

**Association of Medical School Pharmacology Chairs
Annual Meeting, February 14-15, 2007
Hilton Colon Hotel,
Quito, Ecuador**

Wednesday, February 14

The meeting was called to order at 8:45 AM by Dr. Robert Theobald, Treasurer, substituting for the snowbound Gary Rankin, President.

The passing of members, Bill Berndt, Francis White and J. Peter Green during the past year was recognized with a moment of silence.

1. Dr. Emanuel Escher of the Universite de Sherbrooke, Quebec, Canada, described a new **B. Sc Program in Pharmacology** at that University. Dr. Escher's Powerpoint presentation is available on the AMSPC web site. Dr. Escher reviewed some aspects of training in pharmacology in Canada and policies for financing university programs. The objectives of this program are to generate more students entering graduate studies in pharmacology to train for careers in academia and industry, to generate more government support to the university to support graduate programs, and to serve as an economic driver for Canada. Challenges in establishing this program included: 1) the increased teaching load on faculty; 2) need for new space; 3) need for additional faculty; and 4) need for revisions to the existing graduate program.

The B.Sc program was undertaken as a joint venture between the Faculty of Science and Faculty of Medicine and Health Sciences, with some participation by Faculty in Administration, Law and Theology, and is now housed in new teaching and laboratory facilities. The overall approach focuses on pre-clinical and clinical research, and on regulatory affairs. In addition, there is a high level of hands-on laboratory experiences. The curriculum deals with fundamental aspects of pharmacology, i.e., identification of new therapeutic targets, development of new effective molecules, and understanding of mechanisms. Also covered are applied aspects of pharmacology, e.g., bioavailability, toxicity and efficacy of new drug molecules, and administrative aspects of pharmacology, i.e., good manufacturing and laboratory practices clinical protocols, quality control and vigilance.

Dr. Escher presented application and enrollment statistics. This program is now receiving over 600 applications per year, and enrolls a current entering class of 78 students. Outcomes assessment indicates that over 80% of the entering students graduate, and over 80% of the graduates have entered graduate training at the master's or Ph.D. level in pharmacology or some other life science. Approximately 10% of the graduates have entered industry employment directly.

Dr. Escher provided a detailed description of the 3-year curriculum. In general, year 1 is devoted to basic cell and systems physiology, biochemistry and organic chemistry. Year 2 focuses on systems pharmacology and also includes courses in molecular biology and genetics. Year 3 concentrates on issues related to drug development, management and toxicology. The curriculum is also heavy on laboratory courses, including labs in *in vivo* pharmacology and pharmacokinetics.

The development of this undergraduate curriculum has had an impact on the Ph.D. program at Sherbrooke, inasmuch as this forced a major revision of the graduate curriculum to take into account the increased number of applicants with this solid foundation in pharmacology.

2. Dr. Joey Barnett of Vanderbilt University discussed the upcoming meeting of the relatively new organization, **National Directors of Graduate Studies in Pharmacology**. Dr. Barnett's Powerpoint presentation is available at the AMSPC web site. The major goals of this organization are: to identify issues that affect our ability to provide effective training programs and to discuss possible solutions; to provide a network for continuing dialogue; to define core values and content for learning objectives; and to capitalize on potential program interactions and other opportunities. The first meeting of this organization was held in July 2005 at Vanderbilt University and featured speakers from academia, industry, and NIH, and discussed a wide variety of topics related to objectives and strategies for graduate training in pharmacology through platform presentations and small group discussions. This organization has also developed a survey instrument that is designed to provide critical data on current trends and practices in graduate training in pharmacology.

The next meeting will be held July 25-28, 2007, and will be hosted by the Department of Pharmacology and Toxicology at the University of Utah. Bill Crowley described the objectives of this meeting, and invited participation from department chairs as well as directors of graduate studies.

3. Dr. Anthony Scarpa, Director of the Center for Scientific Review at NIH, presented a talk entitled, **Challenges and Opportunities Facing Peer Review at NIH**. Dr. Scarpa's Powerpoint presentation has been made available at the AMSPC web site. Dr. Scarpa reviewed the history of federal support for biomedical research and the development of the peer review system. There is good reason to believe that the peer review system that developed in this country, which involves a relatively unique partnership between the federal government and U.S. universities, has been one of the main factors leading to the success of the biomedical research enterprise in the U.S. The organization of the Center for Scientific Review at NIH was reviewed. Some recent statistics show that at present, CSR is processing approximately 80,000, and reviewing 55,000 applications per year. Approximately 18,000 reviewers met in 1800 study section meetings last year under the direction of 250 SRAs,

The current Mission statement indicates that CSR will "see that NIH grant applications receive fair, independent expert and timely reviews, free from inappropriate influence, so NIH can fund the most promising research." However, CSR has received some criticisms in recent years, particularly during the current downturn in NIH funding, but also reflecting some important changes in study section practice and culture. Some major complaints include: lack of experienced senior reviewers, a culture that favors predictable, rather than innovative or transformative, research, a perception that clinical research does not fare as well as basic research, and the time and effort required by both applicants and reviewers, making the process a major burden on everybody.

