

The future of the ASCI: a lesson from the 2000 presidential election

Gary A. Koretzky, ASCI Presidential Address, April 16, 2001

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It is certainly an honor and a pleasure to be here today to give the 91st ASCI Presidential address. I must admit that it is also more than a little daunting, given who my predecessors in the Society have been. When seeking advice on how to give such an address, the only consistent suggestion I received was to keep the talk short and I would be forgiven anything. So, while last year we learned from Mike Welsh at the keynote event at this meeting that ASCI members should be visible, I will take to heart the alternative advice to ASCI Presidents from William Shakespeare who noted that “brevity is the soul of wit” and strive to be visible on this podium for a very short period of time.

Before providing a few thoughts on a theme which I think is relevant for the ASCI today, I would like to publicly acknowledge my colleagues on the ASCI Council. Each, without exception, has worked extremely hard for our Society, giving time and, even more importantly, thoughtful perspectives on all of the issues we are facing. As President, I have learned a tremendous amount from my fellow officers and Council members. I am much in their debt. I am also confident that the leadership of the ASCI over the next few years will be extremely strong and proactive and that the future of the ASCI is in outstanding hands.

I would now like to exercise my prerogative as President to share with you a few thoughts. The major point of this address will be that while the ASCI has evolved over the past few years in response to changes in the academic and scientific environment, it is my opinion that additional transition will be required if we are to remain an effective and vital organization. Furthermore, I believe that many of these changes must be implemented at the local level by individual ASCI members if we are to successfully surmount the many issues facing academic medicine today.

It is widely appreciated that the pro-

fession of physician-scientist has recently undergone and continues to undergo dramatic changes. These transitions and the factors that underlie them have been the subject of many events at our annual meetings over the past few years. In response to new challenges and pressures faced by physician-scientists, our Society has also changed. In the past few years we have modified the structure of our meeting so it no longer competes with subspecialty meetings as an abstract-driven scientific forum. We have initiated an effort to bring trainees and junior colleagues to our meeting; this year we have provided financial support to bring over 60 trainees to Chicago. We have joined FASEB and have become the voice of the physician-scientist in this larger context. And we have established an institutional representatives program to enhance communication among ASCI members at institutions across the country. It seems clear, however, that with the changes facing academic medicine today, the ASCI will need to make even more substantive changes if it is to continue to play a defining role in shaping the future of the American biomedical community.

The ASCI emerged as an organization during a time when there was growing recognition within the medical community of the importance of the scientific basis of medicine. As an honorific society which acknowledged physicians who were accomplished in both the clinical and scientific arenas, the ASCI promoted the notion that physician-scientists could and should play an essential role in the translation of laboratory advances into advances in clinical care. Over time, as the link between the basic sciences and clinical medicine grew stronger, many physician scientists assumed positions of leadership as department heads and division chiefs in the academic community. During this period, the values and priorities of the ASCI were completely in harmony with those of aca-

demical medical centers. Within their institutions, members were frequently recognized as the “go-to” individuals whose perspectives mattered in both scientific and institutional decision making. As MD/PhD programs developed, it became commonplace for department heads and division chiefs to be combined degree graduates. In the current climate, however, while it remains true that many leaders in academic medicine hold joint degrees, it now seems that an MD/MBA may be valued more than an MD/PhD.

We are all aware that in recent years, as departmental budgets have shrunk while costs have escalated, the role of physician scientists as leaders of clinical departments has become less clear. Instead of the pursuit of scholarly activities being an expectation of our faculty, such ventures are becoming available only to faculty who are able to “buy their time” with multiple grants or foundation support. The effort to maintain such support is so great that many of our most successful physician-scientists are playing less of a role in their department so they may concentrate efforts to maintain their scientific stature. The paradox, of course, is that now, as the role of physician-scientists in clinical departments appears to be in question, is also a time when the ability of these individuals to contribute to our understanding of how science and medicine truly intersect has reached a degree of sophistication only dreamt about a few short years ago. As one obvious example: who is better poised to translate the information gleaned from the human genome project to novel therapies than scientists who are intimately familiar with the care of patients?

