

College of Veterinary Medicine

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

2021-2025 STRATEGIC PLAN





TABLE OF CONTENTS

) ()	OLID DDO	UD HISTORY
/	וועט טווו	
	OONENO	017 I II.3 I (71X I

1-5		MICCION	AND VISION
4-0	OUR	MISSIUM	AND VISION

6-7....OUR AREAS OF EXCELLENCE

7.....OUR GUIDING PRINCIPLES

8-15 OUR GOALS AND STRATEGIES

Goal 1: Foster scholarship, discovery, and innovation

Goal 2: Provide transformative learning experiences

Goal 3: Make a significant and visible societal impact

Goal 4: Steward current resources and generate additional resources for strategic investment

16 OUR STRATEGIC PLANNING PROCESS

OUR PROUD HISTORY

The future builds upon the achievements of the past.

Our college started with a commitment to animal health and agricultural productivity.

While that strong foundation remains, the breadth and depth of our expertise has rapidly grown. Over the past seven decades, as veterinary and biomedical science expanded, the University of Illinois College of Veterinary Medicine has built a legacy of impact. We now encompass a host of disciplines united for animal, human, and environmental health. Today our strengths include clinical and diagnostic specialties, health discoveries from the molecular level to the population level, and innovative approaches to delivering this rapidly growing knowledge base to students, veterinary practitioners, and the public.

With this strategic plan we identify our next steps for creating a healthier world.

HEALTHY ANIMALS, PEOPLE, ENVIRONMENT



As early as 1870, just three years after the university's founding, a veterinarian served on the faculty. Dr. H.J. Detmers taught courses in veterinary surgery and led students in providing clinical and diagnostic services for animal owners.

Then, in the early part of the 20th century, the state's agricultural and veterinary communities lobbied legislators to create a veterinary college on this campus. In 1919, the Illinois General Assembly chartered the nation's eleventh college of veterinary medicine. It was not until 1948, however, that funding was allocated and the first class—twenty-four veterans of World War II—enrolled in the University of Illinois College of Veterinary Medicine.

The college operated out of a series of buildings on the main campus until the 1970s, when construction of its current facilities began on 40 acres at the southeast corner of the Urbana campus. The last of these, the Basic Sciences Building, was occupied in 1982. The college also oversees the 80-acre Veterinary Medicine Research Farm, about two miles southeast of the college. Programs were established in the Chicago area in 1993 with the Zoological Pathology Program, in 2009 with the Medical District Veterinary Clinic, and in 2015 with a satellite office of the Veterinary Diagnostic Laboratory in Buffalo Grove.

In its first decades, our college served animal agriculture in the fight to eradicate bovine tuberculosis and brucellosis, hog cholera and other scourges. Protecting human health, especially through a focus on zoonotic disease research, has also been a key component from the beginning. Illinois faculty have included seminal leaders in veterinary anesthesiology, pharmacology, protozoology, and toxicology and many founding members of clinical specialties. The legacy of discovery, clinical advances, service to the public, and leadership within the profession continues to this day.

Educational innovation is a long-held strength of our college. In 1970, we adopted the world's first computer-assisted instructional program, which had been designed and built on the Urbana campus. A decade later we pioneered the use of models to teach surgical skills to veterinary students. The novel veterinary curriculum introduced in 2009 added 23 weeks of clinical instruction into the four-year degree and established one of the nation's most comprehensive veterinary clinical skills learning facilities. Since 2015, effective, targeted, and scalable online education programs have delivered the Illinois experience to global learners.

The college's ambitious 2016 strategic plan launched a period of remarkable growth. The number of faculty positions at the college

rose by 34% between 2015 and 2020, to more than 137 positions. More than \$36M was invested in facilities improvements, including acquisition of a 3T MRI in 2016, the first new instructional space in thirty-five years in 2017, the first purpose-built space for the Wildlife Medical Clinic in 2018, installation of a state-of-the-art linear accelerator and a new CT to support its use in 2019, creation of the 18,000 sq ft Veterinary Medicine South Clinic to house the hospital's primary care and zoological medicine services in 2020, and completion of a 9,000 sq ft surgery wing for the Small Animal Clinic in 2021.

In 2020, the coronavirus pandemic upended human activity around the world. Drawing on crucial knowledge and skills from the College of Veterinary Medicine, the University of Illinois SHIELD program allowed the campus community to safely resume teaching, research, and service activities that same year.

The plan contained in this booklet represents our collective vision for continuing a trajectory of innovation and impact at Illinois.



