April 13, 2012

D. Paul Lunn, BVSc, MS, PhD MRCVS, Dip. ACVIM
Dean, College of Veterinary Medicine
North Carolina State University
1060 William Moore Drive
Raleigh, NC 27607

Dear Dr. Lunn:

The Strategic Plan of the NCSU College of Veterinary Medicine, along with an Executive Summary of the plan, are attached to this cover letter. The CVM Strategic Plan purposely follows that of the University Strategic Plan and the CVM plan attempts to merge the goals and interests of the CVM with those of the university, recognizing that the CVM has some unique properties and aspects. Members of the CVM Strategic Plan Committee spent a large portion of their energies on Goals 1 and 2 related to student and faculty success. The success of our DVM students, interns, residents and graduate students is dependent largely on the ability of the faculty to create and fund innovative learning and research opportunities in order to attract the best students. Our faculty needs to grow in order to sustain and expand existing strong programs and to develop emerging strengths. We feel it is important to point out that the number of faculty at NCSU CVM (~150 faculty members) is about at the median range for all North American Veterinary colleges, and that the two veterinary colleges that ranked higher or equal to us in the latest (2011) U.S. News and World Report (Cornell, the University of California Davis, and Colorado State University) have more than 200 faculty members apiece.

The CVM Strategic Plan Committee was not charged to implement recommendations, but the ability to recruit strong faculty will require an upgrade of existing research infrastructure combined with exciting, effective teams to provide the best and most economical education to our students, the highest quality service to the public, and the research that will help solve “the grand challenges of society.” Interdisciplinary scholarship (Goal 3), organizational excellence (Goal 4) and strategic local and global partnerships (Goal 5) are avenues for leveraging additional faculty.

During the development of the CVM Strategic Plan, input from faculty and staff made it abundantly clear that everyone wants the CVM to be the “leading, internationally recognized institution that provides comprehensive and comparative approaches to address complex issues facing animal and human health.” People here will work very hard to make this a reality, particularly if they are made to feel that their role contributes to that reality. While this particular insight is not included explicitly in the attached CVM Strategic Plan, we feel it will be critical to its ultimate success.

Respectfully submitted,

Kenneth Adler          Suzanne Kennedy-Stoskopf
INTRODUCTION

North Carolina State University College of Veterinary Medicine (CVM) graduated its first class in 1985. Despite its relative youth, the NCSU CVM is recognized as one of the leading schools of veterinary medicine in the country: In 2011, NCSU CVM was ranked third out of 28 Veterinary schools in North America by US News & World Report.

OUR FOUNDATION

Mission Statement
The College of Veterinary Medicine enhances animal and human health and well-being through the education and advanced training of veterinarians and comparative biomedical scientists, and provides leadership in veterinary care, biomedical research and outreach through innovation and inter-disciplinary partnerships. The mission contributes to developing and sustaining North Carolina and global economies and advancing the profession.

Vision
The College of Veterinary Medicine at NC State will be a leading, internationally recognized institution that provides comprehensive and comparative approaches to address complex issues facing animal and human health.

Core Values
Integrity – in the pursuit, creation, application, and dissemination of knowledge
Freedom – of thought and expression
Respect – for cultural and intellectual diversity
Responsibility – for individual actions and service to people and animals
Stewardship – in sustaining economic and natural resources
Leadership, Collegiality and Professionalism - in all endeavors
Pursuit of excellence in all endeavors
Mentorship – to promote excellence in faculty, staff and students.

CVM STRATEGIC PLANNING PROCESS

The CVM Strategic Plan was developed to align with the University plan (http://info.ncsu.edu/strategic-planning/pathway-to-the-future/) that was developed in 2010-2011 at the request of the Chancellor. Faculty from the CVM who served on committees for the University Strategic Plan formed the nucleus of the CVM Strategic Plan Committee with the inclusion of additional faculty to represent areas of specific and unique concerns to the CVM, including clinical services in the Veterinary Health Complex. While this was a faculty driven committee, CVM faculty and staff were invited to comment and provide
feedback on working drafts posted on the CVM internal website. The five University goals form the structure for the CVM Strategic Plan.

**GOAL 1. ENHANCE THE SUCCESS OF OUR STUDENTS THROUGH EDUCATIONAL INNOVATION.**

The CVM trains three categories of students: those studying for 4 years to become a Doctor of Veterinary Medicine (DVM), a professional degree leading to certification and licensure to practice veterinary medicine; DVM’s pursuing additional training after graduation in either an internship or residency program; and DVM’s and non-DVM’s pursuing a graduate degree in either clinical or basic science. The CVM wants to sustain and enhance its reputation for training and mentoring individuals to become outstanding clinicians, innovative specialists and ground-breaking researchers who improve the health and well-being of people, animals, and the environment.

The CVM needs to 1) continue recruiting diverse and highly motivated DVM students; 2) increase the number of rotating internships and residencies across recognized veterinary specialties; and 3) increase efforts to recruit stronger graduate students. The CVM faculty will continue to develop and support unique educational experiences for DVM students. To sustain and grow our internationally recognized training programs for interns and residents, clinical specialties need at least 3 boarded faculty to provide optimal guidance and training. To attract DVM’s into graduate programs requires competitive stipends commensurate with post-doctoral salaries.

**GOAL 2. ENHANCE SCHOLARSHIP AND RESEARCH BY INVESTING IN FACULTY AND INFRASTRUCTURE**

The CVM faculty has three responsibilities: teaching, research, and service. For the CVM to remain successful and enjoy a highly ranked national and international profile, it is important that the faculty collectively excel in all three charges. The CVM needs to increase its faculty numbers to maintain its quality student/teacher ratio and insure superlative training of veterinary students, graduate students, and post-graduate DVM’s and other potential trainees; to be more competitive for extra-mural research funding; and to provide a high standard of veterinary care to the public.

Research and scholarship is central to the mission of the CVM. In order to recruit leading scholars and researchers, there is a need to upgrade and enhance existing research infrastructure together with efficient and effective utilization of laboratory space. With expansion of research efforts, there needs to be a parallel expansion of state-of-the-art animal facilities. Short and long term plans based on projected use as well as areas of present and future strengths should be developed. In addition, there is a critical need for replacement of essential aging central equipment and acquisition of new state-of-the-art equipment to support current and future research programs.

A cohesive plan should be developed for increasing the number of faculty. Attention should be given to areas where faculty retirements are imminent to avoid disruption in strong research programs, clinical services and residency programs, and core DVM courses. A critical mass of faculty within a given discipline or specialty is important to allow for either external or internal scholarly leaves to acquire new skills and insights for research advancement and the development of new course materials. Throughout a faculty member’s career, consistent mentoring is essential to insure productivity and job satisfaction.
GOAL 3. ENHANCE INTERDISCIPLINARY SCHOLARSHIP TO ADDRESS THE GRAND CHALLENGES OF SOCIETY

The CVM is a unique resource within the state of North Carolina to play a leading role in One Health; One Health is a multidisciplinary approach to address problems facing animals, both domestic and wildlife, humans, and the environments they share. One Health research includes basic research at a cellular/molecular level applicable to both human and animal health, (including animals as models for human diseases), studies directly related to health of domestic animals, and complex issues related to ecosystem health.