There are many reasons for the predicament that physician-scientists now face. Past presidents of the ASCI have spoken eloquently, in their annual addresses, about the impact of a variety of issues such as the personal financial pressures felt by trainees who

have amassed large debts during their medical training and those felt by academic clinical departments who are faced with the need to “balance the books” during a time of decreased sources of revenue. These speeches have helped galvanize the ASCI into taking a stand on many of these issues, as well as to attempt to become part of the solution. On the national level, the ASCI has been quite successful in these endeavors. As a member organization of FASEB, the ASCI is seen as the spokes-organization for the physician-scientist. With the ASCI’s help, new legislation is now before Congress which would establish several new programs to facilitate the careers of beginning physician-scientists. While these efforts are laudable, they have involved only a small fraction of our Society’s membership. It is my view that it is now time for the ASCI to move beyond efforts led by a few on the national level and also begin to take a more active role involving more of our members at the local level to influence the career paths of our junior colleagues. While the problems facing physician-scientists may appear insurmountable and local action may seem futile, I believe that if the ASCI is to be effective, it will require exactly this grassroots approach. If we do this as a Society, and share information and approaches, it will not be necessary for each of us to reinvent the wheel and collectively we can have a large impact on the future of our profession.

In the remaining minutes, I would like to address several specific areas where I believe local action could have a significant positive effect. Most of the ideas I will present are incremental measures which, if implemented, would have the greatest impact at our own institutions. I recognize that for each of these issues, the optimal approach may well differ from institution to institution. However, it is not my intent in presenting these suggestions to propose the right way to do things, but rather to spark some interest and debate so that when you return home you may begin a dialogue with your colleagues which will ultimately result in the implementation of new ideas and initiatives. I have grouped my suggestions into four major areas:

1) The role of ASCI members in teaching, both at the student and post-graduate level

2) Promoting the careers of trainees and junior faculty through individual mentoring

3) Making further modifications in the annual meeting so as to increase the impact of the ASCI on the next generation of physician-scientists

4) Consideration of organizational changes in clinical departments to better promote both clinical and research activities

The first issue that I would like to address follows from last night’s keynote event. We chose to focus on teaching and mentoring as the topic for our keynote because the future of physician-scientists, and the ASCI, depends upon the identification and nurturing of individuals interested in this career path. While the advent of MD/PhD programs has facilitated this process, I do not believe that our future can rest solely with these self-selected students who take time away from medical school to complete formal graduate training. Clearly, some of our most accomplished physician-scientists have been individuals who became aware of their interest in a career in research only after entering medical school. It is more important than ever that we continue to identify these individuals and facilitate their training and early career development. What more appropriate group is there to take on this task than the individuals in this room today?

Unfortunately, however, it is becoming more and more difficult for students who do not enter medical school as combined degree candidates to experience science in such a way as to encourage them to pursue a career in basic investigation. It is my experience that medical schools feel the need to revamp their curriculum every 15–20 years. Many of the schools that I have visited recently are now in the process of establishing new curricula, each one advertising in one fashion or another a new curriculum for the new millennium. While there are unique aspects to each school’s approach, one extremely worrisome and all too common trend has been the deletion of much of the basic science content from the preclinical years. This often comes in the guise of “reducing contact hours” in order to “decompress” the curriculum, with the stated expectation that time in small groups will reinforce the excitement of discover-

ing the scientific basis of medicine. Unfortunately, however, after reviewing training programs at many institutions, it appears to me that this goal is rarely achieved and that teaching the experimental basis for medical discoveries has become a luxury not often afforded. Thus, while most medical schools still offer programs which provide their students with opportunities to pursue short-term research training and some still require a research experience for graduation, the appropriate scientific foundation has often not been laid.

