

Dermatology News

PURSUING WITH EXCELLENCE THE MISSIONS OF RESEARCH EDUCATION AND PATIENT CARE

Dermatopathologist Leads the Department's Research Efforts in **Combating Melanoma**

JANIS TAUBE, M.D., M.Sc. IS one of the leading scientific researchers in the Johns Hopkins Department of Dermatology. As a dermatopathologist, she straddles two worlds of medicine—looking at tissue biopsies under a microscope to determine a diagnosis and understanding the medical journey when a patient is diagnosed with melanoma.

Dr. Taube received her master of science degree in molecular medicine from the University College London in the United Kingdom and her medical degree from Tulane University in Louisiana. She completed her residency in pathology at Johns Hopkins Medicine where she served as chief resident. After residency, Dr. Taube completed her dermatopathology fellowship at Stanford University. In 2009, she returned to Johns Hopkins for her certification in the Melanoma Clinic and joined the Department of Dermatology faculty. Today she serves as the Director of the Dermatopathology Program and is leading the Department's melanoma research efforts.

Dr. Taube is currently studying the PD-L1 molecule. This molecule is critical to understanding melanoma and its progression. PD-L1 is normally expressed by the immune system to turn off an immune response. Melanoma and other tumors have appropriated this mechanism, allowing them to turn off the normal host immune response against a growing tumor. Tumors that express PD-L1 may also use it to avoid anti-cancer therapies. New therapies have been designed to block PD-L1 and its receptor PD-1 and when these drugs were tested in animals, they inhibited tumor growth.

Most recently, this family of



Janis Taube, M.D., M.Sc. in her laboratory.

drugs has been trialed in patients with advanced melanoma. Both alone, and in combination with other treatments, these patients have shown improved tumor regression and long-term survival. When post-treatment biopsies from these patients were examined, they showed an increase in tumor infiltrating lymphocytes when compared to the pre-treatment biopsies. This suggests that once PD-L1 is blocked, it “releases the brakes” on the host's immune response, allowing it to attack the tumor. Dr. Taube and her research team are identifying predictive factors that will select patients who are most likely to respond to these treatments. Besides showing promise in melanoma, this therapy has demonstrated efficacy in treating advanced lung and renal cancers.

“Johns Hopkins is a special place, and I have been incredibly fortunate to have

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mentors and collaborators that have led the way in research related to PD-1/PD-L1. **Lieping Chen, M.D., Ph.D.** discovered PD-L1, while **Suzanne Topalian, M.D.** and **Julie Brahmer, M.D.** led the first-in-human anti-PD-1/PD-L1 clinical trials, which provided invaluable information for my research,” says Taube. “I believe it is the cross-departmental collaboration that has really advanced this research. From working with **Timothy Wang, M.D.**, our Mohs surgeon, on cases of early stage melanoma, to oncologists **Evan Lipson, M.D.** and **William Sharfman, M.D.** who treat patients with advanced disease—it is truly a team approach to science.” ■

Chairman's corner



Sewon Kang, M.D.

THIS SPRING MARKED A VERY EXCITING and pivotal moment for the Johns Hopkins Department of Dermatology. Since 1992, the Department has treated patients on the sixth floor of the Johns Hopkins Outpatient Center located on the East Baltimore Medical Campus. As the years have passed, our clinical staff, patient needs, and research demands have grown exponentially.

This growth has led us to carefully plan and secure a larger space on the eighth floor of the Outpatient Center which will become our new home this summer.

This summer also marks another milestone in the Department's history. On July 1, 2014 we will welcome five new residents to the Department and five clinical fellows. Two fellows will train alongside **Janis Taube, M.D., M.Sc.** in the Dermatopathology Program and one fellow will train in the Ethnic Skin Program under the direction of **Ginette Okoye, M.D.** In addition, one fellow will train in the Pediatric Dermatology Program with Medical Director **Katherine Puttgen, M.D.**, and one fellow will work alongside Director **Timothy Wang, M.D.** in the

Cutaneous Surgery and Oncology Unit. We are excited to expand the program and train the next generation of dermatologists in clinical excellence and academic research.

I am also pleased to highlight some of the groundbreaking research that the Department is undertaking in melanoma. At Johns Hopkins we focus on translational research, taking information from the clinic directly to the laboratory to develop better treatments for skin disease and skin cancer. The exciting work we are conducting in immunotherapy for targeted treatments in melanoma is groundbreaking and was named in the journal *Science* as the "Scientific Breakthrough of the Year" in 2013. As you will read, Dr. Janis Taube and the melanoma research team at Johns Hopkins are embarking on an amazing course that will undoubtedly save countless lives and transform the way that melanoma is treated.

