SHAPING THE FUTURE: A COLLECTIVE VISION FOR THE COLLEGE OF VETERINARY MEDICINE

EXECUTIVE SUMMARY

Veterinary medicine’s role in society today encompasses such areas as comparative biomedical research, environmental health, food safety and security, and the sociological implications of the human-animal bond. All these areas work together in the effort to improve both human and animal health. Indeed, contemporary biomedical research no longer sees divisions between human, veterinary and ecosystem health but embraces a one medicine philosophy.

The University of Illinois College of Veterinary Medicine is one of 32 colleges of veterinary medicine in the United States and Canada and the only one in Illinois. We are active in all parts of the university’s mission of research, teaching and public engagement, and our faculty contribute significantly to interdisciplinary programs across the university.

Drawing on recent state and national studies as well as input from faculty retreats and external advisory committees, the college has defined its role in advancing the many aspects of veterinary medicine and biomedical research. It is our intent to be responsive to the needs of the state and region, to participate actively with state and national agencies, and to be recognized in the top tier of colleges of veterinary medicine.

This plan will be continually modified and updated at least annually.

MISSION

The College of Veterinary Medicine is part of the University of Illinois, a land-grant university with a rich history of teaching, research and public engagement within the state. The mission of the college is to provide teaching, research and public engagement programs that benefit the animals, people and environment of the State of Illinois, nation and world, through the promotion of animal health and production, alleviation of animal suffering, conservation of animal resources and protection of public health. The college is dedicated to educating veterinary and graduate students, post-graduate veterinarians, and the public; discovering, applying, and disseminating comparative biomedical knowledge and technology; and providing outreach to the veterinary medical profession and public.
GOALS

The College of Veterinary Medicine will

1. **CULTIVATE AN INNOVATIVE AND BROAD-BASED, LIFELONG EDUCATIONAL EXPERIENCE IN THE ART AND SCIENCE OF VETERINARY MEDICINE AND COMPARATIVE BIOMEDICAL SCIENCE.**

2. **MAINTAIN HIGH-QUALITY, FOCUSED RESEARCH PROGRAMS AND EXPAND COLLABORATIVE PROGRAMMATIC INTERACTIONS.**

3. **ADDRESS THE NEEDS OF A CHANGING PROFESSION AND A DIVERSE SOCIETY IN INNOVATIVE WAYS.**

4. **INCLUDE A GLOBAL DIMENSION IN ALL ACTIVITIES BY DEVELOPING INTERNATIONAL PROGRAMS AND COLLABORATIONS.**

5. **IMPROVE AND STRENGTHEN OPERATIONAL EFFICIENCY, FACILITIES, AND FINANCIAL HEALTH.**

6. **PROMOTE AND FOSTER AN ENVIRONMENT OF COLLEGIALITY AND PROFESSIONALISM.**

GOALS AND PLANNING STRATEGIES FOR ACTION

1. **CULTIVATE AN INNOVATIVE AND BROAD-BASED, LIFELONG EDUCATIONAL EXPERIENCE IN THE ART AND SCIENCE OF VETERINARY MEDICINE AND COMPARATIVE BIOMEDICAL SCIENCE.**

   **1.1. UNDERGRADUATE EDUCATION.** Continue to identify opportunities to interact with undergraduate students, to identify potential veterinary and graduate students, and to increase veterinary student applications. Continue to contribute to undergraduate education.

   **ACTION:**
   · Extend undergraduate course offerings, especially under the Discovery course umbrella.
   · Increase opportunities for student participation on college research teams.
   · Champion mentoring programs and other opportunities for students to gain an early understanding of the profession.
· Provide leadership to the campus initiative in comparative biomedical sciences/systems biology and participate in cross-campus initiatives.
· Augment recruitment programs to increase the diversity of our professional veterinary students in terms of cultural and geographical background and areas of interest.

1.2. PROFESSIONAL EDUCATION. Retain flexibility in the curriculum and foster opportunities for students to gain knowledge and skills needed to respond to the future needs of society and changes in veterinary medicine and biomedical science. Students are encouraged to pursue their interests in the broadest sense and look for connections to contribute to society. Students feel ownership in their education and look for opportunities to individually enhance specific areas of interest or perceived weaknesses. The college needs to maintain a critical mass of faculty to effectively deliver the core professional curriculum.

