

Newsletter

VOLUME II, ISSUE I

SUMMER 2007

SAVE THE DATE:
APSA ANNUAL MEETING
APRIL 25-27, 2008

INSIDE THIS ISSUE:

Welcome 1

From The President 1

2007 APSA Annual Meeting Report 2

Let Me Hold Your Dollar! 3

Survey: How does your program integrate and maintain clinical knowledge and skills throughout the graduate school years? 5

Welcome!

STEPHEN T. MAGILL, OREGON HEALTH & SCIENCE UNIVERSITY



Happy Summer! As aspiring physician-scientists, I'm sure you're all lounging around working on your tans and enjoying mojitos on the beach; however, since you're obviously taking a break to check your e-mail and avoid the T-T dimers, I hope you'll take a minute and enjoy the latest APSA newsletter.

For those of you wishing to learn a bit more about what APSA is and does, scroll down to "From Our President" where Freddy Nguyen describes some of APSA's goals for the upcoming year. To bring back good memories, or hear what you missed out on at this year's APSA annual meeting, check out the report by our president-elect, Jim Pauff. If you're new to the grant scene, you'll definitely benefit from Kim

Gannon's breakdown of NIH funding throughout your career in "Let me hold your dollar!". Our last article, written by Nicolas Kummer, nicely demonstrates how networking through APSA can connect physician-scientists in training. He surveyed the APSA institutional representatives to find out how different programs keep trainees clinically connected during their research years. Enjoy!

From The President

FREDDY T. NGUYEN, UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

It's my pleasure to announce that we have a new Executive Council that is excited about the coming year. We have been working steadfastly over the last couple of months transitioning from last year's council and preparing for the new academic year. This upcoming year will be my fourth and last year serving as President of the APSA. James Pauff from The Ohio State University was recently elected the President-Elect. James comes with a lot of enthusiasm and innovative ideas for the organization. He will be spending this upcoming year learning the ropes from myself and interacting with a lot of our leadership and Institutional Representatives. He is looking to

learn more about the issues that affect you and how we can better position APSA to address those issues.

The APSA is about to embark on its fourth year as a nascent organization. In the short span of three years, we have grown to represent over 100 medical institutions in the United States and Canada and are well on our way to reaching our goal of 100% active representation from all medical institutions in the United States. Our membership continues to grow at a steady pace to its current size of over 700 members (over 500 of whom are full members of the organization). As we continue to define our identity and the roles of the or-

ganization, I wanted to take this opportunity to highlight the three main pillars of the organization: Resources, Network, and Advocacy.

APSA was founded on the notion of being the information gateway for trainees interested in pursuing a career as a physician scientist. In that spirit, we are in the midst of some very exciting new projects this upcoming year. We will be spending the better part of this year completely overhauling the APSA website. In particular, the training programs and funding opportunities section will continue to be expanded, and we will also be working to develop more original content. In addition,

(Continued on Page 3)

2007 APSA Annual Meeting Report

JAMES M. PAUFF, THE OHIO STATE UNIVERSITY

American Physician Scientists Association
3rd Annual Meeting
Fairmont Hotel Chicago, IL
April 13-15, 2007

This past April, over 140 physician-scientists in training gathered as part of the APSA 3rd Annual Meeting, alongside over 500 active physician scientists as part of the American Society for Clinical Investigation (ASCI) & Association of American Physicians (AAP) Joint Meeting at the Fairmont Hotel in Chicago, IL. Those of us in training represented over 50 institutions from 25 states, making this the most diverse and well-represented APSA meeting to date. Combining an excellent meeting program (set up by our APSA annual meeting committee) with the wonderful environment of the ASCI/AAP joint meeting made for a truly exciting, educational, and memorable experience. The three day event served as the perfect venue to network and to interact with other physician-scientists, both in training and in practice, as peers and colleagues. The 3rd APSA annual meeting also provided countless opportunities to learn and to grow in our own understanding of what it means to be a physician scientist.

The first day began with opening remarks from our current APSA President Freddy Nguyen (University of Illinois) and a keynote presentation on the "Career Pathways for Physician-Scientists" by J. Larry Jameson, MD, PhD. An afternoon of poster-setup, registration with the APSA and ASCI/AAP, and other welcoming talks was capped by the opening plenary session of the ASCI/AAP. This session was highlighted by an address from Elias A. Zerhouni, MD, the Director of the National Institutes of Health, on the state of the NIH. APSA attendees also had the opportunity to hear from Eric S. Lander, PhD, director of the Broad Institute of MIT & Harvard, on the future of genomics in medicine.

