



DRIVING THE FUTURE OF RESEARCH, EDUCATION, AND SERVICE





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The plan is intended as an engine, driving forward our goals as an institution, and fueled by our unparalleled energy and creativity. It provides an opportunity to unite toward a common mission, building upon our legacy of excellence, innovation, and compassion.

—*Dean Joan Hendricks*

Always One Health, All Ways.

Thank you for your interest in Penn Vet’s Strategic Plan, which spans from 2015 to 2020. I’d argue, however, that the plan actually got its start more than two centuries ago—on November 2, 1807, when Dr. Benjamin Rush delivered a visionary speech before a medical school class at the University of Pennsylvania.

That speech, entitled “On the Duty and Advantages of Studying the Diseases of Domestic Animals, and the Remedies Proper to Remove Them,” ultimately inspired the creation of Penn Vet, the first veterinary school born from a medical school.

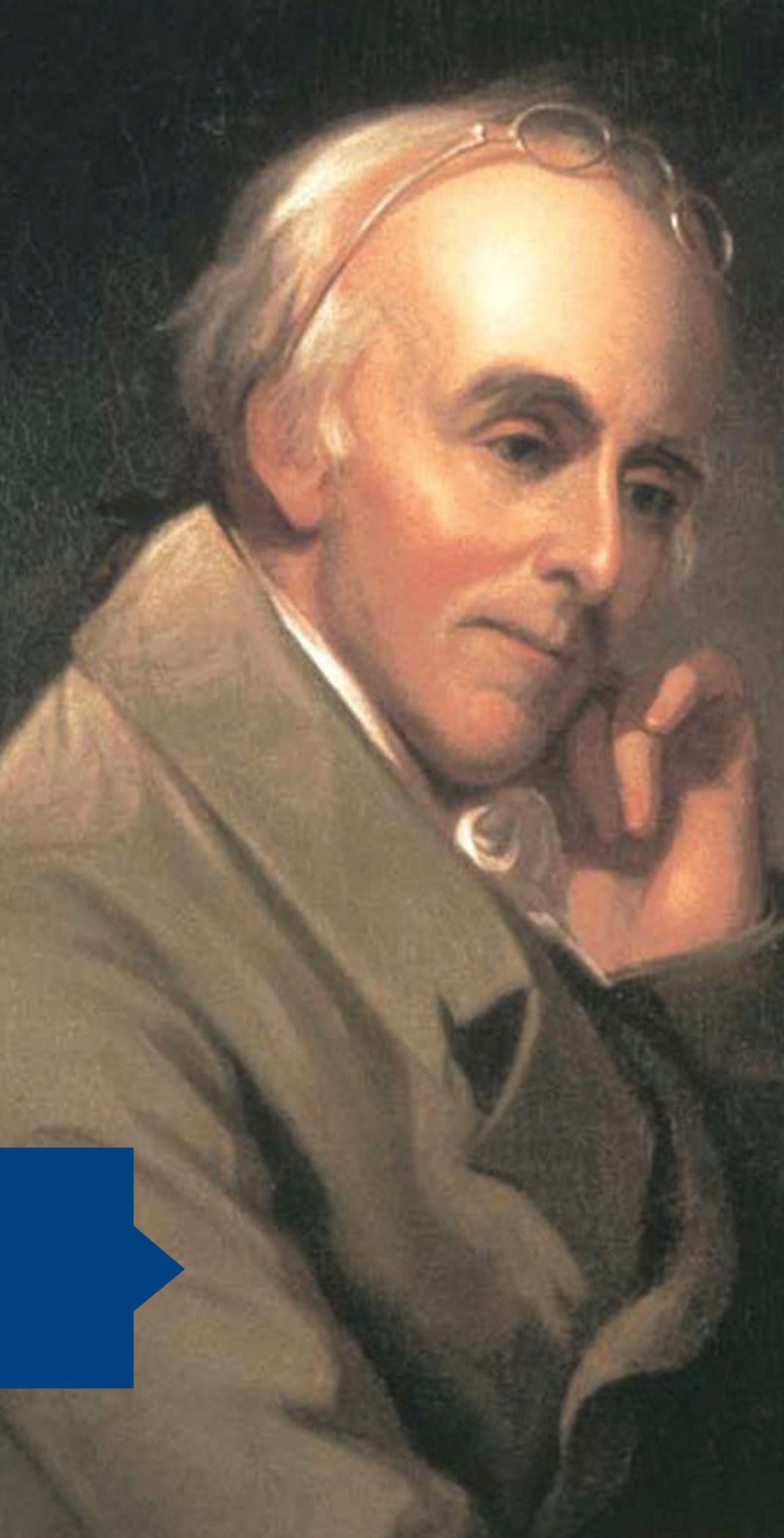
Furthermore, Dr. Rush presaged a fundamental concept in modern veterinary medicine: the connection among people, animals, and the environment. Known as One Health, this crucial connection is at the core of our mission today.

