



Special points of interest:

- “PhD-MDs”
- Meeting reports
- Survey results

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From the Editors

By Kofi Mensah and Kim Gannon,
APSA Newsletter Co-editors and APSA Public Relations Committee Members

We are pleased to bring you the latest APSA newsletter, our first as editors. It is our aim that this will not only be a source of medical and research information for all physician scientists, but also an opportunity to get to know one another outside of the annual meeting. This issue contains a message from our current president, Freddy Nguyen, and features the highlights of several meetings. We have included a box reminding students of upcoming meeting and grant deadlines. A new feature of the newsletter will be the results of the surveys of APSA members. The results of the surveys will be published in an attempt to get to know one another and gain a better understanding of other pro-

grams, and the way they work. Guest contributors are always welcome in the newsletter! We would also like to highlight individuals or interesting aspects of your programs. Other articles will be added as we progress, and we are always open to suggestions. Contact us if you'd like to contribute.

One topic of ongoing discussion has been the title of our newsletter. Previous issues were titled “Operation Double Doc” but this has been dropped because it is our aim to include all students who are interested in bridging the gap between the basic sciences and healthcare, in addition to those pursuing a double doctorate degree. We all have a genuine interest in research, but are also interested in caring for

patients. It is our aim to include all of these individuals regardless of the degree that he or she is pursuing. In light of this, we posted a thread on the Student Doctor Network and received several suggestions that we very much appreciated. Our new title is a play on ‘physician scientist,’ ‘Phi Psi,’ or ΦΨ for short, reminiscent of Greek letter societies. We are currently pleased with this choice and find it to be inclusive of all members of our organization.

Please let us know if you have any suggestions for features that you would like to see in our newsletter. We are always looking for new ideas and new authors. We look forward to serving you this year.

-Kofi Mensah & Kim Gannon

From the President

By Freddy Nguyen,

As the new academic year is now well underway and fall has finally arrived, the APSA has been very active in the last few months. As the organization for physician-scientist trainees, we have continued to expand our presence and impact on a national and international scale by representing, advocating, and developing resources and opportunities for physician-scientist trainees. Our new leadership is now firmly in

place and our standing committees are working diligently on everything from planning the Annual Meeting to working to increase the number institutes that participate in the NIH F30 Fellowship application to putting together this very newsletter you are reading.

The United States has had the longest history of formalized training of physician-scientists, specifically MD-PhDs, with the first NIH

funded MD-PhD program starting in 1964. Since then, many countries have followed suit recognizing the US as the primary model for MD-PhD training. MD-PhD programs have started to grow internationally with Canada in 1984, Switzerland in 1992, Germany in 1997, and in the last 5-10 years, the United Kingdom, Austria, Finland, France, India, Israel, and The Netherlands have all started programs. Of the (cont. p. 4)

Operation Double Doc: In Reverse?

By Shyam A. Patel

Institutional Representative (2007-08), University of Medicine and Dentistry of New Jersey – New Jersey Medical School

Fumitaka Hayashi is a second-year medical student who is already a “doctor.” How, you ask? He has a PhD in immunology, and he is currently attending medical school to gain a better perspective on clinical science. Thus, he will graduate as a PhD, MD rather than MD, PhD. Subtle difference? Think again.

Dr. Hayashi has much to offer to fellow medical students who have limited knowledge in the sciences. Dr. Hayashi believes that his training in science has helped him greatly in the critical thinking involved in medical school. Sure, we can all memorize details in medical school, but few of us have a

global perspective on 21st-century science as it relates to the clinic. Therefore, numerous medical students (including myself) go to Dr. Hayashi for advice on the “big picture” of medicine and science. For example, frequent questions that arise include:

- ◆ “How can my knowledge of the molecular structure of immunoglobulins be applied in the clinical setting?”
- ◆ “What is the relevance of the mechanism of Gram staining?”
- ◆ “Why do the rate-limiting steps in biochemical reactions matter to my clinical practice?”

As physician-scientist candidates, we have much to learn from PhD medical students since they have already completed their research training. They can also offer great advice on the applicability of basic science research projects to medicine. They tend to have a broad perspective regarding where the science behind medicine is taking us and can provide physician-scientists-in-training with valuable career information. Such information cannot only open new academic doors, but also leads us to doors that we did not know existed.

“As physician-scientist candidates, we have much to learn from PhD medical students since they have already completed their research training.”