Friday evening saw a chance for 50 APSA attendees to dine with the active physician-scientists at the ASCI Annual Dinner, with a talk from Dr. Brett P. Giroir, the director of the Defense Sciences Office of DARPA. Fol-

lowing this exceptional dinner, the APSA attendees made their way to International Museum of Surgical Science for a dessert reception that carried well into the night. Some time between midnight and 5 AM, the first official day of the 3rd annual meeting came to a close.

Day two started early with the APSA business meeting, well attended by the institutional representatives. At this meeting, the current status and projects of APSA were presented, and we heard from the various committees and key positions that comprise the APSA. Following this productive and social time, all of the APSA attendees had a day full of ASCI/AAP talks broken up into various plenary sessions. Each session was focused around many of the most current issues facing medicine and the front line medical research behind such issues. These included, Global Health/Vaccines/Infectious Diseases, Novel RNA Technologies in Clinical Medicine, and ASCI & AAP New Member Presentations, a series of 11 talks by leading physician scientists. Between these sessions was a large poster session, which itself was a tremendous opportunity to interact with active physician scientists as the APSA presenters were scattered amongst those of the ASCI/AAP.

The final plenary session ended in the late afternoon with an address by the current ASCI President, Barbara L. Weber, MD. This keynote speech was an exceptional opportunity to hear about the past, present, and future of medical research by physician-scientists. After this well-received talk, it was an evening of APSA events with two exceptional keynote speakers. Former ASCI President Ajit P. Varki, MD from the University of California, San Diego spoke of his research interests and career pathway(s) as a physician scientist. Then the Director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases at NIH, Stephen I. Katz, MD, PhD, gave a talk entitled "On Becoming a Physician/Scientist". After the APSA attendees headed out to some early evening social events, all were invited to attend the ASCI/AAP Presidential Dessert Reception, which featured a large variety of quite palatable desserts and drinks. This was not only a very kind and generous gesture by the

(Continued on Page 5)

"The three day event served as the perfect venue to network and to interact with other physician-scientists, both in training and in practice, as peers and colleagues."

From the President (Continued from Page 1)

tion to the electronic resources that we provide, we have a national network of Institutional Representatives at almost every medical school in the country. If you have questions/concerns/suggestions, you can talk to your Institutional Representatives who serve as your local hub in connecting you to the national organization and to your local institution's resources for physician-scientist trainees.

The mentoring and support network that we sought to provide is one of the unique aspects of the organization. Through a myriad of ways, we have tried to build the community of physician-scientist trainees. For example, through our Annual Meeting in Chicago, IL and our regional meetings (we have plans for two this year in CA and NY), students get to interact not only with each other but also with physician-scientists at every level, ranging from students to residents/fellows to young investigators and established physician-scientists. With these vertical and horizontal

networking opportunities, trainees have a unique chance to put themselves in context by looking at the big picture crossing medical specialty lines, research interest lines, and institutional lines. These opportunities are also available through our online discussion forums, through shared experiences in our newsletters, and various APSA get-togethers across the country.

The third budding pillar of our organization lies in advocacy for physician-scientist trainees. As we have become the leading and only organization that is run for and by physician-scientist trainees, APSA has become the leading student voice to address issues regarding our training and future careers. We are continuing to explore and expand our relationships with various organizations to determine the best ways to identify and address these issues. Over the years, I have been in contact with the leaderships of the American Medical Association - Medical Student Section,

the Association of American Medical Colleges - Organization of Student Representatives, the Sigma Xi Research Society, and the National Association of MD-PhD Programs to name a few. These groups all have the capability to impact the training of physician scientists through medical education and funding policies. We will also be spending this year engaging our membership and leadership by surveying our Institutional Representatives and our membership, and holding small focus groups at various schools and conferences.

I am excited to be working with our new Executive Council, our newly appointed Standing Committee Members, and our Institutional Representatives. One of my main goals is to make sure that our national leadership is as highly accessible as possible to all of our members. We all look forward to engaging you over the coming months to determine how APSA can best serve you.

“The three main pillars of the organization: Resources, Network, and Advocacy.”

“Let me hold your dollar!”

