

COMMEMORATIVE ARTICLE

Revisiting Our Roots

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Let me begin by thanking you for this opportunity to reflect upon the development of the Association for Academic Surgery. Looking back over my career and the various initiatives that I have had the good fortune to be associated with, I must say that I feel a particular sense of pride and satisfaction related to my involvement with this organization. I am deeply grateful to you for your invitation and delighted to be here with you today.

Robert Browning suggested that we "burrow awhile and build broad on the roots of things" [1]. That is exactly what I hope to accomplish with my remarks to you today—to place both our accomplishments and some of the issues that we face into an historical perspective, so that we might continue to build broadly on the roots of our collective experience.

I have had the honor of reflecting on the history of the association on several previous occasions; the first in 1976 (2) and the second, in 1986 on the occasion of our 20th anniversary. Thus, if any of this sounds somewhat familiar to those of you who might have been present, I ask your indulgence.

The impetus for forming the association came from a belief that the existing traditional surgical societies at that time did not have the capacity to accommodate the needs of young aspiring academic surgeons, nor did they provide the opportunity to sharpen research skills by participating in a national forum.

The seeds for the association were sown in the mid-1960s, in an environment characterized by unprecedented growth, spurred by almost two decades of substantial research funding. Departments of surgery were expanding, research training in all surgical specialties was prospering, and the ranks of young academic surgeons were swelling.

This was the atmosphere which prevailed when a small group of us, including Walter Ballinger, Bill Drucker, Barb Mueller, Ben Eiseman, Bob Zeppa, and Ward Griffen, began discussing the situation first in Key Biscayne and later in Chicago. By this time, Eric Finkelsrud and Tom Marchioro had joined our ranks.

Enthusiasm spread, and by the time of our first formal organizational meeting in San Francisco on October 12, 1966, there were 33 of us in attendance. Discussions at that meeting affirmed that:

- The purpose was for the stimulation of young investigators in junior faculty positions and in the advanced years of residency to pursue a career in academic surgery.
- This could best be accomplished by providing this group with a forum for the presentation of basic and clinical research work and for the discussion of topics in medical education.
- Broad representation among the surgical specialties was desirable.
- The organization should not compete with existing surgical societies which already provided fora for investigators who were established in their field.

In the interim between the organizational meeting in October 1966 and the first meeting of the Association in November 1967, there was much informal discussion about the merits of the association and debate about whether or not it was likely to receive the support of academic leaders and the major surgical societies.

Barb Mueller helped us achieve an important milestone in the development of the fledging organization in February 1967 when he took our case to the Society of Surgical Chairmen and received both an enthusiastic response and an agreement to sponsor and support the Association.

The first annual meeting was held in November 1967 in Louisville, Kentucky, and was attended by 145 of the 377 initial members. The 37 papers presented were selected from a total of 98 abstracts and reflected interests in general surgery, neurosurgery, orthopedics, urology, transplantation, and cardiothoracic surgery.

During the same meeting, action was taken to establish a relationship with the *Journal of Surgical Research*, identifying it as the official organ of the Association. This provided almost instant visibility and ensured

publication of research papers in our own designated journal.

The Association was successfully launched!

That first meeting established the tradition of a presidential address, and it was interesting for me to go back and review my remarks from 1968 and 1969 in preparation for today's presentation [3, 4]. In fact, a careful reading of the presidential addresses provides one with great insight into the vigor and determination which has been associated with the association from its inception. One gains a picture of an organization free of the stuffiness and fascination with process which characterized many of its senior sister societies.

But, to return to the chronology, notes from those two initial meetings both affirmed the purposes of the organization and chronicled its early progress—which, by the way, was considerable.

In the interval between the first and second meetings, 149 new applications for membership were accepted; thus, membership increased by 40% that first year to a total of 546, and we found that we were clearly succeeding in our goal of attracting young investigators. It appeared that we had had an idea whose time had come.

Notes from those initial two meetings also highlighted some areas of concern to those of us in academic surgery at the time. There were three that I would like to touch upon briefly. The first had to do with academic surgery in the larger context of health care policy.

