WE WRITE THE BOOKS ON DERMATOLOGY.

PENNSSTATE HERSHEY
Dermatology
The four weeks that I spent in Botswana was one of the most eye-opening, exhausting, and gratifying experiences I’ve ever had. The trip, funded by the American Academy of Dermatology (AAD) through an International Volunteer Elective Scholarship, is offered to six dermatology residents throughout the United States and Canada in their third and final year of residency. It was based out of Gaborone, the capital of Botswana, a landlocked country just north of South Africa. I am grateful for the funding from the AAD, as well as the time and support given to me by Penn State Hershey Dermatology to pursue this international community service.

The days in Gaborone were spent at Princess Marina, a government-owned hospital that provides free health care to the citizens of Botswana. Resources were extremely limited, resulting in long wait times for patients, and many morbidities and deaths that could have been prevented in health care systems such as ours in the United States.

My mornings started in ‘intake,’ where the internal medicine teams would go over admissions from the night before and provide teaching pearls based on the admitting diagnoses. After that, it was off to the dermatology clinic, in which I would see twenty to twenty-five patients in three to four hours. As I was one of only a handful of dermatologists in Botswana, there was always a group of patients that did not have appointments who were on standby that I had to turn away and reschedule, due to time constraints. After clinic, I spent the rest of the afternoon seeing Inpatient consults, logging the patients I saw in the clinic, sending internet-based teledermatology consults to the University of Pennsylvania, Department of Dermatology, processing tissue specimens with the Princess Marina’s head microbiologist Dr. Thakur, or reviewing pathology slides of biopsies I had taken.

There was no dermatology infrastructure there, so I carried everything needed with me to run a clinic–books, biopsy kits, injections, lidocaine, and slides to evaluate for infectious diseases. As instruments were in short supply, I washed and autoclaved all of them myself (with the assistance of the autoclave techs), sometimes multiple times throughout the day, depending on how many biopsies were performed. I found it useful to carry our primary textbook “Andrews Diseases of the Skin” with me to clinic in order to educate patients about their conditions.

Once weekly, we would also conduct dermatology clinics in remote villages near the Kalahari Desert (Ghanzi, Mochudi, and Lobatse), traveling either by plane or taxi. The patients and staff there were extremely appreciative, and some of them had traveled hundreds of kilometers across the Kalahari to be seen. I was also given a phone with a built-in digital camera that was on a 3G network. It was exciting to participate in testing connectivity speeds on this phone throughout these remote areas so that eventually more extensive dermatologic care would be possible utilizing teledermatology in the regions with the strongest signals.
The diagnoses encountered there were oftentimes similar to what we see here in the United States, though their presentations were much more severe and atypical due to the high rates of HIV and tuberculosis in the area. Public awareness of HIV and tuberculosis was a large focus in Gaborone, and educational posters were ubiquitous around the hospital and clinics. These, as well as other infectious diseases, were much more common there than one can imagine.

Though there is a fair amount of xenophobia and suspicion towards outsiders, I found the people of Botswana to be extremely friendly and helpful once these barriers were transgressed. A few attempts at speaking to them in Setswana, their indigenous language, was usually all that it took.

In summary, I found it to be a challenging yet invigorating experience. My visit to Africa not only fostered growth as a dermatologist, but also broadened my perspective of the world and of those that are so much less fortunate than us.
Allergic Contact Dermatitis and Patch Testing

HEATHER SALVAGGIO, M.D.

Mrs. X had a rash on her eyelids. It was present for several months, was very itchy, and continued to worsen. She came to Penn State Hershey Dermatology for evaluation. It was suspected that she may be coming into contact with a chemical causing an allergic rash on her eyelids called contact dermatitis. Mrs. X had never had a rash like this before. She had been wearing the same cosmetics for years and she was without any clue as to what could be causing her itchy eyelids. The physicians at Penn State Hershey Dermatology felt that some detective work was in order. It was recommended she undergo patch testing to determine if something in her environment could be causing the rash. Mrs. X underwent the testing which revealed she had an allergy to rubber mix. The rubber sponges she had been using to apply her makeup contained rubber mix and were the culprit. She stopped using the sponges and her rash disappeared.

