

Professing Change

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For I have neither wit, nor words, nor worth,
Action, nor utterance, nor power of speech
To stir men's blood; I only speak right on;
I tell you that which you yourselves do know.

—William Shakespeare, *Julius Caesar* III.ii.228–231

Few would disagree that the current debate is reflecting considerable uncertainty about the economic future of the veterinary profession. The recent (1999) KPMG “Mega Study”¹ is the latest in a series of four reports that have identified problems and emphasized the need for change. The Mega Study poses questions about several important issues, including the adequacy of veterinarians’ incomes; the impact of women in the profession; the global demand for veterinary services; the inefficiency of the delivery system; the supply of graduates; and the skills, knowledge, attitude, and aptitude of veterinary students and veterinarians. Most of these concerns were expressed in the earlier studies, yet we paid scant attention. Are we intransigent? Can we not see the obvious? Do we have the necessary resolve to respond appropriately to this latest “wake-up call”?

Prior to KPMG,¹ the most comprehensive and authoritative study had been the *Future Directions for Veterinary Medicine*,² sponsored by the Pew National Veterinary Education Program and published in 1988. The main theme of the Pew Report was to “encourage needed change in US and Canadian veterinary medical colleges by helping them to become more responsive to the challenge of environmental changes.” Colleges were encouraged to develop innovative curricula that would address the future needs of the profession and the society it serves, as well as reflecting economic realities. There is no doubt that the Pew program inspired some important changes in veterinary medical education; yet much more will have to be done if the graduates of tomorrow are to enjoy greater economic success in the more competitive environment of the new century. The professional journey begins in the colleges and schools of veterinary medicine, where approximately 10,000 students are enrolled. This is where the veterinary leaders of tomorrow are found. There could be no more powerful point of leverage for professional change than through the educational experience of our students. If academia fails to respond appropriately, how will the profession effectively change?

A PARADOX

The Mega Study¹ reports that there may be an excess of veterinarians, as calculated from econometric models. This concept derives from the notion that veterinary medical practice is too fragmented and therefore inefficient. Yet it is common knowledge that veterinary hospitals across the nation are having difficulty filling the vacancies created by their expanding businesses. A cursory examination of the back pages of *JAVMA* suggests that new graduates are facing a job market in which practices are competing for veterinarians. It is an odd contradiction that the present delivery system is actually creating a shortage of veterinary graduates to fill an excess of low-paying jobs! However, as prac-

tice structure becomes better integrated and more efficient, and as graduates become more business-savvy and command higher salaries, there may be fewer jobs available. This process would eventually lead to the excess of graduates that the KPMG study suggests.¹

But this conclusion does not take into account the profession’s capacity for growth, given the predicted expansion in popular demand for veterinary services of all kinds, not only in traditional fee-for-service private practice but also in “non-traditional,” non-private-practice areas that already account for more than 20% of the profession. For virtually every job, in the future, veterinary graduates will need a thorough understanding of technology, together with financial, marketing, and management skills. Veterinary students today are talking seriously about the “business” of the profession, because they recognize its importance and because most of them have only a limited understanding of its scope. We must provide them with real opportunities to acquire business acumen and to learn other life skills, including making good career connections and learning how to choose a mentor and qualify for the right job.

Maintaining the status quo is no longer an option. Merely attempting to stay where we are inevitably invites decline.

THE TROUBLE WITH HIGHER EDUCATION

Colleges and universities are faced with many challenges, not least of which are the escalating demands on their dwindling resources. As public funding has declined, we have transferred the burden of costs to the students. But veterinary graduates cannot tolerate a continued steep rise in tuition and fees (and the associated massive debt) unless the suitability and quality of education are significantly improved, resulting in greater economic success. We must reevaluate the educational experience of our students and make the necessary adjustments.

Institutions of higher education are beginning to follow the corporate model of business ... and there is much to be learned. Obviously, we must be businesslike in our processes and practical in our outcomes,³ equipping our graduates for productive, economic lives. But, at the same time, we must never forget the true nature of a university—the value of academic freedom and contemplation. The products of higher education are not goods and services but the creation of new knowledge and changed human minds. Amid their quest for operational efficiency and the important connectivity to the workplace, universities must maintain their responsibility to foster open-minded scholarly inquiry.

Maintaining the status quo is no longer an option. Merely attempting to stay where we are inevitably invites decline. In any progressive organization, change is constant. Institutions must continually make improvements and seek new

and innovative opportunities. Tierney⁴ contends that “most universities these days seem to be suffering from a sort of institutional Attention Deficit Disorder (ADD).” He cites their failure to focus, prioritize, or measure real outcomes: institutions with ADD have too many goals and seldom achieve any of them well.

