Maintaining the Pipeline:
A resident’s perspective on Skin Disease Research Day by Jay Choi, M.D., Ph.D.

There were many reasons I enjoyed being a part of this year’s Skin Disease Research Day (SDRD), held April 9-10 in Washington, D.C. I looked forward to going to Capitol Hill and having the opportunity to petition lawmakers about things that are important to me and my career in academic dermatology. While I was there, I had fun hobnobbing at dinner with the director of NIAMS, the president of the Academy, and the president of the Society for Investigative Dermatology (SID). But, in the end, my most memorable experiences came from meeting the patient advocates, some of whom were patients themselves.

Financial problems facing the National Institutes of Health (NIH) seem daunting at times. Funding has been stagnant for the last few years. Taking inflation into account, there has been an effective cut in NIH funding for the last two years. The funding line for NIH grants continues to dip toward 10 percent.

Co-sponsored by the Academy, the SID, and the Coalition of Skin

See SDRD on p. 6

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PharmaDerm proudly supports the American Academy of Dermatology and the *Directions in Residency* newsletter
Residents Can Achieve Change by Supporting SkinPAC

SkinPAC, the American Academy of Dermatology Association’s political action committee, recently crossed another hurdle to its goal of raising $800,000 by the end of the 2008 election cycle. The PAC filed its Federal Election Committee report on June 1 with just over half-a-million dollars raised. In the 2006 election cycle, SkinPAC raised $470,000 total. SkinPAC has been actively encouraging all residents to give what they can, even if it is a small amount. “Our goal is to have a larger participation this year than we ever have before,” said Brian Lester, M.D., a young dermatologist and a member of the SkinPAC Board of Advisors.

“SkinPAC’s efforts contribute to the wellbeing of every dermatologist’s practice and their ability to treat patients efficiently and effectively,” said Dr. Lester.

The purpose of SkinPAC is to help its members pool their money together in order to support members of Congress whose records demonstrate that they understand and support the legislative objectives of dermatologists. “Pooling” works most effectively because when a lone individual donates funds to a legislator’s campaign, the legislator will not understand why that individual is supporting them. When the political action committee contributes to a legislator’s campaign, it sends a clear message that dermatologists have an interest in their practice and patients. There is strength in numbers.

One of the major issues that is likely to come up several times during dermatologists’ careers is Medicare reimbursements. These reimbursement schedules will have an effect on how much dermatologists earn, how many staff members they can afford, and how many patients they need to treat to keep their practice afloat. SkinPAC works with members of Congress to educate them on these issues in order to avoid unfair and adverse affects of legislation that can negatively impact reimbursements. The SkinPAC board, which allocates the collected money, advocates that even at as little as $25 can help SkinPAC achieve its goals.

The SkinPAC Web site, www.SkinPAC.org, is full of useful information to educate members about the political action committee. Members may also contribute to the PAC on the Web site, as well. Sam Hewitt, the manager of SkinPAC, is encouraging members to call or e-mail him with any questions they have. He can be reached at (202) 712-2609 or shewitt@aad.org.

AAD offering resident elective opportunities in developing nations

The American Academy of Dermatology is providing new funding for six U.S. or Canadian senior dermatology residents to participate in a four–week elective in a developing nation. Electives are available in locations where the Education and Volunteers Abroad Committee (EVAC) established dermatology support programs and teledermatology consulting services.

The primary site would be in Gaborone, Botswana, where participants will rotate between the Princess Marina Hospital and the Baylor Pediatric AIDS program (BIPAI). Residents will take part in dermatologic HIV care for both children and adults, and can visit an outreach site in Francistown. Residents will also have the option of completing their rotations at BIPAI sites in Maseru, Lesotho; Mbabane, Swaziland; or Lilongwe, Malawi. The grant will allow residents an opportunity to learn about the care of tropical and HIV-related dermatologic conditions, as well as how to practice routine derma-
## Immunodeficiency Disorders