Allergic contact dermatitis is an itchy rash that is caused by direct skin contact with chemicals known to cause allergies in some people. These chemicals are also called allergens. Common allergens are found in fragrances, preservatives, rubber components, metals, medicines, fabric dyes and finishes, and plant substances. If one can identify the allergen causing the rash and it can be avoided, the rash may clear.

Patch testing is used to identify relevant allergens. Small patches containing the most common allergens are placed on the skin and left in place for forty-eight hours and then removed. The skin is evaluated for signs of an allergic reaction: redness, bumps, or blisters. A positive test result is then evaluated for its relevance.

At Penn State Hershey Dermatology we perform extensive patch testing. We use the North American Standard Tray of allergens, which has many more allergens than the more commonly used T.R.U.E. test. The North American Standard Tray includes one hundred of the most common allergens. Patients are also encouraged to bring in items from work or home that they suspect may be causing their rash and may be tested to these. Patch testing requires three visits. At the first visit, on Monday, an extensive history is taken and the patches are placed on the back. The second visit, on Wednesday, is brief and an initial reading is performed. At the third visit, on Thursday or Friday, the second reading is performed and the results are interpreted. During the week of testing patients cannot shower, sweat, or perform strenuous exercise. Patients cannot take oral corticosteroids like prednisone, or have steroid injections, within one week of testing. Patients must avoid using topical steroids on the back one day prior to and during the week of patch testing. These may interfere with the interpretation of test results.

Patch testing outcomes vary. A patient may test positive to an allergen that they have contacted. This is considered a relevant and positive test and it is likely that their rash is caused by the allergen. Avoiding this allergen will often result in a clearing of the rash. A patient may test positive to an allergen that they have not contacted and this is considered a non-relevant test. A patient may not test positive at all and this is a negative test. For a non-relevant or negative patch test result, a diagnosis other than contact dermatitis must be considered, and a diagnosis of essential or idiopathic dermatitis is often rendered.

Patch testing is available at both the Medical Center and Nyes Road locations. Dr. James G. Marks, chair, is an expert in contact dermatitis and serves on the board of the North American Contact Dermatitis Group. Drs. David Adams and Bryan Anderson also are experts in contact dermatitis.
Dermatology Plus
Community Service Equals Fun

KYLE HORNER, M.D.

The Department of Dermatology has four primary missions: patient care; the education of patients, medical students, and residents; research into skin disorders; and community service. This year we once again fulfilled our mission to community service by volunteering at several worthwhile and rewarding projects. Two of the many service projects that stand out include the Pennsylvania Academy of Dermatology annual skin cancer screening and the American Academy of Dermatology’s Camp Discovery/Camp Horizon.

On Wednesday, May 7, 2008, Dr. Elizabeth Billingsley and several dermatology resident physicians from the Medical Center and the Philadelphia College of Osteopathic Medicine volunteered at the annual Pennsylvania Academy of Dermatology skin cancer screening in the Harrisburg Capitol building where legislators, staff, and the public were offered free skin cancer screenings. Informational tables were also available in the rotunda with handouts discussing melanoma, prevention and detection of skin cancers, as well as information about the specialty of dermatology. All of the volunteers had fun while educating the public about the warning signs of skin cancer and how to protect themselves from too much sun, with the goal to prevent future skin cancers. The Department of Dermatology also holds an American Academy of Dermatology free skin cancer screening event each year in the spring.

Another example of having fun while volunteering is the week spent at Camp Horizon in Millville. This specialty medical camp offers children with chronic dermatologic conditions the opportunity to experience summer camp and support each other in a setting of acceptance, love, and fun. The camp was established in 1994 and the first camp was held in the summer of 1995. This initial venture hosted eighteen children for a four-day camp with a staff of about fifteen volunteers. Since that time, the camp has expanded to a full week and has grown to more than eighty campers and a staff of more than sixty-five volunteers. The thirty-five acre campsite features ten sleeping cabins, a large mess hall, outdoor activity pavilions, a fishing and paddleboat pond, a low-ropes course, a pool, and a fully equipped infirmary.