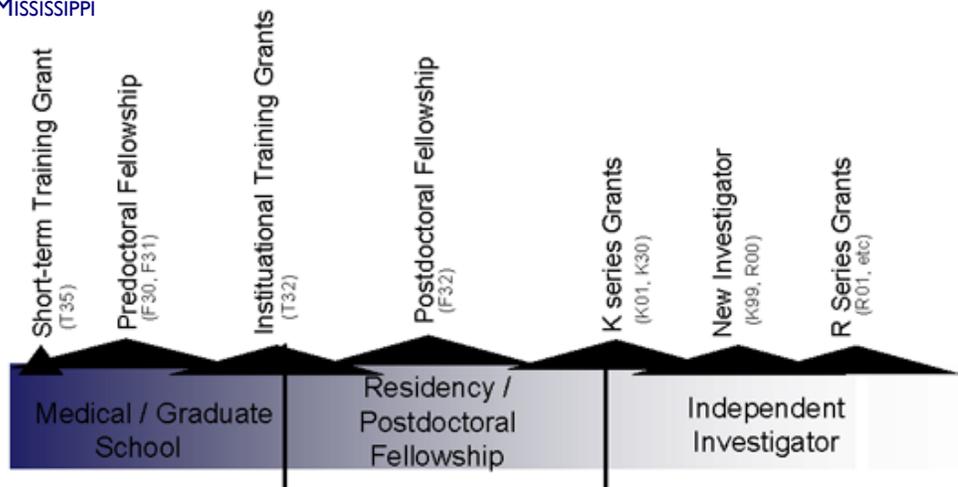
KIM P. GANNON, UNIVERSITY OF MISSISSIPPI



If you've started your trek as a graduate student, you have become acutely aware of the cost of research. Many of you may be in

well funded MSTP programs that finance your education as well as your stipend; however, others may be living on loans and praying for a grant. Whatever the situation, at

(Continued on Page 4)



some point in academic medicine, it will be necessary to secure funding of our own. Science and research monies are very competitive and are currently in somewhat short supply. This in mind, there are still many organizations that are ready and willing to accept proposals and fund worthy grants. Many organizations, such as the American Heart Association, have well established grant application processes, but perhaps the most well known and highly regarded mechanism of funding in the United States is through the National Institutes of Health (NIH). The purpose of this brief article is to give a timeline (see figure) and brief description of the grants available at the NIH, who is eligible and when to apply for them.

T32 - Institutional Research Training Grant: This grant is given to institutions to support "biomedical, behavioral, and clinical research" and can support predoctoral, postdoctoral, and short-term research funding.

T35 - Short-term Institutional Research Training Grant: This grant is given to eligible institutions to develop or enhance research training opportunities for individuals interested in careers in biomedical and behavioral research; it is often used specifically to fund short-term research for summer students.

F30 - Individual Predoctoral Awards for MD/PhD Fellowship: This grant is given to individuals enrolled in MD/PhD programs in particular fields of study and is available for a maximum of 6 years. The following programs at the NIH fund this grant: NIA, NIAAA,

NIDCD, NIDA, NIDDK, NIEHS, NIMH, NINDS, and the ODS. This grant is probably the most important for us in MD or DO/PhD programs.

F31 - Individual Predoctoral Fellowship for Minority students: This grant will provide financial assistance to individual minority students in PhD, MD/PhD or other combined programs, and other equivalent programs of study for a maximum of five years.

F31 - Individual Predoctoral Fellowship for Students with Disabilities: This grant will provide financial assistance to individual minority students in PhD, MD/PhD or other combined programs, and other equivalent programs of study for a maximum of five years.

F31 - Individual Predoctoral Fellowship: The NIAAA, NIBIB, NIDCD, NIDA, NIMH, and NINDS will provide funding to predoctoral students with the potential to "become productive, independent investigators in their scientific mission areas" for a maximum of five years. (only specific combined programs are eligible)

F32 - Individual Postdoctoral Fellowship: This grant is given to individuals who have completed graduate training and is meant to support post-graduate/post-doctoral research.

F33 - Senior Fellowship: This grant is given to "experienced scientists who wish to make major changes in the direction of their research careers or who wish to broaden their scientific background by acquiring new research capabilities." This is often used to support sabbatical time.

K series grants - This group of grants is considered 'career development grants' and application is open to individuals who have obtained a research doctorate. This group of grants contains at least 8 different awards that research scientists can consider. Without going into great detail, as few of those reading this newsletter have actually completed training, this section ranges from career development grants under the close guidance of a mentor to grants providing protected time and funding to senior scientists. This is a good grant to consider at the end of residency before entering accepting one's first faculty appointment. Specifically the K12 grant series is a 'Mentored Clinical Scientist Development program' and is suggested for those in subspecialty training. Clinical K awards are also available for specific areas of research including, but not limited to stem cell and mouse pathobiology research. The K99/R00 is the newest in this series. It is specifically designed for promising postdoctoral fellows to receive both mentored (1-2 yrs) and independent (3yrs) funding from the same grant. Most of the K grants are awarded for 5 year periods.