ACTION:
· Educate potential applicants and current students about the breadth of career opportunities in the profession.
· Expand opportunities for students to gain knowledge and experience in focused areas, such as the development of:
  ➢ coordinated elective courses that are provided throughout the four-year curriculum.
  ➢ fourth-year rotations or externships for each area of interest.
  ➢ on-line courses that could be taken concurrently or during vacations or summers.
  ➢ opportunities to enhance students’ understanding of and experience in biomedical science through the development of summer research programs.
· Partner with other CIC institutions to share faculty resources within the professional veterinary curriculum.
· Submit NIH training grant proposals focused on introducing veterinary students to research.

1.3. GRADUATE EDUCATION. Strong graduate programs will be cultivated in selected areas of research emphasis within the college.

ACTION:
· Build upon the current graduate student funding base from training grants and investigator-initiated grants and from corporate, foundation, and private partners, such as the recent partnership with Eli Lilly to fund a resident in toxicologic pathology and a DVM/PhD in pharmacology/toxicology.
· Enhance graduate recruitment efforts.
· Collaborate with external units to pursue NIH training grants.
· Continue to provide and participate in campus courses needed in the graduate curriculum.
· Provide opportunities for non-DVM graduate students trained in a medical environment.
· Explore diagnostic research opportunities with university, industrial, and biotechnology partners to support the pathology, toxicology, and toxicologic-pathology residency training programs.

1.4. POST-DVM EDUCATION.

_INTRAMURAL_: There is a critical shortage of veterinarians in academia, and we must educate the next generation of faculty. Specialty training opportunities in the form of internships and residencies must be provided to post-DVMs in selected areas in which there are qualified faculty and mentors. Basic science residencies are available in the areas of clinical, anatomic, and zoological pathology; toxicology; and pharmacology. Clinical internships are available in small animal medicine and surgery and clinical social work. Clinical residency programs are available in the areas of anesthesia, equine medicine, equine surgery, imaging, ophthalmology, production medicine/theriogenology, large and small animal internal medicine, small animal surgery, oncology, cardiology, and dermatology. Other areas of interest include nutrition, emergency and critical medicine, wildlife and exotic animal medicine, and clinical pharmacology.

_ACTION:_
· Implement plans to continually evaluate and enhance clinical and basic science residency programs.
· Delineate a plan to enhance and secure funding to support residency programs.

_EXTRAHURAL_: Selected non-degree programs and opportunities for post-graduate education must be created to respond to developing needs in the veterinary profession and biomedical science community.

_ACTION:_
· Expand programs such as the Executive Veterinary Program.
· Launch the Veterinary Education Online Program.
· Provide additional opportunities for veterinarians to explore new career directions.
· Enhance and develop educational opportunities for the biomedical science community.

1.5. UNDERREPRESENTED POPULATIONS. Partnerships and programs must be developed and formulated to enhance the college’s ability to attract underrepresented populations to the veterinary medical profession in order to meet the evolving needs of society and increase our professional diversity.

_ACTION:_
· Provide programs for high school and undergraduate guidance counselors.
  ➢ Participate in the Illinois Association for College Admissions Counseling annual meeting.
  ➢ Participate in the National Association of Advisors for the Health Professions annual meeting.
  ➢ Develop programs for guidance counselors and high school students in Chicago.
  ➢ Conduct Advisor Days for undergraduate advisors.
· Participate in UIUC new student summer orientation.
· Develop a Careers in Veterinary Medicine course for undergraduates.
· Partner with the Illinois Farm Bureau, Future Farmers of America, the 4-H, and other such organizations to identify and mentor students interested in production medicine.
· Collaborate with the Illinois State Veterinary Medical Association to provide veterinarian mentors to high school students from underrepresented populations who are exploring the opportunities in the profession.

2. MAINTAIN HIGH-QUALITY, FOCUSED RESEARCH PROGRAMS AND EXPAND COLLABORATIVE PROGRAMMATIC INTERACTIONS. Current areas of scholarly focus include comparative cardiovascular sciences; conservation medicine, population medicine, and ecosystem health; environmental toxicology, infectious diseases and biosecurity (including food security and public health); molecular pharmacology and endocrinology; cancer biology; orthopedic biology; and reproductive biology. It is anticipated that identified areas of programmatic emphasis will change over time in response to emergence of new faculty strengths and societal needs.