Dr. Andrea Zaenglein, our pediatric dermatologist, and all three second-year dermatology residents volunteered at Camp Horizon from August 10-16, 2008. Dr. Zaenglein headed up the med shed, as she has done for more than ten years, while the residents served as camp counselors. Some of the highlights included the talent show put on by the campers, Knoebels Amusement Resort (where my boys rode the bumper cars at least 20 zillion times and we ate our weight in funnel cakes). We also had immense fun with the various activities which included fishing, archery, playing games, swimming, and making chocolate treats. All of the campers had a wonderful time and for the week did not have to worry about anyone judging them on their appearance due to their skin diseases. They could be normal kids, having fun at summer camp. It was certainly a positive experience that I will cherish for a very long time.
An Ounce of Prevention

CONNOR PATTERSON, M.D.

Skin cancer is the most common cancer in the United States and one in five Americans will develop some form of skin cancer in their lifetime. An estimated 9,000 Americans died of melanoma type skin cancer in 2008, this is roughly one person per hour. Ultraviolet radiation has been shown to be the highest risk factor for skin cancer. Despite these startling facts and efforts by the dermatology community to get the word out, many individuals, especially adolescents, are still intentionally sunbathing and using tanning beds for perceived cosmetic benefits. To this end, Penn State Hershey Medical Center and Penn State Department of Biobehavioral Health Prevention Research at University Park Center are now collaborating on a number of prevention, education, and early detection projects targeting our youth, parents and even hairdressers in the fight against skin cancer.

Primary investigator and incoming Medical Center dermatology resident, Dr. Holly Gunn, is working under the mentorship of Dr. Rob Turrisi at Penn State University Park. Turrisi is a highly published and National Institutes of Health funded national leader in the field of prevention research, dedicating some twenty-five years of study aimed at changing highly resistant behaviors in children, adolescents, and adults.

Dr. Gunn and colleagues are currently implementing three intervention projects to evaluate various forms of skin cancer prevention. The first, deemed “The PET Project”, involves a physician-designed handbook for parents. This handbook focuses on sun safe behaviors and suggests some effective communication tactics when educating children on the sun and skin cancer. Gunn and Turrisi’s “Style Project” targets State College area hairstylists and barbers, educating them in early detection and sun safe practices, as 80 percent of skin cancers develop on the head and neck areas. The hope is that parents and hairstylists alike will feel more comfortable sharing this important message with those around them. Finally, “The Light Project” targets Penn State sororities using both health-based and appearance-based behavior modification techniques to change attitudes on tanning, skin aging, and skin cancer risk.

As you can see, the age-old adage, “An ounce of prevention is worth a pound of cure,” is a major component fueling Penn State Hershey Dermatology’s dedication to the life and well being of Pennsylvanians.

Fourth Annual “An Elegant Evening of Food and Wine Pairing” a Great Success!

“Welcome to the fourth annual Food and Wine Event,” were the opening remarks from Dr. James Marks, chair, Department of Dermatology, to ninety-six eager guests that attended this year’s fundraising event, celebrating French wines and foods. The event’s proceeds benefit the Dermatology Research Endowment Fund.

Dr. Marks introduced the faculty in attendance and recognized each to their particular specialty and their relationship to the research they conduct. Mr. Dean Koppenhaver, wine educator, explained the wine and food pairings to be savored throughout the evening. Between courses, guests had ample time to offer a bid on the many donated items, including wine, restaurant venues, original artwork, and a travel destination.

Plans are already underway for next year, as the theme will honor the foods and wines of South America. Save the date!

A Taste of South America
March 27, 2010
During the past year, Penn State Hershey Dermatology has had many exciting achievements in our four missions:

**Education—The excitement of learning**
- Dr. Joslyn Kirby joined our faculty.
- Dr. Elizabeth Billingsley was promoted to professor.
- Dr. Bryan Anderson was promoted to associate professor and tenured.
- Dr. Jeannie Hennessy was our first dermatopathology fellow.
- Five-year residency accreditation with no deficiencies.
- More than fifty community dermatologists attended monthly patient-centered conference (Grand Rounds).
- 100 percent of the faculty are tenured or on tenure track.
- Lookingbill and Hassel Endowments sponsored prominent visiting professors.
- Schragger Educational Endowment continued to grow.
- Dr. David Adams appointed representative to The U.S. Pharmacopeial Convention.
- Dr. Christie Ammirati was assistant section editor of *The Cutting Edge in Archives of Dermatology*.

