

Scientific Session

Sensors in Dermatology

Guest Speaker: John Rogers, PhD

The future of personalized dermatology is “soft, stretchy, & skin-integrated,” with epidermal electronics & epidermal microfluidics that can collect multimodal, clinical quality data. Measurement capabilities include thermography, thermal transport, hydration, biopotential, sweat, blood flow, mechanical strain, motion, pressure, UVA/UVB, oximetry, vein mapping, and cardiac auscultation. Skin hydration can be precisely measured using thermal transport. A wearable, programmable sensor for transepidermal water loss (TEWL) has a humidity & temperature sensor & a magnetic valve system that allows on-demand skin isolation, resulting in reliable real-time TEWL measurements with minimal skin occlusion. Epidermal microfluidics for sweat analytics use colorimetric detection to measure chloride, lactate, pH, glucose, vitamin C, calcium, zinc, and iron. This has many applications, including clinical evaluation for cystic fibrosis, and even Gatorade is using the technology. Digital UV sensing devices have been upgraded to millimeter-scale wireless wearable devices. A watch-sized multi-wavelength, wearable, precision light dosimeter that measures UV, blue, red, and infrared light has HIPAA-compliant cloud analytics and is in clinical trials for patients with erythropoietic protoporphyria.



Presidential Address

The ADA: Making a Difference – The Access to Care Initiative

Robert Brodell, MD - ADA President

The ADA subcommittee on Rural Access to Care and Underserved Inner Cities found there are “dermatology deserts” in many rural areas & inner cities. There are many approaches to increase access to care. Increased state and federal funding can support tuition assistance, loan forgiveness, and rural/inner city residency slots. Rural resident training programs can have a profound impact, with the University of Mississippi Medical Center’s residency program accounting for 40% of all state dermatologists over 10 years. Establishing university-based rural & inner-city outreach offices, recruiting under-represented medical students and residents, and utilizing telemedicine and team-based care initiatives to support dermatologists are other possible solutions.

At the University of Mississippi Medical Center, a rural dermatology office is located 90 miles from the “mother ship” in Jackson, and a rural residency spot is exempt from the “all in” policy of the Match. Store-and-forward teledermatology and Project ECHO have helped provide dermatology care through the primary care offices in rural and inner-city areas. Finally, a free clinic in the Mississippi Delta absorbs rural teledermatology patients that need in-person referral.

For more information on the ADA’s Position Statement, visit <https://www.newswise.com/articles/dermatologists-taking-action-to-solve-the-access-to-care-conundrum>



ADA President’s Medal/Lifetime Achievement Award:

Eugene A. Bauer, MD

Dr. Robert Brodell describes Dr. Eugene Bauer as a true Renaissance Man, or one with wide interests who is expert in all of them. A student, teacher, researcher, beloved chairperson, superb administrator, healthcare entrepreneur, honored academic, and philanthropist, he is well-deserving of this award.

Staving Off Burnout & “Other Stuff” – Strategies for Professional & Personal Happiness over the Long Haul

Guest Speaker: Michael Myers, MD

Burnout in dermatologists is rising at a rate faster than any other medical specialty, and 19% of dermatologists in one study reported suicidal thoughts. Burnout is specific to & rooted in occupational stress, while depression may be context-free or as a response to a stressor. Moral injury is defined as profound psychological distress which results from actions, or the lack of them, that violate one’s moral or ethical code. As physicians, we should strive to recognize and prevent burnout in ourselves and our colleagues. We must change the stigma surrounding physicians and their mental health: “Seeking help is the strong thing to do and the professional thing to do.” Many methods of recognizing and preventing burnout in oneself were discussed, including watching your use of denial and minimization, listening to feedback, working in more than one setting, practicing mindfulness meditation, professional support groups, exercise, personal relationships, spirituality and religion, humor, and having your own PCP. Additional information can be found in the video below.

Make the Difference: Preventing Medical Trainee Suicide: <https://www.youtube.com/watch?v=I9GRxF9qEBA>



Physician Support Line (8AM-12AM ET):
1 (888) 409-0141
National Suicide Prevention Lifeline: 988

New Member Team Hackathon: Thriving (not just surviving) Today and into the Future

TEAM MILLER: "Lifesavers" Quick Tips

Adam Friedman: Use humor to make your own memes.

Luis Garza: Volunteer your time to those in need.