Dr. Scarpa then described some of the efforts currently underway to "re-engineer" peer review, both with respect to administrative/organizational systems and procedures,

and for facilitating identification and advancement of the most significant, innovative and high impact research. One overall objective is to change CSR operations to increase communication and transparency; to increase uniformity in scoring practices, preparation of summary statements, and handling appeals; and to increase efficiency. The move to electronic submission addresses this latter goal, and various systems for electronic assignment and handling of applications are currently being tested. An additional objective is to improve study section alignment and performance.

Dr. Scarpa then presented a “vision for peer review”, involving several aspects now in the planning or pilot stages. One proposed goal is to shorten the review cycle, so that applicants receive a review and score within 3-4 months of submission. This also will involve much faster preparation and posting of summary statements after a meeting. A pilot project resulted in encouraging results, so that the new shortening process will be extended to many study section operations by the end of 2007. A second goal is to address concerns regarding clinical research. CSR analysis indicates that clinical researchers with NIH grants are not submitting competitive renewals at the same level as other grantees.

A third overarching goal is to recruit and retain more highly qualified reviewers and to decrease the burden on both applicants and reviewers. Dr. Scarpa reviewed statistics showing that one reason for the downturn in NIH funding is a drastic increase in the total number of applications being submitted since the doubling of the NIH budget. In part, this is also due to an increase in the number of applications being submitted per applicant. The increase in applications has also changed study section culture significantly, especially in increasing the numbers of *ad hoc* reviewers required at meetings. There has also been a growing reluctance of reviewers to review a large number of applications. These changes are leading to a number of new ideas, including more use of totally electronic reviews, and more use of video and electronic discussions. Most notably, a trans-NIH committee is studying the possibility of shortening the RO-1 application and changing the emphasis of the application from approach to impact.

4. Dr. Christie Carrico, Executive Director of ASPET, provided an **Update on ASPET Activities**, particularly focused on the Centennial celebration to be held during the Experimental Biology meeting, April 5-8, 2008 in San Diego. Dr. Carrico’s Powerpoint presentation has been made available on the AMSPC web site. One aspect of the centennial celebration at the EB meeting will be a number of Centennial Symposia, each of which will feature an introductory talk, highlighting the history of a field, 3-4 speakers addressing recent advances, and a concluding talk discussing future directions and health implications. Some of the symposia topics include: The Obesity Epidemic; P450s; GCPR-G Protein Signaling; Experimental Approaches to Treatment of Schizophrenia; Inhibitors of Soluble Epoxide Hydrolase as Treatment for Hypertension; Vascular Inflammation and End Organ Damage; Pharmacotherapy of Cocaine Abuse; Models in Drug Discovery; and Pharmacogenomics.

ASPET will also be developing some special publications, including a History of Nobel Research That Shaped Modern Pharmacology; Women in Pharmacology; Centennial Perspectives; Significant Deciles: 100 Years of Pharmacology in a Social, Historical and Cultural Context; and a History of the Society. A Meeting Compendium, containing some of these publications will be available free to all ASPET members who

register for the 08 meeting. Dr. Carrico also discussed the Abel Number project. More details on this scientific version of “seven degrees of separation” can be found via the Abel-Number link on the ASPET web site (www.aspet.org).

Two new ASPET awards have been created. The Julius Axelrod Award, formerly given by the Catecholamine Club, is supported by Eli Lilly, Corp., Wyeth Research and Abbott Labs, and was awarded in 2007 to Dr. Tong Joh. The ASPET-Astellas Awards (\$30,000 plus travel and registration for the annual meeting) have been established to recognize pharmacological research accomplishments that extend fundamental research to clinical applications; the 2007 awardees were P. Jeffrey Conn, Kathryn Cunningham and Liewei Wang.

The Centennial Perspectives is a special program for the centennial year, and will consist of short reviews on important topics in pharmacology and therapeutics. One such review will be published in each issue of the five journals published by the Society beginning in 2007 and extending 2008. Most authors have been recruited but volunteers will be enthusiastically considered.

Molecular Interventions is now in its seventh year of publication, and analysis of its impact factor is expected this summer. Dr. Carrico urged graduate programs to advertise in this journal. For its part in the centennial celebrations, Molecular Interventions will be publishing the Significant Decile series, beginning April 2007. Each article will describe scientific advances within a social and historical context for each decade, beginning with years 1901-1910.

