Gutierrez-Cruz³, F. Naz³, H. Sun², M. Morasso¹

¹Laboratory of Skin Biology, NIAMS, National Institutes of Health, Bethesda, Maryland, United States, ²Biodata Mining and Discovery Section, NIAMS, National Institutes of Health, Bethesda, Maryland, United States, ³Office of Science and Technology, NIAMS, National Institutes of Health, Bethesda, Maryland, United States

4:21 PM - 4:33 PM

Abstract #350: Chromatin remodelling ATFase Lsh maintains DNA methylation at constitutive heterochromatin and prevents activation of silent transposable elements in epidermal keratinocytes

G. Chen¹, A. Aziz², V. Botchkarev¹, K. Muegge³, A. Sharov²

¹Dermatology, Boston University, Boston, Massachusetts, United States, ²Dermatology, Boston University School of Medicine, Boston, Massachusetts, United States, ³Center for Cancer Research, NCI, Frederick, Maryland, United States

4:33 PM - 4:45 PM

Abstract #313: In vivo enhancer deletion in the EDC results in decreased proximal *involucrin* and *Lce6a* target gene expression marked by less accessible chromatin

M. Mathyer¹, I. Y. Oh¹, S. Matkovich², A. M. Quiggle¹, C. de Guzman Strong¹

¹Division of Dermatology, Department of Medicine, Washington University School of Medicine, Saint Louis, Missouri, United States, ²Medicine, Washington University School of Medicine, Saint Louis, Missouri, United States

4:45 PM - 4:57 PM

Abstract #319: Epigenetic enhancer regulation in epithelial development and carcinogenesis

S. Egolf¹, Y. Aubert¹, A. Anderson¹, Y. Lan², A. Maldonado-Lopez¹, C. Simpson¹, M. Zarkos¹, K. Ge³, B. C. Capell^{1,2}

¹Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States, ²Penn Epigenetics Institute, University of Pennsylvania, Philadelphia, Pennsylvania, United States, ³NIH, Bethesda, Maryland, United States

Concurrent Minisymposium 10

Neuro-Cutaneous Biology and Inflammation

Basic, pre-clinical and clinical studies on skin Inflammation, crosstalk between the nervous and immune systems, and the relationship between cutaneous nerves and all aspects of skin biology including itch, pain, skin homeostasis and development

FRIDAY, MAY 10, 2019

2:45 PM – 5:15 PM

CONTINENTAL BALLROOM C

Presider(s): **Sarina Elmariah, MD/PhD and Sakeen Kashem, MD/PhD**

2:45 PM - 2:57 PM

Abstract #654: Mechanisms of itch, allergy and neurogenic Inflammation: Substance P functions through Mrgprs

E. Azimi, V. B. Reddy, S. B. Elmariah, T. Luo, E. A. Lerner

Cutaneous Biology Research Center, Massachusetts General Hospital, Charlestown, Massachusetts, United States

2:57 PM - 3:09 PM

Abstract #665: Pruritogen activation of human MRGPRX2

E. Azimi, V. B. Reddy, S. B. Elmariah, T. Luo, E. A. Lerner

Cutaneous Biology Research Center, Massachusetts General Hospital, Charlestown, Massachusetts, United States

3:09 PM - 3:21 PM

Abstract #645: Mrgprs activation is required for chronic itch conditions in mice

L. Han³, Y. Zhu¹, Q. Liu², C. Hanson¹

¹Biological Sciences, Georgia Institute of Technology, Atlanta, Georgia, United States, ²Anesthesiology, Washington University at St Louis, St. Louis, Missouri, United States, ³Biology, Georgia Institute of Technology, Atlanta, Georgia, United States

3:21 PM - 3:33 PM

Abstract #644: Tweak/fn14 signaling pathway participates in experimental atopic dermatitis

Q. Liu, H. Wang, X. Wang, Y. Xia

Dermatology, The Second Affiliated Hospital, School of Medicine, Xi'an Jiaotong University, Xi'an, Shaanxi, China

3:33 PM - 3:45 PM

Abstract #664: The neurokinin A/NK2R axis controls IL-10 levels to inhibit activation of cutaneous MCs *in vitro* and *in vivo*

T. Sumpter¹, Y. Li¹, L. D. Faló², A. Larregina¹

¹Dermatology, University of Pittsburgh, Pittsburgh, Pennsylvania, United States, ²Pittsburgh, Pittsburgh, Pennsylvania, United States

3:45 PM - 3:57 PM

Abstract #638: SPNS2 enables T cell egress from lymph nodes during an immune response

V. Fang, M. Okuniewska, A. Baeyens, S. R. Schwab

Pathology, Skirball Institute of Biomolecular Medicine at New York University School of Medicine, Ny, New York, United States

3:57 PM - 4:09 PM

Abstract #650: IL-31 produced by Th17 cells contributes to psoriasiform dermatitis

M. Fassett^{2,3,4}, C. Zhou^{3,1}, D. Mar^{3,4}, K. Ansel^{3,4}

¹Duke University, Durham, North Carolina, United States, ²Department of Dermatology, University of California, San Francisco, California, United States, ³Department of Microbiology and Immunology, University of California, San

Francisco, California, United States, ⁴Sandler Basic Asthma Research (SABRe) Center, University of California, San Francisco, California, United States

4:09 PM - 4:21 PM

Abstract #648: Machine-based learning identifies fish oil as a putative psoriasis drug: Efficacy in KC-Tie2 psoriasis mice via RXR activation and increases in fatty acid metabolism

D. Gruszka, B. Richardson, M. Mumaw, M. Cartwright, R. Xu, M. J. Cameron, N. L. Ward

CWRU, Cleveland, Ohio, United States

4:21 PM - 4:33 PM

Abstract #660: Recapitulating T cell infiltration in psoriasis for patient-specific drug testing models

J. Shin, H. E. Abaci, L. Herron, Z. Guo, Y. Doucet, J. Jackow, B. Sallee, A. Christiano

Dermatology, Columbia University, New York, New York, United States

4:33 PM - 4:45 PM

Abstract #640: The female-biased factor VGLL3 drives cutaneous and systemic autoimmunity

A. C. Billi¹, M. Gharaee-Kermani², J. Fullmer¹, A. Tsoi¹, B. Hill², D. Gruszka³, J. Ludwig³, X. Xing¹, S. Estadt², S. Wolf², S. M. Rizvi², C. C. Berthier², J. B. Hodgins², M. Beamer¹, M. K. Sarkar¹, R. Uppala¹, S. Shao⁴, P. Harms¹, M. E. Verhaegen¹, J. Voorhees¹, F. Wen², N. L. Ward³, A. A. Dlugosz¹, M. Kahlenberg², J. Gudjonsson¹

¹Dermatology, University of Michigan, Ann Arbor, Michigan, United States, ²University of Michigan, Ann Arbor, Michigan, United States, ³Dermatology, Case Western Reserve University, Cleveland, Ohio, United States, ⁴Dermatology, Xijing hospital, Fourth Military Medical University, Xi'an, Shaanxi, China

4:45 PM - 4:57 PM

Abstract #642: Targeting a Langerhans cell-keratinocyte axis in the skin as a novel approach to modulate systemic manifestations of lupus erythematosus

W. D. Shipman^{1,2,3}, S. Chyou³, C. M. Magro², R. D. Granstein², M. A. Lowes⁴, D. H. Kaplan, C. P. Blobel^{2,3}, T. T. Lu^{2,3}

¹Weill Cornell/Rockefeller/Sloan-Kettering MD-PhD Program, New York, New York, United States, ²Weill Cornell Medicine, New York, New York, United States, ³Hospital for Special Surgery, New York, New York, United States, ⁴Rockefeller University, New York, New York, United States, ⁵University of Pittsburgh, Pittsburgh, Pennsylvania, United States

4:57 PM - 5:09 PM

Abstract #651: Ablation of disintegrin and metalloproteinase 10 (ADAM10) disrupts hair follicle immune privilege

K. Sakamoto, T. Kobayashi, B. Voisin, D. Kim, K. Nagao

Dermatology Branch, National Institutes of Health, North Bethesda, Maryland, United States

Concurrent Minisymposium 11

Pharmacology and Drug Development

Basic and preclinical studies aimed at developing therapeutics, elucidating their mechanisms of action, and identifying biomarkers of drug activity

FRIDAY, MAY 10, 2019

2:45 PM - 5:15 PM

CONTINENTAL BALLROOM B

Presider(s): **Leigh Nattkemper, PhD** and **Bin Zheng, PhD**

2:45 PM - 2:57 PM

Abstract #720: Early-stage drug discovery reveals new targets for the treatment of Merkel cell carcinoma

K. Garman¹, T. Gelb¹, D. Urban², M. Hall², I. Brownell¹

¹Dermatology Branch, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, Maryland, United States, ²National Center for Advancing Translational Sciences, National Institutes of Health, Bethesda, Maryland, United States

2:57 PM - 3:09 PM

Abstract #681: Development of a topical Hedgehog inhibitor for prevention of new surgically eligible basal cell carcinomas in patients with Gorlin Syndrome: Phase 3 trial

K. Grycz¹, D. Hinds¹, P. Howland¹, G. Kochendoerfer¹, A. Alderman¹, V. Niranjani¹, S. Ravindran¹, E. H. Epstein¹

PellePharm, San Francisco, California, United States

3:09 PM - 3:21 PM

Abstract #688: Identification of biomarkers of early innate events during skin reaction following intradermal injection

J. Gonnet¹, C. Meriaux², L. Poncelet³, E. Goncalves¹, A. Sorria^{1,4}, D. Boccara^{1,5}, N. Tchitchek⁶, L. Weiss^{1,7}, A. Vogt⁷, E. Pedruzzi¹, O. Bonduelle¹, G. Hamm², R. Ait-Belkacem², I. Fournier², J. Stauber^{3,8}, M. Wisztorski², B. Combadiere¹

¹Centre d'immunologie-Maladies Infectieuses-Cimi, Lille, France, ²Protéomique Réponse Inflammatoire Spectrométrie de Masse-PRISM, Lille, France, ³ImaBiotech SAS, Loos, France, ⁴Hôpital Universitaire Est Parisien, Paris, France, ⁵Hôpital Saint-Louis, Paris, France, ⁶CEA-Université Paris Sud 11-INSERM U1184, Paris, France, ⁷Clinical Research Center for Hair-Skin Science, Berlin, Germany, ⁸ImaBiotech Corp, Billerica, Massachusetts, United States

3:21 PM - 3:33 PM

Abstract #677: Discovery and characterization of a small molecule IL-36γ antagonist as a novel approach to treat plaque psoriasis

V. Todorovic³, Z. Su³, C. Putman¹, S. J. Kakavas¹, K. Salte³, H. A. McDonald³, J. Wetter³, S. E. Paulsboe³, Q. Sun¹, L. Medina², B. Sielaff², C. Gerstein³, L. Olson³, H. Stockmann¹, P. Richardson¹, W. Qiu¹, M. A. Argiriadi², R. F. Henry², M. J. Herold², S. McGaraghty³, P. Honore³, J. Shotwell¹, S. M. Gopalakrishnan¹, C. C. Sun¹, V. E. Scott³

