

College of Veterinary Medicine

Compact Plan, 2007-10

Introduction

Forecast:

Veterinary medicine is a profession in significant transition. Over the past 25 years, there have been massive changes in the demographics and perceptions of the US animal-owning publics. Some of these trends include significant movement from rural to urban and suburban communities, the number and role of participants in animal agriculture, changes in the perceptions of companion animal owners about the value and role of their non-human companions, changing perceptions about the role of veterinarians in the biomedical sciences, public health and ecosystem health and an overall increase in awareness of animal welfare issues.

Veterinary medical education now faces enormous challenges and opportunities if it is to meet the evolving needs of our society, and produce professionals who maintain a central role in areas vital to societal health and wellbeing. As a nation, we are significantly under-producing veterinarians compared with current and forecasted demands. Both the American Veterinary Medical Association (AVMA) and the Association of American Veterinary Medical Colleges (AAVMC) have raised significant concern about this “undersupply”. There are 86,000 veterinarians in the US. There are currently 28 Colleges of Veterinary Medicine (CVMs) graduating about 2,500 veterinarians per year. It is estimated that there is a current shortage of approximately 1,500 veterinarians and that within 20 years this will grow to a shortage of 15,000. The Bureau of Labor and Statistics expects there to be 28,000 job openings by 2012, a turnover of 38%. Although all areas of veterinary medicine are impacted, the areas of the profession hardest hit are rural/ agricultural practice (frequently referred to as “food supply veterinary medicine”), public health/governmental practice, laboratory animal medicine, biomedical research and academic veterinary medicine in general. Recent reports from the National Research Council of the National Academies of Sciences highlight these concerns, particularly for public health/food supply veterinary medicine and comparative biomedical sciences.

The CVM at NC State has not been immune to these influences. Since admitting our first class in 1981 we have minimally increased our enrollment (the college was designed to peak at about 76 professional students per year). We have seen major trends in student interest shift toward suburban and predominately companion animal practice. While the demographics of our student profile have dramatically changed in accord with our peers across the country (we have largely gone from a white, rural, male-dominated student body to a white, suburban, female-dominated student body), we are no more diverse either ethnically or from a career interest perspective. Nationally, less than 2% of the veterinary student body is African American, with less than ½ % being African American male. Recent studies by AAVMC suggest that as a nation, we must significantly expand our professional program enrollments, focus on recruiting and producing graduates in the most underserved areas, and work with local and state governments and regulatory agencies to address compensation and quality of life issues for graduates working in underrepresented areas. Both the AVMA and AAVMC have recently sponsored federal legislation (Veterinary Public Health Workforce Expansion Act and National Veterinary Medical Services Act) aimed at addressing some of these issues.

It is our firm contention that for our college to maintain and further enhance its national leadership role among veterinary academic centers, and continue to play a central role in

the protection of NC animal agriculture, societal health and well being, we must take several steps to address these challenges. First, the College should expand its enrollment in the professional program from the current 76 students per year to approximately 100 students per year by 2012. **Second,** while we have made significant progress in the past few years in increasing the ethnic, cultural and professional diversity within our program, this should be further enhanced by ensuring our admission of a diverse student body who expresses interest in a broad range of veterinary medical disciplines. **Third,** we must enhance both our professional and graduate experiences for our students particularly in the areas of food supply veterinary medicine, public health, ecosystem health and comparative biomedical sciences. **Fourth,** we should expand our focus on dual- and post-DVM training programs that focus on developing the next generation of clinical, scientific and academic leaders within our profession. Programs which expose students to a variety of personal and professional lifestyles, both domestic and abroad; that ensure exposure to the private as well as public sectors; and that expose students to key concepts and issues in biopreparedness, animal welfare and “one-medicine” should be emphasized. The following action items are designed to address these themes in an interrelated fashion. Although this compact plan covers only the next three year period (2007-2010), it is clear that these items, particularly enrollment growth, will take 5-6 years to fully implement.

Key Findings from Recent Program Reviews and Evaluations:

Colleges of Veterinary Medicine are reviewed every seven years by the accrediting body, the AVMA Council on Education. The CVM at NC State is scheduled for site visit review in the first week of April this year. We have concluded an extensive self-study report which has been forwarded to the AVMA and is included for review with this document. Central conclusions from our self evaluation relate to the following needs: 1) the need to expand the diversity of our professional student and faculty body, as outlined above, 2) the need to expand “field” and extramural experiences for our students, particularly in some areas of food-supply veterinary medicine, 3) the need to provide more “primary care” clinical instruction, particularly in the companion animal and equine health, 4) the need to condense and coordinate certain areas of the preclinical curriculum and to enhance the interactivity and active learning element of this part of the curriculum and 5) the need to enhance basic and applied research experience of our students as they progress through the professional curriculum. These themes are echoed in the proposed action items below.