R series grants - This series of grants are for established investigators seeking to secure independent funding. The R01 is the oldest granting mechanism in place at the NIH. Nearly all institutes at the NIH support this grant form. Other R series grants are specific for exploratory and short term research, while others are designated for clinical trials and new research enhancement.

SO... Who will give me money?

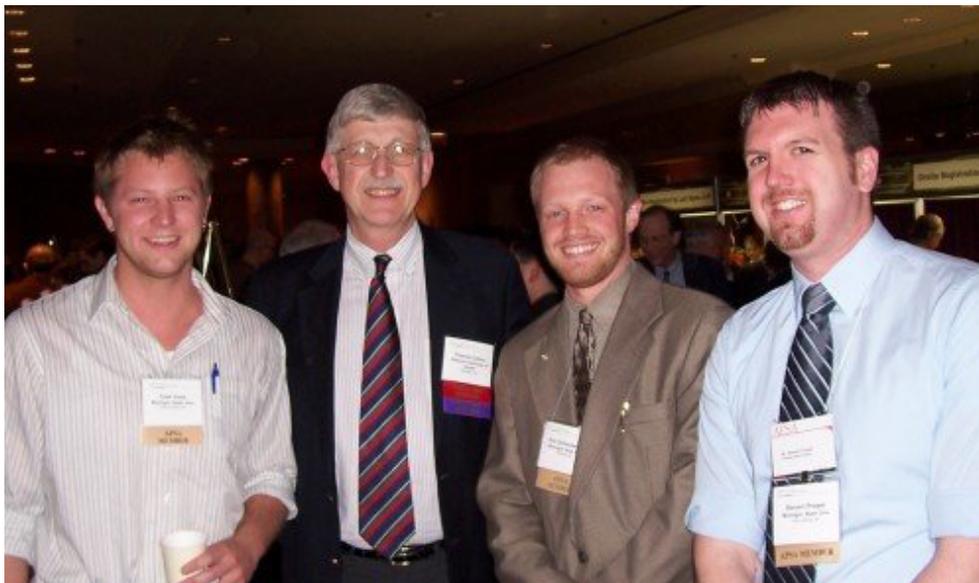
The following programs are part of the NIH and support most available grants: National Cancer Institute (NCI), National Eye Institute (NEI), National Heart, Lung and Blood Institute (NHLBI), National Institute on Aging (NIA), National Human Genome Research Institute (NHGRI), National Institute of Alcohol Abuse and Alcoholism (NIAAA), National Institute of Allergy and Infectious Disease (NIAID), National Institute of Dental and Craniofacial Research (NIDCR), National Institute on Drug Abuse (NIDA), National Institute of Environmental Health Sciences (NIEHS), National Institute of General Medical Sciences (NIGMS), National Institute of Mental Health (NIMH), National Library of Medicine (NLM), National Institute of Neurological Disorders and Stroke (NINDS), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institute on Deafness and other Communication disorders (NIDCD), National Institute of Biomedical Imaging and Bioengineering (NIBIB), and the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS). All information in this article can be found on the NIH website: http://grants.nih.gov/grants/funding/funding_program.htm. The Career Award Wizard (<http://grants.nih.gov/training/kwizard/index.htm>) seems to be helpful in deciding which grant is right for you. Other helpful pages include the grant search engine found at <http://www.grants.gov/> as well as our own APSA funding page <http://www.physicianscientists.org/Funding.html>. Good luck to everyone in the grant application process!

2007 APSA Annual Meeting Report (Continued from Page 2)

ASCI/AAP, but also a significant chance to socialize and interact with the members of the ASCI and AAP--our peers and mentors. Some time between midnight and 4 AM, the second day of the annual meeting came to a close.

On Sunday morning, APSA attendees had the opportunity to attend several award presentations by the ASCI and AAP, and in addition had a talk and discussion with Alan L. Schwartz, MD, PhD on his career as a physician scientist. Following this, Lainie Ross, MD, PhD gave an excellent talk on the role of social sciences and humanities in the career of a physician-scientist. Following this, a luncheon with medical residency directors and a panel discussion on post-graduate opportunities were both orchestrated by our APSA annual meeting committee to bring about a constructive close to the 3rd APSA annual meeting.