Certainly all the blame of poor professional performance cannot be laid at the door of academia, yet it is reasonable to expect that we should look to the universities to lead the search for the best solutions.

Leadership in this climate requires conviction and, above all, the ability to stay the course. It is difficult for institutions to maintain focus in the face of administrative instability. A leader must be seen as an honest broker in order to ensure “buy-in” from faculty, staff, and students. There must be a strong sense of community. Nevertheless, to quote Tierney,⁴ “one should not expect unanimity. If a college or university must rely on consensus to make a decision, then it will be doomed to the status quo.”

Motivation is a key ingredient in effecting change. Recognition and rewards must be provided not only for measurable outcomes but also for risk taking.⁴ Up to this point, college administrators have generally not been inclined to reward atypical behavior; employees will normally not strive for those things that are not valued or rewarded.

Colleges of veterinary medicine could be described as communities of academicians “doing their own thing,” loosely guided by a variety of committees and boards that are generally too preoccupied with rules and regulations to develop a collective vision or collaborative strategies. It may no longer be acceptable to allow every individual professor to go his or her own way. There must be a balance between fostering and rewarding the intellectual freedom of the academy and some kind of strategic collegiate theme and direction for the common good. Every college has its own culture and individuality, peculiar to its history, mission, and geographic location. Yet, in the end, our future depends on who we are as an academic community, not merely as a collection of 31 independent North American schools. And simply working as hard as we can—doing our best—may not be good enough! To quote Winston Churchill, “you have got to succeed in doing what is necessary.”^a

A TURNING POINT

A principal function of the academic medical center is to prepare young physicians to meet the nation’s health care needs. Appropriate execution of this function requires attention both to the quality of the education provided and to the manpower mix produced. Public funds allow academic medicine to carry out this function.

The above statement, taken from an article entitled “Academic medicine as a public trust,”⁵ suggests several issues relevant to this discussion. First, the character of the veterinary profession has been shaped by its association with an

exceptional system of higher education in this country. This ensures our quality and public reputation. Second, external conditions and criteria for accreditation have strongly influenced the design of educational programs. Yet, according to economists and labor experts, one of the greatest problems in society today is the so-called skills gap: the difference between the content of college curricula and the actual skills needed for the job market. We are obliged not only to provide an educational experience of the highest possible quality but also to teach what is relevant to society’s needs.

Third, academic veterinary medicine is made possible primarily by public funds. Approximately 90% of the 27 veterinary schools in the United States are public institutions, compared with only 60% of medical schools. (Even our two private veterinary schools enjoy some state funding.) Veterinary education could choose to ignore the rapidly changing environment of public financing for higher education, but it would risk losing popular trust and support. The stakes are high.

Barriers to Change

Certainly, all the blame for poor professional performance cannot be laid at the door of academia, but it is reasonable to expect that we should look to the universities to lead the search for the best solutions. Even in the unlikely event that we could all agree on what we should do, we must never underestimate the difficulty of changing long-established behavior. There are some major impediments to progress, and the profession itself may be the greatest. We are split into many factions, most of which do not communicate well with each other; for this reason we have never been able to form a collective vision of our future. Furthermore, we have not had imaginative, courageous leadership to show the way.

College faculty and administrators generally are not emerging as the champions of change. Taking risk is unsettling—yet creativity typically arises from uncertainty, from asking questions. Intuitively, one might think that the considerable intellectual talents of our college professors would make transition easy, since scholars normally welcome new scientific and informational technologies. However, it is a curious contradiction that faculty tend to defend the status quo in the discipline into which they were recruited,⁶ and few possess the necessary breadth of perspective (the “big picture”). Also, in the intensely competitive and unforgiving political climate of higher education, it is not surprising that college deans are reluctant to embark on risky ventures. Self-preservation is a powerful instinct!

The college culture must shift the emphasis from professional authority (facts and “right” answers) to relevance and professional service. So-called facts are seldom absolute and rapidly become obsolete,⁵ and most decisions (choices/actions) are based on incomplete data and approximation. The present college experience is becoming unrealistic; yesterday’s rigid doctrines are a poor preparation for change in the future.

The veterinary medical professoriate must understand how profoundly the educational process affects students’ career choices and the economic well-being of the profession. Some significant curricular reforms are presently underway, and others will follow. The strong external forces that

are now upon us will eventually, and inevitably, force further change. However, change cannot be left to chance—it must be well planned, managed, and evaluated.