Bob Zeppa was one who had encouraged the association to take an active role in matters of policy, urging in a 1967 letter to Tom Marchioro that the AAS “develop an effective voice, representing academic surgery in its interfaces with government, society, universities, medical schools, and the private sector.” There was widespread agreement on this issue among the founding members, and it was not long before this interest was translated into the Committee on Issues. It is obvious from our programs and activities that this remains a strong area of interest to the Association today.

A second issue that surfaced during the first few years of the organization was a pattern of disunity and fragmentation among the ranks of academic surgery units. We had begun to recognize that specialization or “super specialization” (as we referred to it then) while enhancing competitive positioning for NIH funding came with its own set of problems.

The surgical specialties, empowered by their success in attracting grant funding, were experiencing significant growth and beginning to flex their muscles in departmental matters. Specialty societies and boards were flourishing and increasingly exerting their impact on residency training programs. At the same time, the “golden years” of NIH funding were clearly coming to a halt as external events shifted priorities away from health care. As a consequence, the incentives shifted from cooperation to competition.

One of the early hopes and aspirations that we held for the AAS was to provide a forum for discussing issues that crossed the ranks of the surgical specialties. We hoped that the Association might foster interdisciplinary investigations as well as the discussion of issues in surgical education, patient care, and departmental administration that were common across specialties.

When you look at a profile of our current membership, you see that the majority of us who report having specialty training—68% to be exact—are general surgeons, with the remaining 32% spread across the other surgical specialties. While we do have some representation across the various specialties, we have not achieved the degree of penetration that would have permitted us to foster the kind of interdisciplinary cooperation we had in mind. I guess that if I have any sense of disappointment related to what the Association set out to do and what has been accomplished in the past 25 years—this would be it. And yet, I don't think we can fault the organization for this situation. The forces in academia and health care came together in a way that fostered competition and disunity, and I am not the least bit certain that, even if we had focused all our efforts in this direction, we could have changed the course of events.

In contrast to this, I think the Association has been quite successful in addressing the third area of concern—medical education. Curriculum change was the order of the day when the Association began in the mid-sixties; by the mid-seventies, curriculum once again came to the forefront as we began assimilating the new, non-university-based medical education programs into the system of medical education; and today, curriculum change is once again a high priority item as we struggle to find ways to accommodate the rapidly expanding knowledge base and new educational technologies in times of fiscal restraint.

Despite the challenges, the Association has remained committed to the principle of fostering excellence in clinical teaching. The AAS Committee on Education has worked diligently over the years to investigate and address various problems which confront academic surgeons—addressing issues such as the importance of maintaining a broad surgical education, the optimal placement of the research experience within the residency program, the encroachment of clinical responsibilities on research time, and the need for enhancing grantsmanship skills in the ranks of young academic surgeons.

As I reviewed these three issues in the context of the health care environment 25 years ago, I found it fascinating to contrast our experience then with the health care today.

In the area of manpower, for example, the environment 25 years ago was characterized by concern over a projected national shortage in physician supply. From the perspective of surgery, we were concerned about the large number of uncertified surgeons in practice. Today

we are focused on the problems associated with a surplus of physicians. A constant in the manpower equation, 25 years ago and today, is concern over the geographic maldistribution of physician manpower. Also constant is our passive acceptance of foreign medical graduates into the system originally intended as a way to solve this problem, but now regarded as a complicating factor.

I have personally been involved in manpower planning for over 20 years. I cut my teeth so to speak on SSSUS and currently chair the Physician Manpower Subcommittee of the Council on Graduate Medical Education (COGME). If I know anything for certain about the subject, it is this—physician manpower will still be an issue 25 years from now. I don't say this out of discouragement, but from the perspective of someone who has developed a deep appreciation for the complexity of the problem. Undergraduate and graduate medical education, medical research, and the health care delivery system are all inextricably linked. Changes in one component impact the entire system. This is more the case today than it was 25 years ago, and those linkages will be even stronger 25 years from now.

Twenty-five years ago we were concerned about specialty mix in terms of potential fragmentation within departments of surgery; today, we must concern ourselves with the impact of specialty mix upon the entire system of health care.

Twenty-five years ago we were concerned about assimilating young surgeons who were completing military requirements back into academic surgery; today, we are belatedly addressing issues related to the representation of minorities and women in our ranks. In terms of the demographics of our membership 25 years ago and with our membership today, there are both similarities and differences. I do not really have the apples and apples to compare here; however, the information I do have is adequate to demonstrate trends. The data I have available from 25 years ago include only the new members that were accepted for membership between the first and second meetings of the association, which brought our membership up to a total of 546 members.

