President's Report to the Society for Experimental Biology and Medicine Fall Council Meeting, October 28, 2000

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It is a great pleasure to speak to the Council today on the progress of the Society over the last several years and its position among the various medical research societies as they have evolved over the years. I am very pleased and excited about the recent progress that the SEBM has made as documented in the reports of the various Council committees for this meeting.

Relationship of SEBM to Other Medical Research Societies with Implications for the Present

As shown in Figure 1, a number of professional organizations related to medicine and medical research in the United States date back to the latter half of the 19th century. These organizations include the American Medical Association (AMA), the American Association for the Advancement of Science (AAAS), and the Association of American Physicians (AAP). In addition to these multidisciplinary societies, the unidisciplinary American Physiological Society (APS) also formed in the late 19th century. Each of these societies has its own particular interests, the AMA in the organization of medical practice, the AAAS in the physical as well as biological sciences, the AAP (at least recently) honoring senior academic physicians. The APS on the other hand is a prototype of the modern discipline-based medical research association.

Three societies have come to represent the basic and clinical medical researcher. The first of these was the American Association of Clinical Investigation which later became the American Society of Clinical Investigation (AACI and ASCI, respectively). The AACI was actually founded in 1901 by Samuel Meltzer, who also founded the Society for Experimental Biology and Medicine in 1903. The distinction between the two societies, at least as they exist at present, is that the ASCI is oriented towards basic clinical research and is limited by election to physicians in their late 30's and early 40's. Thus the ASCI is clearly at this point an honorary society.

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The American Federation of Clinical Research (AFCR) was founded by Henry Christian around 1941 and is open to all applicants interested in basic and clinical research but with a primarily clinical research orientation. To emphasize its broader medical research orientation in the past few years, the AFCR has been renamed the American Federation of Medical Research (AFMR) and it has also changed its journal title from *Clinical Research* to *Investigative Medicine*.

As has been reviewed earlier in the pages of the *Proceedings of the SEBM*, now *Experimental Biology and Medicine*, the SEBM was founded in 1903 and has maintained a predominantly basic science orientation with membership today consisting of approximately two-thirds Ph.D. basic scientists and one-third MD clinical scientists. As shown by the dashed lines in Figure 1, the SEBM has continued to have its annual meeting in connection with the federated societies as a guest of the American Physiological Society with whom it is represented at the annual Experimental Biology meeting.

The solid lines in Figure 1 refer to the joint annual meetings of AAP, ASCI, and AFMR which historically were held at Atlantic City (until the advent of gambling) and then were moved primarily to Washington, DC in the 1980's. However, this annual spring meeting has now dissolved due to various competing pressures, among them the unattractiveness of clinical research as a discipline. Some clinical researchers have elected to have their own clinical research meeting in connection with the clinical research centers annual meeting in Washington DC and the AFMR basic science contingent meets at the annual Experimental Biology meetings.

These developments in the meetings of the various societies pose questions and a number of opportunities. One question might be, why don't the various clinical research societies meet at the same time as the basic medical research societies under the umbrella of Experimental Biology (EB)? I understand that some consideration is being given to this question. A second question might be, could our society join with AFMR to expand the clinical research component of EB and enhance the dialog between PhD and MD researchers devoted to medical research? A third question might be, could these two open enrollment, multidisciplinary societies

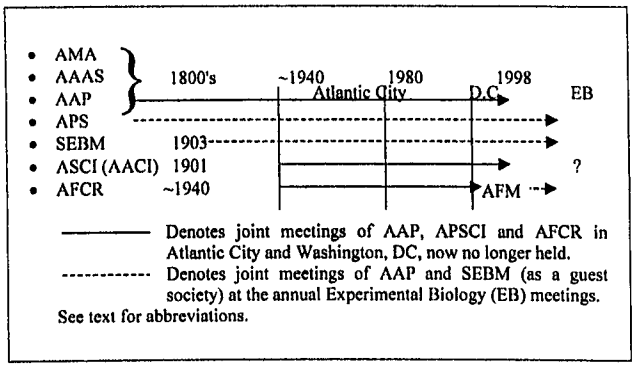

Figure 1. Evolution of various medical research societies to the present.

collaborate programmatically to discuss and address common problems? For these reasons I propose that the SEBM Council support an initiative to open a dialog with the officers of AFMR.