The CVM faculty currently support many existing and successful interdisciplinary programs: the Center for Comparative Medicine and Translational Research, the Center for Marine Sciences and Technology, Biomedical Engineering, Fisheries, Wildlife and Conservation Biology and the newly funded Southeast Climate Science Center. Recently organized interdisciplinary efforts also include the NC One Health Collaborative and the Center for Human Health and the Environment. To encourage new and strengthen existing interdisciplinary collaborations, consistent and clear guidelines need to be developed for faculty detailing how these efforts impact promotion/tenure decisions, teaching commitments, and distribution of college research funds.

Developing and supporting strong, interdisciplinary graduate programs at our university enhances our ability to attract the best students and makes us even more competitive with our peer institutions. To succeed, greater flexibility in how graduate students meet their degree requirements relative to course work and experience is required. Graduate committee members should work closely with graduate students to determine the best plan of course work that will satisfy core competency in a discipline but also allow for students to take additional classes that will complement their thesis work and prepare them competitively for positions post-graduation.

GOAL 4. ENHANCE ORGANIZATIONAL EXCELLENCE BY CREATING A CULTURE OF CONSTANT IMPROVEMENT

A major challenge facing the CVM is how to maintain and perpetuate a sense of strong community that has been integral to the college since its inception. A culture that creates a greater awareness and appreciation of how we meet our mission of service, teaching and research in diverse settings and disciplines is needed. Options for physical activity, extra-curricular events or quiet contemplation on the CVM campus and near-by are needed to improve individual well-being, which strengthens the overall health of the CVM community. Efforts need to be made to eliminate the perceived distance barrier between the Centennial Biomedical Campus, Main Campus and Centennial Campus. Possible solutions include re-evaluation of Wolfline routes and schedules and working with the city of Raleigh to improve bike lanes, sidewalks and greenways to make physical connectivity a safer option.

The CVM community acknowledges that resource allocations must be aligned with the strategic priorities of the College and the University. This is an ongoing initiative to streamline how the business of the University and its colleges is conducted to become more efficient financially and productively. The CVM community needs to be informed about its role in resource allocation in a timely and open manner. It is important to provide oversight that encourages and protects long-term vision aligned with the strategic priorities of the CVM. Further, it will also be important to diversify financial resources if the college is to continue to grow. The knowledge of unique programs within the CVM/Biomedical Centennial Campus needs to be leveraged to increase endowments and gifts. We need help to leverage this designation as the Biomedical
Centennial Campus to attract outside businesses and agencies in a manner similar to the development of Centennial Campus.

GOAL 5. ENHANCE LOCAL AND GLOBAL ENGAGEMENT THROUGH FOCUSED STRATEGIC PARTNERSHIPS

Globalization is a reality that offers great opportunities and challenges. The CVM continues to respond to the needs of North Carolina but is actively engaged in sharing what we have learned with the rest of the world. This includes: 1) strategic partnerships with other universities in the United States and internationally to offer unique training opportunities to veterinary and graduate students; 2) programs and partnerships aimed specifically at building working relationships among academia, industry, and government and fostering an environment of creative innovation; and 3) enhancement of our intellectual community by recruitment of faculty, house officers, and students with previous international experiences such as military, Peace Corp, or other humanitarian aid services. In addition, CVM faculty and students have unique expertise and have developed unique medical and veterinary technologies. Faculty, staff and students should be encouraged to interact more with outside industry and partners through the office of Technology Transfer. These initiatives should be encouraged to continue and increase.
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Appendix A .................................................................................................................................................. 29
In 2010, the university engaged faculty from all colleges to develop a university-wide strategic plan (see http://info.ncsu.edu/strategic-planning/pathway-to-the-future/). The College of Veterinary Medicine (CVM) was well represented on the Task Force committees (see http://info.ncsu.edu/strategic-planning/process-2010-2011/) that made recommendations for the development of the University Strategic Plan. Following the completion of the university plan, the CVM formed a committee, with many of the CVM faculty involved with the University Strategic Planning process, to produce a vision and action plan to guide the CVM for the next 3-5 years. The goals were to identify and establish major directions and key areas of emphasis for the CVM, and to insure programmatic alignment of key resources, stakeholders, and programs.

Members of the CVM Strategic Planning Committee and their respective, strategic, emphasis areas were: Ken Adler, Co-Chair (Partnership, Innovation and Entrepreneurship); Suzanne Kennedy-Stoskopf, Co-Chair (Comprehensiveness and Interdisciplinarity); Barb Sherry (Graduate and Post-Doctoral Program Development), Sam Jones (Graduate and Post-Doctoral Program Development); Chris McGahan (Faculty Excellence); Jorge Piedrahita (Research and Scholarship); Allen Cannedy (Campus Culture and Community); Mike Levy (Global Engagement); Geoff Smith (DVM Admissions and Clinical Education); Jennifer Neel (DVM Curriculum); and Simon Roe (Veterinary Hospitals). Facilitation and planning support were provided by Dianne Dunning and Kelly Wick.

The CVM Strategic Planning Committee concluded that developing our college strategic plan to best fit the organizational structure of the university's strategic plan would offer the greatest opportunities as the university moves forward with its prioritizations for emphasis and resources. Accordingly, the university's five major goals and their accompanying strategies formed the outline template for the CVM Strategic Plan. For each numerical university strategy, there are corresponding CVM strategies listed as letters.

The draft plan was posted on the CVM website for input from faculty and staff. The CVM Strategic Planning Committee reviewed all comments and amended the Strategic Plan accordingly. The charge of the committee did not include implementation strategies, although many were suggested. These have been removed from the final CVM Strategic Plan and captured in an addendum for future consideration. In addition, an Executive Summary was created based on the following outline to capture the main issues and considerations.
GOAL 1: ENHANCE THE SUCCESS OF OUR STUDENTS THROUGH EDUCATIONAL INNOVATION

“While balancing access with quality, NC State must ensure that our students make timely progress toward an NC State degree, and along the way, must provide educational opportunities that inspire them to lead, to serve, to challenge, to take responsibility, to build problem-solving skills, and to engage with complex problems.”

UNIVERSITY STRATEGIES

1.1 Enroll a greater percentage of external undergraduate transfer students.  ► CVM: See “A”
1.2 Increase geographic diversity by enrolling more out-of-state and international students.  ► CVM: See “A”
1.3 Improve retention and graduation rates.  ► CVM: See “B”
1.4 Facilitate intracampus transfer.  ► CVM: See “A”
1.5 Explore a new proactive advising model for freshmen and students in transition.  ► CVM: See “A”
1.6 Improve mentoring of graduate students .  ► CVM: See “D”
1.7 Provide high-impact educational experiences for undergraduates.  ► CVM: See “E” and “F”

CVM Strategic Planning – Student Success

A. Increase specific enrollments

Relates to the university-wide goals of increasing geographic diversity, and extra- and intra-campus transfer.