¹AbbVie Inc., North Chicago, Illinois, United States, ²AbbVie Bioresearch Center, Worcester, Massachusetts, United States, ³Immunology/ Dermatology, AbbVie, North Chicago, Illinois, United States

3:33 PM - 3:45 PM

Abstract #673: Real-world persistence with dupilumab among adults with atopic dermatitis (AD)

J. Silverberg¹, E. Guttman-Yassky², A. Gadkari³, A. Kuznik³, U. G. Mallya⁴, V. Mastey⁵, H. Zhang⁶, Z. Chen³, C. Chen⁴, A. Korotzer⁷, D. Sierka⁷, M. C. Fenton⁸, M. Kaur⁸, J. J. Jalbert⁵

¹Dermatology, Northwestern University Feinberg School of Medicine, Chicago, Illinois, United States, ²Mt Sinai Health System, New York, New York, United States, ³Regeneron, Tarrytown, New York, United States, ⁴Univ of New Mexico, Albuquerque, New Mexico, United States, ⁵Regeneron, Tarrytown, New York, United States, ⁶Regeneron, Tarrytown, New York, United States, ⁷Sanofi, Bridgewater, New Jersey, United States, ⁸Sanofi, Cambridge, Massachusetts, United States

3:45 PM - 3:57 PM

Abstract #714: Productivity losses in adults with atopic dermatitis (AD): A cross-sectional study from clinical practices in Europe and Canada

M. de Bruin-Weller¹, A. Gadkari², S. Auziere³, L. Puig⁴, G. Girolomoni⁵, K. A. Papp⁶, A. Pink⁷, G. Saba³, T. Werfel⁸, G. Bégo-Le-Bagousse⁹, Z. Chen¹⁰, A. Kuznik³, L. Eckert⁹

¹Department of Dermatology and Allergology, UMC Utrecht, Utrecht, Netherlands, ²Regeneron, Tarrytown, New York, United States, ³Kantar Health, Paris, France, ⁴Hospital Santa Creu i Sant Pau, Barcelona, Spain, ⁵Univ Verona, Verona, Italy, ⁶Probity Med Res, Waterloo, Ontario, Canada, ⁷St. John's Inst of Derm, London, United Kingdom, ⁸Med Univ Hannover, Hannover, Germany, ⁹Sanofi, Paris, France, ¹⁰Regeneron, Tarrytown, New York, United States

¹Regeneron, Tarrytown, New York, United States, ²Univ of S California, Los Angeles, California, United States, ³Mt Sinai Health System, New York, New York, United States, ⁴Northwestern Univ, Evanston, Illinois, United States, ⁵IQVIA, Collegeville, Pennsylvania, United States, ⁶IQVIA, Collegeville, Pennsylvania, United States, ⁷Univ of S California, Los Angeles, California, United States, ⁸Sanofi, Cambridge, Massachusetts, United States, ⁹Sanofi, Bridgewater, New Jersey, United States

3:57 PM - 4:09 PM

Abstract #692: Real-world effectiveness of dupilumab based on Investigator Global Assessment (IGA) and peak Pruritus Numerical Rating Scale (PNRS) scores

L. F. Eichenfield¹, A. Gadkari¹, A. W. Armstrong², E. Guttman-Yassky³, P. Lio⁴, C. Chen⁵, D. M. Hines⁶, C. McGuinness⁵, M. C. Fenton⁸, R. Miao⁹, Z. Chen¹, M. Kaur⁸, A. Korotzer¹, U. G. Mallya⁹

¹Regeneron, Tarrytown, New York, United States, ²Univ of S California, Los Angeles, California, United States, ³Mt Sinai Health System, New York, New York, United States, ⁴Northwestern Univ, Evanston, Illinois, United States, ⁵IQVIA, Collegeville, Pennsylvania, United States, ⁶IQVIA, Collegeville, Pennsylvania, United States, ⁷Univ of S California, Los Angeles, California, United States, ⁸Sanofi, Cambridge, Massachusetts, United States, ⁹Sanofi, Bridgewater, New Jersey, United States

4:09 PM - 4:21 PM

Abstract #683: Exploratory study to examine the gene expression effects of topical retinol on aging-related pathways in individuals of East Asian descent

L. Guan¹, L. Zha¹, J. Xu¹, R. Li¹, D. Kern², H. Knaggs², A. Chang¹

¹Dermatology, Stanford University School of Medicine, Redwood City, California, United States, ²NuSkin Enterprises, Inc., Provo, Utah, United States

4:21 PM - 4:33 PM

Abstract #709: Development of a high-throughput, cell-based phenotypic assay to identify novel anti-fibrotic medicines to prevent scar formation after burn injury

A. R. Laphorn¹, M. M. Ilg¹, J. V. Sullivan², P. Dziewulski², S. Celtek¹

¹Medical Technology Research Centre, Anglia Ruskin University, Chelmsford, United Kingdom, ²St. Andrew's Centre for Plastic Surgery & Burns, Chelmsford, United Kingdom

4:33 PM - 4:45 PM

Abstract #724: Adiponectin mimetic reverses the obesity-related increase in psoriasis severity in a mouse model: A novel therapeutic approach

H. Liu¹, S. Yu¹, J. Varga², A. S. Paller¹

¹Dermatology, Northwestern University, Chicago, Illinois, United States, ²Medicine-Rheumatology, Northwestern University, Chicago, Illinois, United States

4:45 PM - 4:57 PM

Abstract #711: Propranolol exhibits activity against hemangiomas independent of beta blockade

M. Sasaki^{1,2}, J. Buble¹, J. M. Eley¹, P. E. North³, S. Wu⁴, M. Zou⁴, S. Rao¹, J. L. Arbiser^{1,2,5}

¹Dermatology, Emory University, Atlanta, Georgia, United States, ²Pathology and Laboratory Medicine, Atlanta Veterans Affairs Medical Center, Decatur, Georgia, United States, ³Children's Hospital of Wisconsin, Milwaukee, Wisconsin, United States, ⁴Center for Molecular and Translational Medicine Research Science Center, Atlanta, Georgia, United States, ⁵Winship Cancer Institute, Atlanta, Georgia, United States

4:57 PM - 5:09 PM

Abstract #717: Peripheral blockade of T-type calcium channels by DX416 inhibits acute itch and modulates immune response

J. Kreitinger¹, V. M. Gadotti², B. Uhlenbruck¹, N. Wageling¹, G. Zamponi², P. Diaz^{1,3}

¹DermaXon, Missoula, Montana, United States, ²University of Calgary, Calgary, Alberta, Canada, ³BMED, University of Montana, Missoula, Montana, United States

Concurrent Minisymposium 12

Skin of Color

Studies of the pathogenesis or treatment of skin diseases that disproportionately affect patients from, or are more severe in their manifestation in, racial/ethnic groups with skin of color; such as keloids, scarring alopecias, disorders of pigmentation, systemic lupus erythematosus, dermatomyositis, among others

FRIDAY, MAY 10, 2019

2:45 PM - 5:15 PM

WALDORF ROOM

Presider(s): **Crystal Aguh, MD and Benjamin Chong, MD**

2:45 PM - 2:57 PM

Abstract #851: Calreticulin, an endoplasmic reticulum stress sensor, modulates human melanocytes apoptosis: Possible implication in vitiligo pathogenesis?

P. Song, W. Zhang, G. Wang, T. Gao, L. Liu, C. Li

Department of Dermatology, Xijing Hospital, Fourth Military Medical University, Xi'an, Shaanxi, China

2:57 PM - 3:09 PM

Abstract #858: Persistent hypoxia signaling maintains glucose dependence and chronic fibrosis in keloid fibroblasts

J. Richert, V. M. Harvey, J. Chan

Skin of Color Research Institute, Hampton University, Hampton, Virginia, United States

3:09 PM - 3:21 PM

Abstract #861: Association between keloids and atopic dermatitis: a cross-sectional study at a tertiary care center

A. C. Eseonu¹, R. Khanna¹, A. Basirat², D. Glass^{3,4}, S. G. Kwatra¹

¹Dermatology, Johns Hopkins School of Medicine, Baltimore, Maryland, United States, ²Dermatology, UT Southwestern Medical Center, Dallas, Texas, United States, ³UT Southwestern Medical Center, Dallas, Texas, United States, ⁴McDermott Center for Human Growth and Development, UT Southwestern Medical Center, Dallas, Texas, United States

3:21 PM - 3:33 PM

Abstract #850: Proteomic blood signature of African American patients with atopic dermatitis shows more prominent Th2 activation and Th1 attenuation compared to other ethnicities

H. He¹, R. Li¹, L. Zhou¹, S. Choi¹, Y. Estrada¹, J. G. Krueger², E. Guttman-Yassky^{1,2}

¹Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²The Rockefeller University, New York, New York, United States

3:33 PM-3:45 PM

Abstract #855: Inpatient burden of prurigo nodularis in the United States

K. Whang, S. Kang, S. G. Kwatra

Department of Dermatology, Johns Hopkins University School of Medicine, Baltimore, Maryland, United States

3:45 PM - 3:57 PM

Abstract #854: GWAS of acne vulgaris among African Americans

A. Khan¹, M. Hayes⁴, J. Connolly², F. Mentch², B. Almoquera², H. Hakonarson², J. Denny³, C. Wang¹, G. Hripcsak¹, K. Kiryluk¹, L. Petukhova¹

¹Columbia, NY, New York, United States, ²CHOP, Philadelphia, Pennsylvania, United States, ³Vanderbilt, Nashville, Tennessee, United States, ⁴Northwestern, Chicago, Illinois, United States

3:57 PM - 4:09 PM

Abstract #848: Genes implicated in lipid & metabolic regulation downregulated in CCCA

J. Lamb Thomas^{1,2}, Y. Dina³, S. Rachidi², L. Garza², C. Aguh²

¹School of Medicine, UT Southwestern, Dallas, Texas, United States, ²Dermatology, Johns Hopkins School of Medicine,

Baltimore, Maryland, United States, ³School of Medicine, Meharry Medical College, Nashville, Tennessee, United States

4:09 PM - 4:21 PM

Abstract #863: Central centrifugal cicatricial alopecia gene expression analysis revealed cholesterol, fatty acid, and mast cell pathways

E. Wang, B. Sallee, J. C. Chen, L. Herron, L. A. Bordone, A. Christiano

Dermatology, Columbia University, New York, New York, United States

4:21 PM - 4:33 PM

Abstract #856: Ethnic variations in scalp pruritus and hair loss

O. Osemwota¹, C. M. Herbosa³, C. Zhong³, S. G. Kwatra², L. Huff³, Y. R. Semenov³

¹St. Louis Dermatology Center, St. Louis, Missouri, United States, ²Dermatology, Johns Hopkins School of Medicine, Baltimore, Maryland, United States, ³Dermatology, Washington University School of Medicine, St. Louis, Missouri, United States

4:33 PM - 4:45 PM

Abstract #852: Racial differences in adolescent perceptions of skin color and tone: A questionnaire and colorimetric-based cross-sectional study