*By Melissa Pugliano-Mauro, M.D. and Wendy Myers, M.D.*

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<th>DISEASE</th>
<th>INHERITANCE/GENE</th>
<th>INFECTIONS</th>
<th>KEY IMMUNOLOGIC FEATURES</th>
<th>MALIGNANCY</th>
<th>CLINICAL MANIFESTATIONS</th>
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| X-linked Agammaglobulinemia (Bruton Syndrome) | • X-linked recessive (90%)  
• AR (10%)  
• Bruton tyrosine kinase (Btk): maturation block in pre-B cell to B-cell differentiation | Gram-positive pyogenic infections | • Absent IgM, A, D, E  
• Small amount of IgG  
• B cells lacking  
• CMI intact | Lymphoreticular malignancies, especially leukemia | Atopic dermatitis, vasculitis, urticaria, no palpable lymph nodes (no genital centers), diarrhea and growth failure | IVIG |
| Isolated IgA deficiency | • AD or AR: TNFRSF13B gene  
• Acquired (phenytoin or chemotherapy)  
• Defect in maturation of B-cell as it develops into IgA-producing plasma cell | One half have repeated infections | • Absent or low IgA  
• One half have Anti-IgA antibodies | Risk is increased | • 1 out of 600 white persons  
• Most common immunodeficiency disorder  
• Anaphylaxis to IVIG or transfusions  
• Asthma, autoimmunity [increase collagen vascular disease (SLE), celiac, UC, vitiligo]  
• Atopic dermatitis |
| Common Variable Immunodeficiency (CVID) | • Acquired  
• HLA B8 & DR3 | Recurrent sinopulmonary infections | • Most Ig classes low with no antibodies to bacterial antigens  
• B cell are present but abnormal differentiation | • Lymphoreticular malignancies: lymphoma (400-fold)  
• Increase risk of cancer (10-fold overall) | • Second most common immunodeficiency disorder (after IgA deficiency)  
• Eczematous dermatitis, pyoderma, moniliasis, verruca, dermatophyte infections  
• Autoimmunity (vitiligo, alopecia areata, hemolytic anemia, ITP, vasculitis), GI abnormalities  
• Cutaneous and visceral non-infectious granulomas |
| Immunodeficiency with Hyper IgM | • X-linked: CD40LG (CD40 ligand on T cells)  
• AR: CD40 (on B cells) | Respiratory infections, otitis media | • Normal or elevated IgM, D  
• Low or absent IgG, A, E  
• Recurrent neutropenia | Autoimmunity (thyroiditis and hemolytic anemia)  
• Painful oral and anogenital ulcers, diarrhea, widespread therapy-resistant warts | IVIG, allogenic BMT |
| Cartilage-hair Hypoplasia Syndrome | • AR: RIMRP gene encodes RNA component of ribonuclease protein endonuclease  
• Commonly in Amish and Finns | Severe varicella zoster and HSV infections | • Defective CMI  
• Minority of patients with defective humoral immunity  
• Hypoplastic anemia | Non-Hodgkin’s lymphoma and BCC | • Short-limbed dwarfism, fine sparse hypopigmented hair, doughy skin with abnormal elastic tissue  
• Hirschsprung disease, impaired spermatogenesis |
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<td>Omenn Syndrome</td>
<td>• AR: RAG-1 and</td>
<td>Recurrent infections</td>
<td>• Hypogammaglobulinemia with elevated IgE&lt;br&gt;• Antibody production and CMI impaired&lt;br&gt;• Eosinophilia&lt;br&gt;• TcR rearrangements restricted with inefficient and/or abnormal generation of TcR</td>
<td>• Mimics GVHD&lt;br&gt;• Exfoliative erythroderma (starting at a few weeks old) with alopecia&lt;br&gt;• Diarrhea, HSM, LAD, early death</td>
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<td>Severe Combined Immuno-</td>
<td>• X-linked:</td>
<td>Pseudomonas, Staph, Enterobacteriaceae, and</td>
<td>• Impaired humoral and CMI&lt;br&gt;• Deficiency or total absence of circulating lymphocytes&lt;br&gt;• Mature T cells absent&lt;br&gt;• B cells increased or decreased&lt;br&gt;• IgG low&lt;br&gt;• Lack NK cells</td>
<td>• Thymus is small or absent&lt;br&gt;• Triad: moniliasis of oropharynx and skin, intractable diarrhea and pneumonia&lt;br&gt;• Recurrent infections, failure to thrive and intractable diarrhea apparent within first few months of life&lt;br&gt;• Morbilliform eruption/seborrheic dermatitis-like/ LP-like/sclerodermatous—GVHD secondary to in utero maternal lymphocytes, nonirradiated transfusions, BMT, gene therapy</td>
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<td>Wiskott-Aldrich Syndrome</td>
<td>• X-linked:</td>
<td>Pyodermia, recurrent sinopulmonary infections (e.g. suppurative otitis media), infections with encapsulated organisms (e.g. pneumonia and meningitis)</td>
<td>• Elevated IgA, D, E&lt;br&gt;• Decreased IgM&lt;br&gt;• Low or NL IgG&lt;br&gt;• Impaired humoral and CMI</td>
<td>Lymphoreticular malignancy (up to ¼ of survivors develop lymphoma)</td>
<td>Triad: chronic eczematous dermatitis, infections, thrombocytopenia with splenomegaly and purpura&lt;br&gt;• Bloody diarrhea may distinguish this from SCID&lt;br&gt;• Molluscum, HSV</td>
<td>Platelet transfusions, splenectomy, IVIG, BMT</td>
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<td>Chronic Granulomatous Disease</td>
<td>X-linked recessive: CYBB gene which leads to absence of NADPH oxidase activity</td>
<td>Staph aureus, Aspergillus fumigatus, Burkholderia cepacia, C. neoformans, Mycobacteria</td>
<td>• Deficiency of NADPH-oxidase complex with defective ability to generate hydro- gen peroxide and inability to kill intracellular organisms&lt;br&gt;• Elevated IgA, M, A&lt;br&gt;• Neutrophil leukocytosis</td>
<td>Eczema of the scalp, backs of ears, face&lt;br&gt;• Purulent and granulomatous infections of long bones, lymphatic tissue, liver, skin and lungs&lt;br&gt;• Ulcerative stomatitis, furunculosis, subcutaneous abscesses and suppurative LAD&lt;br&gt;• Nitro-blue tetrazolium (NBT) is low/no blue color change&lt;br&gt;• Female carriers: increased infections, arcuate dermal and DLE-like skin lesions, and aphthous stomatitis</td>
<td>BMT/ stem cell transplantation&lt;br&gt;• Prophylaxis with trimethoprim-sulfamethoxazole and liraconazole&lt;br&gt;• IFN-γ to reduce frequency of infections</td>
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SDRD from p. 1