A.1 Increase enrollment of DVM students

Issue. National studies indicate a shortage of veterinarians in particular specialties, and the state of NC lacks veterinarians in selected geographical regions. Projections suggest the shortages will increase. While, we have the lowest tuition of all the US accredited veterinary colleges, the high quality applications may decrease as the cost of a DVM education rises and potential applicants consider alternative career paths. Finally, although we enroll the second greatest number of African American DVM students in the country, second only to Tuskegee, we would still benefit from increased applications from highly qualified under-represented minority students.

Action. Increase enrollment of DVM students to 100 students/year (an additional 20 students admitted for each of 4 years), starting with the incoming class fall 2012. Considerations for class composition include: i) target applicants from under-represented groups (gender, ethnicity) and ii) consider emphasizing enrollment of students with specific interests (especially biomedical research, food animal medicine, and public health). Further consider issues relating to the balance of in-state versus out-of-state and contract students. Finally, identify mechanisms to decrease student debt (i.e. extramural funding sources, decreased time to graduation, work-study programs).

Added value. Increased enrollment will bring increased resources to hire new faculty.
A.2 Increase enrollment of high quality graduate students

**Issue.** It is not clear that our resources (faculty, laboratory space, graduate stipends, and tuition remissions) can support an overall increase in the number of graduate students. However, the quality of applicant pools and the successful enrollment of the highest quality applicants can always be improved.

**Concern of Note.** Funding DVM’s seeking a PhD at the appropriate (post-doctoral) level is particularly difficult.

**Action.** Increase the quality of our applicant pool by: i) integrating with other life science strengths at NC State University, ii) increasing our funding levels for graduate students (extramural or intramural sources), iii) identifying specific funding to support the current DVM/PhD program, and iv) recruiting and retaining high quality faculty. Additional extramural training grants could address (i) and (ii), and (iii) and would aid (iv).

A.3 Increase the number of interns and residents and improve upon the effectiveness of our coveted house officer training program

**Issue.** We have an excellent reputation nationally and internationally for training interns and residents that attracts the very best veterinarians to our college. We offer stellar programs in most of the 21 AVMA recognized veterinary specialties and our faculty are actively engaged in the leadership of these organizations. The Clinician Scientist Program, which combines residency training with a PhD, is particularly attractive to a subset of our residents pursuing academic careers and aligns us with many of our peer institutions with Colleges of Veterinary Medicine.

**Concern of Note.** The university does not have a good understanding of what intern and residency training entails relative to faculty effort and cost. The university also doesn't appreciate the benefits to the reputation of NCSU that comes from training the leaders of the profession.

**Action.** Sustain the current number of interns and residents in their respective specialties and develop strategies for creating new residencies in specialties that are currently under-served. This is contingent on maintaining and developing strong clinical services. In general, a clinical specialty service needs a minimum of two board certified specialists to function, but 3-4 is optimal to insure that faculty do not experience burn-out and residents receive a quality training experience. Faculty and house officers could benefit from seminars/discussion of best practices in clinical teaching. Interns/residents especially need to receive teaching training to be effective training senior students and lessening the faculty load ([see E.1. Issue 2](#)). [See this is also addressed in Goal 2. E.2.](#)

B. Improve retention and graduation rates

B.1 Improve retention and graduation rates for DVM students

**Issue.** Although limited support is in place to help students in academic difficulty, there continues to be repeated grade problems in specific courses indicating these courses may have a weak support structure. The current DVM degree structure and timeline are very inflexible. The overwhelming majority of our DVM students graduate after four years (the CVM’s five year average rate of graduation/recidivism was 96.7%), but given the college and student investments, every effort must be made to ensure all students admitted have the best chance of graduating.
All incoming first year veterinary students are assigned a faculty mentor. Students and faculty are matched according to the student’s area of interest and the faculty’s area of expertise. Faculty are consulted annually on whether they can mentor new students and how many. Like mentoring of graduate students, there is considerable variation in the amount of oversight provided by mentors and the degree to which students actively seek help from their mentors. Key to a student’s success is alerting mentors when their advisees are having academic difficulties before the situation becomes extreme. Ideally, students should seek guidance from their mentors but the Academic Performance Committee has been proactive in alerting mentors of problems. There is a need to develop flexible and innovative curricular models for key student groups.

**Action.** Emphasize personalized, early intervention. Create a formalized structure for support of struggling students. Examine how other CVMs provide mentoring and support for struggling and minority/disadvantaged students.

### B.2 Improve retention and graduation rates for PhD students

**Issue.** National and NC State University studies indicate that the top two reasons for failure to complete a PhD are poor mentoring and lack of sufficient funding. We should make every effort to improve the pool of applicants.

**Concern of Note.** It is particularly difficult to fund DVM graduates (including those in practice) seeking a PhD.

**Action.** Improve mentoring (see “D” below) and increase funding. Increased funding mechanisms include: i) additional extramural training grants, ii) additional extramural research grants for faculty, and iii) industry support. We should expect a continued decline in support from the state of NC, and should plan accordingly. We need to be more stringent in our selection of graduate students.

**Added value.** Increased funding will attract higher quality graduate students and will help recruit and retain high quality faculty.

### C. Improve mentoring of students

#### C.1 Improve mentoring of DVM students

See B1 above

#### C.2 Improve mentoring of PhD students

**Issue.** National and NC State University studies indicate that one of the top two reasons for failure to complete a PhD is poor mentoring. Some faculty would be outstanding mentors but are limited by demands on their time while others may mean well but perform poorly (which can be due to an inability to prioritize or lack of mentorship training).

**Action.** Offer “mentoring of the mentors” (faculty with strong track records advising those with new or weak records), properly acknowledge (reward) faculty time spent mentoring, review graduate faculty appointments periodically, and develop specific mentoring plans for high-risk students. Importantly, there should be tracking of student progress by the DGPs, e.g. making sure that a plan of work is set up at an early stage, committees meet regularly and progress is tracked. (i.e. accountability broken down into steps).
Added value. Better mentoring will attract higher quality graduate students and improve retention and graduation rates, which together will make extramural training and grant applications more competitive.

D. Provide high-impact educational experiences for students

D.1 Provide high-impact educational experiences for DVM students

CVM offers a number of high-impact educational experiences for DVM students. For example, the Teaching Animal Unit (TAU) is a unique and dynamic teaching lab for veterinary students during years 1-3 of their program to learn husbandry, production management, and routine procedures used in livestock production in a real farm setting. Another example would be the One Health, Zoological Medicine, and Environmental Public Policy electives offered in the evening to facilitate student participation outside regular DVM core curriculum hours.