One Health blossomed under Penn Vet leaders, including Dr. Leonard Pearson, the School’s third dean, who pioneered the control of bovine tuberculosis in the late 19th century. Brilliant and benevolent, Pearson earned the trust of farmers and politicians alike as he worked to improve animal health and human food safety.

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By extending our knowledge of the causes and cure of the diseases of domestic animals, we may add greatly to the certainty and usefulness of the profession of medicine as far as it relates to the human species.

—*Dr. Benjamin Rush*



A Founding Father's Legacy

Dr. Benjamin Rush, distinguished Philadelphia physician and signatory of the Declaration of Independence, believed it humankind's obligation to care about the health of domestic animals—not only for the well-being of other species, but also for what the study of animal disease can teach about human disease.

In 1807, while a professor of medicine at the University of Pennsylvania, Rush proposed the University start offering instruction in veterinary medicine. Nearly 80 years later, with proper funding and University support, Rush's vision was realized with the 1884 birth of the University of Pennsylvania School of Veterinary Medicine, a direct progeny of Penn's medical school.

Since then, Penn Vet has graduated more than 6,000 students—smart, compassionate men and women who have carried the mantle of Rush's conviction that doing well by animals is a moral and civic human imperative.

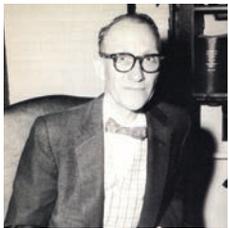
Over more than 130 years, Penn Vet has been veterinary medicine's bellwether. Perhaps more than Rush ever could have imagined, the School has [pioneered advances and innovations](#) in research, education, and service. For generations, our faculty, clinicians, staff, and students have led the way in the treatment and care of animals and informed science's understanding of the inextricable link between animal and human health.



Dr. Ralph Brinster with President Barack Obama upon winning the National Medal of Science



Dr. Leonard Pearson



Dr. Mark Allam



Dr. Robert Marshak

In the 20th century, eighth and ninth Deans Mark Allam and Robert Marshak spearheaded the School's remarkable transformation by actively recruiting and training veterinary scientists and clinicians. Moreover, they fully integrated veterinary clinical training with the training of clinicians at Penn's School of Medicine—which Rush had helped to found.

These milestones live on as Penn Vet continues to lead the way. For instance, Dr. Ralph Brinster (recruited during the Allam/Marshak era) became the first veterinarian to win the National Medal of Science—advancing Rush's vision of translational medicine through his research on the manipulation of the mammalian germline. Following in Pearson's footsteps, the Center for Animal Health and Productivity addresses global food production and animal welfare, together with environmental and economic concerns.

Just as One Health is a thread connecting Penn Vet's past and present, it also serves as a beacon lighting the path ahead. I like to say, "Always One Health, all ways," to suggest the institutional history of One Health (*always*), as well as the myriad forms it continues to take (*all ways*). From infectious disease and cancer research to the development of robotics-driven technology and cutting-edge clinical trials, to the training of working dogs and the care of shelter animals, Penn Vet's aspiration is unbounded. The pages to follow present our plan for leveraging the School's yesterday and today to improve health in "all ways" tomorrow.

Because we must always emphasize the value of students, staff, and faculty working together in all ways, the strategic planning effort was a collaboration among the entire Penn Vet community. The process has been at least as vital as the plan itself.



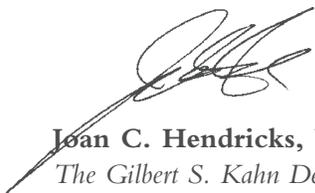
And through ongoing engagement, idea sharing, and results reporting, we can make the Strategic Plan a dynamic, animating framework that inspires and guides us.

Such strategizing isn't easy. Gratitude is due to every person who has lent time and talent to creating and stewarding a plan that is exhaustive, inclusive, and transparent. Please take a moment to learn (on page 11) who led the charge and more about the Purpose and Process behind their endeavor.