A fixed physical location for delivering educational programs is becoming less important. The place-bound hospital model of instruction will not easily yield to pressure. It has served us well because it is a mirror of private practice and efficiently brings together teachers, students, and patients at the same place and time.⁵ In order to meet future professional goals, however, we may need to consider new and innovative educational models. Education should take place how, when, and where it makes most sense.

Financial constraints are often described as impediments to change; when money was more plentiful, however, higher education virtually ignored public opinion. As Coffman writes, “We [thought] we knew—better than those we served—what direction we should take.”⁶ In other words, self-interest took precedence over public interest. Today, virtually every sector of higher education has experienced some decline in government support, and certainly it will not be easy to make major changes in a bleak funding climate.

Many responses made by universities have been reactionary, unplanned, and poorly managed, although some institutions are now beginning to make strategic choices and undertake some important restructuring in the face of a real decline in program quality. We are expected to do more with less, and we can. But no matter how creative we are and how hard we work, every institution cannot possibly respond to all the needs of society and maintain high quality in all disciplines. We are being challenged to reeducate ourselves on the basic assumptions about our profession and its college education system. If we can accomplish this, we may then be able to teach our students, the next generation of graduates, new patterns of thinking and behavior that will better prepare them to play a more effective role in society and to command higher incomes.

Adaptation

We must continue with the current shift in the educational paradigm toward critical thinking, rather than the mere retention of facts. Several schools have moved to problem-based learning. Although this may not be necessary or feasible at all colleges of veterinary medicine, every institution is capable of recognizing the difference between learning and memorization. At the same time, all schools must fully embrace advanced information technology in order to improve efficiency and effectiveness in reaching their educational goals. To achieve this, institutions will have to teach the teachers how to use available technologies.⁷

I believe in the value of including research concepts in medical education. Science is characterized by methodical investigation and critical thinking, coupled with the art of dealing with probability. A culture of research, therefore, is a very useful adjunct to clinical training. It is inspiring for students to be taught by professors who are at the leading edge of inquiry in their disciplines. Similarly, it is beneficial to the patient when clinicians are actively engaged in the discovery, as well as the application, of knowledge.

Most of us would accept that the educational process must begin to inculcate better communication and leadership

skills in our graduates. Catanzaro⁸ reminds us that it is the transmission of feelings, rather than logic or fact—coupled with an ability to convey a sense of value—that is largely responsible for our professional success. Yet the colleges seem to have difficulty finding time in their curricula for these “real-life” skills. Catanzaro states bluntly, “They don’t seem fully to understand that the front door must swing *before* any health care can be delivered.” Who will argue with his thesis?

No matter how creative we are and how hard we work, every institution cannot possibly respond to all the needs of society and maintain high quality in all disciplines.

We must also recognize and value diversity in its broadest sense—not just the enrichment of cultural and ethnic diversity but also the intellectual diversity of educational backgrounds and career interests among the students who are applying to our colleges. We have not done enough as a profession to change the public’s “James Herriot” image of veterinary medicine. To quote Hugh Lewis, former Dean of Veterinary Medicine at Purdue University, “Are we trapped by the heroic stereotype of a veterinarian who understands all creatures? Why do the majority of veterinary schools persist in graduating only generalists when the world is demanding specialists?”

In the engineering profession, the various specialty branches are recognized as separate degree-granting entities (e.g., mechanical, civil, electrical, chemical). Typically, all share a common freshman undergraduate year of general engineering principles (including mathematics and science, together with the arts and humanities), which provides all students with a core of knowledge that prepares them for the specialized curriculum of their choice. Recognizing that it may be risky to draw the parallel too close, are we capable of learning something from another profession by permitting ourselves to consider career differentiation within the veterinary curriculum? I have often heard that it is too early for a veterinary student to make a career choice at the “tender age” of 24 or 25. However, engineering students choose a career track at 18 or 19, in their freshman undergraduate year, and many already know which branch they wish to pursue before leaving high school. Likewise, many of our students aspire to definite career paths prior to entering veterinary school. Limited experience at Virginia-Maryland indicates that students can successfully select a “track” as early as the end of their freshman year.