OUR MISSION

We educate future veterinarians and biomedical scientists, make discoveries that improve animal, human, and environmental health, facilitate production of a safe food supply, and deliver outstanding clinical care.



We will be a pre-eminent public college of veterinary medicine, provide a transformative educational experience for our students, create and communicate knowledge that changes the world, deliver outstanding clinical service to our patients and clients, and pursue excellence in all our endeavors.

AREAS OF EXCELLENCE

Initiatives at the University of Illinois College of Veterinary Medicine encompass a very broad range of interests and specialties. Described here are college strengths that incorporate all or most of the following features:

- Addresses a pressing societal need
- Combines scholarly innovation with excellence in academic training and real-world service or applications
- Represents a historical or long-term focus with substantial college investment
- · Provides leadership at the national or international level within the field
- Collaborates with organizations and researchers outside the college and university

▶ Comparative and Diagnostic Medicine

Our faculty make discoveries that span the spectrum from essential biology to applied diagnostic tests and therapeutics with the ultimate goal of improving the health of animals and people. Active fields of study include cardiovascular pathology, comparative oncology, conservation medicine, gastrointestinal and endocrine pathology, neurosciences and functional imaging, regenerative medicine, and translational and non-invasive surgical techniques. We have extensive infrastructure and successes in cancer research, where we have a central role in a university-wide initiative and a strong partnership with the NIH National Cancer Institute. The college and its Veterinary Diagnostic Laboratory actively protect domestic animal and human health by rapidly identifying pathogens and zoonotic disease processes of concern.

► Conservation Medicine and Ecosystem Health

Four programs that combine strong research, training, and service components in this area include the Wildlife Epidemiology Laboratory, investigating infectious disease outbreaks in amphibian and reptile species; the Wildlife Medical Clinic, caring for ill or injured native wildlife; Zoological

Medicine, meeting the needs of non-traditional species under human care as well as providing student, intern, and resident training programs; and the Zoological Pathology Program, addressing disease and conservation challenges and serving private and public partners.

Environmental Health and Toxicology

From the founding of the National Animal Poison Control Center at the college in 1978 to the establishment of NIH-funded research projects and training programs, the college has a long history of leadership in toxicology research and community-based interventions. Numerous faculty study the effects of environmental chemicals, including perfluorinated chemicals, pesticides, phthalates, and water disinfection by-products, on people and animals. The college leads federally funded training programs both for graduate-level education and for undergraduate students from underrepresented backgrounds.

► Infectious Diseases

Researching mechanisms of infection and developing strategies for the detection, therapy, and control of infectious diseases have been integral to the college since its founding. Working from the molecular level to the ecosystem level, experts study bacterial, fungal, parasitic, and viral diseases that threaten animal and human health. Selected areas of interest include foreign animal disease preparedness and prevention, host-pathogen interactions, mathematical modeling, pathogen and host genetics, therapeutic interventions, and vaccine design. This work not only benefits the health and welfare of animals and people but also delivers psychological, economic, and geopolitical benefits by improving efficiency in food animal production, increasing global food security, stabilizing international trade, and supporting the human-animal bond.



► Innovative, Integrated Curriculum

The college is known for its innovative integrated veterinary curriculum, launched in 2009. Focused on developing clinical competence in new graduates, the curriculum is unique in devoting 23 weeks in the first three years to hands-on clinical rotations and 6 weeks in the fourth and final year of the program to individually tailored "professional development." Throughout the program students are engaged in a world-class Clinical Skills Learning Center that utilizes simulation training with rigorous instruction and evaluation. Based on this approach, graduates are confident to enter clinical practice upon graduation. Additionally, the Illinois program provides students with outstanding learning opportunities in biomedical and clinical research, business and financial management, and wildlife medicine.

► Post-graduate Veterinary Education/Online Learning

Illinois has been delivering continuing education for veterinarians for more than 100 years—longer than the veterinary college has been in existence. The focus is on identifying and then meeting the needs of practitioners, ranging from in-depth careerenhancing programs, such as the college's industry-leading Executive Veterinary Program (EVP) credential, to modules designed to meet licensure requirements. The college's i-Learning Center, opened in 2018, leverages online learning strategies to create impactful educational programs that are scalable. Learners select their level of educational need, from brief tutorials to an online Master of Veterinary Science degree.

► Reproductive Biology

We have significant strength in research on the molecular and cellular mechanisms involved in reproduction, including the development of male and female sex cells, folliculogenesis, implantation, meiosis, ovulation, placentation, pregnancy, spermatogenesis, and steroidogenesis. Our faculty provide leadership in this field across campus. Discoveries have led to novel methods of contraception and treatment of infertility and other reproductive disorders. Veterinary theriogenology, the study of reproductive health and the treatment of reproductive dysfunction in animals, is also an area of strength.