Some have asked why I wanted to develop a Strategic Plan that extends beyond my time as Dean, which ends in 2018 after twelve years. To reiterate, this isn't my plan. Everyone at the School is a stakeholder. The plan is intended as an engine, driving forward our goals as an institution, and fueled by our unparalleled energy and creativity. It provides an opportunity to unite toward a common mission, building upon our legacy of excellence, innovation, and compassion.

I'm honored to be part of that legacy and the lineage of One Health. And I'm eager to see how Penn Vet will continue to lead well into the future.

Dr. David Galligan during the Center for Animal Health and Productivity's recent trip to India



Joan C. Hendricks, V'79, GR'80
The Gilbert S. Kahn Dean of Veterinary Medicine



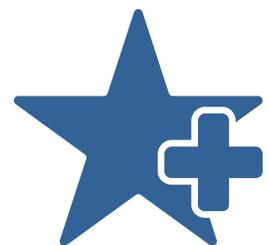
VISION

We discover and disseminate knowledge to improve health.



MISSION

Penn Vet's mission is to lead the advancement of health and science for the betterment of animals, humans, and their environment.



VALUES

- Excellence
- Innovation
- Discovery
- Accountability
- Compassion

Purpose

After the Great Recession, Penn Vet faced a changed world. Once steady Commonwealth of Pennsylvania funding had fallen to unprecedented levels. Unwilling to balance the School's budget on the backs of our students, we advocated intensely at the state level and were able to stabilize financially in a very stressed environment. This experience sparked intense introspection about how best to operate as an institution driven by mission not profit. Ultimately, Penn Vet weathered the downturn—and came out of it poised for a new day.

Post recession, across the School we recognized the opportunity—the responsibility—to be proactive and strategic about Penn Vet's long-term future. The Penn Vet 2015–2020 Strategic Plan is one outcome of our looking forward and positioning the School now for whatever will come later. The plan will steer us through the next few years, as we navigate expected and unforeseen events with the potential to affect the School's operations, the field of veterinary medicine, and animal and human health worldwide.



Process

In 2014, guided by an external facilitator, representatives from Penn Vet's three pillars—Research, Education, and Service—began the strategic planning process. In committees, and with the input of multiple internal and external stakeholders, these faculty, clinicians, staff, and students discussed, debated, and ultimately defined Cornerstones (Advancement, Impact, People) of a plan that support each pillar and drive the School's vision, mission, and values. And advancing the Strategic Plan and its Cornerstones are focused Finance objectives that will enable Penn Vet to build resilience, facilitate growth, and sustain mission excellence.

A major milestone occurred in early 2016, when the School issued a survey constructed with input from a diverse array of outside consultants—both veterinarians and non-veterinarians. More than 200 internal and external stakeholders returned the survey, and the results formed the basis of a two-day spring retreat at Penn Vet. At this event, more than 40 members of the Penn Vet community pressure-tested plans for the School's future.



Participation

Many people participated in building this collaborative plan, and Penn Vet is grateful for everyone's help and support. We extend special thanks to those who spearheaded the effort and led the highly engaged Cornerstone teams:

- **Cornerstone leaders** – Dr. Christopher Hunter, PhD, Mindy Halikman Heyer Distinguished Professor and Chair, Pathobiology (Advancement); Dr. Phillip Scott, PhD, Vice Dean for Research & Academic Resources and Professor of Pathobiology (Impact); Dr. Corinne Sweeney, DVM, Professor of Medicine and Associate Dean, New Bolton Center (People); and Robert Schieri, MBA, CPA, Vice Dean and Chief Financial Officer (Finance); and the numerous faculty, clinicians, staff, and students who collaborated with them to make the Cornerstones as robust, inclusive, and comprehensive as possible
- **Dean's Council** – every member of the Dean's Council had a hand in shaping the Cornerstones
- **Dean's Alumni Council** and **Board of Overseers**, who provided welcome insight from “outside” of the School
- **Carol Pooser**, Assistant Dean of Advancement, Alumni Relations & Communications, and **Ashley Berke**, Director of Communications, and their teams for exceptional skill, input, and editorial oversight

Advancement

Pioneering innovation to advance Penn Vet and the veterinary profession

About ADVANCEMENT

The ADVANCEMENT Cornerstone defines an internal approach to identifying bold new ideas and innovations that Penn Vet will champion. By providing faculty, clinicians, staff, and students a greater role in transforming original ideas into innovative programs, this Cornerstone makes transparent how the School determines where to invest money and intellectual capital. At the same time, ADVANCEMENT invites a broad range of experts, offering unique perspectives, to participate in driving world-changing innovations that will raise Penn Vet and veterinary medicine to greater heights.