Of the 149 new members in 1969, 44% held the rank of assistant professor, 19% were senior residents, 9% were instructors, and another 14% were associate professors. In addition, there were smaller proportions, 3% each, who were fellows and full professors, and another 8% who were not categorized. Today we have 2713 members; those who reported academic rank are distributed as follows: 2% are instructors, 38% assistant professors, 26% associate professors, and 34% full professors. Although as I stated earlier, we are not comparing apples and apples here, there is a strong suggestion that our association is maturing.

Still another aspect of our demographics is gender. While gender information was not available for either time period, I suspect that this too has changed significantly over time. I *know* we have come a long way since

we conceived of this organization as one which would facilitate the careers of young "men" in academic surgery.

The role of government in medical education and health care was of concern to us 25 years ago. The federal government was supporting medical education indirectly by means of funding faculty research and directly by supporting the development of some new, non-university-based medical programs. Medicare and Medicaid were introduced as we watched warily from the sidelines, acknowledging the need for the improved access the programs provided, but quite aware that "this was no free lunch."

Having just experienced a dramatic turn around in NIH funding, we were beginning to appreciate the fact that the relationship with government was characterized by constant change. We were aware that the introduction of entitlement programs could open the door for further intrusion of government into medical practice and education. However, we did not begin to envision the pervasive role of federal and state government in health care as it is played out today—DRGs, shifts in IME/DME, capital regulations, RBRVS, volume performance indicators, rationing—to name but a few.

On the research front, we were deeply concerned that the sharp curtailment in NIH funding that we were experiencing in the late 1960s and early 1970s would continue.

While funding support eventually returned to fairly generous levels, growth has not kept pace with demand, and competition for grant funding has increased significantly. Over the years, departments of surgery have learned to depend increasingly on practice income as an important source of research funding. Supplementing this is a more recent phenomenon which involves forging corporate research partnerships between departments within academic health centers and the private sector.

The research environment has also changed significantly. Within the large envelope of science, the umbrella agencies—PHS, NSF, DOE, and NASA—have all demonstrated insatiable appetites for growth. Inter-agency competition has always been with us. New, however, is the competition between traditional NIH funding and the so-called "big science projects." Individual researchers find formidable competition in the likes of the Superconducting Super Collider, the space station, the global warming project, and, closer to home, the human genome project.

Another set of difficult choices exists in relation to the allocation of research funds among projects, training, and facilities. While there has always been some competition for funds between these areas, the level of competition has escalated. This is due in part to the fact that growth in the demand for public support for research and training has outstripped supply. However, it is also a consequence of the aging of our research facilities—

most of which were built some 30 or more years ago. We have been aware for some time that our research facilities required updating and/or replacement; however, we have been reluctant to really address the issue due to the fear that research dollars would be diverted. Our assumption was and is correct—rectifying the situation will require a reallocation of research and training funds. What has changed is that we can no longer avoid addressing the issue.

During a visit to the University of Michigan this fall, Bernadine Healy expressed her deep concern over the declining interest in the biological sciences. She noted that the United States ranks 12th in relation to other developed countries with respect to mean scores on biology tests. With respect to Merit Scholars, she noted the historic pattern of health sciences faring last with respect to science, humanities, and engineering. Of concern also is the fall off of interest in the health sciences since 1982.

Looking at the market share of undergraduate majors—pre-med, the physical and biological sciences, and engineering, all experienced decreases between 1978 and 1988 in contrast to business, the humanities, and the social sciences—which all experienced increases.

At the same time, Dr. Healy also discussed the “graying” of our current core of scientists—another area of concern. She made an eloquent case for training more biomedical scientists—whom she referred to as an “endangered species” [5]. It is hard to argue with that or with the need for well-equipped facilities—unless, of course, you are the scientist whose tenure or promotion is on the line.

The nature of the research environment has become increasingly political. As science and technology are increasingly positioned against other important national interests, such as education, defense, and environmental protection, scientists must seek advocates within their institutions, funding agencies, and Congress. Scientists are also faced with a new responsibility—that of communicating the importance and value of their work to the general public, a task made more difficult by questions of scientific integrity, charges of scientific misconduct, and the indirect cost recovery controversy, all of which have eroded our traditional base of public trust.