Furthermore, the profession is not well served by its traditional public image because “generalist” veterinary education has not been properly recognized as a good basis for careers other than private practice, especially in fields such as medical research, government service, industrial research, biotechnology, toxicology, zoology, wildlife, and environmental medicine, to name a few. Andrews reminds us⁹ that if such professional diversity and flexibility are truly valued, then they should be honestly reflected in the criteria colleges use in selecting undergraduate students for

admission to veterinary medical education. As Andrews states, "The greater the diversity [of the applicant pool], the greater will be the interest of students in new career paths and nontraditional uses of their veterinary medical education." Further, we might ask ourselves whether extensive conventional animal experience and working with a "traditional" veterinarian are really necessary for admission to veterinary school. Would a liberal arts or humanities background be adequate? Should it really take eight years of university education (combined undergraduate and professional) to gain a degree in veterinary medicine, or could we produce an acceptable curriculum that takes only six?¹⁰ Veterinary education has become too costly and too extended. It behooves us to examine thoroughly the cost-effectiveness of our programs and the time it takes to train a veterinarian.

For most of their existence, universities could afford to ignore the other institutions around them. Now they are going to need collaboration to survive. Coalitions at all levels are indeed fundamental to scientific and social progress.

Numerous different models of medical education have been proposed and tried. Intuitively, it seems unlikely that any single example would serve all needs, but it may be possible to agree on some general characteristics of a curriculum that would serve us better in the future. Any curriculum that must respond to an ever-changing array of market forces should, first and foremost, be flexible. It must be well connected to the workplace and provide experiences that will produce veterinarians who are themselves flexible, versatile, and able to adapt easily to change, and who are thus capable of shaping the future.

As I have stated above, every school cannot possibly provide a top-quality education across the full spectrum of species and disciplines. Surely, therefore, the time has come for our profession to encourage an element of career differentiation in veterinary medical education. Such differentiation may be achieved through a core-elective curriculum in which a strong multidiscipline-multispecies core is augmented by elective courses that permit a specific area of focus or "track."^{11, 12}

The core-elective model could be expanded into a cooperative national veterinary education network, as has been suggested by Michell.¹³ In Michell's model, colleges would align on a basic core curriculum and selectively provide specialty elective experiences among the seven schools in Britain and Ireland.

In the United States and Canada, for many years, we have collaborated in student exchanges among the veterinary colleges and between the colleges and various public and corporate institutions. The AVMA's accreditation process ensures that all North American colleges provide a comparable core program in veterinary medical instruction. Thus, reciprocity already exists, and we enjoy a high level of confidence in the quality of core multispecies, multidiscipline

education at all accredited institutions. This is perhaps our greatest strength. However, American and Canadian colleges vary substantially in their ability to deliver in-depth education and training programs across the broad range of species and disciplines that characterize veterinary medicine today. Nevertheless, by utilizing the full range of programs of excellence that are available among the 31 colleges, together with educational opportunities at allied public and corporate institutions, it is already possible for any student in the USA and Canada to secure an in-depth experience appropriate to his or her special need or interest.^{11, 12}

Certainly there will be no shortage of issues to be resolved, including equitable distribution of students among the colleges, tuition and other costs, liability and other insurance, reciprocity of credits, and limited licensing, to name a few. But we must move forward. Asking questions is easy; finding solutions is not.

SHARING

Among the more important adaptations that institutions must consider in order to accomplish their goals is the formation of partnerships. For most of their existence, universities could afford to ignore the other institutions around them. Now they are going to need collaboration to survive. It seems to me that opportunities are virtually unlimited.¹⁴ The entire basis of the veterinary profession is a partnership between people and animals—the so-called human-animal bond. From companion animals to production agriculture, food safety, and environmental health, everything our profession stands for relates to human health and well-being in some form. Of all the medical professions, ours has the broadest base and the widest impact.

The myth of the autonomous, self-sufficient veterinary college is outmoded and counterproductive. Strategic alliances of many kinds will play increasingly prominent roles at many levels in the veterinary school of the future. Solutions to most of today's problems are not likely to be found through the classical disciplines; instead, they will emerge through scholarship and teamwork that cuts across academic departments and institutions. Allen¹⁵ points out the urgent need for more holistic thinking—examining issues systemically rather than in traditional disciplines. For this to be possible, there must be improved communication and understanding among and within institutions.