Goal

Lead the nation in innovations that advance the profession and result in breakthrough research, education, and service

Objectives:

- Annually, launch one strategically relevant and innovative program that holds great potential to advance Penn Vet, supports research, education, and service, and engages people across the School
- Launch three innovative ideas a year that will advance Penn Vet among its peer institutions
- Steward resources and focus fundraising to support and advance leading-edge innovations and ideas

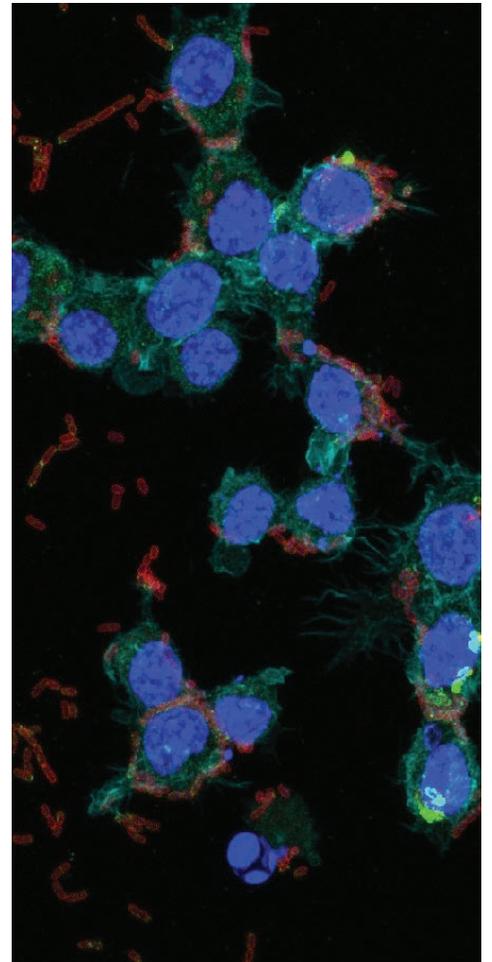
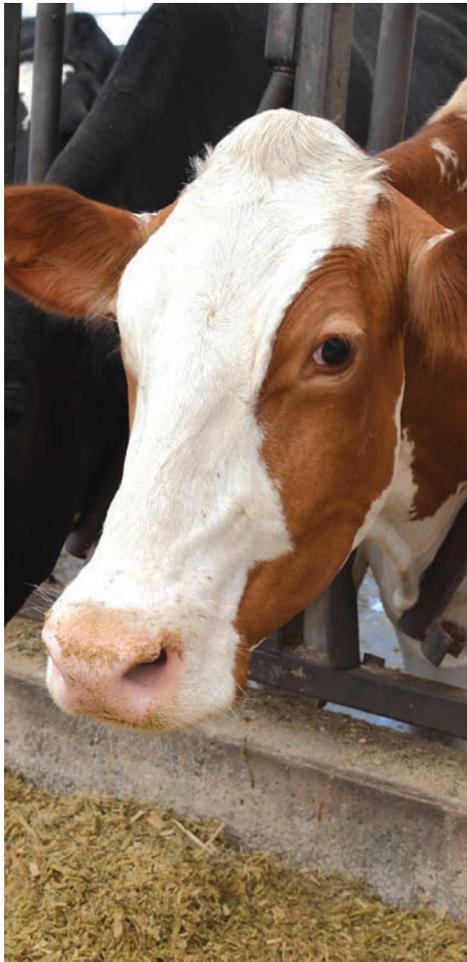
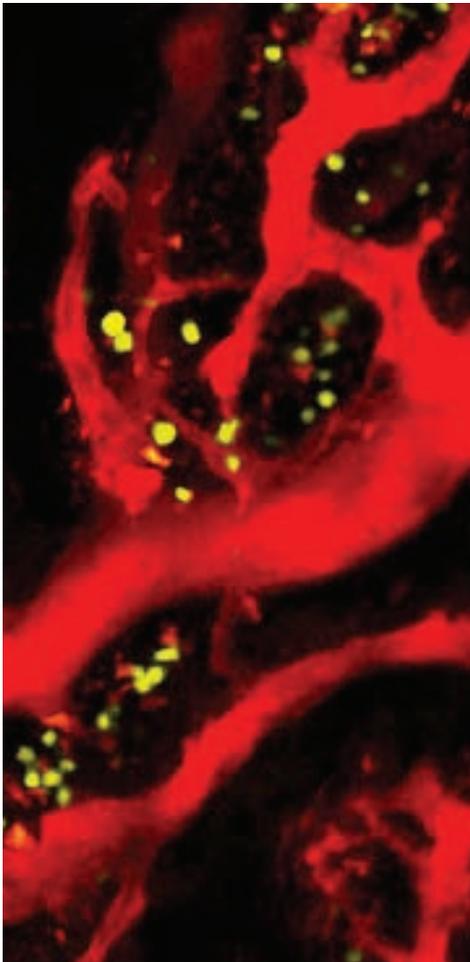
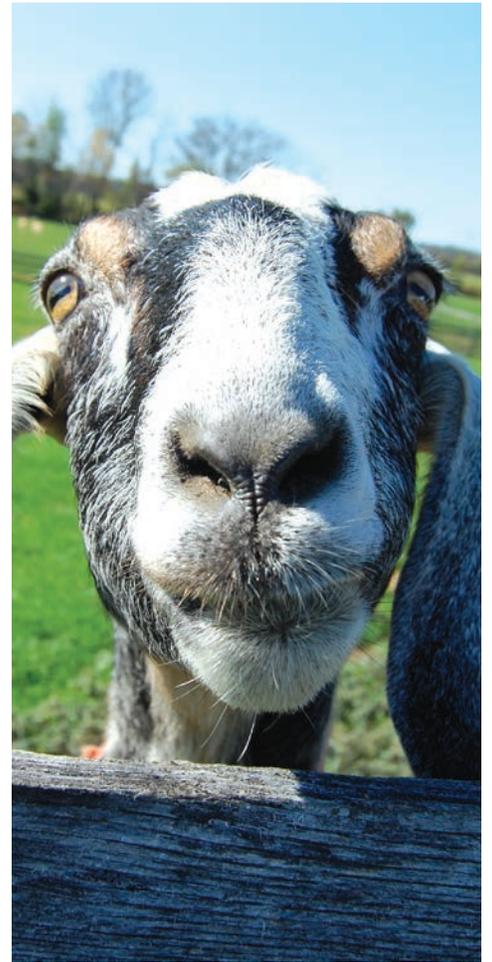