S. Patel¹, A. M. Bender¹, O. Tang², S. G. Kwatra^{1,2}, A. Grossberg¹

¹Dermatology, Johns Hopkins University, Baltimore, Maryland, United States, ²Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States

4:45 PM - 4:57 PM

Abstract #857: Psoriasis-related quality-of-life differs by race/ethnicity

J. Takeshita¹, M. Augustin², E. de Jong⁵, K. Lafferty⁴, W. Langhoff³, R. Langley⁶, C. Leonardi⁷, A. Menter⁸, A. Alexis⁹

¹University of Pennsylvania, Philadelphia, Pennsylvania, United States, ²Univ Medical Center Hamburg, Director Institute of Health Care Research in Dermatology and Nursing, Hamburg, Germany, ³Janssen Research & Development, LLC, Spring House, Pennsylvania, United States, ⁴Janssen Scientific Affairs, LLC, Horsham, Pennsylvania, United States, ⁵Radboud Univ Medical Center, Nijmegen, Netherlands, ⁶Dalhousie Univ, Halifax, Nova Scotia, Canada, ⁷Central Dermatology, St. Louis, Missouri, United States, ⁸Mentor Dermatology Research Institute, Dallas, Texas, United States, ⁹Icahn School of Medicine at Mount Sinai, New York, New York, United States

4:57 PM - 5:09 PM

Abstract #864: Genetics of pigmentation changes in a pediatric population

H. Tang¹, C. Little¹, J. Aalborg², N. Asdigian², T. Terzian³, R. Dellavalle¹, A. Barón⁴, S. Mokrohisky¹, J. Morelli¹, L. Crane², N. Box¹

¹Dermatology, University of Colorado, Aurora, Colorado, United States, ²Community and Behavioral Health, Colorado School of Public Health, Aurora, Colorado, United States, ³Dermatology, University of Colorado - Denver, Aurora, Colorado, United States, ⁴Biostatistics and Bioinformatics, Colorado School of Public Health, Aurora, Colorado, United States

STATE-OF-THE-ART PLENARY LECTURES

In Recognition of Dr. Stephen I. Katz

LECTURE III

Skin Microbiome: Opposing Roles in Barrier Function, Inflammation, and Repair

FRIDAY, MAY 10, 2019

5:45 PM – 6:15 PM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Masayuki Amagai, MD/PHD**



Elizabeth Grice, PhD

University of Pennsylvania
Philadelphia, PA

Elizabeth A. Grice, PhD, is an Associate Professor of Dermatology and Microbiology at the University of Pennsylvania Perelman School of Medicine in Philadelphia, PA. Research in the Grice laboratory integrates genomics, microbiology, skin biology, and bioinformatics to investigate the skin microbiome and its roles in cutaneous barrier function, tissue repair, and colonization resistance to pathogens. Dr. Grice began her scientific training as an undergraduate at Luther College and then received a PhD in Human Genetics from Johns Hopkins University in 2006. She then completed an NIGMS PRAT fellowship in Dr. Julia Segre's lab at the NIH. Dr. Grice has received numerous awards for her work, including the Penn Medicine Michael S. Brown New Investigator Award, the Penn One Health Award, and the Burroughs Wellcome Fund Investigator in the Pathogenesis of Infectious Disease Award.

LECTURE IV

Mining Nature's Chemistry: Ethnobotany and Drug Discovery for Dermatologic Applications

FRIDAY, MAY 10, 2019

6:15 PM – 6:45 PM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Sarolta Kárpáti, MD/PhD**



Cassandra Quave, PhD

Emory University
Atlanta, GA

Dr. Cassandra Quave is Curator of the Emory University Herbarium and Assistant Professor of Dermatology and Human Health at Emory University, where she leads drug discovery research initiatives and teaches undergraduate courses on medicinal plants, food and health. Trained as a medical ethnobotanist, her research focuses on the documentation and biochemical analysis of botanical remedies used in the traditional treatment of infectious and inflammatory skin disease. She earned her B.S. in Biology and Anthropology from Emory University in 2000, her Ph.D. in Biology from Florida International University in 2008, and completed post-doctoral fellowships in Microbiology at the University of Arkansas for Medical Sciences (2009-2011) and Human Health at Emory University (2012). Her research has been supported by the NIH (T32, F31, F32, R01, R21), industry contracts, and philanthropy. To date, she has authored more than 60 publications, 2 edited books and 3 patents. Dr. Quave is the co-founder and CEO/CSO of PhytoTEK LLC, a drug discovery company dedicated to developing solutions from botanicals for the treatment of antibiotic resistant infections and recalcitrant wounds. She is also a Past President of the President of the Society for Economic Botany, an international society with the mission of fostering research and education on the past, present, and future uses of plants by people. She has been the subject of feature profiles in the New York Times Magazine, BBC Focus, Brigitte Magazin and the National Geographic Channel, and her work has been featured on NPR, in the National Geographic Magazine and several major news outlets including the Washington Post, The Telegraph, CBS News and NBC News. Follow her research on Twitter (@QuaveEthnobot), Instagram (@quaveethnobot), Facebook (@QuaveMedicineWoman) or LinkedIn (Cassandra Quave).



Progress In Epidermolysis Bullosa DEBRA Symposium at SID

FRIDAY, MAY 10, 2019

7:00 PM – 10:00 PM

CONTINENTAL BALLROOM C

(Organized by Angela Christiano, Brett Kopelan and Jouni Uitto)

PROGRAM

1. **Cristina Has** (Freiburg University)
Update of Classification and Nomenclature of EB: Summary of the 2019 DEBRA International Consensus Meeting
2. **Bahar Dasgeb** (Thomas Jefferson University)
The DEBRA Adult EB and Complex Skin Cancer Clinic: The Jefferson Experience
3. **Alain Hovnanian** (Necker-Enfants Malades Hospital, Paris)
Research Advances Towards Treatment and Cure of EB
4. **Abstract Presentations on Cutting Edge EB Research**
 - Marcel F. Jonkman In Memoriam Abstract**
Yenamandra et al. (University Medical Center Groningen, The Netherlands)
Abstract #414
Uncovering the cause of early lethality in generalized severe junctional epidermolysis bullosa
 - Twariski & Tolar (University of Minnesota, USA)**
Abstract #396
Revertant mosaic fibroblasts in recessive dystrophic epidermolysis bullosa
 - Torkelson et al.** (University of Colorado, USA)
Abstract #1036
Scalable production of CRISPR-corrected autologous iPSC derived skin grafts to treat epidermolysis bullosa
5. **Brett Kopelan** (DEBRA of America)
Future Treatments of EB: Industry Panel Discussion

Refreshments served.

Funding for this symposium is provided by: Amryt Pharma, Berg Health, Castle Creek Pharma, Constant Therapeutics, Fibrocell Science, Innova Therapeutics, Krystal Biotech, and ProQR



American Hair Research Society Scientific Meeting and Annual General Meeting

FRIDAY, MAY 10, 2019

7:00 PM - 9:30 PM

INTERNATIONAL BALLROOM NORTH

PRESIDERS:

John T. Seykora, MD/PhD, Chair, Scientific Program Committee,
and Maria K. Hordinsky, MD, President

7:00 PM**Poster Viewing & Reception**

1. The role of the leaky gut in the development of alopecia areata. Alexa Abdelaziz, R. Perez-Lorenzo, B. Sallee, E.H. Wang and A. Christiano. *Abstract Final ID #519.*

2. Simvastatin decreases AA-associated Inflammation through effects on isoprenoid metabolites. Gina DelCanto, A. Bayer, C. Cabello Kindelan, A. Mendez and JJ. Jimenez. *Abstract Final ID #98*

3. CD4 T cells require CD8 T cells to induce disease in murine alopecia areata. Sydney Crotts, L. Ortolan and A. Jabbari. *Abstract Final ID #99*

4. LFA-1 blockade prevents the onset of alopecia areata in C3H/HeJ mice. Zhenpeng Dai, E. Wang, E. Lee, A. de Jong and A. Christiano. *Abstract Final ID #97*

5. In search of the common mechano-chemical pathways during the regeneration of spiny (acomys cahirinus) and laboratory (mus musculus) mouse skin. Hans I-Chen Harn, T. Jiang, S. Wang, Y. Liang, C. Chuong and Y. Lai. *Abstract Final ID #965*

6. Overexpression of cyclooxygenase-2 in the skin of adult transgenic mice leads to sebaceous gland hyperplasia and thinning of hair shafts. Christian Hopkins, Y. Zheng, R Yang, A. Nace, J. You, C. Gill, E. Bernardis, J. Hsieh and G. Cot.sarellis. *Abstract Final ID #919*

7. Tsc2 disruption in mesenchymal progenitors regulates hair follicles and TGF beta signaling. Peter Klover, R Thangapazham, J. Wang, S. Li, T. Darling, J. Moss, MD Wilkerson and CL. Dalgard. *Abstract Final ID #376*

8. OR2AT4 activation by a synthetic odorant, stimulates dermcidin production in human hair follicle epithelium and increases follicular resistance to bacterial contamination: A novel antimicrobial folliculitis therapy? Janin Lehmann, L. Ponce, M. Bertolini, R. Paus, J. Chéret, F. Jimenez and H. Erdmann. *Abstract Final ID #495*

9. Dermal white adipose tissue secretes hepatocyte growth factor to promote human hair follicle growth and pigmentation. Ralf Paus, C. Nicu, J. Hardmann, T. Lai, D. Ansell, J. People and R. Bhogal. *Abstract Final ID #922*

10. The non-coding control region of Trichodysplasia spinulosa polyomavirus is responsible for cell-type specific viral gene expression *in vivo*. Li-Jyun Syu, D. Wilbert, AA. Dlugosz, E. van der Meijden and MC. Feltkamp. *Abstract Final ID #920*

11. Autoantigen screening in C3H/HeJ mouse model of alopecia areata revealed high antigenicity of melanocyte-associated antigen epitopes. Eddy Hsi Chun Wang, S. Erjavec, Cl. Tejeda and A. Christiano. *Abstract Final ID #85*

12. Cicatricial alopecias are characterized by a core set of shared molecular pathways that represent new targets for therapy. Eddy Hsi Chun Wang, B. Sallee, J. Chen, LA. Bordone and A. Christiano. *Abstract Final ID #451*

7:45 PM**Welcome and Awards****7:50 PM****Keynote Speaker**

Delineating a path for hair follicle dermal niche specification that starts before morphogenesis

Peggy Myung, MD/PhD

Assistant Professor of Dermatology and of Pathology
Yale School of Medicine

8:15 PM**Oral Presentations**

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

1. Identification of T cell receptor α and β chains responsible for AA pathogenesis via single cell TCR sequencing. Gwennaëlle Celine Monnot, Z. Dai, A de Jong, A. Christiano and A. Han. *Abstract Final ID #96*

2. An eQTL in syntaxin17 (STX17) leads to disrupted melanogenesis in alopecia areata. Stephanie O Erjavec, A. Christiano, R. Gund and B. Sallee. *Abstract Final ID #838*

3. Trpv3 gain-of-function mutation impairs differentiation of hair follicle inner root sheath. Zhongya Song, X. Chen, J. Chen, Z. Song, Q. Zhao, Z. Lin, S. Yang, Y. Yang and T. Chen. *Abstract Final ID #889*

9:00 PM**AHRS Annual Business Meeting**

Visit www.Americanhairresearchsociety.org for more information about the AHRS and membership!