With respect to public affairs, ASPET has joined the FDA Alliance, which is a 100-member, nonpartisan alliance of patient and consumer groups, PhRMA and professional societies that will be involved in public advocacy on behalf of the FDA, to support its mission as a science-based agency. With respect to member services, Suzie Thompson is the new Marketing Manager for member services. ASPET is seeking to update and improve its membership database and membership management systems. It is hoped to have these in place by September of 2007.

5. Dr. Tony Mazzaschi, Director of CAS Public Affairs and Senior Associate Vice President for Biomedical and Health Sciences Research for the Association of American Medical Colleges, presented **Research Funding Trends and Related NIH Policy Issues: Implications for Pharmacology Departments, Chairs and Faculty**. Dr. Mazzaschi's Powerpoint presentation has been made available at the AMSPC web site. Dr. Mazzaschi first reviewed some of the changes that occurred in the “political landscape” as a result of the takeover of both houses of Congress by the Democrats in 2007. One consequence is that urban states and districts have gained more political influence; this has an impact inasmuch as 73% of U.S. medical schools are located in a Democratic Congressional district, and Democratic senators and representatives and their staffs have historically been much more supportive of biomedical research and healthcare issues. Staffers for Democratic senators and representatives are overwhelmingly supportive of continuing to increase NIH funding, while Republican staffers are roughly evenly split between those in favor vs. those opposed. Dr. Mazzaschi also reviewed some of the key senators and representatives who have assumed chairmanships of important committees and subcommittees that deal with issues relevant to NIH and biomedical research.

Dr. Mazzaschi emphasized, however, that while political control of Congress has changed since the 2006 election, the budget situation in the U.S. has not. Thus, we face huge budget deficits out to at least 2015, especially when the costs of the wars in Iraq and Afghanistan are considered. Moreover, only about 20% of the federal budget is discretionary, and it will be up to Congress to determine how to divide the pie among defense, homeland security, and other domestic programs, such as biomedical research.

Dr. Mazzaschi then reviewed some features of current and projected NIH funding. The latest “doubling era” from FY1999-FY2003, saw double-digit increases in the NIH budget ranging from 14%-16% in current dollars, but actually 10.6%-11.6% in constant dollars (i.e., taking into account inflation as expressed by BIRDPI, the Biomedical Inflation Research and Development Price Index). However, in the post-doubling years, there has been a reduction in real dollars in the NIH budget. The joint budget resolution for FY07 did contain a 2.2% increase, the majority of which, however, went into the Common Fund, under the control of the NIH Director.

Considering BIRDPI, there has been a loss of approximately 10% in NIH funding during the post-doubling era, which is one factor contributing to the downturn in success rates. Also contributing to the decreased success rates is a very large increase in the total number of applications submitted, and an increase in the number of applications submitted per PI.

There is considerable uncertainty regarding the NIH budget for FY08, with the Bush administration proposing only a small increase, which would actually result in a decline in the number of grants, and result in an overall funding decrease of 13% since FY03. There is also some uncertainty regarding what is the base of the current NIH budget upon which to build. Several advocacy groups, including the AAMC, FASEB, Research America and others, have begun a lobbying effort to build support for a multi-year commitment by Congress to increasing the NIH budget beyond the inflation level so as to erase the decline since the doubling ended in FY03.

Dr. Mazzaschi pointed out that there remain areas of uncertainty and ongoing debates/discussions within NIH concerning issues such as, size and quality of the intramural research program; the resources provided to the Common Fund, under the NIH Director’s control vs. to the individual institutes; support for the RO-1 vs. other grant mechanisms; emphasis on basic vs. translational research; priority setting and disease focus; and the ever present issue of indirect costs. In addition, the new Office of Portfolio Analysis and Strategic Initiatives (OPASI), directed by Dr. Alan Krensky, is charged with strategic planning and evaluation for NIH and is expected to have great influence on priorities for the future.

Dr. Mazzaschi then summarized some of the resources available at the AAMC web site (www.aamc.org) that are very useful for basic science department chairs. Access to the site may be arranged by contacting Dr. Mazzaschi by e-mail. In addition, he provides a very interesting listserv available by e-mail with news related to NIH funding and academic medicine.

6. Reports From Breakout Discussion Groups:

1. Dr. Rich Eisenberg presented a summary of the discussion on “The Integrated Curriculum-what is its status and what are alternatives?”