METRICS

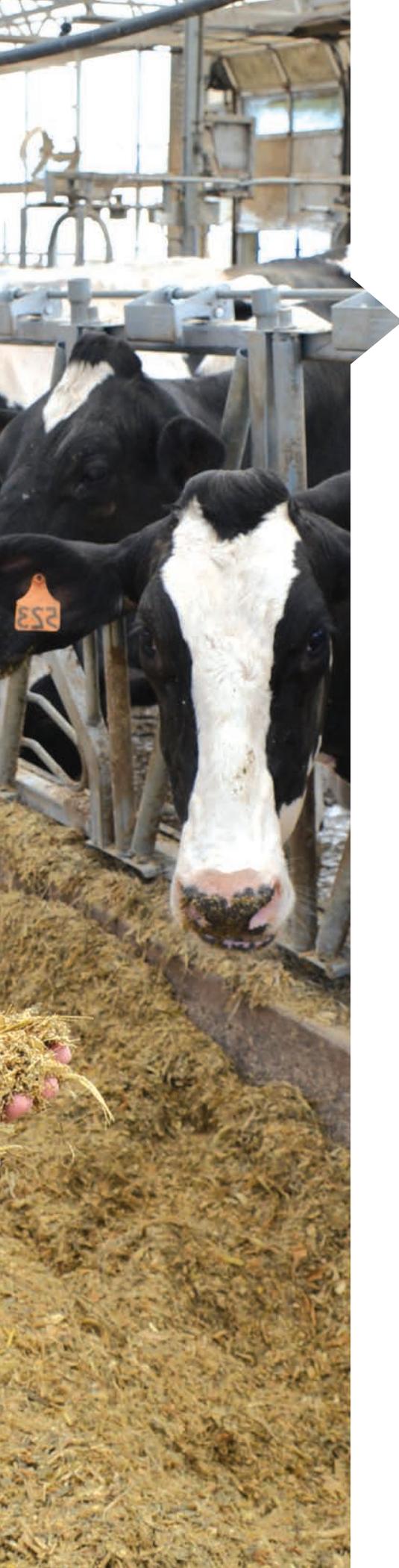
Increased outside funding
for interdisciplinary
research collaborations

