



Bellwether Magazine

Volume 1
Number 77 Summer 2012

Article 4

7-1-2012

Protecting Humankind: Making a Global One Health Impact

Joan C. Hendricks
University of Pennsylvania

This paper is posted at ScholarlyCommons. <http://repository.upenn.edu/bellwether/vol1/iss77/4>
For more information, please contact libraryrepository@pobox.upenn.edu.



PROTECTING humankind

Making a Global One Health Impact

BY JOAN C. HENDRICKS
THE GILBERT S. KAHN DEAN OF VETERINARY MEDICINE



Penn Vet has a global future built on its global past.

Our founding dean, Rush Shippen Huidekoper, left his position in the medical school to train in veterinary medicine at Lyons, France in order to take his position as our first leader.

One of our most beloved deans and Penn Vet alum Leonard Pearson, V'1890 was honored for his international research program and even more for the difference he made in developing a model program to eradicate bovine tuberculosis and defeat the zoonotic spread of this condition.

Martin M. Kaplan, V'40 served as secretary general of the 1995 Nobel Peace Prize-winning Pugwash Conferences on Science and World Affairs. Dr. Kaplan also played an integral role in leading an international effort to restock livestock in Europe after World War II.

Emeritus Dean Alan Kelly advocated for international programs during his tenure, which laid the foundation for many opportunities that have since been further developed.

And I fully intend to build on this global legacy with the explicit goal for Penn Vet to be a Global One Health leader.

All of us – from Dr. Huidekoper to Drs. Pearson, Kaplan, Kelly and me – worked or are working from a common belief: that the veterinarian is a vital component in protecting all of humanity from the threats of plague and famine.

The Vet's Role

Veterinary medicine, as stated in our oath, is the single profession that serves both animals and the humans who own them and benefit from them. We are scientifically trained comparative medical professionals — the only profession who can make this claim. Veterinarians innately care about humans but also about nature — the natural world affects the health and well being of human society, domestic animals and, of course, wildlife.

Because of this understanding, and because of our already-established global reputation, Penn Vet is uniquely positioned to lead the Global One Health Initiative – an extension of the already established One Health Initiative.

The One Health Initiative (www.onehealthinitiative.com) has been embraced and is gaining momentum nationally and internationally. Penn Vet is uniquely and ideally situated to play a leadership role in this initiative

thanks to our unique origins of being founded by the School of Medicine and our proximity to superb biomedical institutions, including Penn's nationally ranked Schools of Medicine, Nursing and Dentistry. We have broad and deep collaborations in research with all of these schools and across the University through many centers and integrative programs — a hallmark of Penn and crucial component of President Gutmann's Penn Compact — Integrating Knowledge.

Global Engagement

When I was reappointed as dean in 2011, I made a decision to be purposefully open to opportunities for global engagement that would further Penn Vet's mission to become a leader in Global One Health. In order for this to be successful, I set guidelines: Penn Vet would only be involved in areas where we could make a lasting impact. And we would only engage where a permanent, financially sustainable program that was mutually beneficial to the home country and to Penn Vet was possible.

Specifically, I was interested in opportunities in India and China.

With this in mind, I was eager to learn more when Narayan Avadhani, PhD, chair, animal biology, mentioned his close ties to the BAIF Development Research Foundation (www.baif.org.in), an organization established in 1967 by Dr. Manibhai Desai (a disciple of Mahatma Gandhi), which promotes sustainable living in rural India.

First Stop – India

After months of planning, Dr. Avadhani and I headed to India in February of this year to focus on learning about the Foundation's livestock programs. We met up with past-president of BAIF, N.G. Hegde in Mumbai.

Throughout the 10-day visit, Drs. Avadhani and Hegde provided an outstanding tour that went from Mumbai and Pune to Kolkata and a local village outside Burdwan. Our trip concluded in Delhi with a visit to the National Dairy Research Institute. We visited with faculty from three of India's 28 veterinary schools as well as with officials from the Indian Council on Agricultural Research (ICAR), the national body that oversees all veterinary education and also all agricultural research throughout the country.

By far the biggest personal impact and, I believe, the biggest potential for professional impact were the visits to villages where BAIF's programs enhance the genetics

and husbandry of livestock (both dairy cattle and also goat-rearing projects).

The empowerment of the women in these areas, the clear influence on their families, and the shining health of the animals spoke louder than any data — but the data are being collected, as well.

Penn Vet's opportunities to work together with this well-respected non-government organization and through the Indian government will be explored as we complete a memorandum of understanding with the ICAR.

Parallel Tracks

Immediately after my visit to India, Dipti Pitta, MVSc, PhD, assistant professor of ruminant nutrition, and several Penn Vet students were conducting complementary visits to the country.