Diseases (CSD), SDRD is a day of advocacy on behalf of dermatology and dermatology research organized to reverse the budget trends. Fortuitously, the organizers assumed that many of us had no prior advocacy experience and offered a lot of valuable information. The first day, we met one another and learned from professional lobbyists how to petition Congress for increased funding for the NIH. As we were quick to learn, the legislators are not themselves physicians. Therefore, they depend on these meetings to learn why NIH research should be a priority. Legislators needed to hear why NIH research was important to each of us whether we were attending physicians (including chairs of dermatology departments), basic science researchers, patient advocates, or even dermatology residents. We were a diverse group, and we were all invested in research in different ways.

The next day, I traveled with one of the senior faculty at Yale, Leonard Milstone, M.D., to Capitol Hill. We walked to the offices of Sen. Joseph Lieberman, Sen. Chris Dodd, and Rep. Rosa DeLauro and met with legislative aides and legislative assistants. They all asked me why I came, and I told them that increasing NIH research funds is necessary to maintain the research pipeline. There is a direct cause and effect correlation between decreasing research dollars and losing residents to private practice.

I also had the opportunity to talk with chairs of dermatology and compare our experiences meeting with legislators. I walked into the inner offices of the Senate and the House of Representatives and began building relationships with those who work intimately with the legislators. I voiced my concerns about the future to someone who can enact change.

For me, however, the most memorable experiences of all involved the personal reminders of the need for more NIH research. The patients who suffer from the diseases we see require better treatment. As I finished my day on Capitol Hill, I waited for a cab with another woman from SDRD. She quizzed me in great detail about what I was interested in researching in the lab. I told her I’d like to focus on skin cancer. She looked at me somewhat disappointed. She was hoping I’d say Ehlers Danlos syndrome. It turned out she had type V.

Jay Choi, M.D., Ph.D, is a resident at Yale University.


For more information about the Dermatology Advocacy Network (DAN) or how to get involved in advocacy, visit www.aad.org/dan contact Joanna Crooks in the AADA’s Washington office, jcrooks@aad.org.
HVO seeks applicants for steering committee

Interested in global health? Want to learn more about what it takes to design and sustain educational programs in an international setting?

The Dermatology Steering Committee of Health Volunteers Overseas (HVO) invites applications from dermatology residents in the US and Canada who are interested in serving on the Steering Committee. This committee is responsible for the development and oversight of HVO’s dermatology training programs, sets policy regarding volunteer qualifications and serves as a resource on professional matters for HVO staff.