Greater number of
collaborative ideas that
advance from concept to
program or active project

Enthusiastic participation
in Think Tank idea and
program development







Realizing **ADVANCEMENT**

To drive world-changing innovations, Penn Vet encourages our gifted faculty, clinicians, staff, and students to explore and act on big ideas that have the potential to advance animal and human health. Recent projects exemplifying the exciting evolution of a bold idea into an innovative reality include:

CENTER FOR HOST-MICROBIAL INTERACTIONS (CHMI)

A few years back, Penn Vet issued a School-wide call for transformational ideas. Recognizing that microbial communities on and in human and animal bodies broadly impact the health of both, one submission proposed an interdisciplinary program to facilitate study of the intersection of microbes and disease. The CHMI was born from this idea. It is the first of its kind at a veterinary school.

The Center helps faculty leverage cutting-edge genomic approaches to understanding microbial interactions. Annually, it invites Penn Vet researchers to submit proposals for promising investigations into how viruses, bacteria, and parasites interact with their animal and human hosts in ways that either maintain health or lead to disease. Recently funded studies are examining the role microbes play in alcoholic liver disease, sepsis, and periodontal disease, as well as how microbiomes affect viral susceptibility, how defective viral genomes relate to infection response, and how the bacteria *Mycobacterium avium* subsp. *paratuberculosis* impacts the gut microbiome of calves.

SCHUMAN TRANSLATIONAL RESEARCH FELLOWSHIP PROGRAM

In 2016, Penn Vet launched the *Think Tank Challenge*, an annual School-wide process for identifying Advancement innovations. A direct result of the Strategic Plan, and modeled after the solicitation for transformational ideas that led to the CHMI, the Challenge is a chance for faculty, clinicians, staff, and students to propose collaborative, transformative big ideas to the entire Penn Vet community. A group of representatives then choose a few of these ideas, which must touch on all three Penn Vet pillars, to develop further.

In the Challenge's inaugural year, one of the proposals selected was for the creation of a fellowship for veterinarians interested in becoming translational research scientists. Such funding support would help fill the current global gap in veterinarian research scientists by providing financial support to candidates interested in critically important—but less lucrative—careers in veterinary science and research.

Turning an idea into a reality, Penn Vet cultivated donor support for such a fellowship. This fall, it announced the Schuman Translational Research Fellowship Program at Penn Vet for veterinarians pursuing academic careers as clinician scientists in laboratory-based translational research.

The School has also prioritized for development the other two winning 2016 *Think Tank Challenge* ideas—a consolidated lab space that brings all Penn Vet diagnostic labs into one central location on the Philadelphia campus, and a TED-X style educational program for faculty, clinicians, students, and staff to present creative and innovative approaches to promoting their work.



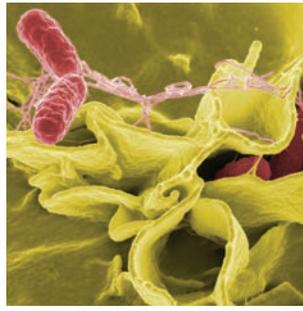
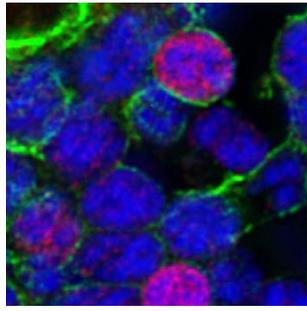
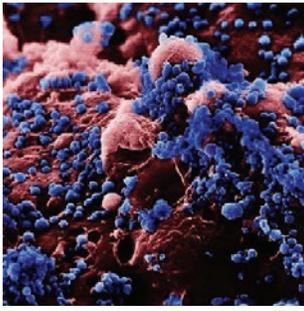
Cornerstone: IMPACT

Impact

Securing the School's position as a leader that makes a sustainable and highly visible impact on One Health, globally

About IMPACT

Penn Vet helps solve perplexing medical mysteries for industry, the veterinary profession, and the public. Students trust us to deliver the best training in veterinary medicine. And animal owners seek our cutting-edge, caring service. The IMPACT Cornerstone aims to secure Penn Vet's leadership position by doing what we already do, but even better. IMPACT encourages relationships among different expertise areas across the School and the creation of unique facilities and programs that accelerate research discovery, enhance education, and improve clinical care.



