AMSPC Annual Meeting 2012
January 26 – 30, 2012 - Maui, Hawaii

Friday Jan 27, 2012

Welcome/Announcements/ Introductions-Bill Crowley, President

Dr. Crowley opened the meeting at 8:30 by introducing the officers: Dr. William Crowley, Dr. Bonnie Sloane, Dr. James Barrett, Dr. David Taylor, Dr. Reid Norman, Dr. Lorraine Gudas, Dr. Mary-Ann Bjornsti. Dr. Burt Sharpe was not in attendance. He introduced Ms. Sheilah Jewart, the meeting planner who was warmly welcomed by the group for her tireless efforts to coordinate this trip as well as others. New Chairs or interim Chairs introduced themselves: Iain Buxton (Univ. Nev. Reno), Sunny (Meharvan Singh, Univ. North Texas HSC), Andrew Thorburn (Univ. Colorado), Fiona Parkinson (Univ. Manitoba). Dr. Crowley recognized members and asked that the group observe a moment of silence for those members who have passed away during the past year (Susan Dunne, Tag Mansour, George Mandel)

Panel: Teaching Basic Pharmacology in New Medical Curricula: Strategies to Protect Involvement of Pharmacology Faculty
Kent Vrana, Penn State, JR Haywood, Michigan State, Lynn Crespo, U South Carolina-Greenville, Rich Eisenberg, Univ. Minnesota Duluth

A discussion of personal experiences with new medical curricula was held that focused on how to engage in development of new curricula and still protect and maintain involvement of pharmacology and faculty members in the discipline.

1. Kent Vrana opened the panel discussion with a description of his experience at Penn State University. He encouraged the group to recognize that complaining about the loss of discipline-based courses was not a useful expenditure of energy and that focus needed to be directed toward identifying solutions to the problem. He described how the events that preceded his arrival in 2004 had created an identified deficiency in the presentation of pharmacology had left him charged with fixing the problem. In his experience he found the Knowledge Objectives to be valuable as a guide for how to redevelop the course and he was permitted to hire an individual as a Master educator who was indispensable in developing and delivering a much improved pharmacology component to an integrated curriculum. In addition, there is a significant Problem-Based Learning (PBL) component in which pharmacology assumed a leadership role. Greater oversight of the pharmacology contribution by the Master educator and continual reviews and updating of the course have had very positive outcomes on the student experience and productivity. The two years were distributed between structurally based knowledge and organ system based exposure.

   With curriculum review and mapping interventions, the contribution of pharmacology to the overall curriculum was increased and student performance on Step 1 improved as well as improved student responses on the graduate questionnaire. Questions directed to Dr. Vrana after the presentation focused on the role of the Master educator and how the faculty in the department embraced that concept and individual and how autonomic pharmacology was delivered within the curriculum. Some individuals also raised

concern for the number of basic science faculty without teaching contributions and how that was perceived by the department in general.

2. JR Haywood discussed his experience at Michigan State University where the department delivers over 30 courses in 3 different medical schools, a master's and a doctoral program. The heavy emphasis on obtaining extramural funding has also increased the number of faculty who are less interested in teaching which makes protecting faculty numbers increasingly important.

   In the medical schools the courses vary considerably from one in which 60% of pharmacology is delivered in a single course and the remainder in systems courses and a clinical pharmacology elective. Each school is undergoing significant expansion and in 2009, the allopathic College of Human Medicine (CHM) increased student population by adding an outreach campus in Grand Rapids in which some curriculum was delivered on line and the remainder by fixed-term faculty hired to teach on site. That brought the number of students in CHM to 100 in East Lansing and 100 in Grand Rapids. The College of Osteopathic Medicine (COM) had increased class size to 200 by 2005 and in 2009 added an additional 100 students at an outreach campus located in Detroit. The COM developed a new separate curriculum for preclinical education that reduced pharmacology contact to a total of 32 hrs that presented mainly general principles (PK/PD) and autonomics. The CHM is now initiating curriculum changes as well that may alter the method of pharmacology delivery to students. Pharmacology is delivered to the 100 students in the College of Veterinary Medicine as a stand-alone one semester course and a separate veterinary toxicology course.

