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Veterinary Medicine: Retrospective and Prospective

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It is a special honour indeed to have been asked to present this Centennial Convocation Address, not only because of the signal privilege of a graduate returning to his alma mater but also because of the challenge the name "School of Veterinary Medicine of the University of Pennsylvania" conveys.

First, may I speak on behalf of my fellow graduands, for I am sure they would want me to extend their great appreciation of the high honour conferred on them at this special convocation and, as graduands honorees, they would most heartily congratulate the School of Veterinary Medicine on its Centennial and wish it good fortune and God-speed for the future.

Further, I bring you greetings President Hackney and Dean Marshak from the Officers of the British Veterinary Association and of the Royal College of Veterinary Surgeons, of which I have the privilege to be President: they congratulate you on your centennial and, being conscious of the important contributions the School of Veterinary Medicine of the University of Pennsylvania has made to the advancement of knowledge in the field of veterinary medicine, they sincerely and earnestly hope you will continue to provide leadership in the advancement of teaching, learning and research.

Celebrations such as these are times for looking back with pride on the events that led to the establishment of the School and its success and development over the years, and also it is a time for looking to the challenges of the future with an assessment of the preparedness for that future.

In looking back, memories become blurred and the precise events become distorted into dramatic episodes presented in eloquent eulogies of the past as serendipitous thoughts, words and deeds which created an institution. The actual events are often quite different! It took substantial effort to establish the teaching of veterinary medicine in the University of Pennsylvania and, though Benjamin Rush championed the cause in a speech in 1806 in which he urged the Philadelphia Society for the Promotion of Agriculture to support veterinary education in the University, it was to be some 70 years later that the new Department opened its doors to students.

North America was somewhat slow to establish schools of veterinary medicine and well behind the movement in Europe. In the latter part of the eighteenth century in Europe, schools developed across the continent, the first in Lyons in 1763 and, within the span of thirty-seven years, twenty other schools had been established, including the first in the United Kingdom, in London, in 1792.

The pressure in Europe came from the need to provide medical and surgical care to the horse, an essential component of armies and the main source of draft power in civilian life. The pressure came also from the devastation of the cattle population caused by plagues such as Rinderpest which swept across Europe at that time.

By the mid-eighteenth century, for example, in the United Kingdom, a Royal Charter was granted in 1844 and with it the establishment of the governing body of the profession, the Royal College of Veterinary Surgeons. An Act of Parliament, the Veterinary Surgeons Act of 1811, permitted only qualified persons to practice the art and science of veterinary medicine.

In tracing the early history of veterinary medicine in the English speaking world, an interesting association between the UK and Pennsylvania is evident. It was due largely to the efforts of Granville Penn, the grandson of William Penn, the founder of Pennsylvania, that the veterinary school in London came into being. Granville Penn, a man of leisure, fond of good claret, fast women and faster horses, nevertheless persuaded the Odiham Agricultural Society to establish a veterinary college in London.

It says little for the United Kingdom, that the first professor in the London School was a Frenchman trained in Lyon.

Some interesting rules were established for the London Veterinary School at that time:—students had to be able to read and write—all grooms and professors would be sober and diligent during the day—professors were paid according to the success of the School.

Pennsylvania, therefore, can claim some relation to, if not credit for, the advent of veterinary science in the English speaking world.

However, veterinary medicine had developed only slowly in the USA; by 1800 there was no formal educational system and foreign veterinarians were the only trained personnel available. Schools of veterinary medicine came and went, languishing for lack of government support, not an unfamiliar story even today! But by the late 1800s permanent schools were established and, it was the effort of a Mr. Horace Smith, manager of the local horse farm, that helped establish the first professorship in veterinary medicine in the University of Pennsylvania in 1878, a fact often attributed to Dr. Benjamin Rush following an address sponsored by the Philadelphia Society for Promoting Agriculture in 1807; some seventy years earlier. As the number of schools has grown, so has the graduate mass, and so has the concept that the profession is one that is alert and responsive to the needs of the coming decades.

Why do I claim such an ability for the profession? Because I believe veterinary education has become more prospective in its outlook and has ceased to be purely vocational in endeavour. The turning point was the need for veterinary schools to establish reputations in universities based on research and scholarship; this was a spontaneous movement in many countries some 30 years ago. The man who spearheaded that movement in the University of Pennsylvania was Dr. Mark Allam, who shared with the first dean of the veterinary school, Dr. Rush Shippen Hvidkaper, a sense of challenge, and was an accomplished horseman and a raconteur in Media.

The recent decades have seen far reaching developments in veterinary medicine. The major infectious diseases of livestock have been controlled, many have moved to status of exotic diseases, but not without constant vigilence against their reintroduction; major developments have taken place in animal breeding and recent techniques of in vitro fertilization and embryo transfer and cloning will rival the important role of artificial insemination in improving the world's livestock resources; and the increasingly high quality medical and surgical care available to all species are just a few of the advances in the veterinary field.

The University of Pennsylvania has played a significant role in the advancement of veterinary knowledge, of recognising the importance of the comparative medical approach and of adopting rigorous standards for self criticism of its education, research and scholarship.

And what of prospective? It was John Siders who said "I've looked at the future and it doesn't work!" But it will work, inexorably so and in our profession, we must play a role in making it work.

One dare speculate that up to now life has been somewhat easy. There have been practical problems to solve, they have been solved, but now we move to an era in which answers will not come so easily. Looming ahead are issues on which the veterinarian must take a stand and on which research and scholarship will be demanded of the academic, as well as participation by the practicing arm of the profession. These include environmental issues, industrialization of livestock enterprises, welfare considerations, especially those concerned with man's use of animals for the advancement of knowledge and the role of animals as companions and the spin-offs of the human-companion animal bond. These several issues pose challenges different from previous experience and we shall need all our wit and wisdom...
dom to meet those challenges. In the challenge
there is a blurring of boundaries between profes­
sions and disciplines and the “one medicine”
approach, which has been a key issue in research
in the School of Veterinary Medicine. I believe.
prove to be the appropriate method.
This blurring of boundaries implies also that we,
as professionals, will have to modify our work in the
scientific market place for research and funding and per­
form at the same high level as other professions
and disciplines while retaining our responsibility
to address the issues pertaining to animals.
Considerations of animal health and produc­
tivity must loom large in the future. Already
intensification of livestock management and
improvement in productivity have produced
remarkable results, but political direction has also
produced surpluses of remarkable size in a world
where hunger and famine are daily occurrences.
Livestock production will need to respond to dic­
tates of the political scene as well as the changing
pattern of human nutrition where the consump­
tion of livestock products may change markely
already in the gaining of this goal—though at
times it has received precious few thanks for it.
Control of animal infectious disease by vaccina­
tion has been outstandingly successful to the
extent that the major scourges are now absent
from major areas. Entities such as contagious
pleuropneumonia, Rinderpest, African Swine
Fever etc, have been controlled in the majority
of tropical countries but problems of international
finances and the indigenous politics of several
countries threaten the international animal disease
control scene at this time.
Various international authorities have called
for vigorous steps to raise the efficiency of meat,
milk and egg production in developing countries.
The animal, especially the ruminant, can convert
the most inhospitable flora into useful products,
but as well as providing food, animals provide
power and draft animals such as the ox, zebu,
buffalo, horse, camel, yak, llama, elephant etc,
and survival is a key issue. The W.H.O. has
dedicated an aim as “Health for All by the year
2000” and health is defined as a state of physical,
mental and social well-being and not merely
the absence of disease and infirmity.
Animals inextricably are a part of this total
health picture in the Third World. The veterinary
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