METRICS

Increased federal grant dollars/numbers of grants for Penn Vet research

More collaborations and partnerships with leading institutions

Higher enrollment of students interested in research careers

Greater number and amount of large gifts for scholarships, research, and clinical initiatives

Increased number of high-impact, peer-reviewed Penn Vet research publications

Establishment of One Health-related scholarships and new combined-degree programs with the University, including VMD-MBA (Masters of Business Administration), VMD-MPH (Masters of Public Health), and a One Health program with Penn Law

Goal

Cultivate a collaborative environment that facilitates, integrates, and routinely communicates Penn Vet's groundbreaking basic and translational research discoveries, visionary education, and compassionate service

Objectives:

- Develop metrics that will measure meaningful improvements in research, education, and service
- Launch five new projects that link basic and translational/clinical research
- Create Centers of Excellence that facilitate and integrate scholarly, innovative, rigorous, and impactful research and teaching
- Increase the number of VMDs and post-doctoral trainees entering non-private practice careers to enhance the ability of veterinarians to improve global health
- Improve the way Penn Vet communicates its impact to internal stakeholders
- Identify new methods of externally communicating the broad value and impact of Penn Vet among funders and policy makers, including the Commonwealth of Pennsylvania, as well as the general public
- Invest in infrastructure and equipment to provide state-of-the-art clinical and diagnostic services
- Develop a capital renewal plan for upgrading or replacing major equipment and systems



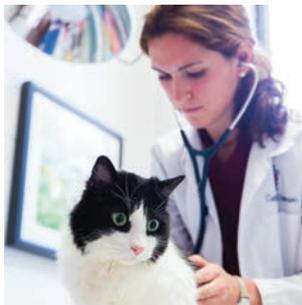


Creating IMPACT

Penn Vet's New Bolton Center, internationally renown for its care and treatment of large animals, recently acquired leading-edge technology that is revolutionizing equine imaging and radically impacting how we see and understand animal and human anatomy. In collaboration with Four Dimensional Digital Imaging (4DDI), the company behind the innovation, New Bolton Center now offers EQUIMAGINE™, the first-ever robotics-controlled imaging system for standing horses.

The School is the first veterinary teaching hospital in the world to use EQUIMAGINE™, which enables veterinarians to view parts of the horse's anatomy never before seen. Unlike more traditional imaging technologies that require patient anesthetization and are limited in size and movement, the EQUIMAGINE™ robotic arms move around a horse and capture images while the animal is awake, moving, and load-bearing. The process is easier and more accurate for veterinarians and less invasive and risky for animals.

New Bolton Center has begun using the system with patients and is excited about its clinical and research applications in both animal and human medicine. New Bolton is currently working with colleagues at Penn Medicine, as well as the Rothman Institute and Nemours Children's Health System, to explore how this technology can improve imaging and diagnostics for children and adults.



Cornerstone: PEOPLE

People

Recruiting and retaining the brightest minds and biggest hearts to learn and work at Penn Vet and enabling them to thrive

About PEOPLE

People are Penn Vet's backbone. We cannot advance One Health without talented, compassionate individuals who are committed to excellence and accountable to each other and the animals and humans they serve. The PEOPLE Cornerstone uplifts the people of Penn Vet, providing everyone who works and studies here the opportunity to take an active role in shaping research, education, and service experiences for each other and generations to come.



Goal

Create a working and learning environment that supports excellence, encourages collaboration and communication, offers transparency, and welcomes multiple voices

Objectives:

- Understand why people come to, stay, or leave Penn Vet
- Develop new methods of communicating the value of being part of Penn and Penn Vet
- Provide a welcoming and inclusive environment at the School by optimizing the onboarding experience, creating a mechanism and format for meet and greet functions, and facilitating connections and collaborations across the School and its constituencies
- Provide professional development opportunities for faculty, clinicians, staff, and students
- Define best mentoring practices for faculty, clinicians, staff, and students
- Clarify expectations for success for faculty
- Define and clarify search strategies for faculty
- Standardize performance evaluations for faculty, clinicians, and staff
- Design and implement a School-wide service excellence program
- Invest in upgrades to systems that improve patient care, facilitate communication with referring veterinarians and clients, and provide students with access to the best available practice technologies