   Currently, the department is responsible for delivering pharmacology to 530 professional students with 60-70% of the content delivered on-line and the remainder largely integrated into PBL. In spite of losing 25-35% of state-funding to the department, the funds generated by the 20 on-line graduate courses that are returned to the department have provided sufficient support to hire new faculty and support staff to deliver the courses. The trend toward reduced state support in spite of increased workload is not likely to end so creative funding streams will be essential to retain and maintain departments in the future.

3. Rich Eisenberg provided a discussion of the importance of the "**Knowledge Objectives in Pharmacology**" in discussions of curriculum change in the current medical school educational climate. As Rich described the Knowledge Objectives were developed in response to perceived threats of losing pharmacology from medical schools during the mid 1980s (a strikingly similar position that we perceive today). The document is currently in its 5th edition and provides what are believed to be core objectives necessary to be fully prepared in the discipline of pharmacology as students prepare to sit for USMLE Step 1. He further suggested that the Knowledge Objectives of today may be useful in discussions regarding curriculum development as a process for providing the appropriate learning objectives in the discipline but not necessarily as a separate course.

   Rich also discussed the AAMC Medical School Objectives Project (MSOP) Expert Panel of Education in Safe and Effective Prescribing Practices report. This report has been likened to a "Competencies in Pharmacology" document for medical students that should provide the basic skills sets that students should possess in prescribing at the time they matriculate from medical school.

4. Lynn Crespo described the experience at the University of South Carolina-Greenville in developing a new curriculum within the framework of a new school for which no curriculum existed. The integrated curriculum was developed around the Core Competencies for Graduate Medical Education in hopes of creating a curriculum that would be continuous from the "undergraduate" to the graduate levels of medical education. Pharmacology has become a major component of the "Grand Rounds" discussion and pharmacologists have become an integral addition to the instruction and support provided by the PharmDs who are often associated with medical clinics and services. These two groups complement each as pharmacologists frequently focus attention on "WHY" something works and PharmDs focus on "WHAT" needs to be given. The strategy for the new curriculum was "Patient-centered" in focus and organ-system and disease-oriented in approach which allowed learning to occur at both the student and educator levels. The new curriculum will employ EMT certification and training coupled to a requirement for each student to work one shift per month. Students will also be assigned to a patient to follow each semester. In keeping with recent trends, the curriculum will be integrated and systems-based with considerable focus on the use of simulation to enhance clinical skills. The opportunity to begin to develop an interprofessional learning environment will be stressed in the new curriculum with approximately 60% of the curriculum being small group and student-centered with only 40% employing didactic learning. The curriculum is similar to that employed in several other institutions and exposes students to pharmacology across all levels of the curriculum including both of the "preclinical" years. One interesting component of the new curriculum is the development of a virtual drug design module in which students participate. Much discussion ensued with particular attention to the virtual drug design module and how grading would be accomplished and how the "interprofessional" education was accomplished.

New Chair Presentation-
"The 80-hour Work Week: Maintaining a Research Program as a New Department Chair" --Dr. Curt Sigmund, University of Iowa

Curt described his experience of assuming the position of chair of the Department of Pharmacology at the University of Iowa. Dr. Sigmund discussed some of the goals he established and challenges he faced developing the department and described his research efforts directed toward understanding the role of PPARγ and RhoA kinase in insulin-resistant diabetes and hypertension.

Meeting was adjourned at 12:45.

Saturday Jan 28, 2012

Bill Crowley opened this session at 1:33 and introduced Sheilah Jewart who made some announcements about the plans for the evening. He also made a presentation to honor Dr. Bonnie Sloane as the out-going president and then introduced Dr. Howard Garrison who led the next session.