What can be done to counter this trend? I would like to propose several suggestions. First, those institutions which are contemplating or are in the process of revising their curricula should be encouraged to seek and incorporate input from physician-scientists as critical decisions are being made. This may require ASCI members volunteering for a committee (something we have all been trained never to do), but the importance of maintaining a scientific component within medical school curricula cannot be overestimated. Another time-consuming but worthwhile venture is to participate in the teaching of medical students. Perhaps the most effective way to do this is to be proactive in creating new courses which highlight the critical intersections between science and medicine. A number of faculty, many of them in this room today, have been instrumental in developing such courses. These educational experiences take a number of forms; however, most combine discussions of clinical syndromes with presentation of relevant recent basic science discoveries. They are often team-taught by clinicians and scientists, emphasizing the very real relationship that exists between these two disciplines. In many if not most cases, these courses are targeted to MD/PhD students. While this is a very laudable and important addition to the combined degree student’s experience, I would also argue that it is just as important to provide such courses for students who have not yet committed themselves to a career as a physician-scientist. Providing such an experience for all medical students not only facilitates the identification of additional students who may have an interest in and aptitude for an

investigative career, but also provides future clinicians with a critical appreciation of the growing interrelationship between science and clinical care, something that they will need as they practice medicine in the 21st century.

Of course, one of the most daunting aspects of designing and participating in new courses is finding the time to do so. Perhaps this is an area, however, where the ASCI can help. Recognizing that many of you in this room have already created such innovative curricula, it seems illogical for your colleagues at other institutions to have to reinvent this particular wheel. I propose that the ASCI (which is currently revamping its web site) act as an electronic clearinghouse for information regarding the development and implementation of courses in molecular medicine for medical students. I urge the institutional representatives to canvass their constituencies and communicate back to the ASCI Council regarding the level of enthusiasm for creating such an ASCI web site, which would allow members to more easily share their experiences regarding teaching.

Of course, medical education does not end with the conclusion of medical school. Opportunities to explore the career path of the physician-scientist should also not end with the completion of medical school. We must find better ways to expose postgraduate trainees to the excitement and relevance of the basic sciences and to identify and nurture those individuals who discover an aptitude and desire for an investigative career at this point in their training. Again, who better to serve as role models for these individuals than ASCI members? The problem, of course, gets back to the issue of visibility. How often do physician-scientists find the time to go to morning report? Perhaps this would be more attractive if, once each week, morning report was structured to emphasize how current molecular approaches impact our understanding of disease pathogenesis and result in the development of new diagnostic tests and innovative therapies. Such a creative modification of the morning report format, if we could convince our residency directors to try it, could result in an increased dialogue and strengthened relationship between scientifically oriented faculty and postgraduate trainees.

Perhaps further restructuring of residency programs should be considered. Many if not most of our institutions offer a research track for residents who are considering a career as a physician scientist. However, participation in this track often means only that several elective months are spent in the laboratory rather than in the outpatient clinic. One means to capture the enthusiasm of our trainees would be to allow the participants in research residency tracks to focus on the molecular aspects of medicine longitudinally throughout the residency experience. Since trainees in these programs have already declared their intention to pursue careers as physician-scientists, I suggest that we tailor their training to fit this career path. Of course, such a restructured program would and should involve physician-scientists as mentors and role models, both in the laboratory and as attendings on the wards.

In addition to providing the appropriate educational background for our students, another critical aspect of facilitating the careers of future physician-scientists is the provision of individual mentoring by those who have already successfully negotiated the earlier phases of their own careers. The importance of mentoring junior colleagues as they consider, then begin, their career path cannot be overestimated. Last night we heard four perspectives from individuals who are committed to training physician-scientists at different points in their careers. While the details of each presentation varied, one common theme that emerged was that mentoring does not occur by happenstance. Questions and comments from the audience reinforced the notion that mentoring is time-consuming, but also that the interactions with trainees are extremely rewarding. In fact, for many of us, despite the fact that there is no revenue stream which supports mentoring directly, these one-on-one interactions are among the most enjoyable activities in which we engage.