Issue. 1 – Didactic education: There is a lack of integration between courses such that subjects are predominantly taught and tested in silos. As information increases, instructors need to strategically guard against information overload, and courses might benefit from external review of “necessary” content. Furthermore, selectives have the potential to provide highly valuable, specialized education, but are variable in quality and rigor. There is limited staff and limited reward for developing innovative teaching approaches. Teaching remains the least rewarded activity.

Action. Develop strategies to increase vertical and horizontal integration (teaching and testing) within the curriculum, and introduce case-based and/or problem-based teaching wherever possible. Introduce periodic review (by the curriculum committee or by a special ad hoc committee) of course content. Introduce academic planning (i.e. offer courses based on curriculum need rather than instructor interest) and rigorous review of selectives. Better emphasize teaching in college budgets and in faculty and staff recognition. Invest in resources to support teaching development and innovation. Recognize and find a way to measure the value of the didactic education that occurs as part of the clubs lunch meetings and other events.

Issue. 2 – Clinical training: Students get limited exposure to clinical problem solving and clinical training before their senior year, and one year may be insufficient. Plans for enrollment increases are most difficult to accommodate in clinical rotations, which require the lowest student: faculty ratios. Students get minimal exposure to general practice. There is limited staff and limited reward for developing innovative clinical training approaches.

Action. Better emphasis in clinical problem solving in early didactic courses. Increase clinical opportunities for students before senior year in the new Veterinary Health and Wellness Center (HWC). Provide training for staff and house officers so that they will be more effective teachers in the clinical rotations, which would not only benefit students but also provide professional development opportunities for staff and house officers.

Added Value. Greater involvement of staff and house officers in training students provides unique and valuable professional development opportunities.

D.2 Provide high-impact educational experiences for PhD students
**Issue.** Students would benefit from greater involvement with main and Centennial campus and with industry and government partners.

**Action.** Consider ways to better integrate CVM graduate students with life science students on main campus and biomedical engineering and textiles students on Centennial campus.

**Added value.** More broadly trained students will be more competitive for future employment.

**D.3 Identify infrastructure and technology investments needed to create modern, state-of-the-art teaching facilities.**

**Issue:** Maintaining a state-of-the-art facility will require continued investment in technology. The main DVM laboratory facilities are aging and will require facility, technology and equipment upgrades.

**Action:** Develop a plan for classroom, meeting space, computing needs and laboratory facility and equipment upgrades on a continuing basis.

**E. Strengthen use of Veterinary Health Complex (VHC) resources in DVM and post-DVM training**

All areas of the VHC can be considered a learning laboratory for DVM and post-DVM students. The CVM must continue to build on these resources.

**E.1 Develop stronger clinical problem-solving skills in our DVM students**

**Issue.** DVM students have limited exposure to clinical case material and the process of problem-solving using real situations during yrs 1 – 3.

**Action.** Support the Curriculum Committee and Course Coordinators Group in the development and implementation of revisions that enhance these skills in our graduates. Take advantage of the growing technological systems for capturing and distributing this material so that learning can be remote from the VHC.

**E.2 Increase DVM student experience in primary care**

**Issue.** Much of the 4th year clinical experience in the Terry Center is spent working with cases that are referred for specialist care. While this is an important part of training for students, more exposure to General Practice (Primary Care) issues and preventative care protocols will enhance student readiness for this portion of their professional tasks. This issue was identified by the AVMA review in 2007.

**Action.** Support the growth of Primary Care in the HWC. Being a new component of the VHC, the HWC may require additional resources to meet the needs of the DVM students. Task non-small animal focus areas with developing strategies for enhanced primary care exposure appropriate to those areas. This item may connect to A1. Outlined above. In addition, work to expand Field Services to include more general practice experiences in large animal medicine, Equine and Special Species Primary Care.

**E.3 Increase the opportunities for training Clinician Scientists**

**Issue.** Internship and resident training programs often focus on clinical skills in order for the clinician to become a specialist in their area. Adequate, well qualified faculty members are essential for this training to be robust.
Many of these trainees will choose a career in clinical practice. In order for the profession to advance, and for veterinary colleges to maintain high quality faculty, it is important for these trainees to be trained in the scientific method.

**Action.** Maintain the number of qualified faculty in the specialty training areas. Grow the opportunities available for combined Residency/PhD programs. Involve all house officers in some aspect of research during their program. Support the Clinical Studies and Translational Research groups so that DVM and post-DVM students see the research method being applied during their training. This item also supports [NCSU Goal # 3- Enhance interdisciplinary scholarship](#) - as many of these projects involve a diverse team of researchers.

**E.4 Develop a rational, outcomes based approach for continued curricular assessment and ongoing reform.**

**Issue.** In order to maintain a high ranking as a top institution to train veterinary students, there must be constant assessment of the curriculum. Currently, there is no rational, outcomes based method for assessment of the curriculum on a regular basis. There is also a perceived lack of encouragement and facilitation in enacting major curricular changes other than through the FCCCE and CCG committees.

**Action.** Task the Associate Dean for Academic affairs, the FCCCE and Course Coordinators group with developing a model for continued curricular assessment. Investigate the possibility of creating a CVM office of curricular and student assessment similar to Iowa State University CVM.
GOAL 2: ENHANCE SCHOLARSHIP AND RESEARCH BY INVESTING IN FACULTY AND INFRASTRUCTURE

“NC State's research culture permeates every aspect of our essence as a university. It structures our thought, informs our teaching, and directs our engagement beyond the campus. It is the foundation on which we build an innovative learning environment that engages our faculty, undergraduates, and graduate students alike. NC State's research quality determines our impact on the work force, on the economy, on the advance of knowledge, and on the human condition.”

UNIVERSITY STRATEGIES

2.1 Increase the number of tenured and tenure-track faculty.
2.2 Recruit leading scholars whose work is influential in their fields and on the world.
2.3 Provide opportunities to facilitate faculty career development.
2.4 Build a robust research infrastructure.
2.5 Align research resources to advance the capacity of our researchers and partners.
2.6 Promote flexible, lean, and efficient administrative processes for research.

A. Increase the number and effectiveness of faculty

Relates to University-wide goals of increasing the number of tenured and tenure-track faculty as well as recruiting leading scholars whose work is influential in their fields and on the world.

The faculty at the CVM is an important and critical asset. It is the engine that drives all aspects of the CVM, from state-of-the-art clinical services to cutting edge basic research. We are fortunate to have some of the most qualified and dedicated faculty in the nation, if not the world. It is important that we protect, nurture, and grow our faculty in order to ensure our continued and future success.

A.1 Protect open faculty positions from budget reductions.

Issue. At present, a significant number of faculty positions are open due to either retirement, loss of faculty to other universities, or are simply being lost to budgetary reductions. Unfortunately, this means that research-intensive faculty positions are not being replaced, placing the future productivity of the faculty as a whole at risk. This will, in the long-term, have a significant negative impact on our research programs.