SATO Pharmaceutical CO., LTD., Tokyo, Japan SATO Scientific Forum at SID2019

FRIDAY, MAY 10, 2019

7:00 PM - 9:30 PM

INTERNATIONAL BALLROOM NORTH



Dr. Emma Guttman-Yassky

Sol and Clara Kest Professor and Vice Chair for Research at the Department of Dermatology, Director of the Center for Excellence in Eczema, Director of the Laboratory of Inflammatory Skin Diseases at the Icahn School of Medicine Mount Sinai Medical Center, New York.

Atopic Dermatitis - Evolving Pathogenesis and Therapeutics

Dr. Emma Guttman-Yassky is the Sol and Clara Kest Professor and Vice Chair for Research at the Department of Dermatology, Director of the Center for Excellence in Eczema, and Director of the Laboratory of Inflammatory Skin Diseases at the Icahn School of Medicine at Mount Sinai Medical Center, New York. She earned her MD from Sackler in Tel-Aviv, and a PhD. from Bar-Ilan, Israel. After her Israeli Board certification in dermatology at the Rambam Medical Center at the Technion, Dr. Guttman moved to the U.S. to pursue a postdoctoral fellowship at Laboratory for Investigative Dermatology at The Rockefeller University and a second dermatology residency training at Weill-Cornell, NY, being uniquely board certified in dermatology both in the US and Israel.

Dr. Guttman's major clinical and research area of expertise is inflammatory skin diseases with major focus on atopic dermatitis or eczema and alopecia areata, as well as other inflammatory skin diseases. She made paradigm-shifting discoveries on the immunologic basis of AD/eczema in humans, opening the door to new therapeutics. Dr. Guttman has developed the only comprehensive molecular maps of AD, defining skin differentiation and immune-circuits characterizing this disease. She has established the reversibility of the AD phenotype and defined a series of biomarkers that are now accelerating testing of novel pathway-specific drugs for AD. Her research on atopic dermatitis/eczema has contributed directly to many of the recently developed treatments for this disease, earning her a unique place as one of the leaders in dermatology and immunology worldwide. She has also shown

that Atopic dermatitis is a complex disease with distinct phenotypes based on ethnicity, age and other factors. She has shown that atopic dermatitis in Asian and African American patients is different from atopic dermatitis in European American patients, with important therapeutic implications. She is now testing (both clinically and mechanistically) multiple targeted-therapeutics for atopic dermatitis. She has recently also extended her research interest to alopecia areata in which her findings are also translated to novel therapeutic targets. She has co-founded the international eczema council/IEC, for which she functions as president. This organization now comprises of the vast majority of top experts in atopic dermatitis/eczema worldwide. She is also on the scientific advisory board of the national eczema association. She was elected to the American Society for Clinical Investigation/ASCI, the American Dermatological Society/ADA, and received the Young Investigator Award (2011) from the AAD, as well as other awards. She has also been elected to serve on the board of the American Skin Association.

Dr. Guttman is considered one of the world's leading experts in inflammatory skin diseases and authored more than 150 articles and is often invited as a keynote speaker to multiple international and national meetings. Her achievements have been numerous highlighted by the media including the New York Times, ABC news, CBS news, Daily news, Reuters, wall street journal, NY1, and others.

Dr. Guttman divides her time between a busy clinic, where she sees patients from all over the US and the world, that are coming to seek her advice in treating inflammatory skin diseases, and her growing laboratory that focuses on research on the mechanisms underlying inflammatory skin diseases, leading to novel treatments for these patients.

Chair: **Prof. Yoshiki TOKURA, MD/PhD**

Professor and Chairman, Department of Dermatology Hamamatsu University School of Medicine, Hamamatsu JAPAN



Saturday Sessions

PAGE	TITLE
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110	Diversity and Inclusion Session
111	Concurrent Minisymposium 13: Innate Immunity, Microbiology, and Microbiome
112	Concurrent Minisymposium 14: Pigmentation and Melanoma
113	Concurrent Minisymposium 15: Skin, Appendages, and Stem Cell Biology
114	Concurrent Minisymposium 16: Tissue Regeneration and Wound Healing
115	Concurrent Minisymposium 17: Translational Studies
116-117	Chinese Society for Investigative Dermatology (CSID) Research Forum



JUST ANNOUNCED!

**The 2024 SID Annual Meeting
will take place at the**

**Hilton Anatole in Dallas, Texas
May 15 - 18, 2024**



Meeting-At-A-Glance

SATURDAY, MAY 11, 2019

7:00 AM – 12:00 PM
On-Site Registration
 8TH ST. S. REGISTRATION AREA

8:00 AM – 8:30 AM
Albert M. Kligman/Phillip Frost Leadership Lecture:
25 Years of Riding the Hair Wave
GEORGE COTSARELIS, MD
 INTERNATIONAL BALLROOM NORTH



8:30 AM – 9:30 AM
Plenary Session III
 INTERNATIONAL BALLROOM NORTH

9:30 AM – 10:00 AM
Diversity and Inclusion Session
 INTERNATIONAL BALLROOM NORTH

10:00 AM – 12:30 PM
**Concurrent Minisymposium 13: Innate Immunity,
 Microbiology, Microbiome**
 INTERNATIONAL BALLROOM NORTH

10:00 AM – 12:30 PM
Concurrent Minisymposium 14: Pigmentation and Melanoma
 INTERNATIONAL BALLROOM SOUTH

10:00 AM – 12:30 PM
**Concurrent Minisymposium 15: Skin, Appendages, and Stem
 Cell Biology**
 CONTINENTAL BALLROOM B

10:00 AM – 12:30 PM
**Concurrent Minisymposium 16: Tissue Regeneration and
 Wound Healing**
 CONTINENTAL BALLROOM C

10:00 AM – 12:30 PM
Concurrent Minisymposium 17: Translational Studies
 CONTINENTAL BALLROOM A

12:45 PM – 2:45 PM
Poster Session III/Coffee Break
 STEVENS SALONS B/C/D
 SEE PAGE 13 FOR POSTER NUMBER LISTINGS

ASSOCIATE GROUP PROGRAMMING IS TAKING PLACE TODAY.
 SEE PAGE 6 FOR DAILY SCHEDULE.

Albert M. Kligman/Phillip Frost Leadership Lecture and Award *25 Years of Riding the Hair Wave*

SATURDAY, MAY 11, 2019

8:00 AM – 8:30 AM

INTERNATIONAL BALLROOM NORTH

Introduction by: **Ed Cowen, MD**



George Cotsarelis, MD

University of Pennsylvania
Philadelphia, PA

Dr. Cotsarelis is the Milton B. Hartzell Professor and Chair of the Department of Dermatology at the University of Pennsylvania Perelman School of Medicine. He received his undergraduate and medical degrees from the University of Pennsylvania. He performed a medical internship at Geisinger Medical Center and his dermatology residency at the Hospital of the University of Pennsylvania. He subsequently completed a Dermatology Foundation postdoctoral research fellowship in the Department of Dermatology and then a Howard Hughes Medical Institute Postdoctoral Research Fellowship for Physicians in the Department of Pathology at Penn. Dr. Cotsarelis is a member of numerous professional organizations including the American Society for Clinical Investigation, the Association of American Physicians, the American Academy of Dermatology, the Society for Investigative Dermatology, the Dermatology Foundation, and the American Dermatological Association. He directs the Hair and Scalp Clinic at Penn and is an Assistant Director of the Edwin and Fannie Gray Hall Center for Human Appearance and Director of the Program on Epithelial Regeneration and Stem Cells at the Penn Institute for Regenerative Medicine, as well as former President of the North American Hair Research Society. Dr. Cotsarelis has received numerous awards, including the SID's Montagna lecturer, the AAD's Marion Sulzberger Award and the Mancunian Skin Club's Lifetime Achievement Award. He has an honorary degree from China Medical University. His research focuses on hair follicle stem cells, alopecia and skin regeneration. He has published many high-impact research manuscripts, served on an array of grant review panels, and presented numerous invited lectures throughout the U.S. and abroad. Dr. Cotsarelis has held research support from the National Institutes of Health for over twenty years.



LECTURESHIP HISTORY

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

Plenary Session III

SATURDAY, MAY 11, 2019

8:30 AM – 9:30 AM

INTERNATIONAL BALLROOM NORTH

Presiders: **Kurt Lu, MD and Peggy Myung, MD/PhD**

8:30 AM - 8:42 AM

Abstract #901: HDAC3 complexes with KLF4 and NCoR/SMRT to control epidermal gene expression

K. Szigety¹, F. Liu¹, J. Katz², K. Kaestner³, M. Lazar², S. Millar¹

¹Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States, ²Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, United States, ³Genetics, University of Pennsylvania, Philadelphia, Pennsylvania, United States

8:42 AM - 8:54 AM

Abstract #918: Skin morphogenesis by coupling biochemical-bioelectric signals: Calcium oscillations coordinate dermal cell movement by epidermis-derived SHH signaling during feather bud orientation

A. Li¹, J. Cho², T. Jiang¹, Y. Zhou³, M. Zhao⁴, R. Widelitz¹, R. Chow², C. Chuong¹

¹Pathology, University of Southern California, Los Angeles, California, United States, ²Physiology & Neuroscience, University of Southern California, Los Angeles, California, United States, ³Texas A&M, Houston, Texas, United States, ⁴UC Davis, Sacramento, California, United States

8:54 AM - 9:06 AM

Abstract #577: Successful allogeneic epidermal grafting of chronic recessive dystrophic epidermolysis bullosa wounds from hematopoietic cell donors in the outpatient setting

C. L. Ebens¹, J. Braun¹, G. Lilja¹, S. Preusser¹, M. Tekmen-Clark¹, D. Keene², M. Riddle¹, J. Tolar¹

¹Pediatric Blood and Marrow Transplantation, University of Minnesota, Minneapolis, Minnesota, United States, ²Shriners Hospital, Portland, Oregon, United States

9:06 AM - 9:18 AM

Abstract #287: Polycomb repressive complex 1 (PRC1) preserves epidermal tissue integrity independently of PRC2

I. Cohen¹, D. Zhao², G. Menon³, M. Nakayama⁴, H. Koseki⁵, D. Zheng⁶, E. Ezhkova¹

¹Black Family Stem Cell Institute, Department of Cell, Developmental, and Regenerative Biology, Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²Department of Genetics, Albert Einstein College of Medicine, Bronx, New York, United States, ³California Academy of Sciences, San Francisco, California, United States, ⁴Department of Frontier Research and Development, Kazusa DNA Research Institute, Kisarazu, Chiba, Japan, ⁵Laboratory for Developmental Genetics, RIKEN Center for Integrative Medical Sciences (RIKEN-IMS), Tsurumi-ku, Yokohama, Japan, ⁶Departments of Genetics, Neurology, and Neuroscience, Albert Einstein College of Medicine, Bronx, New York, United States

9:18 AM - 9:30 AM

Abstract #366: Unraveling keratinocyte gene regulatory networks with single-cell crispr screening and epigenomic profiling

M. Ramanathan¹, A. Rubin¹, K. Parker¹, A. Satpathy¹, W. Greenleaf², H. Chang¹, P. Khavari¹

¹Dermatology, Stanford University, Los Altos, California, United States, ²Genetics, Stanford University, Stanford, California, United States

Diversity and Inclusion Session

SATURDAY, MAY 11, 2019

9:30 AM - 10:00 AM

INTERNATIONAL BALLROOM NORTH



Welcome & Introduction,

Cory Simpson, MD, PhD

Clinical Instructor, Department of Dermatology, University of Pennsylvania, Philadelphia, PA



“Challenges in Achieving Diversity in Dermatology”,

Amit Pandya, MD

Professor, Department of Dermatology, University of Texas Southwestern Medical Center, Dallas, TX

Dr. Pandya has written multiple articles and book chapters in the field of dermatology and has given lectures and served as a visiting professor nationally and internationally. He has a special interest in vitiligo, melasma and other pigmentary disorders. His ongoing clinical and translational research is focused on the etiology, epidemiology, measurement, quality of life, diagnosis and treatment of these cutaneous disorders. He is also interested in mentorship, diversity and pipeline Programs.