OUR GUIDING PRINCIPLES

A SUPPORTIVE AND INCLUSIVE COMMUNITY

Together we create a workplace culture that fosters respect, inclusion, trust, and support for personal and professional growth. The more diverse our community, the stronger we are. We practice compassion and selfcare. We celebrate successes, knowing that our most valuable asset is our people.

EXPERIENCES THAT EMPOWER LEARNERS

We provide learning experiences that inspire our students to become critical thinkers and problem solvers. We continually evolve our teaching methods to deliver the best outcomes for students, who come to us seeking a wide range of degrees, credentials, and information.

INNOVATION WITH GLOBAL AND SUSTAINABLE IMPACT

We are global leaders who deliver research-based solutions. We imagine a better future and create the path to make that future a reality. As part of a world-class university, we set high standards and embrace a culture of continual improvement and assessment.

SERVICE FOR PEOPLE AND ANIMALS

Embracing the land-grant mission, we undertake the responsibility to provide state-of-the-art animal care with the goal of enhancing the human-animal bond. Through the care we provide, we create a healthier world for both humans and animals alike.

THOUGHTFUL STEWARDSHIP

Partnerships with philanthropic individuals and organizations magnify our impact and help to secure a bright future for our college. We value the strategic activities of our advancement team, which nurtures strong relationships between our donor partners and our faculty, students, and staff.

FOSTER SCHOLARSHIP, DISCOVERY AND INNOVATION

Expand and support nationally recognized research programs

a. Make targeted strategic investments in college research activities

- i. Explore forming Centers of Excellence with an expectation for revenue generation, possibly including but not limited to:
 - Infectious disease research
 - Outbreak management and emergency response research
 - Translational and diagnostic medicine
- ii. Invest in key research infrastructure that is the foundation for attracting extramural research funding
 - Create a BSL-2Ag facility at the Veterinary Medicine Research Farm
 - In collaboration with the university, explore building a BSL-3 facility to accommodate research and diagnostics
 - Increase digital pathology capabilities
 - Provide internet access and field lab/teaching space at the Veterinary Medicine Research Farm
- iii. Develop infrastructure to support entrepreneurial activities arising from research, such as animal models, vaccines, and drugs

b. Support research careers along their entire trajectory

- i. Hire outstanding, creative researchers with a diversity of backgrounds, perspectives, and experiences aligned with college and campus priorities
- ii. Support equity, inclusion and career development for everyone
- iii. Actively promote succession planning and development of a diverse pipeline of future researchers to ensure stability in the college's research efforts

c. Foster and grow research-focused external interactions

- i. Engage in innovative interdisciplinary projects with other campus units
- ii. Incentivize interdisciplinary research with partners outside the college, including minority-serving institutions, to attract prospective faculty and graduate students
- iii. Be recognized as the go-to source for expertise in animal models and diagnostics

- iv. Work collaboratively to improve campus-level services and ensure their utility for college researchers
 - Biostatistical consulting at Interdisciplinary Health Science Institute
 - Technology transfer and approval of research agreements with corporate partners
- Enhance equity and inclusion in research outreach activities and expand collaboration opportunities with the veterinary community, practicing veterinarians, producers, community-based non-profit organizations, and state and federal agencies
- vi. Strategically place college faculty members on campus-level, national, and international committees
- vii. Promote public-private partnerships for translational research
- viii. Make clinical trials more available to clients of the Veterinary Teaching Hospital and Medical District Veterinary Clinic

d. Provide impactful research experiences and mentorship for a diverse pool of trainees at all levels

- Facilitate and reward submission of proposals for grant programs that provide research experience for underrepresented minority and disadvantaged students
- i. Engage house officers in research projects key to their career progression and encourage veterinary student participation in these projects
- iii. Revitalize graduate programs to ensure competitiveness for federal training grants
- iv. Prioritize and facilitate involvement of research-interested veterinary students in biomedical research and enhance combined-degree program opportunities
- Develop and require formal instruction for all trainees regarding responsible conduct of research
- vi. Train researchers to communicate the importance of their work and findings to the nonscientific community



PROVIDE TRANSFORMATIVE LEARNING EXPERIENCES

Deliver transformative veterinary and biomedical education in a vibrant and diverse learning environment