ACTION:
· Participate in various campus and regional homeland security initiatives.
· Recruit faculty who can contribute to the defined areas of focus.
· Identify and develop opportunities to incorporate bioengineering into our areas of scholarly focus.
· Actively recruit faculty under campus programs such as the Faculty Excellence Program and the Targets of Opportunities Program.
· Pursue funding for named faculty chairs in areas of scholarly focus.
· Expand interdisciplinary programs with the Institute of Genomic Biology; the College of Medicine; the College of Agricultural, Consumer and Environmental Sciences; and the College of Engineering (Departments of Bioengineering and Material Sciences) through the pursuit of collaborative hires and/or joint appointments.
· Increase the diversity of funding sources.
  ➢ Engage all areas of the college in establishing partnerships to diversify our funding sources.
  ➢ Continue to use the Veterinary Medical Research Funds (Venture Tech funds) as seed or research infrastructure support to launch new research initiatives.
  ➢ Formulate partnerships with private, corporate, and foundation entities.
  ➢ Expand our portfolio of federal grants, particularly multi-investigator and multi-institutional grants and program project grants.
· Develop opportunities for professional and graduate students to participate on interdisciplinary research teams that enrich their learning experience and contribute to the scholarship of the college. Targeted research areas would include Center for Zoonoses Research and the Program in Conservation, Population & Ecosystem Health.
3. ADDRESS THE NEEDS OF A CHANGING PROFESSION AND SOCIETY IN INNOVATIVE WAYS.

3.1. CLINICAL SERVICE. The Veterinary Teaching Hospital provides state-of-the-art patient care and a high level of public engagement through service to referring veterinarians and the animal-owning public. Faculty are heavily engaged in hands-on instruction of professional students and participate in areas of programmatic research within the college. Core areas of engagement and instruction include companion animal medicine and surgery; food animal health and production; equine medicine and surgery; and zoological, exotic and wildlife medicine.

ACTIONS:
· Form advisory committees to assist in evaluating and enhancing clinical programs.
· Enhance collaborative interactions between clinical and basic science faculty, both within the college and across campus.
· Continue development of programs with high levels of public engagement and visibility, including food security and public health, population and conservation medicine, and the urban animal health initiative.
· Explore collaborative relationships with the private sector to enhance primary practice experiences for professional students.
· Reestablish a leadership role in selected areas of comparative medicine where current deficits exist, such as oncologic surgery, emergency and critical care medicine, and neurology.

3.2. DIAGNOSTIC SERVICE. The Veterinary Diagnostic Laboratory (VDL) and its Chicago branch program, the Zoologic Pathology Program (ZPP), provide high-quality diagnostic assistance through laboratory examinations and diagnostic investigations. This professional service assists in the identification, control, and treatment of diseases, toxicoses, and other conditions that adversely affect the animals and animal industries of Illinois and the public health of the citizens of Illinois. Continue to strengthen areas of diagnostic expertise and service that will complement the developing areas of programmatic research.

ACTION:
· Continue to strengthen areas of diagnostic expertise and service that will support the needs of the state:
  ➢ Expand the infectious disease investigation service, production animal diagnostics, food safety service, and biosecurity support (emerging disease surveillance, agro-bioterrorism, and foreign animal disease preparedness and surveillance).
  ➢ Build upon our expertise and services in the area of molecular diagnostics.
➢ Cultivate opportunities and seek support for faculty research and development activities in the areas of production medicine, equine, wildlife, and zoologic animal environmental and aquatic disease surveillance and diagnostic support.
➢ Promote partnerships with the Illinois Department of Agriculture veterinary diagnostic laboratories that will offer economies of scale on animal diagnostic testing procedures and enable the Illinois veterinary diagnostic laboratory system to compete for federal funding related to animal disease surveillance and detection.
➢ Explore, define, and expand, as needed, opportunities for diagnostic services in support of aquatic medicine/environmental diagnostics and environmental health.
➢ Build partnerships with the College of Medicine for diagnostic and collaborative comparative pathology support.
➢ Expand opportunities for toxicology, pathology, and toxicologic-pathology residency training.

3.3. PUBLIC ENGAGEMENT. Efforts in this area must bring a greater understanding of the college, the profession of veterinary medicine, and the field of biomedical science to the public and university communities. Programs will respond to emerging opportunities and societal needs.