Our workshop group had 14 people, 11 of whom said that Pharmacology was part of an integrated curriculum. Of the remaining three, two said their institutions were planning for a change in this direction. Further discussion quickly demonstrated that what was considered an integrated curriculum varied widely. In some cases, Pharmacology was part of a completely integrated, organ system-based curriculum. At other schools, parts of Pharmacology were integrated with other disciplines, but other parts became a Pharmacology course to cover what was not integrated. In at least one institution, Pharmacology was temporarily integrated into the second year with Pathology and Medicine. Other programs had the antibiotics combined with Microbiology offerings to create a “bugs and drugs” course. What became clear in the discussion is that many of these integrated programs do not serve the best interests of Pharmacology. Often times, subject matter just hangs out in the curriculum without any connection to drugs in other systems. Some drug topics get forgotten and testing becomes a particularly significant issue. Often times, the amount of Pharmacology content in a given subject area is small compared to other disciplines, and its representation on a given exam is correspondingly small, leading to the fact that students can “blow off Pharmacology” and have relatively little damage to their overall test score. At some institutions, students have recognized their deficiencies in Pharmacology and have actually worked with the department head and the school administration to create a more significant course offering in Pharmacology. Student-driven efforts appear to be quite effective.

The management of Pharmacology content appears to be quite variable at different institutions. In all cases, there appears to be a course director for a given area of the curriculum whose influence on content varies. In some cases, the disciplinary department head controls what information is given and conveys this to the course director. In other cases, a Pharmacology faculty member (if actually on the course committee) provides input on Pharmacology content, or the control might rest with a course director who has relatively little connection to Pharmacology. On the positive side, some schools seem to have an oversight or management committee to make sure that the gaps in information are reduced and that creative redundancy is provided where useful. Overall there is some difficulty in evaluating student competencies in Pharmacology within an integrated curriculum. At times, at various institutions, the AMSPC Knowledge Objectives proves to be useful in securing and maintaining content areas and providing some sense of a benchmark for competency.

In discussing alternatives to the integrated curriculum, many of the more seasoned veterans of the group relished the notion of the old fashioned course in Pharmacology given in the second year. This would provide complete control over the content and a determination of students’ competency. We all pretty much agreed that the “student likeability” would be relatively low currently and probably would not happen.

2. Dr. Billy Martin presented a summary of the discussion on “Developing Translational Research”

This group addressed four questions:

a. Does your institution conduct translational research in pharmacology?

Everyone responded that their departments were conducting translational research. We divided translational research into preclinical and clinical components, with an estimated 40-50% conducting preclinical and 10-15% conducting clinical, translational research.

b. What are the main areas in translational research?

Almost all conceivable areas are being covered.

c. How did translational research get started?

Several states have provided funds for translational research, research into biotechnology, start-up companies, incubator space, etc. Some universities have established specific centers that manage CTSA's that also have training grants, pilot projects, etc. In one instance, institutions within the state have partnered in their efforts. It was felt that a strong office of technology transfer was critical for translational research. This office should be able to walk an investigator through the entire process of invention disclosure, patent application, licensing and FDA regulations.

d. What advice should be given to those wanting to develop translational research?

The general consensus was that it is most challenging to initiate clinical research in a basic science department. Suggestions included partnering with faculty in clinical departments. In one instance, a university is creating a new clinical faculty slot that will allow an investigator to have sufficient released-time to conduct translational research. One has to also recognize the reality that funding for demonstrating proof of concept is difficult to obtain.

In summary, the discussion group felt that it was important for pharmacology departments to be involved in translational research.

3. Dr. Tom Westfall presented a summary of the discussion on "Do pharmacology graduate students need to learn pharmacology?"

This group addressed several questions, firstly, the one posed above on whether pharmacology graduate students need to learn pharmacology. The general consensus of the group was that pharmacology should be taught to pharmacology graduate students, but that flexibility in the curriculum is important. While this answer might seem self evident, the question probably arises because graduate students admitted via an umbrella program might not self-identify as pharmacologists, and may be working in a pharmacology laboratory for their dissertation primarily because of their mentor's research interest. It was felt that training in pharmacology as a discipline was still important for such individuals, but adjustments in the curriculum based on the student's interest would be appropriate. The group discussed a number of advantages to teaching pharmacology, which include identification with the discipline and job training, and no disadvantages could be identified.

The group also discussed other subjects that would be valuable for pharmacology graduate students. These included research ethics, professional or survival skills (grantsmanship, interviewing), scientific writing, oral presentation skills, and issues related to drug development.

7. Drs. Tom Westfall and JR Haywood presented a report on the recent meeting of the **Council of Academic Societies (CAS) of the AAMC**. This CAS presentation is available on the AMSPC web site.