A Short Hop across the Pond to the French MD-PhD Retreat - Scientific Journeys 2007

By Freddy Nguyen

President and Founder, American Physician Scientists Association

This year, the APSA has been fortunate enough to be invited to a number of MD-PhD and physician-scientist related conferences both in the US and abroad. These conferences have given us the opportunity not only to present APSA, the organization, but to also voice to others the most pressing issues facing physician-scientist trainees in the United States. Through these interactions, we hope to advocate for our training and to foster a national and international community amongst physician-scientist trainees. However, what these meetings have shown us is that there are certainly some very universal issues along with country-specific issues. These international opportunities are of interest to the APSA since it is estimated that 5-7% of the MD-PhDs trained in the US are international students and/or carry dual-citizenship. Just as an example, on our executive council of 11, two of us carry dual citizenship and an additional international student.

One such conference was the French MD-PhD Retreat which took place

in Paris, France on September 6-8, 2007. The MD-PhD program in France is centralized within the INSERM (Institut National de Sante et Recherche Medicale) analogous to the National Institutes of Health in the US. Currently in its fourth year in existence, the French MD-PhD program, also referred to as “L’Ecole de L’Inserm” or the School of INSERM, currently has approximately 100 MD-PhD candidates. Potential candidates for the program are identified by the individual medical school deans from the current medical student population and are referred to L’Ecole de L’INSERM for further review. Approximately 150-200 applications are received each year of which only 20 acceptance offers are extended. The program includes students from the Schools of Medicine and from Schools of Pharmacy.

This program is unique in the sense that the programming is centrally run by one organization (INSERM) even though students are receiving their training in all of the medical institutions across the country. INSERM has

approximately 790 laboratories throughout France where students complete their research training (Master’s & Doctoral Degrees). The only program in the United States that is remotely similar is the newly developed MD-PhD program at the NIH where students complete their PhD research at the NIH and their medical training at their home institution. However, the decentralized nature and autonomy of each medical school and each MD-PhD program in the United States allows for the greatest variety of training experiences which can be tailored to the individual student.

Due to the differences in educational infrastructures, the French certainly face a unique set of issues that are similarly shared by other countries in Europe. Students begin in the pre-clinical medical school years similar to many programs in the US. This is followed by a research period where students complete short research rotations and complete a Masters degree. Upon completion of the Masters degree, students have the options to either continue with their (cont. on p. 3)

Our colleagues in Canada

By Stephen Magill

APSA Public Relations Committee Chairperson

APSA's newest partner is our counterpart organization to the north, the Clinician Investigator Trainee Association of Canada (CITAC). I had the privilege of speaking at their inaugural annual meeting this fall in Winnipeg, Manitoba. They are a similar organization to ours, but are just getting started. There are roughly 200 MD/PhD trainees in seventeen programs spread across Canada. In addition to MD/PhD training, Canada has MD-plus programs, which support MD/MSc training. The annual meeting was attended by 50 trainees from across the country—an astounding 25% turnout! This is an important time for CITAC as they are working to get their organization off the ground. They held their first annual meeting in conjunction with the Canadian Society of Clinical

Investigation's (CSCI) annual meeting. The meeting featured a range of speakers, including a program director and individuals at all levels of training.

The CITAC invited me to speak on lessons that APSA has learned during its initial years. I broke the history of APSA down into three stages I would describe as initiation, network building and actualization. Challenges during the initiation phase included establishing the organization and developing a plan of how to address the isolation and lack of career development tools faced by physician-scientist trainees. The network building and organizational phase of APSA involved the challenges of gaining representation throughout medical schools across the country, gaining organizational support for our annual

meetings and partnership through the American Society of Clinical Investigation (ASCI), and developing a central location for resources that are valuable to physician-scientist trainees.



Winnipeg, Canada. Site of this year's CITAC-ACCFC meeting.

I concluded by describing our current status, one I would describe as a type of actualization. Now that the (cont. p. 4)

French MD-PhD Retreat (cont.)

PhD training or to return to medical school to complete their clinical training. For those who follow the first path, they return to the clinical years after their PhD. Meanwhile those in the second pathway will complete their PhD after having completed their medical training. Students are strongly encouraged to pursue the route where they complete their PhD prior to returning the clinical years similar to the formalized MD-PhD programs in the United States. Some other differences with the training in the United States include the fact that students do not undergo an undergraduate education nor have they had the opportunity to pursue the extensive research experience that many MD-PhD and MD students in the US pursued prior to matriculating into medical school. Students also are not required to take the graduate course requirements normally required of traditional graduate students in France. These two facts combined make it more challenging for students wishing to pursue their PhD training in the non-traditional tracks and in fields that have little overlap with the material covered in pre-clinical medical education.