ACTION:
➢ Encourage all faculty and staff to engage our public by representing the college and profession at public venues, such as exhibits sponsored jointly with organized veterinary medicine at state fairs and horse, dog, or pet shows.
➢ Collaborate with organized veterinary medicine to deliver educational programs to the general public.
➢ Increase our engagement and visibility to an important segment of the Illinois population through targeted activities in the Greater Chicago area.
   ➢ Open a wellness clinic in the Chicago area.
   ➢ Further develop our urban animal/shelter medicine program through expansion of activities with partner organizations, including The Anti-Cruelty Society of Chicago and Chicago Animal Care and Control.
   ➢ Offer the Executive Veterinary Program based in Chicago.
   ➢ Develop collaborative programs that increase engagement with the Greater Chicago equine performance industry, including the thoroughbred and standardbred racing and the sport horse industries.
   ➢ Continue to expand and refine Chicago-based programs including the Zoologic Pathology Program (with the Lincoln Park Zoo, Brookfield Zoo, Shedd Aquarium and Cook County Forest Preserve); the Zoological Medicine Program (with Brookfield Zoo); the Aquatic Animal Medicine Program (with Shedd Aquarium); and the Conservation Medicine Center of Chicago (with Loyola University and Brookfield Zoo).
Work with state agencies on issues of public health significance, such as new and emerging diseases, food animal diseases, and zoonoses. Address current and future issues of significance to society, such as public health, the human-animal bond/grief counseling, violence in society and animal abuse, biosecurity, and environmental issues.

4. **INCLUDE A GLOBAL DIMENSION IN ALL ACTIVITIES BY DEVELOPING INTERNATIONAL PROGRAMS AND COLLABORATIONS.** The college strives to be a world citizen through the provision of expertise in solving or addressing regional or local issues in international settings.

**ACTION:**
- Develop a coordinated plan for creating and maintaining international opportunities that enhance the education of professional and graduate students.
- Incorporate issues related to global problems into course work.
- Amplify the international dimension of current programs, such as the Center for Zoonoses Research, the Zoologic Pathology Program, and the Envirovet Program in Wildlife and Ecosystem Health.
- Continue to build international partnerships to facilitate faculty and student exchange programs.
- Pursue funding to provide international experiences to faculty and student, e.g., Fogarty Fellowship or Rockefeller Foundation.

5. **IMPROVE AND STRENGTHEN OPERATIONAL EFFICIENCY, FACILITIES, AND FINANCIAL HEALTH.**

5.1. **ORGANIZATIONAL STRUCTURE.** Continue to evaluate and look for opportunities to develop efficiencies.

**ACTION:**
- Evaluate the organizational structure to identify ways to enhance the mission and goals of the college.
- Continue to use external advisory committees to assist in developing short- and long-range goals for the college.
- Develop opportunities between the college and other campus units, including the Colleges of Medicine; Engineering; and Agricultural, Consumer and Environmental Sciences.

5.2. **FACILITIES.** The college must have a comprehensive understanding of current and future needs for maintaining and improving its facilities.
ACTION:
· Provide leadership to obtain a biosecurity research and development and biowaste facility.
· Evaluate current college-wide facilities and the needs of the future. Review the facilities audit report and develop a prioritized master facilities plan.
  ➢ Plan for the ongoing general maintenance of facilities: hallways, client waiting rooms, floors, animal-holding facilities, etc.
  ➢ Plan for a new building that would connect the Basic Sciences Building and Teaching Hospital and house the library, administrative offices, and a lecture hall.
  ➢ Remodel 100 Large Animal Clinic (large lecture hall).
· Upgrade facility networking infrastructure to an environment that supports the high bandwidth applications of medical applications and systems.
· Plan to better utilize the facilities in the Surgery and Obstetrics Lab, the Veterinary Medical Research Farm, and the Dixon Springs Agricultural Center.
· Evaluate impact of federal animal care regulations on our facilities.

5.3. FINANCES. The college must seek support from a wide range of sources and must be open and responsible regarding its use of funds.
ACTION:
· Develop a plan to increase college revenues that incorporates all types of revenue streams.
· Implement a comprehensive plan for identifying donors for specific college programs, endowed chairs, etc.
· Generate a marketing/public relations plan that is integrated with and supports the goals of the college.
· Compile a prioritized list of programmatic and physical plant needs and goals with cost estimates.
· Develop funding and implementation plans for all new initiatives that are a result of the planning process.
· Produce an annual financial report to provide a basis for sound financial planning.

6. PROMOTE AND FOSTER AN ENVIRONMENT OF COLLEGIALITY AND PROFESSIONALISM.
ACTION:
· Create opportunities for faculty and students to interact in a collegial environment.
· Strive to develop grand rounds or similar forum for all faculty and staff.
· Expand mentoring and advising programs.
· Facilitate opportunities for student leadership to meet with faculty and administrators.
· Foster opportunities for students to interact with alumni and intellectual leaders,
such as a scholar-in-residence program and sponsorship of college-wide seminars featuring prominent alumni.