METRICS

Greater retention of students, faculty, and staff

Increased satisfaction among students, faculty, clinicians, and staff

Increased giving to scholarships

Strong alumni donor engagement among young alumni

More referrals from outside veterinarians and existing clients





Nurturing PEOPLE

What are the core elements of an inclusive, encouraging, and supportive teaching, working, and learning environment? For answers, Penn Vet went straight to the people who make the School the exceptional institution it is—our faculty, clinicians, staff, and students. In 2015, in response to the People Cornerstone, we conducted an Employee and Student Satisfaction Survey to help understand why people come to, stay, or leave Penn Vet.

More than 540 people across all areas of the School completed the survey, offering Penn Vet special insight into what we do well and what we could do better to recruit and retain the best and brightest talents.

The most common requests from employees were for more staff appreciation and visibility into operations and decision-making. And students wanted a mentor or academic/career advisor program and greater exposure to hands-on clinical experience.

As a result of the survey, Penn Vet created and began implementing an action plan that includes, among others, “Meet and Greet” gatherings, staff recognition programs, and more diverse professional development opportunities. We have also started developing a Clinical Skills Laboratory for students and defining best mentoring practices for faculty to follow.



Milestones

A year into the plan, Penn Vet is proud to share our progress made toward each Cornerstone.



We have:

- Launched the *Think Tank Challenge*, an annual initiative inviting faculty, clinicians, staff, and students to submit and select innovative proposals for programs that support research, education, and service, and engage people from all areas of the School
- Hosted an event for presenting, discussing, and voting on *Think Tank Challenge* proposals
- Selected three *Think Tank Challenge* proposals to prioritize for funding and other resources



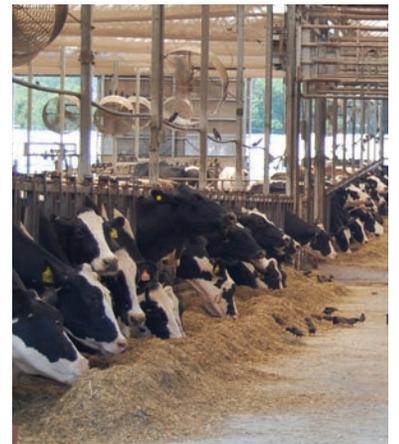
Advancement

Impact



We have:

- Improved the environment for research and teaching at Penn Vet—acquired space and resources to create a clinical skills lab; relocated the Center for Animal Transgenesis to the Philadelphia campus from New Bolton Center; renovated 14 laboratories; provided biostatistical support for faculty in Philadelphia and at New Bolton Center
- Purchased new state-of-the-art technologies, including the robotics-driven EQUIMAGINE™ system at New Bolton Center, 2-photon imaging equipment, and Illumina NextSeq for RNA sequencing
- Defined criteria to establish new centers that support research, teaching, and clinical service and continued developing a world-class Penn Vet Cancer Center
- Participated in Animal Planet's internationally broadcast *Life at Vet U*, the network's "docu-series" about life as a veterinary student
- Invested \$41.3 million, through the Century Bond program, in energy- and cost-efficient infrastructure upgrades to the HVAC and electrical systems at our Rosenthal building and Ryan Hospital
- Implemented additional professional development opportunities, including education retreats and teaching seminars
- Conducted an asset inventory of both Penn Vet hospitals to determine cost differences between replacing versus upgrading existing assets
- Established a Fellows program for VMDs
- Created a One Health Scholarship for students pursuing careers in public health and safety
- Revised Clinical Competency Outcome Assessment expectations for students
- Defined new approaches for communicating service to the agriculture industry, particularly in Pennsylvania





People

We have:

- Issued an *Employee & Student Satisfaction Survey* and developed and started enacting an action plan to respond to the survey's findings
- Developed and launched new onboarding programs and events for new staff and faculty at the Philadelphia campus and New Bolton Center
- Established a method for collecting confidential and anonymous comments from Penn Vet employees
- Created an Academic Clinician (AC) track, hiring 33 ACs and implementing a search for more
- Launched a Penn Vet Professional Development Guide
- Defined best mentoring practices for faculty
- Clarified search strategies for faculty
- Updated the School's Diversity Plan





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