National Science Policy Issues-
"Federal Funding and Policy for Biomedical Research"--Dr. Howard Garrison, Director, Office of Public affairs and Deputy Executive Director for Policy, FASEB

Dr. Garrison identified and discussed some policy issues that directly impact upon the availability of funds for extramural support that included training programs, animal research, how priorities are set at the national level, the impact of regulatory policies and micromanagement as well as the significant concern among individuals competing for research funds about the process of peer review. He also pointed out that during 2012, NIH received < 1% increase in funding while NSF and DOE received a 2.5 and 1% increase, respectively with other federal agencies supporting research remaining flat. Dr. Garrison did indicate that there appeared to be bipartisan support for research in Congress but that rising costs and flat budgets would likely constrain innovation at the investigator level. Furthermore, in spite of modest increases in budget the policy to set aside money for specific programs was still in place and being utilized to direct funds flow to specific targets.

Dr. Garrison further explored the idea that when the budget increase is adjusted for inflation that the budget was actually reduced which increased competition for funding. The net result was a reduction in research grant proposals over the last year that reflected the loss of ARRA grant applications (stimulus funding). The increased competition, flat or reduced funding and the set-aside sequestration of funds has created an environment that is very tough and not likely to improve. Success rates have decreased from 26% to 15% and, therefore, FASEB is asking Congress and the President for increasing funding during FY 2013 and the President appears favor that initiative but he has proposed budget figures that are lower than the request. The new legislative environment has also created some significant fiscal issues that could directly impact funding for science and many other Federal appropriations. The looming potential of sequestration of funds includes a 9% across the board cut to all non-defense discretionary spending that could seriously reduce funding for research and undermine the entire appropriations process (n.b. recent events to avoid the "fiscal cliff" have delayed the implementation of that process but have not eliminated it).

Dr. Garrison provided an analysis of grant funding and FASEB membership which indicated a 0.95 correlation with state funding and membership in FASEB societies and 0.8 for Congressional district and FASEB society membership. Dr. Garrison concluded his discussion by providing some opportunities for involvement in the legislative process. He suggested that we need to mobilize societies to make ourselves more visible and increase public outreach regarding the benefits of research. He also suggested that greater collaboration among societies and other groups would be beneficial and emphasized the need to focus attention on Congressional districts.

Discussion following his presentation focused on states with lesser aggregate funding but highly visible politicians and whether FASEB should put some attention to smaller

states in terms of distribution of NIH funding. Dr. Garrison indicated that FASEB needs to ask for an appropriate amount of funding by providing information regarding what will NOT be provided by a significant reduction in research funding.

Panel Discussion: Peer Review Issues
Members of NIH CSR Advisory Committee: Dr. Keith Yamamoto, Vice Chancellor for Research, Univ. California San Francisco; Dr. Etty (Tika) Benveniste, Chair-Cell Biology, Univ. Alabama Birmingham; Dr. Garret Fitzgerald, Chair-Pharmacology, Univ. Pennsylvania

1. Dr. Keith Yamamoto – NIH Peer Review Issues

Dr. Yamamoto described the role of the CSR Advisory Council to the Office of Extramural Research and it's relationship to the Office of Extramural Research. He described the charge provided to this group by the acting CSR Director who wanted the group to provide advice to him (as of December, 2012, Dr. Richard Nakamura was named Director of CSR). He identified a number of issues that the CSRAC (or Dr. Yamamoto) had identified that were high priority. These included redefining study sections and the review process to fit current research, to eliminate the amendments and "substantial change" rule to make each grant a new grant (would eliminate the A1 or A2 debate). He also suggested that NIH might consider creating a long-term investigator-focused grant mechanism in an effort to provide some stability to funding. He also indicated that Dr. Nakamura appeared to be supportive of creating study sections that had pharmacology expertise.

2. Dr. Tika Benveniste -- Peer Review Issues

Dr. Benviste discussed some of the history of the CSR Advisory Committee which began in May, 2011 under Dr. Tony Scarpa. After an unproductive meeting in May, the group met again in October, 2011 which was led by Dr. Nakamura who had been named acting CSR Director. The agenda for this meeting appeared to be much more oriented toward identifying and discussing the real problems with the current situation for funding and for peer review. The group received suggestions from NIH staff regarding topics to be discussed and began to consider some more serious issues in detail. Dr. Benveniste described some of the highlights of the October meeting related to some of the topics discussed that were not necessarily on the agenda which included lowering the salary cap, restricting the number of NIH submissions or awards per investigator and limiting the time and effort devoted to research grants. In addition, the role of external funding in the tenure process and the impact on new investigators were concerns raised by the group. However, Dr. Benveniste remains somewhat skeptical about the group as the purpose does not appear to be transparent and the complicated relationship between the Office of Extramural Research and the Center for Scientific Review may impact on the ability to accomplish much through this committee.