Action. It is a critical priority that faculty positions be protected despite budgetary reductions. Moreover, reassignment of the faculty positions should be based on teaching responsibilities and strengthening strategic research areas for growth. A succession plan should be developed and implemented as a significant proportion of teaching in the DVM curriculum is undertaken by senior faculty in the latter stages of their professional careers.

A.2 Increase faculty numbers in strategic areas of strength, focusing for impact:

Issue. At present, assignment of new positions lacks a cohesive plan for enhancing strategic areas. The CVM is a model for comprehensiveness and interdisciplinarity because of the inherent trans-disciplinary nature of training
veterinary students and the detailed knowledge base necessary for accreditation by the AVMA Council on Education. The CVM has historically enjoyed a diverse faculty engaged in training DVM students, interns, residents and graduate students. A cohesive strategy for hiring faculty is needed to ensure that student training and research continues to grow and improve.

**Action.** Identify key areas for growth and ensure that any new or reassigned positions are used for strengthening those areas (see C.1). The Faculty Excellence Task Force recommended making strategic/target hires in areas that cut across college boundaries. CVM needs to be part of these central university discussions.

**Exceptional CVM opportunities.** Enrollment increases are predicted to offer 17 new faculty positions over the next 5 years. These positions should be targeted to areas of present and developing strengths.

### A.3 Increase the number of endowed positions/leading scholars.

**Issue.** The number of endowed scholars at the CVM is below the national average and there is no evidence of efforts to increase those numbers either through funding and recruitment of new leading scholars or through recognition of existing leading scholars/clinicians within our college.

**Action.** Implement a program through the CVM Development Office of recognizing existing leading scholars within our college through endowed positions. Work within the university to obtain sufficient resources to recruit a leading scholar in areas of recognized strength. Once those resources are in place, aggressively utilize the CVM Development Office to obtain a named endowment for the incoming scholar.

### B. Faculty Career Development

Relates to university-wide goals of providing opportunities to facilitate faculty career development.

The CVM faculty are an example of collegial, entrepreneurial, and passionate professionals dedicated to high quality clinical and biomedical research and to developing practical solutions for tackling complex clinical issues. It is important that we continue to provide opportunities to all faculty so this level of commitment, entrepreneurship, and excellence in research can be maintained and further encouraged.

#### B.1 Development of formal mentoring activities for Junior Faculty:

**Issue:** The college should have a robust mentoring system for junior faculty. Mentoring is a key development activity that has been proven to enhance the ability of junior faculty to be successful in their careers.

**Action:** New faculty should be assigned both teaching and research mentors. These may include faculty from other departments/colleges. Goals should include: i) regular meetings with formal documentation, and ii) assessments of proposed versus actual activities (i.e. accuracy and feasibility of Statement of Mutual Expectations). Research mentors should review planned grant applications and be provided sufficient lead time to request significant modifications.

#### B.2 Facilitate and promote external scholarly leaves (sabbatical)

**Issue.** Not enough faculty are taking advantage of this opportunity. If done well, a scholarly leave can have a dramatic positive impact on research productivity of an investigator, even an established one.
Action. At the Dean and Departmental level, we must recognize the importance and value of scholarly leaves and provide the needed resources and leave-release. Consider developing short-term leaves (less than six months). There should be strict rules regarding who is granted this leave. It should be used to enhance the productivity of established investigators or invigorating less competitive programs.

Challenges. Courses offered by faculty with unique expertise may not be available. Arrangements would have to be made to provide advance notice to trainees who would be adversely affected. Sabbatical leave should be carefully assessed and evaluated both before and after leave is taken.

B.3 Facilitate and promote internal scholarly leave

Issue. The pace of technology development is so rapid that it is very difficult to remain competitive. Moreover, with the increase in focus on interdisciplinary approaches it is becoming more difficult to remain competitive if one is not familiar with new advances. A short-term, 3-6 month, internal leave will allow faculty to gain new skills and/or establish and cement collaborations that can lead to new opportunities for research enhancement.

Action. Facilitate internal faculty leaves by providing leave time and pilot project funding. Seek match from main campus.

B.4 Increase support for faculty entrepreneurship

Issue. The CVM has tremendous potential to develop new intellectual property (IP) in multiple areas both basic and clinical.

Action. Develop a college-wide plan for supporting faculty entrepreneurship by facilitating and supporting IP protection and by assisting with moving the developed IP into commercial applications either through in-house income-generating units (i.e. diagnostic laboratories) or as standalone companies.

B.5 Develop a college wide mentoring and best practices program; provide more opportunities for advanced training in teaching and learning.

Issue: Faculty mentoring programs vary with departments and there are no CVM guidelines for best practices in teaching and learning.

Action: Develop a college wide mentoring program based on excellence in teaching. Develop best practices guidelines for teaching and learning. Investigate the possibility of hiring an educational expert for the CVM that could assist with course development.

B.6 Strengthen the peer review process

Issue: See Goal 2 B. 1. → Develop a parallel for teaching.

Action: The CVM should develop a college wide best practices approach for peer review that is standardized across all departments. Reviewers should have the opportunity to have advanced training. Periodic evaluations from either experts outside the CVM, the office of faculty development or an expert in an independent position in the CVM (educationalist) could be performed.

B.7 Expand and improve available resources for excellence in teaching.
**Issue:** Resources for excellence in teaching should be expanded.

**Action:** Expand resources for excellence in teaching. This could involve additional resources for course/instructional development, improved utilization of current teaching innovation grants, and/or creation of a faculty driven teaching award.

### B.8 Increase support for faculty in developing new and innovative course content.

**Issue:** For many years, the Education Media and Design (EMD)Unit has provided top-notch professional services in the support of the academic mission of the college in the form of photographic, video, medical illustration, animations and other educational projects. However, due to the technological changes that have dramatically altered our educational landscape, faculty members still require assistance developing innovative and technology-rich course content. In attempt to address these issues, a centralized academic support unit was created within EMD.

**Action:** Expand the academic support unit and computing resources to include individuals with expertise in software, learning, course development, study design and statistics/assessment. Identify a funding method that would enable this service to be freely available or deeply discounted to teaching faculty. Work closely with academic support resources on campus.

### C. Research Infrastructure

Relates to University-wide goals of enhancing our robust research infrastructure

The CVM has unique AAALAC accredited research and clinical teaching, animal holding facilities and supportive research staff. The research building is a successful example of the synergies that can result when faculty from different departments are housed close to each other. This arrangement reflects the philosophy of cooperation and collegiality that the CVM is known for and has led to many new and exciting interactions between clinical and non-clinical faculty. Similarly, the animal holding facilities provide unique opportunities not found in other institutions and allow faculty to carry complex projects in a variety of species. However, there is a need to update and enhance existing research infrastructure.

#### C.1 Redistribute laboratory space

**Issue.** There is a need for high-quality research space for newly hired faculty and at present some of that space is being under-utilized by others. There also needs to be a long-term plan for increasing research space in key areas of strategic strengths.