The CAS is composed of faculty who represent medical school departments and their chairs, academic societies, and individual faculty members. The mission is to help the faculty of medical schools and teaching hospitals to pursue their primary responsibilities of research, education, and patient care, with a goal of helping medical faculty, their institutions, and their societies, improve the health of all Americans. The CAS is involved in analyzing, prioritizing and articulating information and issues relevant to the core values of faculties and constituent societies; in supporting faculty and constituent societies in the exercise of essential core values; in presenting the role of the medical school faculty to academic medicine and to the public; and in promotion of networking among scientists. The following basic science academic societies are members of CAS:

ANATOMY AND CELL BIOLOGY

American Association of Anatomists

Association of Anatomy, Cell Biology and Neurobiology

Chairpersons

BIOCHEMISTRY

American Society for Biochemistry and Molecular Biology

Association of Medical and Graduate Departments of Biochemistry

BONE AND MINERAL METABOLISM

American Society for Bone and Mineral Research

ENDOCRINOLOGY

Endocrine Society

MICROBIOLOGY

American Society for Microbiology

Association of Medical School Microbiology and Immunology

Chairs

MULTISPECIALTY

International Association of Medical Science Educators

NEUROSCIENCE

Society for Neuroscience

Association of Medical School Neuroscience Department Chairs

PHARMACOLOGY

Association for Medical School Pharmacology Chairs

PHYSIOLOGY

American Physiological Society

Association of Chairs of Departments of Physiology

PATHOLOGY

Academy of Clinical Laboratory Physicians and Scientists

American Society for Investigative Pathology

Association of Pathology Chairs

U.S. and Canadian Academy of Pathology

JR Haywood and Tom Westfall represent AMSPC on the CAS and generally attend two meetings per year, one of which is held in conjunction with the AAMC meeting.

The CAS private website, which has a lot of useful information (e.g., salary survey reports) is part of the AAMC web site and can be found at www.aamc.org/members/cas.

As noted also by Dr. Mazzaschi, access to the pages and information can be arranged by sending an e-mail to cas.aamc.org.

Some recent CAS activities include: a Basic Science Chairs Leadership Forum, which is designed to provide more of a voice within the organization for basic science chair organizations. To date, two meetings of this group have been held, and presentations at those meetings (Philadelphia in 2002, Salt Lake City in 2005) are posted on the CAS web site. A number of interesting presentations were included at the meeting in Salt Lake City, such as role of the basic science departments in the medical school of tomorrow, the changing organization of biomedical research, creating an environment that promotes faculty productivity, institutional expectations of chairs, the NIH “hard landing”, and legal issues for chairs.

Another recently completed project is the “Scholarship Dissemination Project”, which was intended to “provide faculty, staff and students in AAMC member schools, as well as members of CAS Societies, with a clearer picture of the significant changes that are taking place in the medical and biological sciences as scholarly communication moves from predominantly print to online journals.” A copy of their report is posted on the CAS web site.

A task force dealing with various issues surrounding dual degree students has also completed a study, and a report is posted on the web site. Other groups have studied faculty leadership, and responsible conduct of research. The larger AAMC meeting also has a number of presentations of interest to basic scientists, such as issues related to medical school curricula and MD/PhD programs.

8. Nominations for the AMSPC Nominating committee were then received and the results tabulated. Drs. Bonnie Sloan, Lorraine Gudas, and Billy Martin were elected to the Nominating Committee, which is charged with recruiting nominees to stand for AMSPC office.

The meeting was adjourned at 5 PM.

Thursday, February 15, 2007

The meeting was called to order at 8:00 AM by Dr. Gary Rankin, President. He announced that AMSPC would have a reception at the upcoming Experimental Biology meeting. He also reported on progress in redesigning the AMSPC web site.

1. Dr. Curtis Klaassen, University Distinguished Professor and Chair of the Department of Pharmacology, Toxicology and Therapeutics at the University of Kansas Medical Center, presented a “new chair” seminar. Dr. Klaassen’s Powerpoint presentation is available on the AMSPC web site. The first part of the seminar was an “obituary”, as he traced his background, training and early academic career. The second half summarized the changes in the department and at KUMC since he assumed the chair position in 2003. At the end, he expressed his #1 concern as chair that junior faculty are facing significant challenges in getting tenure, especially during the current downturn of NIH funding in the post-doubling era. He noted that the “average” new faculty grant applicant is approximately 35 years old, and has been in science for about 10 years as a graduate student and then post-doc or research track faculty. During this time, they have published on average approximately 15 journal articles, which is a rate of 1.5 papers per year. This rate of publication is often considered inadequate by promotion and tenure committees, yet occurs when the faculty’s full time effort has been devoted to research. Now, as a young assistant professor, they have additional teaching and service obligations; these can take time away from establishing a research program, which is becoming much more difficult to do with decreased NIH funding. These concerns set the stage for an interesting discussion on this issue, which is a common problem faced by many departments and universities.