Kahn and Prager¹⁶ have suggested that one of the greatest barriers to freedom of collaboration is the conventional discipline-based academic department. This classical structure does not foster integration, and many university administrators do not value cooperation sufficiently. Departments are narrowly focused and tend to compete among themselves for turf, resources, and prestige. They maintain separate languages and cultures, making joint efforts difficult—an academic form of "ethnocentrism."¹⁶ There is a need for opportunistic, cross-cutting networks in colleges and universities. For these to succeed, the entire academic reward system will have to be restructured: space and budget allocation and salary, promotion, and tenure decisions must recognize and support cooperation. People will generally respond to what they believe to be valued and rewarded. Administrators must not only minimize or eliminate perceived threats and barriers to collaboration, such as loss of

control, fear of disloyalty, and competitive personal gain, but also reward the collaborators.¹⁶

Advances in technology are creating opportunities for collaboration. The era of the e-university has arrived, and consortia of institutions are offering online education that knows no discipline boundaries and needs no physical campus. This is a powerful way of pooling our expertise and extending our reach to both student and graduate veterinarians. Technology is rapidly eroding the long tradition of departmental autonomy. Adaptation to the new distributed environment is both essential and inevitable.

Finally, one of our most important alliances is with the public whose tax contributions support our work. We must make greater efforts to explain to our stakeholders what we do, in straightforward, non-technical language. Elected politicians set policies that regulate our lives, and the public elects the politicians to office. It would be naive to think that the medical sciences are well understood in the political process; it is essential, therefore, that we be actively involved in providing accurate information to the public. Yet most medical professionals, scientists, and educators are reluctant and inadequate partners with the media. We may have reached a point where it is necessary for all students graduating in science or medicine to be required to complete a course in technical writing and public communication.⁴ By the same token, most journalists lack a sufficient grasp of science and medicine. Too much scientific reporting is sensational and unrealistic, even inaccurate and misleading; few journalists understand concepts such as probability, significance, risk, and so on, and, therefore, they may misinterpret scientific findings. However, some schools of journalism are now giving students direct experience in science and technology,¹⁷ which is an encouraging sign. As medicine and medical education advance, we will be faced with many complex questions that will be discussed in the media, and we must be full partners in the debate. It is encouraging to note that some veterinary schools are now including communication courses in their curricula.

Coalitions at all levels are indeed fundamental to scientific and social progress. As all veterinary schools in the United States and Canada rely, to a greater or lesser extent, on public tax dollars, we have little choice but to work more collaboratively and to develop a shared responsibility, if we are to secure the level of public trust and support necessary for future growth and collective prosperity.

THE ACCREDITATION CONUNDRUM

For almost half a century, accreditation of the colleges and schools of veterinary medicine in the USA and Canada has been the responsibility of the American Veterinary Medical Association (AVMA) through its Council on Education (COE).¹⁸ The AVMA's authority is granted by the United States Department of Education (USDE). The COE is charged with establishing and implementing Essential Requirements for the accreditation of veterinary colleges and schools leading to the degree of DVM or equivalent. The Essentials have been developed over a period of many years through input from a wide variety of constituent groups in the profession. They are formally reviewed and revised by the COE as necessary.

Currently there are 11 Essential Requirements that cover the following categories: organizational structure; finances; physical facilities and equipment; clinical resources, library and learning resources; students; admission; faculty; curriculum; continuing education; and research. To be granted full accreditation by the COE, a college must have substantially met or exceeded all Essentials. In practice, compliance with a given Essential may be partial. In these cases the COE informs the college and makes recommendation for changes to be made that will bring the program into full compliance. While not without controversy, this system has generally served the public and the profession quite well. The AVMA's stewardship of the Essentials of accreditation has maintained a broad set of high institutional standards and core competencies that have ensured that the graduates of American and Canadian colleges and schools are second to none in the world.

Accreditation standards, by their very nature, reflect a conservative, conventional establishment, and curriculum innovation has not always been in accord with the so-called norms.

However, accreditation standards, by their very nature, reflect a conservative, conventional establishment, and curriculum innovation has not always been in accord with the so-called norms. In 1987, Loew wrote an important and entertaining article on the hazards of radical curriculum reform relative to college accreditation.¹⁹ Loew suggests that

Innovation in education, I contend, is not for the faint of heart or the thin-skinned, and most of all, paradoxically it is not for a new school or college to contend with. New veterinary medical colleges are too concerned with becoming accredited and otherwise winning the hearts and minds of their local practitioners, state or provincial legislators and potential students to stray very far from the day's educational norms. In general, the most effective innovation in education has come and must come from the well-established schools. New schools and colleges, in my experience, tend to reinvent the wheel (with, to be sure, shinier spokes) while older institutions often have an established base from which to launch truly effective change.¹⁹