9:55 AM

Q&A

Concurrent Minisymposium 13

Innate Immunity, Microbiology, and Microbiome

Studies of cells, receptors and effector molecules of the innate immune response; studies on skin microbes, microbiome and infectious processes of the skin

SATURDAY, MAY 11, 2019

10:00 AM - 12:30 PM

INTERNATIONAL BALLROOM NORTH

Presider(s): **Tiffany C. Scharschmidt, MD and Philip Scumpia, MD/PhD**

10:00 AM - 10:12 AM

Abstract #525: Novel peptide from commensal *Staphylococcus simulans* blocks MRSA quorum sensing and protects host skin from damage

M. M. Brown¹, D. Todd², N. Cech², A. Horswill¹

¹Immunology & Microbiology, The University of Colorado Anschutz Medical Campus, Aurora, Colorado, United States, ²Chemistry & Biochemistry, The University of North Carolina Greensboro, Greensboro, North Carolina, United States

10:12 AM - 10:24 AM

Abstract #514: A tryptophan metabolite of the skin microbiota attenuates inflammation in atopic dermatitis via the aryl hydrocarbon receptor

J. Yu, Z. Zhu, G. Wang, W. Li

Department of Dermatology, Xijing Hospital, Fourth Military Medical University, Xi'an, China

10:24 AM - 10:36 AM

Abstract #473: Competition between AMP kingdoms in atopic dermatitis leads to depletion of the defense function of the skin microbiome against *S. aureus*

T. Nakatsuji, A. Butcher, J. Y. Cheng, F. Shafiq, T. Hata, R. L. Gallo

Dermatology, UCSD, San Diego, California, United States

10:36 AM - 10:48 AM

Abstract #507: Diet-induced obesity impairs the antimicrobial function of dermal fat

L. Zhang^{1,2}, S. X. Chen², F. Li², X. Zhang¹, M. Yin¹, R. L. Gallo²

¹Pharmaceutical Science, Xiamen University, Xiamen, Fujian, China, ²Dermatology, University of California San Diego, San Diego, California, United States

10:48 AM - 11:00 AM

Abstract #487: Dynamics of IL-1R signaling in innate and adaptive immunity against a *Staphylococcus aureus* skin infection in mice

Q. Liu, H. Liu, M. Mazhar, M. Alphonse, R. Yu, Y. Wang, R. Ortines, D. Dikeman, R. Miller, N. Archer, L. Miller

Department of Dermatology, Johns Hopkins University School of Medicine, Baltimore, Maryland, United States

11:00 AM - 11:12 AM

Abstract #467: Soluble Interleukin-36 receptor antagonizes IL-36/IL-36R signaling to control skin inflammation in psoriasis

W. Wang, Y. Lai

East China Normal University, Shanghai, China

11:12 AM - 11:24 AM

Abstract #503: IL-36 β renders keratinocytes resistant to herpes simplex virus-1 through interferon response factor-1 (IRF1) dependent and independent pathways

P. Wang¹, A. Gamero², L. E. Jensen¹

¹Microbiology and Immunology, Temple University School of Medicine, Philadelphia, Pennsylvania, United States, ²Temple University School of Medicine, Philadelphia, Pennsylvania, United States

11:24 AM - 11:36 AM

Abstract #520: Body site heterogeneity and microbial diversity is lost in individuals with hidradenitis suppurativa

A. Schneider, L. Cook, X. Zhan, K. Banerjee, Z. Cong, Y. Imamura-Kawasawa, S. Gettle, A. Longenecker, J. Kirby, A. Nelson

Penn State College of Medicine, Hershey, Pennsylvania, United States

11:36 AM - 11:48 AM

Abstract #452: Cutibacterium acnes carbohydrates from multiple phylotypes induce IL-17: A potential ligand implicated in acne disease pathogenesis.

P. T. Tran¹, E. Evron², M. Qin², I. Dohil¹, A. Baugh¹, G. Agak², J. Kim²

¹David Geffen School of Medicine at UCLA, Los Angeles, California, United States, ²Division of Dermatology, David Geffen School of Medicine at UCLA, Los Angeles, California, United States

11:48 AM - 12:00 PM

Abstract #526: Gut dysbiosis in alopecia areata patients reveals overabundance of firmicutes and under representation of bacteroides

B. Sallee¹, R. Perez-Lorenzo¹, E. H. Wang¹, J. C. Chen², A. R. Abdelaziz², L. A. Bordone¹, A. Christiano¹

¹Dermatology, Columbia University, New York, New York, United States, ²Dermatology, Columbia University Medical Center, New York, New York, United States, ³Columbia University, New York, New York, United States

12:00 PM - 12:12 PM

Abstract #474: Binding of ubiquitin by A20 restricts psoriatic skin and joint disease

B. Razani¹, M. Whang², R. Advincula², J. Oses³, A. Burlingame³, B. Malynn², A. Ma²

¹Department of Dermatology, UCSF and Veterans Affairs Medical Center, San Francisco, California, United States, ²School of Medicine, UCSF, San Francisco, California, United States, ³Pharmaceutical Chemistry, UCSF, San Francisco, California, United States

12:12 PM - 12:24 PM

Abstract #462: Differential requirement for CCR6 in IL-23 DNA minicircle-mediated skin and joint inflammation

Z. Shi², I. E. Adamopoulos¹, C. Nguyen¹, S. T. Hwang²

¹Division of Rheumatology, Allergy and Clinical Immunology, University of California Davis School of Medicine, Sacramento, California, United States, ²Department of Dermatology, University of California Davis School of Medicine, Sacramento, California, United States

Concurrent Minisymposium 14

Pigmentation and Melanoma

Studies on all aspects of cutaneous and extracutaneous pigmentation; molecular cellular and biological facets of melanoma

SATURDAY, MAY 11, 2019

10:00 AM - 12:30 PM

INTERNATIONAL BALLROOM SOUTH

Presider(s): **Liang Deng, MD/PhD and Nancy Thomas, MD/PhD**

10:00 AM - 10:12 AM

Abstract #783: Evaluating the impact of high-dose steroids on checkpoint inhibitor efficacy in a murine model of melanoma

M. Ferreira, W. Damsky, M. Rosenberg

Dermatology, Yale School of Medicine, New Haven, Connecticut, United States

10:12 AM - 10:24 AM

Abstract #799: Sex differences in central carbon metabolism underlie sex differences in melanoma patient survival

B. M. Michalski¹, L. Cornelius¹, J. Ippolito²

¹Dermatology, Washington University in St. Louis, St. Louis, Missouri, United States, ²Radiology, Washington University in St. Louis, Saint Louis, Missouri, United States

10:24 AM - 10:36 AM

Abstract #820: m6A mRNA demethylase FTO regulates tumorigenicity and response to anti-PD-1 immunotherapy in melanoma

S. Yang¹, J. Wei², Y. Cui¹, P. Shah¹, Y. Deng¹, A. Aplin³, Z. Lu², C. He², Y. He¹

¹University of Chicago, Chicago, Illinois, United States, ²University of Chicago, Chicago, Illinois, United States, ³Thomas Jefferson University, Philadelphia, Pennsylvania, United States

10:36 AM - 10:48 AM

Abstract #843: Immune checkpoint molecule PD-1H/VISTA expression correlates with melanoma survival

M. D. Vesely², P. Gaule¹, L. Chen³

¹Pathology, Yale University, New Haven, Connecticut, United States, ²Dermatology, Yale University, Stamford, Connecticut, United States, ³Immunobiology, Yale University, New Haven, Connecticut, United States

10:48 AM - 11:00 AM

Abstract #831: Bortezomib-induced immunogenic cell death enhances immune response in melanoma

S. M. Daignault¹, R. Ju¹, L. Spoerri¹, S. J. Stehbens¹, D. S. Hill², B. Gabrielli¹, R. Dolcetti¹, N. K. Haass¹

¹The University of Queensland Diamantina Institute, The University of Queensland, Woolloongabba, Queensland, Australia, ²Newcastle University, Newcastle upon Tyne, United Kingdom

11:00 AM - 11:12 AM

Abstract #816: Autophagy inhibition sensitizes targeted therapy-resistant melanoma to MEK1/2 inhibitors

A. Truong^{1,2}, C. Kinsey², M. Foth², M. Scherzer^{1,2}, J. Sanchez², M. McMahon^{2,4}

¹Department of Oncological Sciences, University of Utah, Salt Lake City, Utah, United States, ²Huntsman Cancer Institute, Salt Lake City, Utah, United States, ³Department of Pathology, University of Utah, Salt Lake City, Utah, United States, ⁴Department of Dermatology, University of Utah, Salt Lake City, Utah, United States

11:12 AM - 11:24 AM

Abstract #834: Rational design of recombinant modified vaccinia virus Ankara for cancer immunotherapy

N. Yang¹, Y. Wang¹, S. Shuman², T. Merghoub³, J. D. Wolchok³, L. Deng¹

¹Dermatology Service/Department of Medicine, Memorial Sloan Kettering Cancer Center, New York, New York, United States, ²Molecular Biology Program, Memorial Sloan Kettering Cancer Center, New York, New York, United States, ³Melanoma and Immunotherapeutics Service/Department of Medicine, Memorial Sloan Kettering Cancer Center, New York, New York, United States

11:24 AM - 11:36 AM

Abstract #823: Biomarker approaches for anti-PD-1 in melanoma: A meta-analysis

S. Lu¹, J. Stein¹, L. Danilova², C. Hoyt³, J. Taube¹

¹Dermatology, Johns Hopkins School of Medicine, Baltimore, Maryland, United States, ²Biostatistics & Bioinformatics, Johns Hopkins School of Medicine, Baltimore, Maryland, United States, ³Akoya Biosciences, Hopkinton, Massachusetts, United States