Other Concerns About Clinical Research

A number of other observations about medical education and medical research might be mentioned. The report of the JAMA on medical education and medical school activity in the past year (**284:**1130, 2000) tells us that in the past year there has been a 6% decrease in applications to medical school. Although the JAMA review does not comment on this point, it appears from our own experience that there is more research talent among women medical school graduates entering research careers than male graduates. One might conclude that young women are seeing an excellent opportunity and young men are missing it! Another point from the JAMA article is that basic science salaries have improved in the 1990's ahead of inflation but clinical research faculty salaries have not. The point is that the overall structure for basic science continues to improve along with good NIH support while clinical faculty continue to be squeezed not only salary-wise but in terms of ever increasing clinical responsibilities and limited opportunities to do clinical research in the context of medical care. These converging pressures make the viability of a clinical research career increasingly more tenuous, more difficult to maintain, and less attractive for young people to enter. In fact, awards for the NIH R01's have expanded four-fold to PhD's in the past 25 years, while awards to MD investigators have declined in absolute numbers.

These observations document that clinical research as a discipline and a career is in decline and continues to be so having been predicted by James Wyngaarden, a former director of the NIH, as early as the 1970's. The effect of HMO pressures on reimbursement as well as the balanced budget agreement of 1997 further limit the flexibility of the clinical researcher to perform research in a setting for which even basic clinical reimbursement is under pressure and shrinking. The opportunity for SEBM is to promote the discussion of the problems in clinical research and help search for solutions. I will propose the formation of a committee of council members and other SEBM members to spearhead editorial writing on these difficult subjects.

An additional problem that deserves careful thought is the changing nature of medical student education, which appears to be increasingly applied and less research aware, especially in the clinical years. The attending physicians who teach third year clerks on the medical and surgical services to reason in the care of the patient are, more often than not, not practiced in hypothesis-testing research. Thus, the research orientation of medical education as it developed from the time of Flexner seems to be weakening. The scientific approach to medical practice needs to be nurtured among medical students.

Progress of the SEBM

I am very happy to say that SEBM is growing and developing and improving in its ability to address and face the problems referred to above, one of the original mandates of the creation of the SEBM in 1903 by Meltzer. First of all, SEBM financial health has greatly improved in the last several years since the Society endowment has been transferred to a better managed investment firm and has grown with the good economy. Also, the financial health of the SEBM is going to be stabilized as it assumes self-publishing of the journal which will result in recovery of lost overhead that would otherwise go to an outside publisher.

A second development was the recognition by the SEBM that new members had to be actively recruited with the aging and retirement of senior members. The SEBM has been actively recruiting young members and is now taking on the identity of a young, energetic membership as well as a seasoned senior membership. Active recruiting continues to go on under the leadership of Dr. Lei, Chair of the membership committee. Material to the recruitment of new members and the attention given to young investigators is the travel grant award which is now entering its fourth year. This program awards a $500 travel grant to up to 15 graduate students presenting papers at the annual EB meeting. We are grateful to Genentech for supporting this activity in the past year.

Also, a social identity for the SEBM has developed over the past several years. The annual Council Member's Business meeting now concludes with an Awards Luncheon where the travel grant awardees are recognized. This usually occurs on the Saturday of the EB weekend. On EB Monday, the SEBM members luncheon is open to all members who attend the EB meeting, at which time various society rewards and recognitions are made. A future program to award cash prizes for the best basic and clinical papers published in the SEBM journal will be announced at this luncheon.

Another new development is the renaming of the journal from *Proceedings of the SEBM* to *Experimental Biology and Medicine*, emphasizing the broad base and multidisciplinary nature of the Society and the journal. This title

change also clarifies the point that the journal is intended for publishing the best articles submitted by members as well as non-members and is not simply a repository for society symposia and editorials, though we clearly intend to continue to expand the number of these articles. Publication of reviews on timely subjects has led to considerable interest in the journal and its citation index has increased by a full point over the past year.

Still another improvement is the relocation of the SEBM office from mid-town Manhattan to New Jersey where the facilities are greatly improved. This new facility for the office is not only welcome esthetically but is also vital for the workload associated with self-publishing.

Finally, we look outward; not only to try to face and understand the problems associated with medical research in this new century but also to cooperate with other societies in the delineation and solution of these problems. In this respect, we welcome the advice and consideration of the membership, senior and young members alike.

As always, it is a great privilege to serve the SEBM as its president, in this my second and final year. I hope we can continue to work together to encourage growth and contribution of the SEBM to the medical research enterprise.