3. Dr. Garret Fitzgerald -- NCATS: Implications for Pharmacology

Dr. Fitzgerald discussed the factors that led to the creation of the National Center for Advancing Translational Science (NCATS) that included the recession in new drug

development and approval, the lack of a sustainable business model to support the development of new chemical entities (NCEs) and increasing fiscal pressure placed on the pharmaceutical industry. The increased pressure derives from substantial awards for off-label drug use as well as the poor return on investment for drug development and the fact that in spite of significant capital investment the life expectancy of Americans ranks lower than the majority of other industrialized nations. The NCATS were developed to "catalyze the generation of innovative methods and technologies that will enhance the development, testing, and implementation of diagnostics, therapeutics and devices across a wide range of human diseases and conditions" (Francis Collins, 2011). It represents a formal recognition that the NIH wants to facilitate the translation aspects of basic discoveries to influence health outcomes. It also presents and opportunity to reformat the scope, mission and relationship of basic pharmacology and to redevelop skills in contemporary human pharmacology.

The elements associated with NCATS include CTSA program, the molecular libraries program, Therapeutics for Rare and Neglected Diseases, Rapid Access for Interventional Development, NIH-FDA and the Cures Acceleration Network. The network will consist of approximately 60 CTSAs that form the major part of the funding. The units will have responsibility for both preclinical (target identification and validation, genomic discovery, virtual drug design, preclinical toxicology, biomarkers, etc.) and clinical (phenotyping, clinical trials, etc.) activities. The challenges to the success of the program derive from several fronts including some skepticism by both the pharmaceutical industry and academia. There is also uneasiness among the CTSAs about redefining their mission and the changing face of Congress that may impact upon funding levels. At its very basis, it looks much like an academically housed pharmaceutical company that is funded by the federal government. The issue of the interface of discovery and development in this environment poses a substantial challenge as does the process by which success will be measured.

The presentations by the members of this group generated considerable discussion over a wide range of topics. The questions focused on the grant review process and the impact of that process on new investigators. One particularly intriguing question was whether the current peer review process could actually discriminate between good and "really" good science? Furthermore, the suggestion was made that the current system has lost its fidelity as the impact of the investigator and environment may create additional barriers and there seems to be no apparent review of reviewers.

Meeting was adjourned at 5:15.

Sunday, Jan 29, 2012

Dr. Crowley opened the meeting at 1:03 with announcements and the introduced Dr. Joey Barnett who discussed graduate education initiatives that were being developed in the US as well as abroad and reported on the NDOGS meeting.

"Trends in Graduate Education: Foreign and Domestic" -- Joey Barnett, Vanderbilt University

Joey Barnett began by discussing the efforts to facility student mobility in Europe through an initiative called the **Orpheus group** (**OR**ganisation of **P**hD Education in Biomedicine and Health Sciences in the **Eu**ropean **S**ystem). This group has been meeting since 2004 to attempt to develop procedures that would resemble "Best Practices in Graduate Training" and provide a model that could be employed to develop some consistency between and among training programs. Issues that need to be addressed in developing training programs that possess some consistency include the mechanisms by which the quality of the program, the student population and mentors is assessed as well as the maintenance of appropriate environments for student success. The position paper developed by the working group describes these issues in detail and concludes with the hope that some conversations regarding developing consistent core elements will occur in order to retain the value of the PhD. As a final conclusion, Joey suggested that this may provide an opportunity for programs in the US to begin to think along similar lines and, perhaps, initiate collaborations with some of these programs.