**Action.** Identify underutilized research space and reassign that space to newly hired faculty and/or growing programs. Consider developing a general use, common lab area that can be shared between investigators with reduced research space needs. The newly created CVM Committee on Research Space Allocation (7/2011) is charged with developing guidelines to ensure efficient and effective utilization of this important resource.

#### C.2 Improve animal facilities

**Issue.** The present CVM animal housing facilities are in need of constant repair and/or upgrading to maintain AAALAC accreditation. With expansion of research efforts, there needs to be a parallel expansion of state-of-
the-art animal facilities. In addition, with the expansion of the Clinical Studies Core (CSC), there is a need for the development of a biomedical large animal (non-mouse/rat) facility.

**Action.** Develop a short, mid and long-term plan to upgrade and expand AAALAC accredited animal facilities, including the development of a large animal biomedical facility. Plan increases based on projected use as well as areas of present and future strengths.

**C.3 Enhance career development of research support staff.**

**Issue:** Outstanding research support staff play a critical role in all aspects of research - from providing essential animal and clinical support services, to ensuring that faculty have the support needed to advance their research programs. It is important that research staff be provided the required opportunities for training and advancement.

**Action:** At the college level ensure that support staff are provided with opportunities for additional training to ensure that their skills keep up with technology development. Additionally, it is critical that a clear career path be provided that allows for further training and enhanced professional development.

**C.4 Improve research equipment**

**Issue.** There is a critical need for replacement of essential central equipment that is extremely old (e.g. 20+ year old ultracentrifuges) as well as addition of state-of-the-art equipment to support current and planned research programs. There has been virtually no investment in central equipment for many years.

**Action.** Identify and prioritize equipment that needs replacement and purchase/lease or utilize the equipment finder search about to be deployed in REACH NC to plan for shared core facility use at other NCSU or UNC sites.

**D. Identify and Support Strategic Research Areas**

Relates to university-wide goals of aligning research resources to advance the capacity of our researchers and partners.

Approaches being developed at the CVM have made significant impact in the health of animals and humans. The CVM is internationally recognized and respected as the leading institution in a wide variety of veterinary and biomedical research fields, from bone marrow transplantation in dogs, artificial limbs in dogs and cats, to detailed genomic studies in cancer in a wide variety of species, to name but a few of the many outstanding programs housed at the CVM.

**D.1 Focus resources in key strategic areas.**

**Issue.** In order to maximize the use of existing resources, it is critical that key areas of existing and developing strategic strengths be identified and those areas targeted for expansion and increased support. The selection of strategic strengths should take into consideration both importance within the CVM as well as to the mission of NCSU and the State as a whole. Thus there should be a combination of CVM-based programs as well as university-wide programs, many of which will be interdisciplinary.
**Action.** Task the Associate Dean of Research with developing a mechanism for identifying areas of strengths to be selected for increased funding. The mechanism should include a request of proposals from faculty, and should be college-wide, not departmental based. Key strategic areas to be selected for targeted investment should be identified in the following categories:
- External collaboratives (should include one or more significant outside NCSU partner).
- University-wide research collaboratives.
- College-wide collaboratives. Cross-department.
- Focused but strong and competitive programs (smaller scope).

**D.2 Identify, support and develop programs and areas of excellence within the CVM curriculum.**

**Issue:** The CVM has many areas of excellence in teaching and innovative programs/technologies that currently do not have adequate central funding. Adequate funding and continued development of these areas is critical to continuing to recruit diverse and well qualified applicants.

**Action:** Identify areas of excellence and ensure funding and support of these areas is secure. Develop plans for vulnerable areas so that program collapse won’t occur if key individuals retire or leave. Examine how allocation of funds from the enrollment increase can be utilized to help support these areas.

**E. Build our capabilities in translational and clinical research to improve animal and human health (One Health)**

The NCSU VHC is one of the strongest clinical facilities in the world. We are, therefore, well positioned to lead the veterinary profession in translational and clinical research. This college strategy relates to the university-wide goals of enhancing scholarship and research by investing in faculty and infrastructure and enhancing interdisciplinary scholarship. One Health is a multi-disciplinary approach to address problems facing animals, both domestic and wildlife, humans, and the environments they share. One Health research can take many forms including animals as models for human diseases, studies to improve the health of domestic animals, both large and small, and complex issues related to ecosystem health.

**E.1 Grow the Clinical Trials infrastructure**

**Issue.** Because the VHC must be financially viable and client-focused, aspects of its infrastructure do not lend themselves to facilitating research using clinical cases. This may restrict funding opportunities as each patient in a trial is more expensive, and the clinical team may not always be focused on gathering all necessary data.

**Action.** Support the efforts of the Clinical Studies Core (CSC) to develop a physical and financial separation of valuable clinical research patients from the regular patient path. Provide technological and computing support to facilitate client education, patient management and data acquisition in clinical research.

**E.2 Increase faculty with experience in clinical and translational research**

**Issue.** While NCSU has a strong clinical faculty, only a few have experience with clinical trials. The growth of the CSC will make it easier for current faculty to do this type of work, but it will enhance the overall strength of the program if faculty with experience in this area could be added or training opportunities provided.
**Action.** Ensure that new faculty in clinical areas will be able to contribute to clinical research and training of post-DVM students in this area. When hiring new clinical faculty, we should emphasize tenure-track positions that include some clinical research appointment.

This is also supported, in the long term, by F3 under Student Success.

**GOAL 3: ENHANCE INTERDISCIPLINARY SCHOLARSHIP TO ADDRESS THE GRAND CHALLENGES OF SOCIETY**

“The history and mission of NC State call for us to address the major challenges that confront the world. Addressing complex problems with many disciplinary aspects requires assembling teams of scholars with varied skills and diverse perspectives. We will maximize the impact of NC State's research by concentrating our research resources in areas where we have strategic strengths and by creating a culture of collaboration and interdisciplinary interdisciplinarity that will enrich not only our research activities, but also our teaching and engagement. “

**UNIVERSITY STRATEGIES**

1. Continually refine broad areas of emphasis in which NC State has strategic research strength.  
   - CVM: See “A”

2. Concentrate investment of university resources in identified areas of emphasis.  
   - CVM: See “A”

3. Lower the barriers between disciplines and departments.  
   - CVM: See “B”

4. Establish processes to facilitate and reward interdisciplinary research.  
   - CVM: See “B”

5. Reorganize graduate training into more flexible graduate fields of study.  
   - CVM: See “C”

**A. Optimize Areas of Research Emphasis (See Goal 2, D and E)**

NC State has established four problem-based areas of research emphasis based on our institutional strengths: health and well-being, educational innovation, energy and the environment, and safety and security. The CVM clearly is well situated to conduct research related to health and well-being, but can and does contribute significantly to the other research areas by robust, interdisciplinary collaborations.