I wish you and your family a happy and healthy summer, and I look forward to seeing you in our new clinical space in the year ahead.

Sincerely,

—Sewon Kang, M.D.
Noxell Professor & Chairman

Halting Skin Cancer At Its Earliest Stage

ON MAY 28, 2014, AS PART OF "Melanoma and Skin Cancer Prevention" month and the American Academy of Dermatology (AAD) "National Screening Day," the Johns Hopkins Department of Dermatology provided a complimentary skin cancer screening to underinsured patients in White Marsh, Maryland. **Timothy Wang, M.D.** and dermatology residents examined 19 patients. Four patients were referred for further evaluation by a dermatologist and five patients were referred for biopsies of suspicious spots. Patients who were referred for follow-up care were given a list of dermatologists within a 10 mile radius and literature from the AAD about skin cancer prevention.

At its earliest stages, melanoma is curable. In the Western world, the incidence of melanoma is increasing more rapidly than any other cancer. Demographically, melanoma strikes people of all

ages. However, in persons ages 15 to 29, melanoma is the second most common cancer. The rising incidence demands for the development of novel and more effective approaches to early detection and treatment.

Currently researchers in the Johns Hopkins Department of Dermatology, **Anna Chien, M.D.**, **Sewon Kang, M.D.**, and **Timothy Wang, M.D.**, and oncologist and researcher **Luis Diaz, M.D., Ph.D.** in the Johns Hopkins Sidney Kimmel Comprehensive Cancer Center are collaborating on a pilot study to evaluate the feasibility of using adhesive skin sampling as a non-invasive screening technique for melanoma and other forms of skin cancer. The adhesive removes the very top layer of dead skin cells (referred to as the stratum corneum) for analysis. The current practice is for a suspicious lesion to be biopsied using surgical techniques. If successful, the pilot study could translate into a non-invasive alternative to the traditional biopsy and potentially identify skin cancer at a much earlier stage leading to better outcomes for patients. ■

Alumnus “Pays it Forward” to the Next Generation of Dermatology Residents

THE JOHNS HOPKINS DERMATOLOGY Residency Program has grown steadily over the years. As you walk down the halls of the Johns Hopkins Outpatient Center, you see departmental photographs of faculty and residents dating back to 1967. Slowly the size of the group has been increasing from just a handful of physicians to a multitude of smiling faces. Beginning in July 2014, there will be 16 residents in the program who will immerse themselves in treating patients, presenting lectures, and learning the skills to become superb dermatologists.

Back in 1981, **Elizabeth Small, M.D.** was one of nine residents in the rigorous program. A graduate of the School of Medicine Class of 1977, she was already a part of the Johns Hopkins family. “The residents were extremely busy. We covered daily clinics, pediatric and adult emergency rooms, and the inpatient dermatology ward. Grand rounds were held every Wednesday afternoon and the ‘kid gloves’ were off when the residents were quizzed about cases,” recalls Dr. Small. Initially interested in rheumatology, Dr. Small discovered her love of dermatology during specialty rounds in medical school. She appreciated the tangible results that accompanied treating dermatology patients of all ages, the variety of medical and surgical cases, and the importance of visual recognition of diseases. This aspect of dermatology parallels her interest in art history.

Her hard work and training at Johns Hopkins led to a successful career in private practice, first in Louisiana and later in Illinois. Now residing in Dallas, Texas, Dr. Small credits her success to her experience at Johns Hopkins. “The foundation I received at Hopkins allowed me to become a highly-skilled dermatologist. It helped shape the clinician that I am and I feel that it is important to pay it forward,” she says. Currently,



The photo above, taken in 2011, shows from left to right, **Jo Martin, M.D.**, who graduated from the residency program in 2013, **Elizabeth Small, M.D.**, **Sewon Kang, M.D.**, and **Dr. Adrianna Jackson, M.D.**, who graduated from the program in 2011.

Dr. Small volunteers at free medical clinics in Dallas. In July, she will be assisting the University of Texas Southwestern dermatology residents.

Over the years, Dr. Small has supported the Dermatology Residency Program and established a scholarship in the Johns Hopkins School of Medicine. Her passion lies in helping the next generation of dermatologists succeed and in particular, supporting women in medicine.