The APSA annual meeting is the perfect time to meet other training physician scientists as well as active physician scientists at all stages of their individual careers. To be able to network with one's peers and men-



tors is an adequate reason alone to attend such a conference. But as many of us work through the process of defining our careers as physician scientists, shaping our talents as medical researchers, and learning so much from so many as we progress along our training pathways, it is of tremendous benefit to spend a few days in the same arena with those who have gone before us--those who now serve as mentors and role models for our ca-

reers. It is the opportunity to "rub shoulders" (see APSA members from Michigan State University pictured above with Francis Collins; from left, Tyler Voss, Francis Collins, Eric Schauburger and Steven Proper) with these established and upcoming individuals, and to be treated as peers, that makes the APSA annual meeting so worthwhile. I look very forward to seeing you all at the 4th annual meeting April 25-27, 2008.

Survey: How does your program integrate and maintain clinical knowledge and skills throughout the graduate school years?

NICOLAS KUMMER, NEW YORK MEDICAL COLLEGE

I recently surveyed the APSA institutional representatives and leadership with the following three questions with hopes to find some pearls of wisdom to pass on regarding our extensive and unique training. In this issue we will focus on the first question, and the latter questions will be covered in the subsequent issues.

How does your program:

Integrate and maintain clinical knowledge and skill throughout the graduate years?

Develop social cohesiveness?

Prepare you for a career as a physician scientist?

MD-PhD programs come in many varieties, from large to small, private to NIH funded, and graduate years before medical school or in the middle. Yet we all face these same problems of how to we integrate research and medicine throughout our training; and is this approach even a good idea? With so much to learn, even eight years can seem insufficient to grasp it all, and after

(Continued on Page 6)

Survey (Continued from Page 5)

"It seems the bottom line is to determine what would work best for our individual paths and discuss how to make that happen with our mentors; determining the appropriate path is the hard part."

four years pass, how much can we really remember? And so enters the debate: "Do we load our graduate years with clinical experience and try to maintain/develop our selves clinically, or do we abandon medicine for several years and focus solely on become scientists?" To shed some light on this issue I present the two following views from the survey:

Kofi Mensah, University of Rochester – "At the University of Rochester we have an integrated curriculum regardless of whether the student is an MD program student or an MD-PhD student. We see patients beginning in the first year, and precept at local area offices weekly beginning the second semester of first year. When the MD-PhD students move to the graduate school phase, there is a longitudinal clinical experience (LCE) to continue the clinical training."..."Two 40-week LCEs or four 20-week LCEs are required at minimum, and this time is counted toward eight weeks of elective time for the clinical years (M3, M4)."..."Aside from maintaining clinical knowledge and skill, the clerk-

ship also helps MD-PhD students to decide which area they may be interested in and to gain a sense of how their research translates to the clinical specialty"..."Students can also do a general medicine preceptorship close to the time they re-enter the MD program to familiarize themselves with the general physical exam and medical conditions they may not have encountered..."

Nathan Herman, University of North Dakota – "Our program developed an "MD/PhD Clinical Elective" that was aimed to keep the MD/PhD student in the clinic on a limited basis throughout the graduate years. In theory, such programs sound like a good idea; however, they can be a major distraction. What I found was that I was spending a disproportionate amount of time on clinical stuff. My attending would ask a question that I would not have the answer for, and naturally I would want to go and read up on the condition, drug, etc. I tried the elective for three semesters before deciding that it just wasn't working. I would caution other programs who are

looking to implement a similar program. The graduate phase of the MD/PhD is often condensed into 2-4 years and during that time it is best to focus on getting the research done"

Both the comments raise valid points. It seems the bottom line is to determine what would work best for our individual paths and discuss how to make that happen with our mentors; determining the appropriate path is the hard part.

Of the 15 programs responding to the survey, 7 had no formal program; 4 of these reported student initiated solutions including preceptorships and clinical study groups. Two of these groups responded that the dean is considering plans for formal training. Of the 8 groups with formal programs, 7 reported to have some form of preceptorship and 2 reported they require a clinical skills course in addition to a preceptorship. Some unique clinical opportunities described included students volunteering at a free clinic and volunteering periodically with an overnight on-call team.

Well, that's a wrap for now. Be sure to save the dates of the fourth APSA Annual Meeting, April 25-27, 2008. Hope you all get a few moments of rest and refreshment this summer, even if you can't spend all your time basking on the beach, drinking mojitos, and forming T-T dimers.

Till next time,

Stephen T. Magill
Chairman, Public Relations Committee
American Physician Scientists Association

**SAVE THE DATE:
APSA ANNUAL MEETING
APRIL 25-27, 2008**