

## **SYMPOSIUM 2010**

The Hampton University Skin of Color Research Institute (HUSCRI) partnered with Eastern Virginia Medical School (EVMS) to host its inaugural research symposium, “From Benchtop to Bedside,” on Friday, April 30-Sunday, May 2, 2010, at the Colonial Williamsburg Lodge and Conference Center.

“Our goal for the Institute and Symposium 2010 was to play a leadership role in increasing understanding of the science of both the distinct features and disorders associated with skin of color, which in turn will help us develop new treatment options to benefit skin of all colors,” said Valerie Harvey, MD, co-director of HUSCRI and assistant professor, department of dermatology at Eastern Virginia Medical School, Norfolk, VA.



The 2010 research symposium, made possible in part by an educational grant from the L’Oreal Institute for Ethnic Hair and Skin Research, featured world-class speakers from five continents and focused on diseases affecting patients with skin of color such as hyperpigmentation, melanoma and alopecia, among others. At the symposium, attendees learned about the latest research, treatments and newest tools in pigment cell biology and cutaneous disorders from leaders in the dermatology field.

Renowned speakers included representatives from principal government agencies in the U.S. such as the National Cancer Institute (NCI), and the National Center on Minority Health and Health Disparities at the National Institutes of Health (NIH); major academic institutions and teaching hospitals; as well as top industry research centers.

### **Pemphigus**

An auto-immune condition triggered by environmental factors

Valéria Aoki, M.D.  
Department of Dermatology  
University of São Paulo School of Medicine  
São Paulo, Brazil

Dr. Valéria Aoki of the University of São Paulo School of Medicine in Brazil spoke about a specific form of pemphigus, Fogo Selvagem (FS), that is endemic in Brazil. Dr. Aoki explained the genetic and environmental factors involved in this disfiguring autoimmune disease characterized by blisters on the skin and mucous membranes, in which autoantibodies specific for desmoglein 1 may lead to cell-cell detachment.

Originally diagnosed in a river valley in Brazil, FS is spreading to other areas of Brazil, likely via insects such as black flies. Dr. Aoki also summarized work that an FS-focused research team is pursuing including development of an IgG4-based predictor for FS, as well as a study on the prevalence of anti-desmoglein-3 antibodies in regions of Brazil where FS is endemic.



### **Dermatoses Associated with the Cosmetic Use of Bleaching Compounds(CUBC)**

Dr. Fatimata Ly  
University Cheick Anta Diop of Dakar

Dermatoses related to the cosmetic use of bleaching compounds were the topic addressed by Dr. Fatimata Ly from Dakar, Senegal. Dr. Ly reported on skin disease and dermatology in sub-Saharan Africa where there are 34 dermatologists for nearly 11,343,328 inhabitants. Primarily, patients seen at the dermatology clinics present with dermatoses, ranging from scabies, fungal infections to pyoderma. However, the increasing use of bleaching compounds makes CUBC associated cellulitis the first dermatology-related reason for hospitalization and CUBC dermatoses the primary reason for dermatology consultation. In fact, in this region, a sampling of over 1000 patients presenting with dermatoses in Lagos in 2005 showed that 92% were CUBC related. Many of the dermatoses are widespread and severe, involving secondary infections as well. The widespread use and duration of patient CUBC makes education and prevention a high priority, as well as continued research epidemiological studies and cellular modification.

### **Disparities in Skin Cancer Diagnosis and Outcomes**

Robert S. Kirsner, M.D., PhD  
University of Miami Miller School of Medicine  
Miami, Florida

Dr. Robert Kirsner of the University of Miami in Florida discussed disparities in skin cancer diagnosis and outcomes based on a study involving six states with significant Hispanic and black populations. Melanoma incidence is increasing even in darker populations, and melanomas are diagnosed at a later stage among black and Hispanic patients. While the 5-year melanoma survival for whites has increased to 92%, this difference in survival was not as dramatic when cases were stratified by stage. Late diagnosis can be due to less screening of Hispanic and black populations as well as a lack of knowledge about skin cancer risk within these communities. A study of students at the University of Miami on awareness and attitudes showed that those who answered

skin knowledge questions had greater skin cancer awareness, demonstrating that opportunities exist to use increased awareness to increase early diagnosis and improve outcomes for patients with skin of color.

## **Stratum Corneum Function in Skin of Color**

Enzo Berardesca  
San Gallicano Dermatological Institute  
Rome, Italy

Dr. Enzo Berardesca from the San Gallicano Dermatological Institute in Rome presented an in-depth look at stratum corneum function in skin of color. He began by detailing the reported similarities and differences in the stratum corneum in black vs. white skin before addressing the question of whether stratum corneum function is different in skin of color. Dr. Berardesca covered many research that quantified differences in ethnic skin such as irritation, water loss, desquamation, and lipid content and how those differences can impact clinical issues such as percutaneous penetration of drugs. Future investigations looking at baseline vs. stress, better defining ethnic skin and comparing similar skin types in different geographic areas are suggested to help fully understand stratum corneum differences and their impacts.

## **Uncovering the Molecular Regulators of Human Pigment Variations from Skin Color Differences to Human Disease**

Dr. Anand Ganesan  
University of California, Irvine

Melanin regulation is a key component of adaptive variation , but while we have identified 150 genes that impact melanogenesis, there is still much to learn. The varied clinical presentations could, in more heavily pigmented skin, result from differences in pigment regulation. However, the melanocyte has evolved a complex process to compartmentalize melanogenesis, making it difficult to fully understand and predict . The results of several studies were reported that indicated that genome-wide RNAi approaches provide a novel way to identify regulation of melanogenesis in different pigment backgrounds. A functional genomics was employed to identify 92 novel genes regulating melanogenesis, leading to identification of novel pathways (autophagy) and novel pharmacological agents that that impact pigment production. Follow-on studies will investigate the role of these genes in pigment production among different ethnic backgrounds.

## **Perspectives in Asia**

Kyoung Chan Park  
Seoul National University College of Medicine  
Bundang Hospital, Seoul, Korea

Dr. Kyoung Chan Park of Korea highlighted the many concerns regarding skin of color that affect a region of the world that encompasses nearly 60% of the world's population. Disorders of pigmentation such as melasma and their treatment are as big a concern in this region. With triple combination creams, the most common treatment, leading to negative side effects, new therapies such as lasers hold great promise. Dr. Park spoke about the development of new hypopigmenting agents that inhibit transcripton. The development of vitiligo and the roles of genetic factors and oxidative stress were also discussed. Dr. Park's talk also covered some conditions, such as nevus of Ota and Ito and Hori's nevi, unique to Asian skin. Further attention and advances on skin diseases affecting this population will be the focus when the 22<sup>nd</sup> World Congress of Dermatology is held in Seoul, Korea in May of 2011.