During this retreat, almost all (>90%) of the MD-PhD students in France come together during this retreat (similar to the retreats held in our respective MD-PhD programs in the US). To the students, this is one of the few opportunities throughout the year where they get to socialize and network with other students from across the country similar to the APSA Annual Meeting and the National MD-PhD Student Conference. The majority of the conference was dedicated to giving students the opportunity to present their research through oral presentations, and poster presentations. Senior students shared tips/advice to the younger students on how to best navigate the process. At the end of each day, the administration opened up the forum to the students to discuss the program, its structure, student's concerns, administrative requirements, and any other related topic. This free exchange between the students and the administration in such a large open setting is certainly something to be commended and gives individuals on both sides of the aisle the opportunity to address pressing issues head-on.

Earlier, I alluded to the similarities in issues facing physician-scientist trainees internationally. These include our constant struggles on how to become and compete with the best scientists and the best physicians. As we keep hearing from our counterparts, many people believe that since we are splitting our time, we can never become excellent physicians and excellent scientists. Similarly, the French share this same concern. Other similar concerns include our ability to be clinically competent when returning to the wards upon completion of our research training as well as our ability to place competitively into top residency choices. However, on the latter subject, one major difference is that we have more formalized Physician Scientist Development Programs or short-tracked residencies in place that take into account, and place value on, our scientific training. Unfortunately, this is not yet the case in the French system.

All in all, this is an exciting time for the APSA on the international landscape. With the globalization of science and medicine, it will become critical to foster the international community of physician-scientist trainees.

President's message (cont.)

countries with known MD-PhD programs, the US, Canada, and Switzerland are the only countries with national organizations advocating for MD-PhD trainees and their training. In Switzerland, the Swiss MD-PhD Association (SMPA), with whom the APSA has a long standing relationship, was founded in the summer of 2003 shortly before the APSA was started. In Canada, the Clinician Investigator Trainee Association of Canada (CITAC) was initiated in 2006. As the APSA explores the value of international collaborations and the role of APSA on the international stage, APSA was invited to present the Association at the French MD-PhD Retreat in Paris, France in early September and at the 1st Annual Meeting of CITAC in Winnipeg, Manitoba, Canada.

Coming back to the national stage, APSA continues to increase our representation in the United States with current official representation in 112 medical institutions in the US and Canada. As the APSA continues to grow, there is an increasing need to better define the role of APSA at the local and regional level. As some of you may remember, the Institutional Representatives from Texas came together and planned the Texas Physician Scientist Symposium last November. This November, we are proud to announce two APSA regional meetings to be held on November 17, 2007 in New York, NY and in Pasadena, CA. These regional meetings are planned locally by Institutional Representatives with support from the National Leadership. Through the regional meetings, we hope to expand APSA's missions and goals of Mentoring, Networking, Outreach, and Resources to the local level. As these regional meet-

ings continue to grow, we look forward to hearing from you, our members, as to how these meetings can best meet your needs. If you are interested in hosting a regional meeting in your area for the 2008-2009 academic year, please contact us at apsa@physicianscientists.org. APSA Regional Meetings are held during the fall so as not to conflict with the APSA Annual Meeting in Chicago, IL in April of each year.

As I mentioned in the previous newsletter, we are working diligently on not just providing a facelift to the APSA website but also to our electronic resources. These include an increased publication rate of our newsletters, and the use of social networking groups such as Facebook and LinkedIn. I encourage you to visit our website often in the upcoming months as we incorporate new additions and updated content. I also hope you will continuously provide us with feedback and suggestions throughout this process. The website serves as your central portal for all physician-scientist related information and we look forward to figuring out new ways to make it a more valuable resource for our membership. As the voice for physician-scientist trainees, we are continuously working with other organizations to not only make them aware of the APSA but also to provide them with more information about the issues that are important to our membership. One such example is the Association of Professors of Medicine's (APM) Physician-Scientist Initiative where APSA represents the voice of trainees amongst a collection of experts and stakeholders in the training of physician-scientists. Its main goal is to identify the issues facing physician-

scientists and to take appropriate action to help revitalize the nation's physician-scientist workforce. We are also working on developing a relationship with the National Association of MD/PhD Programs also known as the MD/PhD section of the GREAT (Graduate Research, Education, and Training) Group of the AAMC (Association of

American Medical Colleges). I presented the history, mission, and goals of the Association at their Annual Meeting this past summer while Dr. David Engman, president-elect,

gave a similar presentation on their group at the Business Meeting during the APSA Annual Meeting last April in Chicago. We are currently the largest organization for physician-scientist trainees. I encourage you to invite your friends and colleagues to become members today while membership in the organization is still free!