While I personally understand the challenges of instituting bold innovations at a new school, I do not agree unequivocally with Loew's conclusion. Recent experiences in curriculum reform (with one possible exception) do not support his thesis. In my view, older institutions have much more inertia to overcome. Changing long-established cultures and behaviors is very hard, and overcoming the negative pressure from "old" alumni and the resistance of long-tenured faculty can be a daunting task. I believe that a newly emerging school is more likely to be "outside the box," trying to find new ways of addressing old problems. And in the quest to find a special niche or to establish a "brand" name, the conventional norms and the accreditation process itself

may be challenged. Recent events surrounding the proposed new veterinary medical school in California support this contention. It is possible for colleges to succeed with unconventional and/or experimental ventures only if the accreditation process is flexible and holistic, rather than prescriptive, and is attuned to measuring outcomes rather than material inputs (counting beans).

No doubt the colleges and schools will continue to evolve and adapt to society's changing needs and expectations. Those schools that have the courage to test the establishment, challenge the norms, and insist on genuine intellectual diversity among veterinary colleges will ensure that our system of accreditation will evolve and adapt as well. The profession as a whole will be the beneficiary.

Schools that have the courage to test the establishment, challenge the norms, and insist on genuine intellectual diversity among the veterinary colleges will ensure that our system of accreditation will evolve and adapt as well.

MAKING THE GRADE

As we analyze and gain a better perspective on the provoking questions raised in the KPMG study,¹ it should be obvious (at least) that it affords us a unique occasion to build a better future for our profession: a Renaissance veterinarian for the twenty-first century. This is an opportunity that may not return in the near future. King, in a recent essay,²⁰ characterizes the current situation as ... the best of times and the worst of times:

Colleges of Veterinary Medicine have focused on producing scientifically knowledgeable and technically competent professionals. Yet, increasingly, the critical success factors for veterinarians in our rapidly changing world are seemingly less about scientific and technical skills and more about the life skills, including interpersonal competence and entrepreneurship; ability to adapt; leverage technology, create and take advantage of new opportunities, and work in teams; and high self-confidence and a desire to improve and continuously learn. The acquisition of these skills will produce new graduates who are better equipped to raise incomes, meet societal needs, and truly reach our profession's potential.

Like the schools and colleges of medicine and veterinary medicine, engineering schools have long had a reputation for producing graduates who are well-educated and technically competent professionals, but distinctly lacking in life skills. According to Gregory Thomas,²¹ however, significant changes have been occurring in engineering education, where "programs once reputed to turn out antisocial brainiacs now offer a wide range of cross-curricular courses in areas such as business management, communications, and medicine. Some classes even encourage social responsibility."

As in our profession, one of the barriers to change in engineering was the rigidly circumscribed essentials for accreditation, established by the Accreditation Board for Engineering and Technology (ABET). ABET now allows the flexibility to introduce business experience into the engineering curriculum and encourages community service. According to Gregory Thomas,²¹ engineering school alumni are becoming enthusiastically involved in mentoring programs that impart business savvy to undergraduate engineers. This, "if it continues, will do more to alter the public's view of engineers than any changes in university classrooms."

Let us hope that the leaders of veterinary medical education will recognize the obvious, and that meaningful life skills programs and real-life mentoring will be introduced universally into our college curricula. It is heartening to report that this process has already begun.^{22, 23} Also, it will behoove us to evaluate the admission process and decide whether certain behavioral characteristics that may predict career success can assist in the student selection process.

Curricular reform, though essential, is only one part of the solution to the profession's dilemma. If we are to prosper, we will need a much greater sense of professional unity than we have achieved in the past. Among us, we have all the necessary influence and authority to act. It will remain difficult for us to agree what to do, however, and, unless the leaders can agree as a whole, there will be only limited action.

Controversies and differences of opinion abound, but we cannot permit them to stand in the way of progress. We must rise above principle²⁴ and do something that makes a difference. We have been examining ourselves in four separate studies for the past quarter-century, yet little has changed. The agony is palpable; and Pew, KPMG, and all the rhetoric will have been for naught unless we "bite the bullet" and make some logical, sensible investments in the profession's future.¹² Anyone who thinks otherwise should re-read veterinary medicine's recent history.

There is a tide in the affairs of men,
Which taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.
On such a full sea are we now afloat,
And we must take the current when it serves,
or lose our ventures.

—William Shakespeare, *Julius Caesar* IV.iii.247–253

NOTES

a Source: *Oxford Dictionary of Quotations*. Oxford: Oxford University Press.

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