**Issue.** The diverse, interdisciplinary foundation of veterinary medicine is a valuable resource to many of the University’s strengths and initiatives in colleges and programs outside the CVM. The CVM faculty support many existing and successful interdisciplinary programs including the Center for Comparative Medicine and Translational Research, the Center for Marine Sciences and Technology, Biomedical Engineering, Fisheries, Wildlife and Conservation Biology and the newly funded Southeast Climate Science Center. Recently organized interdisciplinary efforts also include the NC One Health Collaborative and the Center for Human Health and the Environment. Interdisciplinary collaborations provide not only effective research strategies to solve complex issues but enhance the classroom and laboratory experiences of our DVM and graduate students.

**Action.** CVM faculty should be encouraged to develop interdisciplinary collaborations to solve complex problems. These collaborations should enhance our ability to compete successfully for funding as well as enhance the classroom and laboratory experiences of our DVM and graduate students.
B. Facilitate and Reward Interdisciplinary Efforts

B.1 Perceived barriers to interdisciplinary

Issue. Faculty are reluctant to pursue interdisciplinary collaborations, particularly outside the CVM, because there are no clear guidelines about how these efforts will be viewed by their department heads and fellow faculty. Many faculty feel over-committed with responsibilities within their own department and see no advantage to looking for additional workloads outside their units. Particular concerns expressed by faculty include equitable distribution of teaching responsibilities, impact on promotion/tenure and the possibility of joint appointments with salaries coming from more than one department dependent on percent effort.

Action. The CVM needs to establish guidelines across their three departments to encourage and reward interdisciplinary collaborations. Just as many journals now require a specific break-down of the contributions of each author in a multi-author manuscript, we must develop metrics that accurately assess individual teaching, research and service contributions in a group effort. We already do so for many courses and clinical services; we must do better for research. We must also better document how performance as a group provides outcomes greater than those derived from our individual efforts. This will ensure future support of collaborative efforts by those dependent on us to fulfill our department and college missions. Finally, having assessed the value of these collaborative efforts, we must reward them appropriately.

B.2 Campus-wide incentives for interdisciplinary collaborations.

Issue. “Silos” of expertise and knowledge exist throughout the university creating a climate of self-interest, which can discourage collaborations between colleges, even when there are synergistic overlaps and beneficial mutualism. Great concern exists about who will gain intellectual credit and receive the monetary rewards for interdisciplinary collaborations.

Action. The CVM should work closely with other University colleges to develop guidelines that will facilitate and reward interdisciplinary collaborations campus-wide.

C. Strengthen and Reorganize Graduate Fields of Study (See Goal 1, C2)

The CVM graduate program, Comparative Biomedical Sciences, was designed as a multi-disciplinary training program from its inception and encourages their students to gain experience in a variety of areas. The CVM has engaged with other NCSU colleges to develop excellent models for multidisciplinary graduate training programs. The Fisheries, Wildlife, and Conservation Biology PhD is offered through CVM, CALS, and CNR and the Genomic Sciences graduate program draws its faculty from CVM, CALS, CNR, PAMS and COE. Graduate students in these programs have backgrounds in a broad range of disciplines, and interact through-out their training. Multidisciplinary approaches are necessary to solve the complex issues affecting the health and well-being of humans and animals. Developing and supporting strong, multidisciplinary graduate programs at our university enhances our ability to attract the best students and makes us more competitive with our peer institutions.

Issue. Many graduate programs have specific degree requirements that can preclude course work or experiences outside the program. Even if such experiences are desired and encouraged, non-majors may have difficulty enrolling in classes outside their degree program. Graduate education in fields related to biomedical research can be quite focused on very specific aspects of larger questions. Graduate students are at risk of losing perspective on how their research contributes to understanding and solving these larger questions and in particular, appreciating how other disciplines are involved and needed.
**Action.** There should be flexibility in how graduate students meet their degree requirements relative to course work. Graduate committee members should work closely with graduate students to determine the best plan of course work that will satisfy core competency in a discipline but also allow for students to take additional classes that will complement their thesis work and prepare them competitively for positions post-graduation. Graduate committees should include members from diverse backgrounds and should be encouraged to include faculty from other colleges.
GOAL 4: ENHANCE ORGANIZATIONAL EXCELLENCE BY CREATING A CULTURE OF CONSTANT IMPROVEMENT

“An excellent university is pervasively excellent. The standard of excellence applies to all NC State faculty and staff and to all departments, institutes, centers, and units. But excellence is not a static target. Achieving excellence requires constant attention, self-assessment, inclusion, and the courage to change and adapt.”

UNIVERSITY STRATEGIES

4.1 Enhance institutional pride among all staff, faculty, and students. ► CVM: See “A”
4.2 Encourage diversity and inclusion. ► CVM: See Goal 1
4.3 Facilitate work/life balance. ► CVM: See “B”
4.4 Promote collaborations among faculty and staff. ► CVM: See “A”
4.5 Configure university support services for efficiency and effectiveness. (Ongoing at the College and University level) ► CVM: See “C”
4.6 Align resource allocation with strategic priorities. ► CVM: See “D”
4.7 Diversify financial resources.

A. Campus Culture and Community

The CVM community has always been collegial, in part, because we were a relatively new college (1981) and faculty offices were not organized by departments or specialties. This proximity fostered personal and professional inter-actions across disciplines that might not have developed otherwise. With the completion of the Research Building in 2005 and the opening of the Terry Center in 2011, the CVM campus has greatly changed. The Veterinary Health Complex (VHC), formally known as the Veterinary Teaching Hospital (VTH) has expanded and grown to five organizational units: the Randall B. Terry, Jr. Companion Animal Veterinary Medical Center, the Veterinary Health and Wellness Center, the Equine and Farm Animal Veterinary Center, the Veterinary Clinical Support and Diagnostic Service Unit and the Satellite and Field Veterinary Services Unit (which includes the Equine Health Center at Southern Pines, the Center for Marine Sciences and Technology (CMAST) in Morehead City, and the Zoological Medicine Services (See the VHC Hierarchy for further details related to the new organizational structure). Research and teaching are integrally linked with all these facilities. Physical growth creates both opportunities and challenges. One of the greatest challenges is how to maintain and perpetuate a sense of strong community within the CVM.

A.1 Maintain a collegial culture within the CVM

Issue. As the CVM continues to expand and grow, it is important to promote a collegial culture and bring these different management units together. Furthermore, it is also important to remember that it is easy to feel a lack of connection and even isolation within our growing community. It will be important to find ways to interact both formally and informally to maintain our cohesiveness. There are also issues that are specific for the VHC that should be addressed in addition to the greater CVM campus.

Specifically, with physical growth comes a need for more people to meet the CVM’s mission of service, teaching and research. This has been difficult to achieve in today’s economic climate, when both tenure-track and state-supported staff positions have been cut to meet budget constraints. Different strategies have been used to hire
essential personnel to allow the College to fulfill and even expand its mission, including increasing class size. Other strategies include hiring clinical-track, teaching-track and research-track faculty, in addition to support staff. Funding sources for these positions are not always appreciated across the CVM community and can be a source of considerable stress for the faculty working to maintain the revenue to support the positions.