HVO seeks dermatology residents with an interest in global health issues and previous volunteer experience, either in the US or abroad. This experience does not need to be in the health care field. Applicants should be enrolled in a residency program during the term of their service on this committee.

The term of appointment is two years beginning at the AAD Annual Meeting in San Francisco in March 2009. The successful applicant will be responsible for travel expenses related to HVO activities.

Anyone interested in applying should send the following materials to HVO: a cover letter outlining the reasons for their interest in serving on the committee, a description of their prior volunteer experiences and international experiences, the names and e-mail addresses of two professional references (including one’s program director), and a copy of the applicant’s CV. These materials should be sent electronically to n.kelly@hvousa.org. Please note “Derm Resident application” in the subject line. For further information about the role of the HVO Dermatology Steering Committee, please contact Michelle Dea at m.dea@hvousa.org. All applications are due by Oct. 1, 2008. Final selection will be made by Nov. 15, 2008.

A private, non-profit membership organization, HVO was founded in 1986 to improve global health through education. HVO designs and implements clinical education programs in child health, primary care, trauma and rehabilitation, essential surgical care, oral health, hematology, infectious disease, nursing education, burn management and wound care. In more than 25 resource-poor nations, volunteers train, mentor and provide critical professional support to health care providers who care for the neediest populations in the most difficult of circumstances. The HVO dermatology program area is sponsored by the American Academy of Dermatology (www.aad.org). For more information on Health Volunteers Overseas, visit their website at www.hvousa.org.
message from the chair

Jennifer Lucas, M.D.

On behalf of the residents and fellows committee, I would like to welcome all the new first year dermatology residents and extend our best wishes to the graduating seniors. I would also like to congratulate everyone on the completion of the yearly in-service exam. Despite the trouble with the virtual dermpath, things seemed to run very smoothly. As per the recent publication by the ABD, they will continue to work to improve the system prior to considering it for implementation in our real Board exam. I will keep you posted if we learn anything else about this.

There are a few exciting updates that I would like to pass along about next year’s Annual Meeting in San Francisco. As many of you know registration for the basic dermpath self-assessment course has been virtually impossible for residents. However, thanks to a proposal from the Residents/Fellows Committee, the seating for 2009 has been doubled to accommodate our need. In addition, a coding course has been added entitled “Everything You Wanted To Know About Coding But Were Afraid To Ask.” This session will be simulcast if attendance is high. Finally, the Resident Transitions symposium will be a very informative and timely session. Given the great response from last year, we have arranged for the ABD to address the group about the upcoming Board exam and then to stay for a Q&A session. We will also have a panel of presenters from academic, solo, and group practice share lessons and tips about successfully starting a career in dermatology.

The Board of Directors recently met in Chicago. One key item discussed was the AAD Seal of Recognition™ program. The Board voted to re-affirm and continue the program as it is currently structured. The Board felt that the AAD Seal of Recognition™ program serves a vital public health interest — educating the public about sun protection through the Seal itself as well as ultimately funding additional skin cancer awareness efforts. The Seal is not an endorsement by the Academy, but a way to help the public cut through the clutter of products and sunscreen claims of “broad-spectrum” and “dermatologist-recommended” by recognizing products that meet established, evidence-based sun protection criteria recommended by dermatologists.

Also new this summer, the Academy launched a public service advertising (PSA) campaign about the harmful effects of tanning beds. The PSAs can be viewed at http://www.aad.org/media/psa/index.html of at YouTube (type: AAD PSA in your search).

Fostering leadership in our field is a priority of the Academy. Please let me know if you have any ideas about leadership activities or opportunities that would be beneficial to residents and fellows. I would like to end with a challenge to everyone, regardless of whether you are starting or finishing your training; get involved with the Academy this year. There are opportunities to do skin cancer screenings, apply for grants, or present at the Annual or Summer Academy Meetings. You can also get involved by joining the Dermatology Advocacy Network (DAN), where you will have the opportunity to learn about and take steps to impact the latest legislative and regulatory issues facing the specialty, such as indoor tanning legislation, Medicare physician payment, scope of practice, and skin disease research funding.

There are many options depending on your interests; but above all else get involved!

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Mission Statement
Directions in Residency is published by the American Academy of Dermatology Association to provide a forum for information concerning resident dermatology physicians, and providing news, views and actions of the Academy, the Residents & Fellows Committee, and the American Board of Dermatology.

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