2. Dr. Anthony Scarpa, Director of the Center for Scientific Review, followed up his formal presentation with an open Q & A workshop. Your secretary was frantically taking notes during this discussion, and this is my best approximation of the questions and answers.

Q. What is the status of the NIH CRISP database recognizing multiple PI’s?

A. This is on track.

Q. What is the current status of the objective of having fewer assistant professors on study sections?

A. At present, approximately 1.1% of charter members are assistant professors, while 9.3% of *ad hoc* reviewers are assistant professors. The goal is to have this latter figure down to 5% this year.

Q. What is the status of the Pathway to Independence Awards?

A. This is a mechanism to combine a K-type award for training with an R-type initial research grant. A pilot program is now under evaluation.

Q. Some institutes are giving first-time applicants a bonus by improving their percentile ranking by 2-5%. What is the future of this?

A. Some institutes are doing this, while others are not. Dr. Scarpa noted that first-time applicants have a lower success rate than applicants for a competing continuation. However, first-time applicants have a similar success rate as established investigators who are submitting a new RO-1.

Q. Considering the proposals to shorten the application for an RO-1, what is to be emphasized in this shortened application?

A. It is highly likely that further page limitations will be instituted, but nothing definite has been decided. An institute will probably conduct a pilot study, inasmuch as this will entail a totally new way to write and review an application. Proposals on length are ranging from 7 pages to 15 pages.

There have been suggestions that impact, significance and track records of the PI should be emphasized more than experimental approach.

Q. What is the Junior Pioneer Award?

A. This has a very short application of approximately 10 pages, and will provide \$150-200,000 per year for 5 years. It is not yet clear who is going to review these.

Q. Will the CSR review Common Fund initiatives?

A. Yes

Q. What is the philosophy of CSR on providing training to reviewers?

A. Some of the behavioral science study sections are providing some training to reviewers, but this is not being done systematically. Dr. Scarpa went on to comment on several issues. There have been suggestions that NIH require some level of study section duty of grantees. He felt this may work for some but not all study sections.

Q. There seems to be confusion and disagreement on what is meant by the current review criterion of innovation. To some, this means employing a new method, but innovative research can be done using established and appropriate methods.

A. Perhaps impact should replace innovation, so that reviewers assess whether research will have an impact on and drive the field forward.

Q. Are there any plans to overhaul the SBIR grants program?

A. The SBIR program is a mixed bag; some are good, some are not. Note that SBIR grants are mandated by Congress.

Q. Are there any plans for creating a pharmacology study section?

A. No. It is unclear how this would be practical considering the breadth of the field. Many groups have expressed interest in "personal" or discipline-specific study sections, but the potential downsides are that the paylines would diminish even further, as more

grants are directed to those study sections, which may not have the breadth of expertise. Also, there is concern about domination by “old-boy” networks.

Q. What is the impact of the triage system on the young investigator? Having a grant application unscored can be perceived as a real sign of failure.

A. No stigma should be attached to having an unscored application. The PI still gets a summary sheet and has the opportunity to revise and respond. Reviewers need to provide good direction to a triaged applicant.

Q. What kind of feedback would an applicant received from a chat room-type of electronic review? Would they get transcripts?

A. No; these would be destroyed. They will get some form of summary statement. Dr. Scarpa went on to say that reviewers in such situations would be cautioned against multi-tasking, e.g. dealing with e-mail, etc. during such reviews.

Q. Can you comment on the proposals for eliminating submission deadlines and shortening review cycles?

A. No specific plans have been made yet.

Q. What is the NIH view on the current concerns regarding time and effort reporting on NIH grants?

A. This is not an NIH issue, but is driven by OMB. There are many conflicting policies across institutions.

3. Reports From Breakout Discussion Groups:

1. Dr. Willie Caldwell presented a summary of the discussion on “Pharmacology’s future-what is changing”?

The consensus among the discussants was pharmacology has a future, and we should act like it has one, in view of strong current science and importance of pharmacology in professional curricula in medical, dental, pharmacy and nursing programs. Pharmacology has many new opportunities in research, especially in areas of drug development and identifying new therapeutic targets, in the still expanding field of signal transduction, and in maintaining a bridge between basic and clinical sciences. It was felt that there is an opportunity for more bridge building with clinical departments in both teaching and research.

2. Dr. John Szarek presented a summary of the discussion on “How do we develop good teaching faculty?”

There were 6 members of the discussion group who unanimously responded yes to the first question of whether it is important for faculty to be good teachers in pharmacology. The members raised another question, whether it is important for the faculty member to be a good teacher in pharmacology. This latter issue depends on the promotion and tenure committee with respect to the emphasis that is placed on good teaching. Regardless, the members agreed that a requirement to teach should not be viewed as bad.