Report on the NDOGS meeting at Michigan State University

Joey reported on the most recent National Director of Graduate Studies meeting that occurred at MSU in East Lansing in July, 2011. This event was opened to program directors of Physiology and Pharmacology graduate programs in an effort to discuss common problems and concerns, identify core knowledge objectives and initiate dialogue between program directors.
He also continued a discussion begun previously (see presentation by Roger Chaukley in 2011) concerning workforce issues specifically focused on the role of training in Responsible Conduct in Research as it relates to graduate programs, the emphasis on recruitment and retention of individuals with disadvantaged backgrounds or disabilities and the willingness of faculty to accept non-traditional careers in graduates.

Nomination and Election of the Nominating Committee

Nominations for service on the nominating committee to identify candidates for the election of 2 counselors and secretary were obtained from the floor.

Individuals nominated for the nominating committee were: Don Bers; Mike Frohman; Emanuel Escher; Bonnie Sloane; Andrew Thorburn and Gary Rankin.

Results of Election: Don Bers (Chairman), Bonnie Sloane, Gary Rankin

Hot Topics Discussion

Discussion of topics of interest to the group focused on some of the issues raised during the meeting. These included:

1. **Working with special interests and congressional issues**

2. **Program topics for coming meetings**
   a. Session on how to negotiate
   b. Leadership management
   c. Recruitment and retention of new and established faculty
   d. Keeping department chairs relevant and vibrant and protected from micromanagement by administration
   e. How do we keep Basic Sciences relevant
   f. Knowledge Objectives as ways to protect the discipline in education
   g. Systems Pharmacology (New Wave Systems Pharmacology)
   h. What is the impact of the current funding climate on managing junior faculty
   i. Post-tenure review

3. **Graduate Education**
   a. Training that migrates across department lines
   b. Engaging faculty in umbrella training programs
   c. Representing discipline in umbrella training programs

4. **Future of Basic Science Departments**
   a. Reduced salary support leading to reduced enthusiasm by deans for supporting basic science departments
   b. Bring in financial officer or AAMC to get information about the future
   c. How will units defend themselves
   d. Sustainable basic sciences may be related to reduction in faculty numbers at various levels

Canadian Pharmacology Report—Dr. Emanuel Escher, University of Sherbrooke

Emanuel updated the group on the status of pharmacology in Canada. It appears that the discipline in Canada is facing some of the same obstacles and challenges that are apparent in the US. The number of departments and graduate programs are declining and the movement to combine all basic sciences into a single department appears to be alive and well in Canada, too. There have been some changes in leadership in departments and funding levels for Canadian biomedical scientist appears to be similar (if not slightly better) than that experienced in the US.

ASPET Update-Jim Barrett, Drexel University

Jim updates us on ASPET issues pointing out that the 2013 EB meeting will be a joint meeting with the British Pharmacology Society. He also identified a new joint initiative to develop a format for publishing significant articles not accepted by either society journals. He pointed that there will be special lectures and a full day of programming on Wednesday as well as a closing reception in an effort to encourage individuals to stay through the entire meeting. He also indicated that the society has seen increasing membership and has developed an on-line career center. ASPET is continuing to develop better marketing for the society and to initiative partnerships

with similar organizations. He concluded by indicating that the public affairs efforts of the society continue to be strong which will need to continue based upon many of the discussions that have been occurring at this meeting.

Treasurer's Report-Reid Norman, Treasurer, Texas Tech Health Sciences Center

Reid indicated in that the society was in good financial shape.

CAS Report-Tom Westfall

Tom Westfall gave a brief report on the meeting of the Council of Academic Societies (CAS) that began with some history of the inception and governance of the Council. He also described some of the challenges that the council is currently facing the group. He also highlighted the role that Dr. George Mandel played in developing the National Caucus of Basic Biomedical Sciences Chairs which was an important instrument for providing information to the scientific community as well as to representatives in Congress about the important role of biomedical research in the maintenance of a robust health care system.

Bill Crowley announced the 2013 destination for the meeting which will be in Philipsburg, St Maartens, Caribbean, at the Sonesta Great Bay Resort (every room will be ocean front), Jan 31-Feb 4, 2013. Sheilah pointed that a passport is required to enter but not to move between the French and Dutch side of the islands.

The group discussed other possible destinations for future meetings and Bill made some closing remarks and adjourned what had been a very worthwhile meeting of the Association of Medical School Pharmacology Chairs.