“We are extremely grateful to Elizabeth for her support of the Residency Program,” says **Sewon Kang, M.D.**, Noxell Professor and Chairman of the Department of Dermatology. “Her generosity has provided special opportunities for our trainees, including sending some of our residents to present their research at the Society for Investigative Dermatology Annual Meeting, where they have learned from world-renowned skin researchers. Her support also has enabled us to fund resident-initiated research projects. This is critical since research funding for trainees is extremely limited.” ■

New Clinical Space to Open Later this Year

THIS MONTH, THE DEPARTMENT of Dermatology will begin an expansion project to double the size of the clinic in the Johns Hopkins Outpatient Center. “Our clinic needed to expand in all areas and we are delighted that the medical dermatology clinic will grow by 10 rooms. The Cutaneous Surgery and Oncology Unit will double to six surgical suites, and we

will grow both the clinical translational research program and the light therapy unit,” says Robert Oakley, Dermatology Assistant Administrator.

During the design of the new clinic, the physicians, administrators, and planning team factored in “the patient experience” to include a patient sub-waiting area, a designated check-out area, and a kiosk check-in system. “The new space is designed to ensure that all of the patient’s needs are met,” says **Manisha Patel, M.D.**, departmental Medical Director.

The new patient rooms will be better designed for a dermatology practice, with

items placed in locations conducive to conducting skin exams. To maximize the new space, the Department will be hiring additional clinicians, nurses, medical assistants, and administrative staff to deliver exceptional patient care. The floor will include additional offices, clinical work space, and conference rooms.

By January 2015, nearly all of the eighth floor of the Outpatient Center will be the new home of the Department of Dermatology. “We are looking forward to welcoming patients and their families into our new clinical space and expanding the promise of medicine in the Department of Dermatology,” states Dr. Patel. ■

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AWARDS & RECOGNITION

Gerald S. Lazarus, M.D.,

Professor of Dermatology and Medicine at the Johns Hopkins Bayview Medical Campus, was selected by the American Skin Association to receive the 2014 David Martin Carter Mentor Award. This award is given to academic dermatologists who show superior achievement in clinical and/or basic dermatological research and who have had long-term involvement as a trainer of clinical and/or basic science research fellows, a pattern of long-term career mentorship and support for colleagues, as well as personal characteristics meriting the trust, respect, and emulation of colleagues.

Sewon Kang, M.D., Noxell Professor and Chairman of the Department of Dermatology, was named Editor-in-Chief of the ninth edition of Fitzpatrick's Dermatology in General Medicine. The medical textbook is hailed as the most authoritative and complete guide to dermatologic practice and the science of the skin.

Janis Taube, M.D., M.Sc. was awarded a three-year grant from the Dermatology Foundation for

her research in PD-L1, a protein expressed by melanoma that allows the tumor to turn off the immune system. Early clinical trials suggest that blocking PD-L1, or its receptor PD-1, reverses this phenomenon and leads to tumor regression. The purpose of this grant is to define the immunologic mechanisms underlying the anti-tumor immune response and any potential side effects. Dr. Taube also received the Clinician Scientist Award from the Johns Hopkins Hospital. This intramural award is designed to protect the research time of qualified faculty early in their careers.

Lloyd Miller, M.D., Ph.D. was one of six Johns Hopkins investigators to receive three years of funding from MedImmune, LLC for his project entitled "Mechanisms of Immune Protection of Multifunctional mAbs against *Staphylococcus aureus* Infections." Dr. Miller also was awarded \$250,000 over two years from the Chan Soon-Siong Institute for Advanced Health for his project entitled "Efficacy and Mechanism of Topical Immunomodulatory Small Molecules against Skin Infections," and \$20,000 over two years from

the H. Marti and Toni Oppenheimer Foundation for his research in *Staphylococcus aureus* infections.

Ginette Okoye, M.D. received the "Members Making a Difference" award from the American Academy of Dermatology. She also received an award for academic achievement and contributions to medicine from the Mayor and Borough Council of Point Fortin, Trinidad, her hometown.

Luis Garza, M.D., Ph.D., Assistant Professor of Dermatology, and Julie Jefferson, M.D., second year resident, received a \$6,000 grant from The Council for Nail Disorders for their project entitled "Gene Expression Analysis of the Human Nail Unit."

Steve Yang, M.D., Ph.D., Chief Resident, was awarded a \$15,000 grant from AMBI for his project entitled "Epigenetic Changes in Ethnic Human Skin During Skin Aging." This project will be completed in collaboration with the Johns Hopkins Ethnic Skin Program, the Cutaneous Translational Research Program, and the Johns Hopkins Center for Epigenetics.

Supporting our Work

The Johns Hopkins Department of Dermatology strives to provide outstanding individualized diagnosis and treatment of skin disease, educate the next generation of dermatologists to become leaders in medical dermatology, cosmetic dermatology, dermatologic surgery, dermatopathology and investigative dermatology, and develop new and better strategies to diagnose and treat skin disease through groundbreaking research.

If you wish to support our efforts with a tax-deductible gift please visit:
www.hopkinsmedicine.org/dermatology