Pertaining to the second question, What do you or your institution offer to help develop good teaching faculty, the discussion began with the comment that, in general, faculty receive little or no exposure to teaching as graduate students. Thus, a good starting point would be required courses in graduate school on education theory, teaching, and learning. This could be led by faculty members in a school's college of education or by medical school faculty that have themselves been trained. This seems to be happening in graduate programs based on the discussion during some of the plenary sessions at the annual meeting.

After graduate school, postdoctoral programs in medical education could provide the training necessary to help prepare someone to be a good teaching faculty member.

What can be done with faculty members who already are in our departments? First, faculty members should have credibility in the subject area. This can be achieved by encouraging our faculty members to attend grand rounds, clinical pathology conferences, or meet with a physician. Information obtained from these sources can be used to help faculty provide a clinical context for the drugs that they discuss. Other strategies discussed in no particular order included:

Encourage newly hired faculty to attend all of the pharmacology lectures in their first year (or watch them on video if available).

Keep their teaching load low and have them present their lecture to a small group of faculty before they present to the medical students.

Videotape the faculty member and have the tape reviewed by an expert. Possibly someone in the school's college of education

Explore what the school's local campus has to offer. For instance, faculty members could be required to participate in an excellence in teaching program.

Hire faculty members who are dedicated teachers. They will be appreciated by their colleagues who have grants since this could free up time for them to spend in the laboratory. These faculty members would be held to the same standards as other faculty with respect to promotion and tenure. They should be able to demonstrate scholarship and there are many opportunities for them to do so.

Faculty members should be encouraged to begin developing a teaching portfolio. These are becoming increasingly common.

The third question addressed by the discussion group was What could be done at medical schools or through professional organizations to help faculty become better teachers.

ASPET, through its Education Division, has offered symposia at Experimental Biology directed at pharmacology education. Last year the focus was on active learning in pharmacology. This year, there will be a symposium on integrative strategies in pharmacology education including case-based and team-based learning, and the use of human patient simulators.

IAMSE, (International Association of Medical Science Educators, www.iamse.org), is an association of basic scientists whose mission is to enhance the teaching of basic science through faculty development. There are day-long faculty development courses

offered on the Saturday before the meeting as well as a Education Skills for Medical Educators (ESME) program which runs throughout the meeting and participants earn a certificate upon completion of the program. This year's meeting will be held 21–24 July in Cleveland OH. Faculty members who attend should be required to present a workshop to faculty at their home institutions.

The Association for Medical Education in Europe (AMEE) is another organization dedicated to enhancing medical education through faculty development.

Although the annual meeting of the AAMC is not necessarily directed toward basic science education, there are many topics related to medical education in general which could affect basic science education.

During the discussion of this report, the following comments were made.

With respect to helping new faculty, all of the course handouts and PowerPoint presentations could be made available to new faculty members.

The Division for Cardiovascular Pharmacology provides Lectures on Demand on their site (http://www.aspet.org/public/divisions/cardiovascular/lectures_on_demand.htm).

3. Dr. Gloria Meredith presented a summary of the discussion on “How do you deal with a decreasing department budget?”

The members of this breakout group had a lively discussion on this topic. We first took a poll of how many had to deal with reductions in their budget either in the past or at present. All but two had been facing reductions over the last few years. Several participants stated that their budget was determined solely by a return from grants in their department (many Private Schools fell into this category) and with the crisis at NIH still looming, their budgets may not be safe. Those Chairs at State Schools often had budgets set by the State Legislature, which had either frozen or reduced departmental budgets over the years. Some noted that their budget had decreased because of the need to fund new Centers.

A number of excellent suggestions arose from further discussions on how to handle the reductions. These suggestions included:

- Work with the Development Office to find ways to raise money, either by emphasizing research targeted at disease that is being conducted in the department or by tapping alumni (both MD and PhD grads)
 - Several chairs were negative about their Development Office. They felt that this Office would definitely not like individual Departments tapping alums (these donors are reserved for the School or University). Furthermore, many stated that their Development Office expressed no interest in raising money for a department or its research.

- Raise money by designing new courses. Initiating a course or a new degree (Masters level for example) within the regular curriculum would probably bring no budgetary rewards and would increase workloads in the Department. However, there was one suggestion (which appears to be working for one of our Chairs) that we should negotiate with the Dean/VP to start an on-line course and receive a portion of the tuition in return.
- Become an entrepreneur! By this, we mean, promote your department to the Administration. Produce glossy brochures, reports, or just become more visible. Chairs need to “sell” their department to raise their budgets.
- Partner with Centers to cut costs. New faculty being recruited can come in with shared appointments, shared space and shared package. Find other ways to work with Centers. One of our Chairs has done this with the Cancer Center in his University.