As was pointed out last night, mentoring is critical to all phases of training, from the beginning of medical school to the end of postgraduate training. However, mentoring becomes no less important as our trainees enter faculty positions. Here they must learn to balance the myriad pressures and

demands encountered in academia along with those they experience in the course of getting on with their lives outside of their professions. I believe that it is especially important, during this period, for junior faculty to be exposed to a variety of role models. The need to juggle professional and non-professional responsibilities often varies predictably during the early stages of an investigator's career. Institutions need to do a better job of developing flexible and creative ways to accommodate this reality so as not to discourage or lose the talents of diverse and gifted individuals. It is notable that we, as a community, have made great strides in attracting women and underrepresented minorities to the medical profession. However, although many medical schools now report an almost even split between male and female students and pride themselves on their effort to increase diversity in both their student bodies and medical faculties, the fact remains that there is a serious and disproportionate loss of women and minorities from the tenure track as careers develop. The vast majority of our senior tenured professors remain white men, a fact which becomes obvious each year as we review ASCI nominations at our midwinter Council meeting. I believe that, as an important part of our mentoring role, we need to seriously examine the factors that tend to perpetuate this pattern and to reaffirm the enormous value of diversity within our ranks, both for our profession today as well as for the inspiration and training of future physician-scientists.

At the national level, the ASCI has taken a leadership role in promoting opportunities for junior physician-scientists. As we have changed the format of our annual meeting, we have taken small steps to incorporate the notion of mentoring into our meeting structure, such as awarding trainee travel grants and providing support for all new members to bring a trainee to the meeting to present a poster. Such measures are a good start. However, I hope that these only reflect the beginning of ASCI efforts to encourage trainee participation at this meeting. Although it is unlikely that we will ever recreate the days when the tri-societies meeting was the scientific highlight for physician scientists, I do believe that it is possible for us to

make the annual ASCI/AAP meeting even more valuable for trainees. The meeting is short and in a nice place. The quality of the science is outstanding and relevant for anyone who cares about how science and medicine intersect. Think how much more fun this meeting would be for us all if every member brought a trainee. Think also of the implications. The presence of several hundred trainees would bring to the meeting research residency directors interested in filling positions with the best candidates and division and department leaders looking for young faculty. The presence of these individuals would, in turn, provide further impetus for trainees to attend the meeting, as it would facilitate their learning about opportunities for the next stages of their careers. I hope that the ASCI and AAP Councils will consider markedly enlarging the trainee programs at this meeting. Several ideas might include an expanded poster session on Saturday afternoon and perhaps a session after the meeting concludes on Sunday where program directors could meet with potential applicants.

In the last few minutes of my address, I would like to bring up one further issue for your consideration. It is certainly the least straightforward and one for which solutions will necessarily differ at different institutions. Not long ago, the expected career progression for a successful physician scientist was to join a faculty as an assistant professor, work hard to be promoted through the ranks, and aspire to advance to the position of division chief or perhaps department chair. Taking on these administrative roles was attractive as this afforded opportunities to perform and direct science at a broader and more influential level. As we all know, this career progression has changed. The most successful physician-scientists, who a decade ago would have been natural candidates for positions as division heads or department chairs, now often recoil at the notion that they be considered for such jobs. This is due in large part to the fact that heads of clinical programs have become overwhelmed with administrative issues related to the economics of health care. Instead of providing an opportunity to foster the careers of physician-scientists, leaders in clinical departments are now increasingly

involved in making decisions about what practice to buy, what outreach clinic to discard, how to entice the clinicians to work harder, and whether to use the hospital-based collection system or create their own. Departmental meetings are no longer about how to accomplish the academic mission but focus instead on how to accomplish the business of medicine. The fiscal realities of medicine in the 21st century will make it impossible to return to the old way of doing things. I suggest, however, that it may be necessary to consider creative new ways to structure clinical departments so as to allow them to continue to provide outstanding clinical service, fulfill their teaching and mentoring missions, and also maintain their equally important tradition of fostering the careers of those who are advancing basic investigation.