On a concluding note, the APSA is here to serve you and to address your needs as future physician-scientists. I hope that you will take every opportunity to engage APSA leaders and members every chance you get making your membership in the APSA more valuable. We look forward to seeing you at our regional meetings next month for those of you on the East and West coasts. We will soon be announcing the agenda and opening up registration for the APSA Annual Meeting. Save the dates (April 25-27, 2008), start making travel plans, and register for the meeting starting in November.

"the US, Canada, and Switzerland are the only countries with national organizations advocating for MD-PhD trainees and their training"

CITAC report (cont.)

infrastructure has been established, we're working to meet our goals of serving physician-scientist trainees by facilitating networking, mentoring, and outreach opportunities as well as providing valuable resources for all levels of training. Currently, our primary means of accomplishing this are through the development of resources for local APSA chapters, development of a national residency database, regional meetings to

facilitate local networking, improving access to resources through our website, and through our annual meeting.

After spending the day presenting and talking with our colleagues in Canada, I came to the conclusion that we all face similar issues. A lack of good mentoring as well as determining the best sequence of training are issues we had in common. Our exchanges resulted in new ideas such as

developing mentoring by engaging residents in PSTP's to mentor current trainees. The possibility of developing means for student exchanges between programs was also discussed. The members of CITAC appreciated us sharing lessons from APSA's growing pains and look forward to future collaborations between our two organizations.

So ... who are we?

By Kim Gannon

APSA Public Relations Committee Member and Newsletter Co-editor

Beginning this fall, we have begun a demographic study of the members of APSA and the physician-scientists at schools across the country. Each newsletter will present a brief window into the lives of our peers since we currently really only have one chance during the year to meet each other. The first survey that was sent out collected general demographic information about us. For this survey, we had 262 replies (Currently there are 777 APSA members), so the results of the survey reflect 34% of our membership. The following results represent data collected only from those responding to this survey. Of the respondents, over half of physician-scientists in training are males (55.9%). Most students are single, regardless of sex (66.9%). First year medical students and second year graduate students each accounted for 16.1% of the respondents.

Unfortunately, it cannot be determined at this time if there are actually *more* students at this level of training or if they simply had extra time

and computers at hand! Likewise, most of our responding population is 21-25 years old; however students ages range from 21-40. Responding students represent 33 states. Most of our students are working in the Mid- Atlantic (New Jersey, New York, Pennsylvania) region



About 2 out of every 5 APSA members study in the Mid-Atlantic states of PA, NY, & NJ, according to survey results.

(38.3%). Pennsylvania boasts the most physician- scientist students (66 students, 25.2% of respondents) followed by New York with 31 students (11.8%). Most of us are or will pursue research in the basic

sciences during graduate school; specifically, neuroscience tops the list with 31.7% of respondents, followed by microbiology accounting for 15.9% of respondents. Most of us intend to pursue a medical residency upon completion of our degrees (91.1%). Of those intending to match into a medical residency program, internal medicine is the most popular (47.5%), followed by neurology (24.9%) and pediatrics (23.8%). In the spring, a survey will be sent to all graduating students to determine the residencies actually matched and other career paths that physician scientist graduates have chosen. Hope you feel like you know a little more about the members of our organization. Stay tuned for the next edition of "So... who are we?" when we will find out more about each other!

If you have anything that you would like to see added to the next survey, please let me know:

Kgannon@physiology.umsmed.edu

APSA

AMERICAN PHYSICIAN SCIENTISTS ASSOCIATION

Connecting Physician-Scientists in Training

JOIN APSA TODAY!

Join online at www.physicianscientists.org

DEADLINES FOR FELLOWSHIPS

December 3, 2007

AMA Foundation Seed Grant Research Program

December 8, 2007

NIH F30 MD/PhD Predoctoral Fellowships,

NIH F31 PhD (only) Predoctoral Fellowships

January 2008 (varies by region)

American Heart Association Predoctoral Grants

APSA ANNUAL MEETING

April 25-27, 2008

Chicago, IL

APSA - 4th Annual Meeting

APSA REGIONAL MEETINGS

November 17, 2007

New York City, NY

APSA New York Regional Meeting

November 17, 2007

Pasadena, CA

APSA California Regional Meeting

APSA AT OTHER MEETINGS

November 8-10, 2007

Honolulu, HI

American Medical Association - Medical

Student Section - 2007 Interim Meeting

November 15, 2007

Washington, DC

APM Physician-Scientist Initiative

OTHER MEETINGS

April 5-9, 2008

San Diego, CA

Experimental Biology