**Research—The joy of discovery**
- The department continued to be in the top third in National Institutes of Health (NIH) funding of more than 100 dermatology departments/divisions nationwide.
- Fifteen pharmaceutical-sponsored clinical studies.
- Seventy-eight peer-reviewed publications featured in national/international journals.
- Annual Food and Wine Event raised more than $14,000 for basic science research.
- Dermatology Professor Endowment helped support Dr. Thiboutot’s lab.
- Dr. Holly Gunn was our first research fellow.
- Dr. Diane Thiboutot, Zhaoyuan Cong, Kathy Gilliland, Kim Lumsden, and Dr. Amanda Nelson received Poster Awards at the Acne Congress Meeting in Rome, Italy.
- Numerous regional, national, and international lectures were given.

**Patient Care—The reward of healing**
- Top 10 percentile nationwide in Press Ganey Patient Satisfaction.
- Twelve of the faculty recognized in *Best Doctors in America*.
- More than 39,000 patient visits.
- Open access and evening clinics expanded our service.
- Over 100 percent room utilization.
- More than 26,000 skin pathology cases.

**Community Service—The satisfaction of giving**
- 327 individuals examined at our annual free Skin Cancer Screening clinics.
- Both residents and faculty consulted and cared for the homeless at the Bethesda Mission.
- Participation and guidance for the Alopecia Areata and Psoriasis Support Groups.
- Faculty and residents volunteered for children with severe skin diseases at Camp Horizon.
- Dr. Chris Jones volunteered in Botswana, Africa.
- The Sun Protection Project launched.
- Dr. Andrea Zaenglein, “Members Making a Difference” Award, given by the American Academy of Dermatology.

—JAMES G. MARKS, JR., M.D.
PROFESSOR AND CHAIR
Grand Rounds—What Is It?

NINAD PENDHARKAR, M.D.

On a typical Grand Rounds day, our patient volunteers are seated individually in our clinic rooms. A large number of dermatologists from central Pennsylvania, including those from Geisinger Medical Center, examine each patient in small groups. At 9:30 a.m., the patient volunteers are free to leave, after which all the dermatologists review each individual case to determine the best possible care for the patient. We invite nationally renowned visiting professors four times per year, who are experts in their respective dermatologic subspecialties and actively participate in the discussion. The results are then conveyed to the patient volunteers by their primary dermatologist. We encourage dermatologists practicing in the community to invite their patients for Grand Rounds, as well.

Most would agree that of all the different academic conferences and meetings that we attend, Grand Rounds is the most powerful and educational. Seeing a person with a certain skin condition and hearing their personal story has a much greater impact than reading about it in a textbook. Also discussing treatment options, not only allows us to provide the best possible care for that particular person, but also presents us with the tools we need to care of someone with a similar condition in the future.

But most importantly, patients consistently appreciate Grand Rounds. It is a unique opportunity to receive input from many dermatologists with a variety of experiences regarding their direction of care. Ultimately, Grand Rounds improves patient care.

On Thursday, September 4, 2008, an endowment was launched at the Medical Center to honor Mark Hassel, M.D. The endowment will be used to host an annual lecture series at the Medical Center to benefit central Pennsylvania’s dermatologists. The first guest lecturer of the endowment was renowned dermatologic surgeon, Roy Geronemus, M.D. (Pictured left). Also pictured are Hassel’s widow, Jennifer Hassel, and James G. Marks, M.D., chair, Department of Dermatology.

On Thursday, September 4, 2008, an endowment was launched at the Medical Center to honor Mark Hassel, M.D. The endowment will be used to host an annual lecture series at the Medical Center to benefit central Pennsylvania’s dermatologists. The first guest lecturer of the endowment was renowned dermatologic surgeon, Roy Geronemus, M.D. (Pictured left). Also pictured are Hassel’s widow, Jennifer Hassel, and James G. Marks, M.D., chair, Department of Dermatology.
NEW CONNECTIVE TISSUE DISEASE CLINIC

STACY KLEPEISS, M.D.