Mollie MacCormack: Live with love and an open heart.

Amy Musiek: Find balance; take vacations.

Ginette Okoye: Cultivate interests outside of medicine (like an anonymous Instagram with gardening tips/tricks!)

Kenneth Tsai: "You are truly indispensable only to your family."

"Treat people as ends in themselves, never as means to an end."

"Chance favors but the prepared mind."

Ashley Wysong: Intentionally plan your personal life.

Melissa Piliang: Unfortunately absent due to travel issues.

TEAM SHINKAI: Balint Groups as a Means to Prevent Burnout

Amber Atwater, Laurin Council, Deirdre Hooper, Kristen Kelly, Brett King, Patrick Lee, Natasha A. Mesinkovska, Willy Huang

Balint groups provide a forum for doctors to discuss difficult situations with other physicians. Traditional Balint Groups involve 6-12 physicians and a 1-2 hour discussion on case presentations or patient interactions. While they don't tell the doctor what to do and don't always solve every problem, they serve as an opportunity for doctors to reflect on their work and as an outlet for anxieties and frustrations. But, who has 1-2 hours to spare?? The "Modern-day Balint Group" can even be a group text message! Create group chats with your complex medical derm colleagues, another with your hair loss experts, etc.

Balint groups provide a safe space for emotional reflection on difficult cases. They help identify our blind spots and assumptions, allow us to connect with others, remind us what matters most about our work, and help us avoid burnout.

TEAM BENNETT: Rapping about "hacks that help when life gets gritty"

"Sometimes life hands you a crisis; things fall apart like acantholysis."

****Hackathon Winners!****

Elizabeth Tanzi: Support your community, and your community will support you. Hard work, dedication towards a goal, and a culture of kindness and respect are the foundation for success.

Valencia Thomas: Listen to those who came before you, and don't underestimate the value of investment.

Diana Bolotin: Take a chance, allow yourself some grace, and "just do it." Learn to take a step back to see the bigger picture to find your vision and execute your purpose.

Cory Dunnick: It is better to explain what you can do for a patient vs. what you can't do. Communication & managing patient expectations are vital for a successful visit.

Manisha Loss: It only takes one opportunity to make a difference, and the drive to make it the best is the true hack.

TEAM MERCURIO: Simplicity

Alisa Femia: Rule of 3's: the mind is able to digest information in groups of three. "If you are working hard for something, you should feel great 1/3 of the time, okay 1/3 of the time, & crummy 1/3 of the time."

Yadira Hurley: Three rules of work: out of clutter find simplicity; from discord find harmony; and in the middle of difficulty lies opportunity.

Heidi Jacobe: Tiny gains can make a large impact. Your career is a marathon, not a sprint.

Joe Pierson: Simplify, shorten, and condense things when you can.

Abena Ofori: Not everything that is clear and simple to one person is that way for others.

Karolyn Wanat: 5 ways to make exercise a habit: do less more often, break up the day, keep track, be flexible, and mix it up. Also, save time with grocery apps!

Skin of Color: Where Are We and Where Are We Going?

Speaker: Andrew Alexis, MD, MPH

Disparities are prevalent in educational resources, and 47% of dermatologist felt their training was inadequate to diagnose skin disease in skin of color (SOC). Racial/ethnic disparities are also evident in treatments & outcomes, with non-Hispanic black patients less likely to receive systemic therapies for acne than non-Hispanic white patients. Furthermore, people of color are underrepresented both in clinical trials & among dermatologists.

To address this lack of diversity, we need to increase diversity in residency programs, increase diversity in health sciences, develop more programs focused on problems of SOC, make diversity part of the mission for every dermatology department, and enhance awareness of implicit bias. There has been an increased focus on education in SOC with the AAD's attention to diversity, equity, and inclusion; increased publications related to conditions in SOC; and broadening of educational materials. The AAD's SOC Curriculum, JAAD SOC Image Atlas, and Project IMPACT with VisualDx were noted as valuable educational resources. Finally, conferences dedicated to SOC, integration of SOC content into mainstream conferences, and industry-sponsored therapy studies specifically for SOC are guiding change for the future.

A question was posed if a specific subspecialty will be needed for SOC in the future. Dr. Alexis responded that he hopes not; he hopes that all dermatologists will have a level of competence among common dermatologic disorders across all skin types.



Social Activities

Walking Tour of Quebec City History