**Action.**
A culture that creates a greater awareness and appreciation of how we meet our mission of service, teaching and research in diverse settings and disciplines is needed. Creating opportunities to learn about the many accomplishments of people and organizations within the CVM community and to share in those achievements will stimulate greater pride and engagement in our College. Town Hall type meetings that celebrate faculty, staff and students may be one option instead of relying on just the CVM website and multiple e-mails.

**A.2 Promote collaborations among faculty and staff.**

**Issue.** The excellence and well-being of the CVM Community is dependent on the mutual respect of faculty, staff and students.

**Action.** Continue and expand the inclusion of staff and students on CVM committees and when important, issues that impact their lives within the CVM community are being discussed. Encourage the inclusion of students and staff in historically faculty-centered events. Improve professional relations among all members of our community by incorporating communication training and constructive feedback related to job-related behavior or performance.

**A.3 Maintain a collegial culture with the rest of the University**

**Issue.** It is important and necessary to break down perceived geographic barriers between the Biomedical Centennial Campus, Main Campus and Centennial Campus in order for the CVM to excel and advance with interdisciplinary studies and research. In addition to research, the CVM has a role in undergraduate education, engagement, extension and community outreach.

**Action.** Collaboration among departments of the 3 campuses should be encouraged and facilitated. Faculty should be encouraged to offer guest lectures in other curricula, serve on graduate student committees in other colleges, and participate in university-wide graduate and training programs. While committee service can be time-consuming, it offers an excellent opportunity to meet faculty from other disciplines.

**B. Facilitate work/life balance**

The emotional and physical well-being of faculty, staff and students is important to maintain a high level of productivity, to help students excel and to retain personnel.

**Issue.** The CVM campus for many faculty, staff and students is a home away from home. Clinical care and case management, research experiments and access to student labs for studying do not necessarily lend themselves to an 8-5 schedule. Faculty and students often work more than 8 to 10 hours a day. While there is always work to be done, usually seated in front of a computer screen, there should be options for physical activity, extra-curricular events or quiet contemplation on the CVM campus and near-by.

**Action.** Publicize opportunities and encourage participation in events on Main Campus and Centennial Campus as well as on our own campus. An amazing array of educational, leadership and cultural opportunities exist at
NCSU, but are difficult for faculty, staff and students to access because of our campus location. Efforts should be made to connect the CVM campus with near-by greenways to provide exercise options and access to points of interest within walking distance. Outside areas for quiet repose and community gatherings should be developed in accordance with the neighborhood concept described in the University Master Plan. NCSU Transportation should evaluate direct bus access between the Biomedical Centennial Campus and the Centennial Campus, particularly as the new James B. Hunt, Jr. Library comes online. In the future, consider evaluating the benefits of incorporating work/life strategies such as: telecommuting, flexible scheduling, and job sharing.

C. **Align resource allocation with strategic priorities.**

**Issue.** The system for allocating resources must be aligned with the strategic priorities of the College. Currently, it is unclear to many in the CVM community how resource allocations are determined and whether they match strategic priorities. The college has several excellent mechanisms for determining resource allocation. The Cabinet (including Associate and Assistant Deans and department heads) provides one level of input; faculty committees provide another level. However, immediate needs are frequently the dominant driving force for decisions.

**Action.** A system must be ensured that encourages and protects long-term vision aligned with the strategic priorities of the college. Our long-term plans may not always be front and center in the minds of the faculty and perhaps are put aside by administration in the face of immediate crises. Multi-year plans should be re-evaluated annually and updated as needed in order to meet the strategic priorities of the college.

D. **Diversify financial resources.**

**Issue.** The CVM is unique in its combination of research and veterinary medicine, however many in the local area do not realize the potential of the CVM. The CVM has been designated as the Biomedical Centennial Campus, which is also unknown even to the local area. Although the NCSU Veterinary School is ranked 3rd in the US, endowments and fund development are clearly lagging behind.

**Action.** The knowledge of unique programs within the CVM/Biomedical Centennial Campus needs to be leveraged to increase endowments and gifts. We need help to leverage this designation as the Biomedical Centennial Campus to attract outside businesses and agencies like Centennial Campus.
GOAL 5: ENHANCE LOCAL AND GLOBAL ENGAGEMENT THROUGH
FOCUSED STRATEGIC PARTNERSHIPS

“As the world has changed, NC State’s reach has expanded beyond our borders and across the globe, challenging
us to be locally responsive to the needs of our community and our state while globally engaged in solving the
grand challenges facing our global community“

UNIVERSITY STRATEGIES

5.1 Support and provide opportunities for increasing students' civic and
global knowledge, experience, and perspectives. ► CVM: See “A”
5.2 Support and provide incentives for faculty and staff to engage in
Collaborative global scholarship. ► CVM: See “A”
5.3 Enhance active and sustainable partnerships, including assistance to
5.4 animal agriculture, locally, regionally and globally. ► CVM: See “A”

A. Global Engagement and Partnerships

A.1 Civic and global awareness

Issue. Continue to develop partnerships with strategically selected, outstanding international universities that
can provide our faculty, staff and students with multifaceted, high-quality experiences. For example, the CVM
has recently signed a University Global Partnership Network between NCSU, the University of Surrey and the
University of Sao Paulo.

Action. Support and enhance research and other collaborations between NCSU CVM and other academic,
government and private institutions.

Seek resources from CVM and centrally to facilitate the exchange of faculty and students with other institutions
to enhance programmatic development, assist with animal health problems and underscore the objectives of
the One Health initiative.

A.2 Collaboration and partnerships

Issue. Support programs and partnerships aimed specifically at building working relationships among academia,
industry, and government and fostering an environment of creative innovation. Encourage forming partnerships
with other academic institutions, both domestic and abroad, and with private and public entities for educational
and research opportunities.

Action. Take advantage of CVM position in North Carolina’s Research Triangle area that provides unique
opportunities to strengthen our interactions with academic colleagues in other Triangle universities, including
UNC-Chapel Hill and Duke University.

Work to enhance delivery of extension and outreach programs in animal health and One Health.

Issue. Support initiatives to strengthen and commercialize our research and clinical findings and intellectual
property.
**Action.** Support and enhance research and commercial collaborations between NCSU CVM and industry. Facilitate interactions with the Technology Transfer office; make faculty aware of technology transfer and intellectual property possibilities and how to go about proceeding with these.

### A.3 Globally engaged faculty, house officers and students

**Issue.** Increase the number of faculty and graduate students with prior international experience and foreign language capabilities.

**Action.** Consider global knowledge during recruitment of faculty, house officers and graduate students. Searches should take into account global diversities including prior military service, Peace Corps participants, country of origin, and other global experiences so as to enhance the internationalization of our intellectual community.