One approach which might be considered would be to dissociate administrative responsibility for the clinical and scientific missions of divisions. Outstanding, clinically oriented faculty would be responsible for overseeing the clinical activities of divisions, while physician-scientists would take the responsibility for promoting their scientific mission. Achieving the educational goals of the division would necessarily be an important joint responsibility. Under such a revised system, the scientific director could focus on enhancing the scientific quality of the division. Time would be available for mentoring and recruiting junior scientists as well as for maintaining the focus of the director's own laboratory efforts. The scientific director would be responsible for defining the job descriptions of the physician-scientists in the division, including the apportioning of teaching and clinical responsibilities. Thus, the clinical and scientific directors would need to work closely together in order to ensure that, collectively, all three missions of the division were met. Dividing the responsibilities, however, would emphasize the notion that the clinical and scientific activities of a division are equally important and that one cannot be neglected due to the pressures of the other.

Another example of organizational change might be the creation of molecular medicine centers within clinical departments. These would cross clinical disciplines and be subdivided by

common scientific themes or laboratory approaches rather than by organ systems. In addition to involving physician scientists, a molecular medicine center would be the ideal home for PhD scientists whose interests have led them to areas of research with relevance to human disease. The opportunity to administratively link these individuals with physician-scientists would provide a fertile environment for increased interaction and collaboration.

I have tried to provide you with just a few ideas, some more provocative than others, on ways in which ASCI members can positively impact the future of physician scientists by engaging in local efforts at their own institutions. One question which naturally arises, of course, given all the issues we are facing, is how can any one individual really effect change. With regard to this question and irrespective of one's political leanings, I think we all learned a lesson from the last presidential election. Out of almost 6 million votes cast in Florida, George Bush won the state (and hence the presidency) by a margin of only 1725 votes, or .029% of the total Florida vote. What message do we take away from this fact? Either we all should have voted in Florida, or individuals really do matter.

So where does all of this leave us as a Society? During the three years that I have served on the ASCI council I have had the pleasure of interacting with many of our colleagues. From these interactions, it seems to me that our membership falls into three general groups. There are those among us who feel that the ASCI has lost its purpose. To them, it is primarily a self-congratulatory organization which no longer has a reason to exist. A second group sees the ASCI as a social network which meets once a year to see old friends and hear a little science. The third group is committed to the notion that the ASCI is a vital organization which can and should play an essential role in the lives of physician-scientists.

I believe that at this point the ASCI can become any one of these three types of societies. The decision is entirely within the hands of our members. Several objective pieces of evidence make me hopeful that the will for reinvigorating the ASCI is there and that the Society can become an increasingly important voice for the physi-

cian-scientist. This year saw a reversal in the trend of decreasing numbers of nominations for new members, with an increase of almost 20% without any decrease in the quality of the applicants. With our meeting's new format, we have seen a stabilization in registration, even with the change of venue away from the Washington area. This year we saw a doubling in the number of submitted trainee travel award applications. Thus, there appears to be a sizable number within our community who remain interested in the ASCI and wish to see it thrive. For me, however, the most important indicator of a larger commitment to our Society's future

has been that every time I asked one of our members to do something during this past year as President, the answer was always yes.

So, in closing, I am asking members of our Society to do even more. The ASCI representative to FASEB will soon be contacting you to write letters and call Congressional representatives to encourage them to support legislation enhancing physician-scientist training. Please say yes when asked. But I am also suggesting that we each think of ways in which we might make a difference on a more personal level. Get involved at your own institution. Meet the students, residents, and fellows.

Design a course or go to morning report. Set up a one-on-one mentoring program to foster the careers of assistant professors. Do something to have a presence and communicate to our junior colleagues how exciting it is to play a fundamental role in the integration of science and medicine. Next year bring one or two of your trainees to this meeting in Chicago, in addition to, not instead of, Keystone or the Gordon conference. In the end, I believe it is only through the combination of both local and national efforts that the ASCI can truly have its greatest impact on the future of the physician-scientist. Thank you very much.