11:36 AM - 11:48 AM

Abstract #837: Depletion of senescent cells reduces growth of mouse melanoma

R. Perez-Lorenzo¹, S. O. Erjavec¹, C. G. Drake², A. Christiano¹

¹Dermatology, Columbia University, New York, New York, United States, ²Medicine, Columbia University, New York, New York, United States

11:48 AM - 12:00 PM

Abstract #825: Keratinocyte desmoglein 1 controls keratinocyte/melanocyte paracrine signaling to regulate the tanning response

Q. R. Roth-Carter², C. Arnette², J. Koetsier², J. A. Broussard^{2,1}, H. E. Burks², P. Gerami^{1,3}, J. Johnson^{2,1}, K. Green^{2,1}

¹Dermatology, Northwestern University, Chicago, Illinois, United States, ²Pathology, Northwestern University, Chicago, Illinois, United States, ³Pediatrics, Northwestern University, Chicago, Illinois, United States

12:00 PM - 12:12 PM

Abstract #846: Resistance to apoptosis and PD-L1 induction in melanoma is associated with suppressed aryl hydrocarbon receptor signaling

J. Mohammed, N. Estharabadi

Dermatology, University of Minnesota, Minneapolis, Minnesota, United States

12:12 PM - 12:24 PM

Abstract #832: Total body photography facilitates early melanoma detection and improves survival

J. L. Strunck¹, T. Smart³, K. Boucher³, A. M. Secrest², D. Grossman^{2,3}

¹University of Utah School of Medicine, Salt Lake City, Utah, United States, ²Dermatology, University of Utah, Salt Lake City, Utah, United States, ³Huntsman Cancer Institute, Salt Lake City, Utah, United States

Concurrent Minisymposium 15

Skin, Appendages, and Stem Cell Biology

Studies on the hair follicle, sebaceous gland, and other skin appendages; developmental biology of skin and hair; roles of stem cells in pre and post-natal growth and development

SATURDAY, MAY 11, 2019

10:00 AM - 12:30 PM

CONTINENTAL BALLROOM B

Presider(s): **Ya-Chieh Hsu, PhD and Sunny Wong, PhD**

10:00 AM - 10:12 AM

Abstract #886: Proteomic and phosphoproteomic analysis reveals distinct signatures and regulatory signaling in quiescent and primed hair follicle stem cells

W. Wang¹, Y. Liao², C. Chen¹, S. Tee¹, S. Fan¹, Y. Chen^{3,2}, S. Lin^{1,4}
¹Department of Biomedical Engineering, National Taiwan University, Taipei, Taiwan, ²Department of Chemistry, National Taiwan University, Taipei, Taiwan, ³Institute of Chemistry, Academia Sinica, Taipei, Taiwan, ⁴Department of Dermatology, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan

10:12 AM - 10:24 AM

Abstract #874: DNA dioxygenases Tet1/2/3 control hair shaft-specific differentiation in the hair follicle keratinocytes via modulation of BMP signaling

G. Chen¹, Q. Xu², M. Fessing³, A. N. Mardaryev³, A. Sharov¹, G. Xu², V. Botchkarev^{3,1}
¹Dermatology, Boston University, Boston, Massachusetts, United States, ²Shanghai Institute Biochemistry Cell Biol CAS, Shanghai, China, ³University of Bradford, Bradford, United Kingdom

10:24 AM - 10:36 AM

Abstract #925: Small molecule targeting of multiple signaling pathways for hair follicle formation from mouse neonatal cells
J. You^{1,2}, M. Farrell^{1,3}, Y. Zheng¹, R. Yang¹, A. Nace¹, D. Huh³, G. Cotsarelis¹

¹Dermatology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, United States, ²Roy & Diana Vagelos Program in Life Sciences & Management, College of Arts & Sciences and the Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania, United States, ³Department of Bioengineering, School of Engineering and Applied Science, University of Pennsylvania, Philadelphia, Pennsylvania, United States

10:36 AM - 10:48 AM

Abstract #887: Hair follicle dermal condensate cells originate from a selectively proliferative dermal progenitor population
D. Dong, K. Gupta, P. Weng, J. Levinsohn, P. Myung
 Dermatology, Yale University, New Haven, Connecticut, United States

10:48 AM - 11:00 AM

Abstract #905: Dysfunction of hair follicle mesenchymal progenitors is associated with age-related hair loss
W. Shin¹, N. Rosin¹, H. Sparks¹, S. Sinha¹, W. Rahmani¹, M. Workentine¹, S. Abbasi¹, J. Stratton^{1,2}, J. Biernaskie^{1,2,3}
¹Comparative Biology and Experimental Medicine, University of Calgary, Calgary, Alberta, Canada, ²Hotchkiss Brain Institute, Calgary, Alberta, Canada, ³Alberta Children's Hospital Research Institute, Calgary, Alberta, Canada

11:00 AM - 11:12 AM

Abstract #904: Alterations in stem cell self-renewal in aged human epidermis

A. Charruyer^{1,2}, T. Weisenberger^{1,2}, H. Li^{3,2}, R. Ghadially^{1,2}
¹Dermatology, UCSF, Alameda, California, United States, ²VA, San Francisco, California, United States, ³Dermatology, University of California, San Francisco, Daly City, California, United States

11:12 AM - 11:24 AM

Abstract #900: Single cell RNA seq (scrRNA-seq) defines early and late epithelial transit amplifying (TA) cells

R. M. Lavker, N. Kaplan, H. Peng
 Dermatology, Northwestern University, Chicago, Illinois, United States

11:24 AM - 11:36 AM

Abstract #926: Keratin 17: A novel regulator of nuclear morphology and chromatin organization

J. T. Jacob¹, M. Matunis¹, R. R. Nair², P. A. Coulombe^{2,3}
¹Biochemistry and Molecular Biology, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States, ²Cell & Developmental Biology, University of Michigan, Ann Arbor, Michigan, United States, ³Dermatology, University of Michigan, Ann Arbor, Michigan, United States

11:36 AM - 11:48 AM

Abstract #883: Mechanical regulation of stem cell proliferation and fate decisions by their differentiated daughters

W. Ning¹, A. Muroyama², T. Lechler¹
¹Dermatology, Duke University, Durham, North Carolina, United States, ²Biology, Stanford University, Stanford, California, United States

11:48 AM - 12:00 PM

Abstract #879: Dynamic regulation of sebaceous gland stem cells during skin homeostasis and aging

N. A. Veniaminova, M. Grachtchouk, O. Doane, J. Peterson, A. A. Dlugosz, A. Tsoi, S. Y. Wong
 Dermatology, University of Michigan, Ann Arbor, Michigan, United States

12:00 PM - 12:12 PM

Abstract #914: Histone demethylase LSD1 is required for the embryonic development of dendritic epidermal T cells and Langerhans cells

Y. Wang^{1,2}, J. Zhang^{1,2}, Y. Yao¹, J. Wang¹, B. Yang², L. Zhou¹, Q. Mi¹
¹Dermatology, Henry Ford Health System, Detroit, Michigan, United States, ²Dermatology, Dermatology Hospital of Southern Medical University, Guangzhou, Guangdong, China

12:12 PM - 12:24 PM

Abstract #865: Frontal fibrosing alopecia is associated with dysregulation of cholesterol biosynthesis pathways, fibrosis and mast cells

B. Sallee, E. H. Wang, J. C. Chen, J. Lavian, L. A. Bordone, A. Christiano
 Columbia University, New York, New York, United States

Concurrent Minisymposium 16

Tissue Regeneration and Wound Healing

Wound healing and regeneration studies; processes/signaling that regulate vascular development and angiogenesis; interactions between different skin components (epithelial cells, dermal cells, nerves, vasculature, melanocytes, fat) in homeostasis and regeneration

SATURDAY, MAY 11, 2019

10:00 AM - 12:30 PM

CONTINENTAL BALLROOM C

Presider(s): **Elizabeth Grice, PhD and Katherine Radek, PhD**

10:00 AM - 10:12 AM

Abstract #944: Non-coding double stranded RNA induces retinoic acid synthesis and retinoid signaling to control regeneration

D. Kim¹, R. Chen¹, S. Kim¹, N. Islam¹, L. Miller¹, S. Kang¹, G. Ghiaur³, W. Huang², J. Yu², M. Kane², L. Garza¹

¹Dermatology, Johns Hopkins Medical Institute, Baltimore, Maryland, United States, ²Pharmaceutical Sciences, University of Maryland, Baltimore, Maryland, United States, ³Oncology, Johns Hopkins Medical Institute, Baltimore, Maryland, United States

10:12 AM - 10:24 AM

Abstract #968: Enhancing the efficiency of engineered hair follicles with master regulators and extrinsic factors

H. E. Abaci, A. Coffman, Y. Doucet, J. C. Chen, J. Jackow, E. Wang, Z. Guo, A. Christiano

Dermatology, Columbia University, New York, New York, United States

10:24 AM - 10:36 AM

Abstract #978: CD44 expression on leukocytes is dynamically regulated by ECRG4

R. A. Dorschner¹, X. Dang², B. Eliceiri², A. Baird²

¹Dermatology, University of California, San Diego, California, United States, ²Surgery, University of California, San Diego, California, United States

10:36 AM - 10:48 AM

Abstract #939: A novel dermal hyaluronidase (Cemip) controls reactive adipogenesis and innate immune defense against *S. aureus* infection

T. Dokoshi, F. Li, R. L. Gallo

University of California San Diego, La Jolla, California, United States

10:48 AM - 11:00 AM

Abstract #943: Temporal-spatial activation of Wnt-signaling within Type1 / Type 2 immunity during wound healing

R. A. Ferrer, M. D. Ordieres, J. C. Simon, S. Franz

Dermatology, Leipzig University Medical Center, Leipzig, Germany

11:00 AM - 11:12 AM

Abstract #952: Topical nicotinic receptor activation improves wound bacterial infection outcomes by suppressing TLR2-mediated inflammation in diabetic wounds

M. Kishibe^{1,2}, T. M. Griffin², S. A. Kristian², K. A. Radek²

¹Department of Dermatology, Asahikawa Medical University, Asahikawa, Hokkaido, Japan, ²Department of Surgery, Loyola University Chicago, Maywood, Illinois, United States

11:12 AM - 11:24 AM

Abstract #956: Epidermal autophagy deficiency impairs skin wound healing through inhibiting keratinocyte proliferation and migration and fibroblast activation

L. Qiang, S. Yang, Y. Cui, Y. He

University of Chicago, Chicago, Illinois, United States

11:24 AM - 11:36 AM

Abstract #949: Single cell RNA-seq and single cell ATAC-seq analyses during a treatment for dystrophic epidermolysis bullosa

T. Shimbo¹, S. Yamazaki^{1,2}, T. Kitayama^{1,2}, Y. Ouchi^{1,2}, R. Yamamoto^{1,2}, E. Takaki^{1,2}, Y. Kikuchi¹, L. Bruckner-Tuderman³, J. Uitto⁴, Y. Kaneda¹, K. Tamai¹

¹Osaka University, Suita, Osaka, Japan, ²StemRIM Co., Ltd., Ibaraki, Japan, ³University of Freiburg, Freiburg, Germany, ⁴Dermatology and Cutaneous Biology, Thomas Jefferson University, Philadelphia, Pennsylvania, United States