Dr. Jennie Clarke recently started a weekly connective tissue disease clinic on Tuesday afternoons at the Penn State Hershey Dermatology Office. Connective tissue diseases are a group of autoimmune disorders in which the body’s immune system starts to attack collagen, a normal component of the skin. This can then cause various skin rashes, arthritis, and internal organ problems. Dr. Clarke became interested in connective tissue diseases during her residency at the Medical Center and fostered that interest when she was awarded a Women’s Dermatologic Society Scholarship to train under Dr. Victoria Werth at the University of Pennsylvania. She states, “I enjoy the challenge of taking care of patients with dermatologic problems that may be associated with underlying complex medical conditions. Collaborating with their physicians and sharing in their successes when a therapy helps are rewarding parts of my day.”

During this clinic, she sees patients with lupus erythematosus, dermatomyositis, scleroderma, Sjogren syndrome, and mixed connective tissue disease. Dr. Clarke works closely with her colleagues in rheumatology to assist in both diagnosis and treatment of patients with these diseases. Dr. Clarke’s clinic dedicated specifically to patients with connective tissue diseases allows her more time to spend with each patient and manage their multiple cutaneous and systemic symptoms and often complex list of medications. Dr. Clarke is currently the only dermatologist in central Pennsylvania specializing in this group of diseases, so the Penn State Hershey Dermatology Department is excited to add this specialty clinic to better meet the needs of patients with connective tissue diseases.

GOALS

Department of Dermatology

Strategic Goals/Tactics in the Next Five Years

Education Goal–To Recruit, train, and retain the best faculty, residents, medical and graduate students.

- Recruit a skin cancer surgeon, a cosmetic dermatologist, and a physician-scientist.
- Initiate a chair’s endowment.
- Expand from nine to twelve dermatology residents.
- Support education with the Hassel, Lookingbill, and Schragger endowments.
- Enhance our residents’ future practice in any setting with leadership training.
- Start clinician-educator and dermatologic surgery fellowships (post-residency training).

Research Goal–To Be in the top 25 percent National Institutes of Health (NIH) funded departments in the nation.

- Recruit a physician scientist to enhance our NIH-funded skin disease research.
- Build our Dermatology Research Endowment with: J & T Accessory Sales, our annual Food and Wine Event, and individual donations.
- Support Dr. Thiboutot’s laboratory with the Professor of Dermatology Endowment.
- Continue innovative clinical research which takes discovery from the lab to the patient.
- Collaborate with investigators at University Park for skin cancer research.

Patient Care Goal–To Give the highest level of care to our patients.

- Increase clinic space in University Physicians Center: a bridge to a new building.
- Add a third skin cancer surgeon and a cosmetic dermatologist.
- Expand care with open access and evening clinics.
- Explore practice opportunities in State College.

Community Service Goal–To Partner with our neighbors to improve skin health.

- Promote sun protection for the general public to prevent skin cancer.
- Volunteer at the Bethesda Mission, annual skin cancer screening, alopecia areata and psoriasis support groups, and Camp Horizon.
- Increase our communication and alignment via our Community Advisory Board.
Penn State College of Medicine forged its way into the field of melanoma research when The Foreman Foundation, honoring John Brunos, Jr., a punter from Penn State’s 1986 National Championship football team who died from melanoma, established a faculty research position. Their recruit, Dr. Gavin Robertson, associate professor of pharmacology, pathology, and dermatology, has since headed up the department. Since 2001, Dr. Robertson has been researching the pathogenesis of melanoma, and utilizing this information to develop new therapeutic agents.

Dr. Robertson’s lab uses genetic, cell culture, animal, and human models to identify candidate melanoma causing genes and signaling pathways. He recently published data in the Cancer Research Journal, which explains how a melanoma develops within a mole. A mutation in the B-raf gene is present in nearly 90 percent of all moles, however, this mutation does not lead to melanoma. A second protein, Akt3, which regulates the activity of the mutant gene product, aids in the development of melanoma. These two proteins communicate with one another only in melanoma, therefore a mole cannot turn into melanoma without that second protein.

Armed with the knowledge of melanoma pathogenesis, Dr. Robertson is able to devise novel therapeutic approaches. He heads the Experimental Therapeutics Program, which has a drug portfolio of approximately twenty agents in various stages of development. Currently, the research team is employing a low-frequency ultrasound device to inject drug-filled nanoparticles, which target the above mentioned proteins, directly into cells. Targeting the individual proteins results in minimal inhibition of tumor development, however, targeting these proteins together, leads to significant tumor inhibition. The use of nanotechnology and bioengineering enhance the delivery of experimental agents into cancer cells. An additional therapeutic edge is gained with the Melanoma Therapeutics Program. This program, founded by Dr. Robertson, brings together investigators who work with melanoma in all capacities from drug discovery to patient care. Dr. Robertson continues to work for and with melanoma patients, and strives to develop better therapies based on the biology of the disease.