- Foster engagement and promote creativity in students by nurturing innovation, efficiency, collaboration, and scholarship in educational practices
 - i. Continue to develop and apply innovative and synergistic educational strategies within our state-of-the-art, student-centered integrated curriculum
 - ii. Comprehensively review and revise curriculum and courses to optimize integration
 - iii. Enhance students' capacity to work collaboratively and to provide veterinary services effectively in a multicultural society through exposure to diverse clientele at the Medical District Veterinary Clinic in Chicago
 - iv. Provide students, faculty, and staff with opportunities to improve interpersonal communication skills and cultural competence
 - Encourage interdisciplinary experiences to foster abilities to solve complex, societal challenges
 - vi. Provide research experiences for students that foster critical thinking and scholarship
 - vii. Leverage technology and lessons learned from hybrid models of instruction to improve efficiency and decrease costs of delivery
 - viii. Showcase instructional achievements, linking faculty/staff awards and promotions to instructional contributions and quality

b. Enhance the recognized value of earning a qualification from the college by creating distinctive Illinois programs

- Expand the scope of education that leads to student and alumni distinction, including certificate programs, master's degree programs, and research experiences
- Explore development of additional combined degree programs, such as a DVM/MBA program
- Make veterinary and graduate education more accessible to students from underrepresented backgrounds
- iv. Actively recruit students from diverse and underrepresented backgrounds to research/veterinary programs through research fellowships, clinical days, and volunteer experiences
- Incentivize faculty participation in efforts to recruit and retain students from underrepresented groups by recognizing the time and effort in annual activity reports
- vi. Reduce resident and non-resident student debt by helping students with financial planning and by increasing scholarships and graduate assistantships
- vii. Connect students with services to support quality of life and mental health

GOAL 2 METRICS

- 6-month employment rate for DVM and PhD/MS graduates
- Average and median veterinary student debt at the time of graduation
- North American Veterinary Licensing Examination passing percentage
- Number of DVM applications as a percentage of the national applicant pool;
 number of extramural student applications; yield rate on first offers of admission
- Number of educational research publications
- Number of graduate applications; number of extramural graduate student applications
- Number of publications in peer-review literature on fostering diversity and inclusion within veterinary medicine and the curriculum

- Percent of applicants and enrolled students (DVM and graduate) from underrepresented backgrounds
- Percent of enrolled students (DVM and graduate) who graduate and their demographics
- Exit interview data from those students who leave the curriculum or choose not to accept an offer of admission
- Periodic climate surveys of the students
- Student:faculty ratio in DVM and graduate programs
- Total college expenditures on scholarships and assistantships (DVM and graduate) to resident and nonresident students



MAKE A SIGNIFICANT AND VISIBLE SOCIETAL IMPACT

Provide a comprehensive and integrated suite of educational programs, cooperative discovery, and clinical and diagnostic services to local, regional, national, and global communities

a. Position the college as a trusted source for novel and practical solutions for society's greatest challenges

- Develop educational programming to address critical issues such as food security and animal, human, and ecosystem health in underserved communities
- ii. Develop targeted outreach programs in Illinois communities that are underrepresented in the professional and graduate curricula with the express goal of recruiting and developing a sustainable pool of veterinary medical and graduate students that mirror the diverse composition of Illinois and reflect the needs of society
- iii. Develop collaborative programs with alumni, industry, professional organizations, non-governmental organizations, and governmental agencies to enhance the effectiveness of educational and outreach programs in reaching our target audiences
- iv. Expand the scope of media platforms utilized to reach and engage our target audiences

b. Position the college as a global leader and premier source of professional development for students, veterinarians, animal owners, allied industry, and the public

- i. Expand existing and develop new online, hybrid, and in-person signature for-credit and non-credit educational programs to capture the opportunities created by the funded Investment for Growth programs and lessons learned during the college's response to COVID-19
- Develop a variety of educational opportunities including stackable badge courses, certificates, and degrees that meet workforce needs and promote economic growth locally, nationally, and globally
- iii. Leverage campus-wide initiatives to create and participate in multidisciplinary educational programs to tackle the complex problems of society

Address critical societal needs through the establishment of a multidisciplinary center of excellence for zoonotic disease, conservation medicine and ecosystem health, and sustainable livestock-based food systems