11:36 AM - 11:48 AM

Abstract #974: Single-cell analysis identifies heterogeneity of fibroblasts and myeloid-derived adipocytes in regenerating mouse skin wounds

C. F. Guerrero-Juarez^{2,1}, P. Dedhia², S. Jin¹, Q. Nie^{1,2}, G. Cotsarelis³, M. Plikus²

¹Mathematics/Developmental and Cell Biology, University of California, Irvine, Irvine, California, United States, ²Developmental and Cell Biology, University of California, Irvine, Irvine, California, United States, ³Department of Dermatology, University of Pennsylvania, Philadelphia, Pennsylvania, United States

11:48 AM-12:00 PM

Abstract #976: Knockout of mTOR/Akt inhibitor REDD1 results in hair cycle-independent dermal adipose expansion by promoting adipocyte differentiation

G. Rivera Gonzalez¹, A. Klopot², K. Sabin³, G. Baida², V. Horsley³, I. Budunova²

¹Developmental Biology, Washington University in St. Louis, St. Louis, Missouri, United States, ²Dermatology, Northwestern University, Chicago, Illinois, United States, ³MCDB, Yale University, New Haven, Connecticut, United States

12:00 PM - 12:12 PM

Abstract #930: SOX2 epidermal overexpression promotes cutaneous wound healing via activation of EGFR/MEK/ERK signaling mediated by EGFR ligands

A. Uchiyama¹, S. Nayak¹, S. Nayak¹, M. A. Cross¹, A. Overmiller¹, D. Grassini¹, A. Sawaya¹, J. Gutkind², S. Brooks³, M. Morasso¹

¹Laboratory of Skin Biology, NIAMS, NIH, Bethesda, Maryland, United States, ²Department of Pharmacology and Moores Cancer Center, University of California San Diego, La Jolla, California, United States, ³Biodata Mining and Discovery Section, NIH, NIAMS, Bethesda, Maryland, United States

12:12 PM - 12:24 PM

Abstract #972: The ATP-dependent chromatin remodeler BRG1 controls epidermal keratinocytes migration during human cutaneous wound healing

C. Kellett¹, N. Botchkareva¹, R. Bhogal³, M. Fessing²

¹School of Chemistry and Biosciences, University of Bradford, Bradford, United Kingdom, ²School of Chemistry and Biosciences/Faculty of Life Sciences, University of Bradford, Bradford, United Kingdom, ³Global R&D Centre, Unilever, Sharnbrook, United Kingdom

Concurrent Minisymposium 17

Translational Studies

Including studies involving human tissue and human cells including biomarker studies that furthers our understanding of skin disease

SATURDAY, MAY 11, 2019

10:00 AM - 12:30 PM

CONTINENTAL BALLROOM A

Presider(s): **Brian Kim, MD and Paul Nghiem, MD/PhD**

10:00 AM - 10:12 AM

Abstract #983: Fatty-acid-binding protein 5 induces Th17 polarization in atopic dermatitis patients with allergic march
J. Lee¹, B. Kim¹, H. Chu¹, J. Kim¹, S. Kim¹, Z. Sun¹, J. Park³, T. Kupper², C. Park¹, K. Lee¹

¹Department of Dermatology, Yonsei University College of Medicine, Seoul, Korea (the Republic of), ²Department of Dermatology, Brigham and Women's Hospital, Boston, Massachusetts, United States, ³Division of Allergy and Immunology, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Korea (the Republic of)

10:12 AM - 10:24 AM

Abstract #1016: Single-cell RNA-sequencing provides novel cell-specific molecular profiling in skin of atopic dermatitis patients and controls

H. He¹, H. Suryawanshi², J. Gay-Mimbrera³, N. Kameyama¹, H. Kim¹, P. Morozov², J. Ruano Ruiz³, J. G. Krueger², T. Tuschl², E. Guttman-Yassky^{1,2}

¹Icahn School of Medicine at Mount Sinai, New York, New York, United States, ²The Rockefeller University, New York, New York, United States, ³Reina Sofia University Hospital, Cordoba, Spain

10:24 AM - 10:36 AM

Abstract #1024: Upadacitinib treatment of atopic dermatitis patients leads to reductions in epidermal hyperplasia and cellular infiltrates

T. Song¹, A. B. Pavel¹, X. Peng¹, E. Del Duca¹, Y. Estrada¹, K. M. Grebe², J. Parmentier², H. D. Teixeira³, L. A. Beck⁴, E. Guttman-Yassky¹

¹Icahn School of Medicine at the Mount Sinai Medical Center, New York, New York, United States, ²AbbVie Bioresearch Center, Worcester, Massachusetts, United States, ³AbbVie, Inc., North Chicago, Illinois, United States, ⁴University of Rochester Medical Center, Rochester, New York, United States

10:36 AM - 10:48 AM

Abstract #990: 0.005% hypochlorite reduces serine protease in cultured human keratinocytes and alleviates itch of atopic skin

C. Lan, S. Huang, Y. Chen

Department of Dermatology, Kaohsiung Medical University, Kaohsiung, Taiwan

10:48 AM - 11:00 AM

Abstract #980: Single-cell RNA sequencing-guided patient care in refractory drug-induced hypersensitivity syndrome/ drug reaction with eosinophilia and systemic symptoms

D. Kim, T. Kobayashi, B. Voisin, J. Jo, H. H. Kong, K. Nagao

Dermatology Branch, NIAMS, NIH, Bethesda, Maryland, United States

11:00 AM - 11:12 AM

Abstract #994: Risk and association of HLA alleles with methimazole induced cutaneous adverse reactions in Chinese Han population

H. Xiong¹, M. Jiang², W. Zhang², H. Ye¹, Z. Chen¹, F. Zeng¹, S. Chen¹, Q. Xing², X. Luo¹

¹Huashan Hospital, Fudan University, Shanghai, China, ²Institutes of Biomedical Sciences, Shanghai, China

11:12 AM - 11:24 AM

Abstract #1008: Personalized treatment of cutaneous T-cell lymphoma through application of a targeted next generation sequencing panel

E. B. Wang, K. Rieger, R. Novoa, H. Stehr, S. Yee, A. Lares, Y. Kim, M. Khodadoust

Stanford University, Stanford, California, United States

11:24 AM - 11:36 AM

Abstract #1031: Human polyomavirus 7 (HPyV7)-associated eruptions in immunocompromised hosts

R. Rosenstein², D. V. Pastrana¹, G. J. Starrett¹, M. R. Sapio³, J. Jo², N. T. Hill², C. Lee¹, M. J. Iadarola³, I. Brownell², H. H. Kong², C. B. Buck¹, E. W. Cowen²

¹NCI/NIH, Bethesda, Maryland, United States, ²NIAMS/NIH, Bethesda, Maryland, United States, ³CC/NIH, Bethesda, Maryland, United States

11:36 AM - 11:48 AM

Abstract #988: An open-label phase 2 clinical trial of topical retinostat gel for basal cell carcinoma

N. Urman, S. Eichstadt, H. Do, A. N. Mirza, S. Li, A. Oro, S. Aasi, K. Y. Sarin

Dermatology, Stanford University, Stanford, California, United States

11:48 AM - 12:00 PM

Abstract #999: Ultra-thin, adhesive-less epidermal electronic systems with in-sensor analytics for neonatal intensive care

S. Xu^{1,2}, A. Paller^{1,2}, J. Rogers²

¹Dermatology, Northwestern University, Chicago, Illinois, United States, ²Center for Bio-Integrated Electronics, Northwestern University, Evanston, Illinois, United States

12:00 PM - 12:12 PM

Abstract #1021: Intravenous gentamicin therapy for recessive dystrophic epidermolysis bullosa patients harboring nonsense mutations

D. Woodley¹, A. Kwong¹, J. Cogan¹, Y. Hou¹, V. Lincoln¹, L. Mosallaei¹, G. Kim¹, D. Peng¹, D. Keene², M. Chen¹

¹University of Southern California, Los Angeles, California, United States, ²Shriners Hospital for Children, Portland, Oregon, United States

12:12 PM - 12:24 PM

Abstract #1018: Pathophysiology of itch in bullous pemphigoid

T. Hashimoto^{1,2}, C. Kursewicz¹, R. Fayne¹, S. Nanda¹, S. Shah¹, L. Nattkemper¹, H. Yokozeki², G. Yosipovitch¹

¹Department of Dermatology and Cutaneous Surgery, University of Miami, Miami, Florida, United States, ²Department of Dermatology, Tokyo Medical and Dental University, Tokyo, Japan

Chinese Society for Investigative Dermatology (CSID) Research Forum Sponsored by Shenzhen Kangzhe Pharmaceutical Co., Ltd

SATURDAY, MAY 11, 2019

1:00 PM - 4:00 PM

WALDORF ROOM

1:00 PM

Opening Remarks and Welcome:

Gang Wang, MD/PhD*; **Qianjin Lu, MD/PhD****; and **Sam Hwang, MD/PhD*****

*President, (CSID), Vice President, Chinese Society of Dermatology (CSD); Professor and Chairman, Dept. of Dermatology, Xijing Hospital, Fourth Military Medical University

** President, CSD, Professor and Chairman, Dept. of Dermatology, The 2nd Xiangya Hospital, Central South University

***Professor and Chair, Dept. of Dermatology, UC Davis School of Medicine

1:05 PM

Keynote Lecture: "Publishing in the JID"

Mark Udey, MD/PhD, Editor, Journal of Investigative Dermatology, Professor of Medicine and Dermatology, Co-director of the Physician Scientist Training Program of the Department of Medicine, Washington Univ. School of Medicine, St. Louis, MO



1:20 PM

Abstract #143 - Molecular targeting of the DNA binding domain of TOX protein results in selective inhibition of cutaneous T cell lymphoma cells

Author List: Y. Huang, V. Agrawal, Mi. Su, A. Cherkasov, Y. Zhou
Institution(s): Univ. of Toronto, Univ. of British Columbia **Cities:** Vancouver, Toronto

1:32 PM

Abstract #20 - Profile of BP180 and BP230-specific IgE autoantibodies in bullous pemphigoid

Author List: Y. Shih, H. Yuan, J. Zheng, M. Pan
Institution(s): Rui Jin Hospital, Shanghai Jiao Tong University School of Medicine **City:** Shanghai

1:44 PM

Abstract #39 - Increased frequency of CD4+ tissue resident memory T cells in skin lesion of lupus erythematosus and the underlying mechanism

Author List: H. Wu, Q. Li, M. Zhao, Q. Lu
Institution(s): Second Xiangya Hospital, Central South University **City:** Changsha

1:56 PM

Abstract #78 - Neutrophil extracellular traps contribute to the pathogenesis of bullous pemphigoid by activating of B cells

Author List: H. Fang, S. Shao, G. Wang
Institution(s): Xijing Hospital, Fourth Military Medical University
City: Xi'an, Shaanxi Province

2:08 PM

Abstract #260 - Use of antibiotics in preschool age predicts atopic and allergic skin diseases in adolescents: A retrospective cohort study