“Be aware of wonder. Live a balanced life - learn some and think some and draw and paint and sing and dance and play and work every day some.”

ROBERT FULGHUM, AMERICAN AUTHOR

In the accomplished troupe of over a dozen full-time dermatology faculty at Penn State, volumes could be written about the group’s academic leadership and philanthropic accomplishments. Volumes, still, could also be drafted about their leisure interests and remarkable lives.

For instance, did you know that four faculty members have run marathons? Dr. Jeff Miller, Dr. Jennie Clarke, Dr. Loren Clarke, and Dr. Dave Adams are 26.2 finishers. In fact, Dave Adams has run more than thirty-six marathons, and his best time beat Lance Armstrong’s first marathon time by two minutes. Let’s not underscore other faculty’s athletic abilities however, as there are not only runners, but also kayak, yoga, figure skating, ballroom dancing, tennis, skiing, and soccer enthusiasts in the group.

Creative interests in the department abound, as well. For instance, Dr. Bryan Anderson built, among other things, a full-size wooden playhouse in the yard for his daughters and...
maintains a flourishing garden. Dr. Dave Adams made a cradle for his first daughter and invented helpful tools in clinic, such as the otoscope tip cryotherapy appendage. Dr. Christie Ammirati and Dr. Bryan Anderson actively participate in genealogy research. Dr. Joslyn Kirby bakes something for the clinic almost every week, and Dr. Mike Ioffreda is an artist.

One cannot neglect to mention family when summarizing the department, as every faculty member is married with at least one child, and any departmental social event includes countless kids in tow. In fact, there are thirty-three Penn State Hershey Dermatology offspring. Leaders of the group are Dr. Jeff Miller with five children and Dr. Dave Adams with five grandchildren.

Above is merely a sample of the diverse faculty extracurricular interests. Just as they shine in the academic world, they approach their personal pursuits with equal fervor. It is unsurprising then, that the group maintains such balance and continues to be motivated, cohesive, and content.

EDUCATION

Resident Leadership

MARK EID, M.D.

The most dangerous leadership myth is that leaders are born—that there is a genetic factor to leadership. This myth asserts that people simply either have certain charismatic qualities or not. That’s nonsense; in fact, the opposite is true. Leaders are made rather than born.

Warren Bennis, pioneer in field of leadership studies who Forbes described as the ‘dean of leadership gurus’

The premise that leadership is a skill that can be taught and learned underlies the innovative dermatology resident leadership curriculum here at Penn State Hershey Dermatology. In addition to learning clinical and technical skills during their residency, Penn State Hershey dermatology residents develop and hone their own leadership skills through this three-year program. The formal curriculum involves a multimedia approach using books (such as the Five Dysfunctions of a Team by Patrick Lencioni), videos, seminars, case studies, and discussion sessions. Residents are given the opportunity to apply learned leadership concepts to their involvement in clinic meetings, role as rotating chief resident position, participation in leading numerous conferences, etc.

The effects of the leadership curriculum have been substantial. Residents have gleaned many lessons on a wide range of topics: leadership, team building, enabling and embracing change, quality, conflict management, effective communication, etc. The success of the program was recently published in the Journal of the American Academy of Dermatology. The need for leadership: How can we better train the next generation of dermatologists? by Lance Wood, Dr. Jeffrey Miller, and Dr. James Marks. The article also highlights a particularly important aspect of leadership training for young dermatologists - the value of role model leaders. The leadership curriculum here at Penn State Hershey therefore has another added benefit: its supplementation with mentoring by a faculty that has ascended to numerous leadership positions within the local, state, and national dermatology and non-dermatology communities. These mentors are invaluable in helping produce future leaders.
Penn State Dermatology
University Physician Center II-Suite 4300
500 University Drive, MC HU14
Hershey, PA 17033-0850

www.PennStateHershey.org/dermatology