- i. Leverage college strengths in scholarly, educational, and clinical/diagnostic activities in alignment with university priorities by integrating with a broad range of campus stakeholders, including but not limited to the Beckman Institute, the Cancer Center at Illinois, the Center for Digital Agriculture, the Discovery Partners Institute, and the Institute for Genomic Biology
- Engage key external stakeholders by developing novel programs that integrate scholarly, educational, and clinical activities to address threats to animal, human, and ecosystem health
- iii. Invest in new facilities, infrastructure, and resources that advance the college's leadership in conservation medicine and ecosystem health. Leverage expertise in the Veterinary Diagnostic Laboratory to be a leader in new and emerging molecular diagnostic technologies
- iv. Enhance food security by expanding relationships with and services to Illinois livestock producers through the development of novel nextgeneration sequencing, bioinformatics, and artificial intelligence tools in the Veterinary Diagnostic Laboratory

d. Foster continued growth and excellence in veterinary clinical and diagnostic services

- Explore alternative business organization models for clinical services to facilitate cost control and enhanced operational efficiency
- Explore alternative employment models for clinicians to facilitate the recruitment and retention of exceptional personnel in areas critical to longterm growth of caseload and revenue across the portfolio of clinical services
- Develop improved communication and data exchange between the Veterinary Teaching Hospital and the Veterinary Diagnostic Laboratory to benefit our clients and referring veterinarians



STEWARD CURRENT RESOURCES AND GENERATE ADDITIONAL RESOURCES FOR STRATEGIC INVESTMENT

Promote a supportive, respectful, and productive working and learning environment

a. Remain committed to a culture of inclusiveness, collegiality, professionalism, and service

- Leverage funding sources to support activities that enhance diversity and inclusion
- ii. Ensure open communication and transparency in organizational governance
 - Provide opportunities for open dialog about issues in society, the profession, and the college
- iii. Expand opportunities for student, faculty, staff and administration training in diversity, equity, and inclusion and recognize training in annual evaluations
 - Hold retreats for in-depth exploration of diversity, equity, and inclusion topics
 - Require implicit bias training for those serving on the admissions committee, interview teams, and search committees
- iv. Expand initiatives in outreach, recruitment, and retention focused on creating a diverse, equitable, and inclusive college climate and recognize these activities in annual evaluations

b. Serve as good stewards of the college's assets and resources, particularly personnel, who represent our most valuable resource

- Provide appropriate opportunities to ensure a fulfilling and rewarding professional career for faculty and staff
 - Enhance and standardize hiring and onboarding processes to welcome new employees
 - Enhance and standardize mentoring and transparency around tenure and promotion
 - Implement standardized exit interviews for faculty and staff
 - Recognize and address the importance of emotional well-being in the workplace
 - Recognize and celebrate the many dimensions of diversity
- ii. Evaluate and address long-term facilities needs to support the goals of the college

- iii. Develop a college-wide fundraising plan, in conjunction with the Office of the Vice Chancellor for Institutional Advancement, that aligns with college strategic plan goals
 - Create endowed chair positions and professorships
 - Develop corporate engagement and partner plan for research, student programs, gifts-in-kind, and current-use donations

c. Enhance the reputation and standing of the college

- Develop a comprehensive college-wide marketing and communications plan to support college strategic goals and improve national perception and rankings
 - Broadly communicate achievements of the college and its faculty
- ii. Facilitate and promote faculty activities that elevate the reputation of the college nationally and internationally
- iii. Celebrate and track national/international recognition garnered by college personnel, students, and alumni

GOAL 4 METRICS

- Annual faculty and staff turnover rate and exit interview data
- Demographic trends among students, faculty, and staff
- Funding expended for travel to reputation-enhancing activities
- National rankings and world (QS) rankings
- Number of donors, value of annual donations, giving by one-time vs recurring donors
- Number of DVM and graduate students presenting at conferences
- Number of endowed chairs and professorships
- Number of events, and participant survey data, related to diversity, equity, and inclusion
- Number of faculty appearances in media or public outreach events
- Number of faculty serving on editorial boards of peer-reviewed journals
- Number of presentations at national/international meetings
- · Results of periodic climate and internal communication surveys for faculty and staff



OUR STRATEGIC PLANNING PROCESS

This document was created through an inclusive and transparent process. In fall 2020, subcommittees for the four goals of the strategic plan were formed from volunteers representing faculty at all levels of seniority as well as staff. The subcommittees drafted strategies to lead the college over the ensuing five years. They also identified areas of excellence, guiding principles, and a Just Cause statement. The final plan incorporates feedback on the committees' work garnered at college-wide town hall meetings in March 2021.

Strategic Planning Steering Committee

Keith Bailey, Chris Beuoy, Tim Fan, Larry Firkins (chair), Jodi Flaws, Laura Garrett

Discovery Subcommittee

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