Author List: M. Shen, Y. Xiao, J. Li, X. Chen
Institution(s): Xiangya Hospital, Central South University **City:** Changsha

2:20 PM

Abstract #389 - Chromatin accessibility signatures in human blood CD4+ T and CD19+ B cells

Author List: L. Liu, H. Huang, W. Li, L. Wen, F. Zhou, X. Yin, X. Zhang
Institution(s): Institute of Dermatology, First Affiliated Hospital, Anhui Medical University Anhui Medical University, Ministry of Education, China Japan Friendship Hospital University of Michigan
Cities: Hefei, Beijing, Ann Arbor

2:32 PM

Abstract #389 - Aging suppresses skin-derived SDF1 to promote scarless wound healing

Author List: T. Leung
Institution(s): University of Pennsylvania **City:** Pennsylvania

2:38 PM

Abstract #32 - IL-1b is essential for anti-galectin3 antibody induced cutaneous vasculitis in systemic lupus erythematosus

Author List: Z. Shi, G. Tan, L. Wang
Institution(s): Sun Yat-sen Memorial Hospital, Sun Yat-sen University **City:** Guangzhou

2:44 PM

Abstract #53 - Molecular mechanism of miR-145/Smad3 pathway mediated by active vitamin D in Lupus Nephritis

Author List: Y. Ding, X. He
Institution(s): Hainan Institute of Dermatology, Hainan Provincial Hospital of Skin disease, the Second Xiangya Hospital, Central South University **City:** Haikou

2:50 PM

Abstract #83 - Increased T follicular helper-like cells and tertiary lymphoid structures in the skin lesions of discoid lupus erythematosus

Author List: Q. Li, Q. Lu, H. Wu
Institution(s): Second Xiangya Hospital, Central South University, Hunan Key Laboratory of Medical Epigenomics
City: Changsha, Hunan

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Chinese Society for Investigative Dermatology (CSID) Research Forum

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CONTINUED

2:56 PM**Abstract #109 - Circulating T follicular helper subsets, Tfh2 cells, and interleukin-21 in bullous pemphigoid****Author List:** T. Yan, S. Li, Y. Zuo, L. Lin**Institution(s):** The University of Hong Kong, Shenzhen Hospital, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Shenyang Pharmaceutical University **Cities:** Shenzhen, Beijing, Shenyang, Liaoning**3:02 PM****Abstract #328 - Expression of MRGPRX2(B2) on mast cells is upregulated in the skin lesion of atopic dermatitis****Author List:** X. Luo, H. Wang, X. A. Chen, L. Feng**Institution(s):** Children's Hospital of Chongqing Medical University **City:** Chongqing**3:08 PM****Abstract #356 - Minocycline inhibits keratinocyte proliferation via modulating Ca²⁺/lysosome/IL1 α system****Author List:** Q. Chen, M. Jiang, L. Xiang, Z. Li**Institution(s):** Huashan Hospital, Fudan Univ., Shanghai General Hospital, Jiaotong Univ. **City:** Shanghai**3:14 PM****Abstract #513 - NLRP3-dependent innate cytokine IL-1 β in keratinocytes promotes immune response of CD4 and CD8 T cells in vitiligo patients****Author List:** S. Li, P. Kang, W. Zhang, Q. Zhang, X. Yi, G. Wang, T. Gao, C. Li**Institution(s):** Fourth Military Medical University **City:** Xi'an**3:20 PM****Abstract #653 - Identification of an Inflammation-regulated gene TNFAIP3 in Chronic actinic dermatitis****Author List:** Y. Chen, W. Wu, M. Man, L. He**Institution(s):** First Affiliated Hospital of Kunming Medical University **City:** Kunming**3:26 PM****Abstract #736 - UVA-induced photoaging inhibits autophagic degradation by impairing lysosomal function and cathepsins expression in dermal fibroblasts****Author List:** Q. Xu, Y. Huang, Y. Li, Y. Zheng, W. Lai**Institution(s):** Third Affiliated Hospital of Sun Yat-sen University **City:** Guangzhou, Guangdong**3:32 PM****Abstract #744 - Exosome-mediated miR-4655-3p contributes to UV-radiation induced bystander effects by targeting E2F2****Author List:** Y. Chen, B. Zhou, D. Luo**Institution(s):** Nanjing Medical University **City:** Nanjing**3:38 PM****Abstract #801 - In vivo modeling of vitiligo associated ZMIZ1 gene identified by genome-wide association study****Author List:** Y. Sun, F. Zhang**Institution(s):** Shandong Provincial Institute of Dermatology and Venereology **City:** Jinan, Shandong**3:44 PM****Abstract #810 - Expression of activity-induced Cytidine Deaminase in melanoma and its correlation with the BRAF mutation and clinicopathological features****Author List:** X. Kang, Y. Wang, J. Liang, Z. Lei**Institution(s):** People's Hospital of Xinjiang Uygur Autonomous Region **City:** Urumqi, Xinjiang**3:50 PM****Abstract #007-Upregulation of miR-941 in peripheral CD14⁺ monocytes enhances osteoclast activation and osteolysis in patients with psoriatic arthritis: a potential diagnostic biomarker and treatment target****Author List:** H. Lin, C. Lee, C. Hong**Institution(s):** Kaohsiung Chang Gung Memorial Hospital and Kaohsiung Veterans General Hospital**City:** Kaohsiung**3:56 PM****Closing Remarks:**

Sam Hwang, MD, PhD; Gang Wang, MD, PhD; and Qianjin Lu, MD, PhD



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1967	Marion Sulzberger
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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
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1987	Walter Shelley
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2003	Georg Stingl
2004	Stuart Yuspa
2005	John Voorhees
2006	Thomas Lawley
2007	Barbara Gilchrist
2009	Luis Diaz
2010	Dennis Roop
2011	John Stanley
2012	Paul Bergstresser
2014	Jouni Uitto
2015	Ervin H. Epstein
2016	R. Rox Anderson
2017	Amy Paller

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 Blaes
1995	Judah Folkman
1996	Jean Wilson
1997	C. Garrison Fathman
1998	Jeffrey Bluestone
1999	Brian Strom
2000	William Kelley
2001	James Ostell
2002	Leena Peltonen
2003	Judith Campisi
2004	Brian Druker
2005	Joseph Nadeau
2006	John Schiller
2007	Thomas Pearson
2009	Mahlon DeLong
2010	Douglas Lowy
2011	David Lane
2012	Luis Parada
2014	Mark Chance
2015	Madeleine Duvic
2016	Roger Perlmutter
2017	James Bradner



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Julius Stone Lectureship

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

1999	Eli Gilboa
1999	Stephen Johnston
1999	Jeffrey Trent
2000	Nigel Bunnett
2000	Ronald Crystal
2000	Ralph Steinman
2001	Roland Martin
2002	Gerald Crabtree
2004	Adrian Hayday
2005	Polly Matzinger
2006	Alexander Rudensky
2007	Donald Y. M. Leung
2009	Jamey Marth
2010	Rafi Ahmed
2011	Casey Weaver
2012	Rebecca Buckley
2014	Alice P. Pentland
2015	Arlene H. Sharpe
2016	John O'Shea
2017	Bruce Beutler

William Montagna Lectureship

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

1975	Kenneth Halprin
1976	Frank Parker
1977	Arthur Eisen
1978	Irma Gigli
1979	Marvin Karasek
1980	Irwin Freedberg
1981	Stephen Katz
1982	John Parrish
1983	Douglas Lowy
1984	Gerald Lazarus
1985	Eugene Bauer
1986	Georg Stingl
1987	Jouni Uitto
1988	Stuart Yuspa
1989	Tung-Tien Sun
1990	Karen Holbrook
1991	Luis Diaz
1992	Dennis Roop
1993	Ervin Epstein, Jr.
1994	John Stanley
1995	Elaine Fuchs
1996	Thomas Kupper
1997	Barbara Gilchrist
1998	Robert Modlin
1999	Fiona Watt
2000	Thomas Luger
2001	Peter Elias
2002	Kathleen Green
2003	Masayuki Amagai

2004	Akira Takashima
2005	Paul Khavari
2006	Richard Gallo
2007	George Cotsarelis
2008	Pierre Coulombe
2009	Angela Christiano
2010	W. H. Irwin McLean
2011	John McGrath
2012	Howard Chang
2013	Andrzej Dlugosz
2014	Xiao-Jing Wang
2015	Hensin Tsao
2016	Anthony Oro
2017	Sarah Miller
2018	Valerie Horsley

Herman Beerman Lectureship

This lecture is given by a distinguished medical scholar, traditionally from fields other than dermatology.

1961	Rene Dubos
1962	Hans Selye
1963	Rupert Billingham
1964	Curt Stern
1965	Albert Szent-Gyorgyi
1966	Jerome Gross
1967	G.J.V. Nossal
1968	John Buetner-Janusch
1969	Henry Kunkel
1970	Norman Wessells
1971	Aiden Breathnach
1972	Frank Dixon
1973	H. Hugh Fudenberg
1974	Charles Cochrane
1975	David Katz
1976	Bert O'Malley
1977	Russell Ross
1978	Hilary Koprowski
1979	Michael Brown
1980	Phil Leder
1981	Pedro Cuatrecasas
1982	Frank Ruddle
1983	Lawrence Lichtenstein
1984	Robert Gallo
1985	Thomas Waldmann
1986	Torsten Wiesel
1987	Leroy Hood
1988	Joseph Goldstein
1989	Pierre Chambon
1990	Ronald Herberman
1991	K. Frank Austen
1992	Bert Vogelstein
1993	Charles Janeway, Jr.
1994	Solomon Snyder
1995	Eric Lander
1996	Irving Weissman
1997	Michael Karin
1998	Günter Blobel
1999	Philippa Marrack
2000	Robert Langer
2001	William Haseltine
2002	Ronald DePinho

2003	Thomas Jessell
2004	Robert Weinberg
2005	Timothy Ley
2006	Amita Sehgal
2007	Stuart Schreiber
2009	Daniel Kastner
2010	Raymond Schinazi
2011	Jennifer Lippincot-Schwartz
2012	Mina Bissell
2013	Allan Balmain
2014	Hopi Hoekstra
2015	Drew M. Pardoll
2016	Tom Misteli
2017	Alan J. Korman
2018	Rob Knight

Eugene M. Farber Lectureship

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

2007	Brian Nickoloff
2008	Enno Christophers
2009	James T. Elder
2010	James Krueger
2011	Kevin Cooper
2012	Frank Nestle
2014	Joel Gelfand
2015	Christopher E.M. Griffiths
2016	Nicole Ward
2017	Jonathan Barker

Albert M. Kligman/Phillip Frost Leadership Lecture & Award

This award is made to an individual in acknowledgment of significant contributions to the understanding of structure and function of skin in the past five years.

2008	Jouni Uitto
2009	Stephen Katz
2010	John R. Stanley
2011	Peter Elias
2012	Robert Lavker
2013	Elaine Fuchs
2014	Robert Modlin
2015	Kathleen J. Green
2016	Cheng-Ming Chuong
2017	Thomas Kupper
2018	Paul Khavari



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