4. Dr. Hans Zingg, Professor and Chair of Pharmacology and Therapeutics at McGill University in Montreal, presented the **Canadian Pharmacologists’ Report**. Dr. Zingg’s presentation is available as a Powerpoint file on the AMSPC web site. At present, there are eleven departments of pharmacology in Canada (Dalhousie, McGill, Montreal, Sherbrooke, Alberta, British Columbia, Calgary, Manitoba, Saskatchewan, Toronto, Queens). All of the above offer graduate programs leading to the Ph.D. degree, and eight also offer undergraduate coursework with pharmacology as a major or minor. In addition, the University of Western Ontario and McMaster University each have a combined pharmacology/physiology department. The University of Ottawa and University of Prince Edward’s Island have combined biomedical sciences departments with pharmacology as a component, and the University of Newfoundland has a department of pharmacology within the School of Pharmacy.

Some new programs in Canada that have been helpful include the Canada Research Chairs program, which provides 5-7 years of salary support for junior and senior faculty, and is renewable, and the Canadian Foundation for Innovation, which provides funds for research infrastructure and for start-up funds for new faculty recruits. These initiatives have had a positive impact on recruitment and retention. However, on the downside, Dr. Zingg described the current crisis in research funding in Canada. At present, the overall success rate for applications is 16%, and only 14% for new investigators. This has obvious implications for new faculty recruits. The average size of a research grant in Canada is \$109,400. Dr. Zingg likened this situation to having a new automobile without the gasoline to run it. As a result, many universities have slowed the pace of recruiting or replacing retirees.

Dr. Zingg went on to describe some of the changes in teaching of pharmacology at Canadian universities. A number of new pharmacology undergraduate majors programs are being developed, as also described by Dr. Escher (see above), at Toronto, Sherbrooke and McGill. In addition, a Pharmacology Honors program has been established at Manitoba, and Queen’s University now has a “drug development and toxicology stream” within its Life Sciences program. Applications to graduate programs in pharmacology remain strong, due perhaps in large part to the attractiveness of careers

in industry, rather than academic careers. In addition, there is growing interest in clinical pharmacology training. Some recent trends in teaching pharmacology to medical students include greater use of self-directed learning in small groups, a greater involvement of residents and clinical faculty in teaching, and a more scattered presence of pharmacology within the medical school curriculum.

Dr. Zingg also discussed some recent trends in the “identity of pharmacology” in Canada. For example, there has been some amalgamation of some departments of pharmacology with other departments such as physiology, anatomy and cell biology, and even anesthesiology at some universities. There is also a proposal within the CIHR to abolish its pharmacology study section. Also, the formation of new overarching programs tends to subsume pharmacology with other disciplines. There is a growing recognition by Canadian pharmacologists of the need to preserve pharmacology’s unique approaches, but to also build better bridges with other disciplines.

There are six professional societies in Canada that deal with pharmacology, and there is some interest in creating an umbrella society incorporating these that could help with the identity of pharmacology and also with facilitating new initiatives, such as further development of clinical pharmacology. Dr. Zingg reviewed some ways under consideration or development for further enhancing clinical pharmacology as a discipline. These include a new graduate program in therapeutics and a new course in clinical trials (University of British Columbia), a program in pharmacogenetics at the University of Montreal and Montreal Heart Institute, and also a combined degree program at McGill for pharmacology and business administration.

5. Dr. Robert Theobald presented the Treasurer’s Report

A financial summary for 2006 was passed out to the members. Dr. Theobald also indicated that next year’s meeting would be held in Newport Beach, CA at the Hyatt at Newport Beach Hotel. For the 2009 meeting, the Hilton in Clearwater Beach, Florida is under consideration.

6. Dr. Gary Rankin made several announcements.

The Council is considering instituting an office of president-elect, who would then succeed to the president position, in order to facilitate the transition and succession. A president-elect would help organize the annual meeting and would learn other aspects of the president’s position so as to be better prepared when he/she takes office.

The issue of re-initiating the AMSPC survey was discussed. The survey was discontinued, as it never had 100% participation, and the AAMC also collects salary data. However, the AAMC salary data is not current. The membership expressed interest in reviving the survey in modified form. It was agreed that a PDF copy of the previous survey would be sent out for members to review. Suggestions on revisions should be sent to Dr. Bill Cooke, who will develop a new survey.

Prior to adjournment, the membership expressed very strong appreciation to Gary Rankin for a job very well done as President of AMSPC.

The meeting was adjourned at 12 noon.

Respectfully submitted,

William R. Crowley
Secretary