Dr. Pitta, a native of Hyderabad, is an expert in understanding how rumen microbial ecology affects productivity, which perfectly positions her and Penn Vet to contribute to knowledge to enhance food security in the US and abroad.

Penn Vet's outstanding and long-term excellence in improving nutrition to optimize economics, animal health and productivity, and environmentally friendly waste management, will be key to our planning and our ability to effect positive change. These opportunities are likely to involve formalized faculty and student exchanges, and organized projects in specific locations, in partnership with the ICAR and at least one Indian veterinary school.

Making Possibilities a Reality: Positioning Penn Vet as a Global One Health Leader

At Penn Vet, we have exceptional trailblazers in the areas of infectious disease study and prevention as well as in food security, both with many alliances across the University and globally. With that in mind, I have asked a few key people to lead our visibility in Penn Vet's commitment to the Global One Health initiative.

Gary Althouse, PhD, DVM, chairman, department of clinical studies at New Bolton Center, is very globally connected and has a vigorous international consulting program in swine reproduction. Dr. Althouse has agreed to be our global activities director to keep momentum around this initiative.

In addition, I have asked David Galligan, VMD, MBA, professor, animal health economics and director of our Center for Animal Health and Productivity (CAHP), and Shelley Rankin, PhD, associate professor of microbiology, to work with me and Dr. Althouse to identify areas where School and University support can have a particularly significant impact as well as advance our mission.

Dr. Galligan and the entire CAHP group have long focused on food security and are increasingly engaging across Penn with like-minded colleagues from other schools and centers; Shelley Rankin and colleagues in Penn Vet and the Perelman School of Medicine, among others, are leaders in zoonotic surveillance and prevention of epizootics, especially focusing on the food-borne and zoonotic scourge, Salmonella.

This Penn Vet leadership structure will work with an exciting new University Global Strategic Initiatives vice provost — Zeke Emanuel, MD, PhD, one of the world's leading scholars of bioethics and healthcare who was the founding chair of the department of bioethics at the Clinical Center of the National Institutes of Health.

In our very first conversation with Dr. Emanuel, it was readily apparent he is enthusiastic about Penn Vet's ability to provide global progress in the areas of food security and safety. Penn Vet has so far garnered two awards from the Global Engagement Fund that Dr. Emanuel has founded.

The first award was provided to Dr. Galligan and Eugenie Birch, MSUP, PhD, the Lawrence C. Nussdorf Chair of Urban Research and Education at Penn's School of Design, and will be put to use to support a major international conference titled "Food Security in a Rapidly Urbanizing World." Slated for the spring of 2013, more information will be made available in the coming months.

Secondly, we have funding for visiting professors from India and China who will translate our leading nutrition program — CPM/Dairy — and we will continue to build the international market for this superb software that optimizes production, economy, animal well being and environmental impact of waste products.

Student Impact

With this flurry of global engagement, we also have a serious interest in expanding our longstanding openness to international students and advanced training candidates.

The national applicant pool for veterinary schools is stagnant or declining, while entry-level positions for veterinary schools in the US and abroad are increasing. Penn Vet continues to have a superb applicant pool, but in order to maintain our excellence and build on our relationships around the world, we see a wonderful opportunity to ensure that the very best international students are welcomed.

As is already true in our international graduate and advanced clinical training programs and faculty, a cosmopolitan community such as Philadelphia only enhances the learning environment for our US-born-and-raised student body while also increasing opportunities for global engagement.

Furthermore, we are looking to increase opportunities for continuing education and possibly introduce professional master's programs and online training that would facilitate international engagement.


In 2007, we established a veterinary public health certificate program. This new elective in public health is offered by our epidemiologist and leading investigator on multiple grants addressing global pan-zootic/pandemic threats, Gary Smith, DPhil, chief, section of epidemiology and public health, and quickly fills with students every time it's offered.

Our aim is to formalize programs that will be available globally, such as, for example, a master's in public health, in areas where we lead such as clinical trials, food production training, and biomedical research techniques in a comparative medicine setting.

Moving Forward

All of this activity – ongoing research to ensure food safety and security; my trip to India and the relationships that may come to fruition; establishing and strengthening relationships worldwide; creating and updating curricula to reflect a global impact – will certainly benefit not just the animals with which we work, but people.

From students training to be veterinarians, to alumni who are in the field and on the front line of protecting public health, to community members directly impacted by their ability to raise and sustain their own livestock to those individuals who rely on animal protein to survive, Penn Vet will indeed continue its tradition of global reach and impact that was set by its very first dean.

We are just getting started. And I hope you'll continue to be a part of this exciting, important journey. 



“ We have broad and deep collaborations in research with all of these schools and across the University through many centers and integrative programs — a hallmark of Penn and crucial component of President Gutmann’s Penn Compact — Integrating Knowledge.