Contrasting the situation 25 years ago and now, it is also interesting to note that the sharp decrease in NIH funding that we experienced in the mid-1960s heralded the beginning of an increasing dependence on clinical resources for faculty support. This change has been played out in a number of ways over the years, but, most importantly in the development of faculty practice plans and clinical tract appointments. Despite the restoration of more generous research funding levels, this dependence has not only continued but also increased. However, now it is as much the result of changes in the clinical reimbursement system as to change in research funding.

A final area I want to touch upon before I leave the subject of changes that we have experienced in the past 25 years concerns the health care delivery system itself. Twenty-five years ago we were in a cost-plus environment that valued the autonomy of both institutions and physicians. Total health care expenditures represented 6.9% of the GNP and per capita health expenditures were \$204. No one was unduly alarmed about costs, but cost was becoming an issue. Although quality was assumed, documentation requirements were increasing. And everyone felt relatively comfortable that entitlement programs like Medicare and Medicaid would, over time, adequately address problems related to access. Today we are immersed in deep concerns related to cost, quality, and access.

Health care expenditures currently absorb almost 12% of the GNP. Quality concerns have expanded to heavy investment in outcomes research. And 31–37 million Americans have significant problems with access because they are un- or underinsured. Among the 32 million uninsured, 56% are employed, 28% are children, and only 17% are unemployed adults [6].

Demands for system-wide reform can be heard from all quarters. There is a fairly widespread consensus, however, that any changes in health care delivery system will need to be incremental and that we are most likely to see changes in financial access as a first step.

A number of state governments have or are planning to take steps to extend coverage for a basic package of services to the uninsured—particularly to those who are employed in low paying jobs in the service and retail industries and their dependents—a group which includes the lion’s share of employed adults without insurance. This will go a long way toward addressing the problem. While it is difficult to speculate on what the health care delivery system will look like 25 years from now, I have no doubt that mechanisms to ensure universal access will be part of the system . . . I am encouraged by that.

These past 25 years have indeed been characterized by significant changes, and there are many more to come. That we are here today to talk about it is testimony to the fact that the Association is quite able to embrace change and grow as a consequence. As I reflected on this, examining why this had been the case and what it meant in terms of the future growth and direction of the Association, I was reminded of Tom Marchioro’s 1975 presidential address which briefly but eloquently developed the thesis that the AAS embodied the spirit of youth. It was his contention that the Association’s unique role in “searching out, nurturing and giving expression to young surgeons” was as critical to the organization as it was to the young surgeon. He suggested that our capacity to focus on and absorb youth into the Association permitted the organization to benefit from youth’s capacity for vigor, courage, and enthusiasm [7].

Dr. Marchioro ended his speech with a quote from

Ullman which bears repeating on the occasion of our anniversary.

Youth is not a time of life—it is a state of mind. It is not a matter of red cheeks, ripe lips, and supple knees. It is a temper of the will; a quality of the imagination; a vigor of the emotions; it is the freshness of the deep springs of life. Youth means a temperamental predominance of courage over timidity, of the appetite for adventure over a life of ease. . . . Nobody grows old by merely living a number of years; people grow old by deserting their ideals.

Years may wrinkle the skin, but to give up enthusiasm wrinkles the soul. Worry, doubt, self-distrust, fear, and despair—these are the long, long years that bow the head and turn the growing spirit back to dust.

Whether 70 or 16, there is in every being's heart a love of wonder; the sweet amazement at the stars and starlike things and thought; the undaunted challenge of events, the unfailing, childlike appetite for what comes next, and the joy in the game of life.

You are as young as your faith, as old as your doubt; as young as your self-confidence, as old as your fear; as young as your hope, as old as your despair. [8]

I think this quote from Ullman not only offers insight in why we have been successful, I think it also provides guidelines for carrying our success forward into the future. If we maintain our capacity for youthful thinking, if we continue to focus on the personal mastery of young

surgeons, all the while bringing our collective ideas and experience to bear in the evolution of a shared vision of this organization, and if we maintain our capacity to examine and discuss issues and the courage to examine our results—the Association will continue to play a pivotal role in the development of young surgeons well into the next century and beyond.

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