Dashboard Measures:

The following observations are offered with regard to trends in dashboard measures:

Efficiency and Business Measures:

1. Enrollment of students in Masters Programs has exceeded targets. Initially (up to 2003-2004) enrollment was less than targeted because of the “uncoupling” of the post-doctoral clinical training programs (residency) and graduate programs. Initially this led to a significant decline in the number of dual program students. Since this time, more students than expected have shown an interest in both these programs and stand alone MS programs. This may be associated with renewed emphasis on recruiting clinical residents who express an interest in careers in academic veterinary medicine.
2. The number of students enrolled in PhD programs is less than anticipated. Robust projections for rapid growth of our PhD programs were based on the opening of the new research building and recruitment of new comparative scientists into our program. Enrollments have fallen short of these projections as yet. It is felt that one reason is the changes in the CVM support plan for graduate students which ensure only one year of central funding before transition to investigator grant funding. Many investigators feel

that with the uncertainty of the current funding environment and the delay in productivity from graduate students, it is a better “investment” to hire post-doctoral workers rather than graduate students. It will be important to determine if this perception of faculty intent is reality, and act to reverse this trend such that we effectively train the next generation of comparative biomedical scientists.

Diversity Measures:

1. Faculty head count does not include administrators.
2. The significant increase in staff numbers (288 in 2002-03 to 357 in 2006-07) reflect rapid growth of staff numbers in the veterinary teaching hospital (VTH). Growth in VTH staff has been largely funded by growth in hospital revenue during this period.
3. The percent faculty of color is low but relativity constant. The college has a strong commitment to increase this representation, particularly among African American women. Nationally, there is a very limited pool of such applicants available.
4. There has been small but important growth in the percent students of color. This most likely reflects a high commitment to the college diversity program both in our recruiting and admissions processed. The college funds a full time director of diversity and multi-cultural affairs who is very active in recruitment, admissions and mentoring. As noted above, the diversity of our student body is significantly better than the national average (about 2%).
5. Mean salary increases for male faculty have exceeded those for female faculty. This is of concern, and we are trying to determine if this represents a systemic issue or simply a random short term event. One observation is that more male faculty have received outside offers and negotiated retention agreements compared with female faculty.
6. The wide variation in salary increases for non-white male faculty reflects year to year variation with a small number of faculty represented in this category.
7. The decrease in tenure and tenure track faculty reflects retirement of an aging faculty cohort. Such faculty have been replaced, most commonly by tenure-track, pre-tenure assistant professors.

College Goals for 2013

As the projected enrollment expansion, which is both programmatically and financially a key element of the above plan, will not be completely implemented until 2012-2013, we will address these goals over that period. Key goals for this period are as follows:

1. To increase enrollment to 100 students per year in the professional curriculum. Such expansion will produce approximately \$9 million annually in additional state resources that will be used to hire up to 20 outstanding faculty, 40 additional staff dedicated to assisting faculty enhance clinical and didactic instruction and operating funds to enhance programmatic activity in the areas listed below.
2. To significantly expand and remodel facilities including but not limited to
 - a. New companion animal clinical space (RB Terry Center)
 - b. Expanded large animal, predominantly equine, clinical space both at Raleigh and Southern Pines.
 - c. Expand on-site food animal/biopreparedness/public health program space
 - d. Expand didactic and laboratory instructional space including renovation of the existing two lecture theaters and addition of a new third major lecture theater,

- expansion of anatomy, microbiology and surgery laboratories and development of additional small venue instructional space
- e. Expanded research laboratory space to accommodate programmatic growth in selected areas and new faculty hires, potentially in a planned flex space building.
 - f. Expanded office space as above
 - g. Remodeled and expanded laboratory animal care facilities
3. To enroll an ethnically, culturally and professionally diverse student body who participates broadly in professional areas of greatest demand and societal need.
 4. To enhance our professional and graduate training programs, particularly in food supply veterinary medicine, public health, comparative biomedical sciences and ecosystem health.
 5. To enhance off-campus instructional and engagement opportunities both through “satellite” and private sector partnership programs. Such programs will serve expanded primary care companion animal and equine clinical experiences and field oriented food supply medicine experiences for professional students while expanding the college’s visibility and public engagement.
 6. To create an umbrella “clinician-scientist” program that combines our DVM/PHD, summer student research experience and clinical resident/PhD programs. It is envisaged that the combination of 1) the above umbrella program, 2) new and existing faculty with strong research interests in comparative biomedical sciences, 3) expanded research laboratory facilities and 4) recruitment of professional students with expressed interests in research and academia, will significantly enhance our capacity to take a national leadership role in producing the next generation of veterinary academicians and scientists.
 7. To expand our international programs such that a significant proportion (50%) of all professional students have at least one international experience during their course of study. Ideally, at least one collaborative relationship offering such opportunities will have been developed on each major continent.
 8. To expand our animal welfare program to enhance off-campus primary care and technical experiences for our students, provide expanded service and visibility throughout the state and develop a potent animal welfare research and public policy program.

Action Items (formerly “initiatives”)

1. Action Item: ENROLLMENT INCREASE

To address the growing need for additional veterinarians in the workforce, the CVM intends to begin increasing enrollment. Beginning Fall of this year, we will admit 80 rather than 76 students. Beginning in Fall 2009, each incoming class would be increased from 80 to 100 students over a period of four years. A larger class would provide substantial benefits, not only to the profession and society as a whole by providing additional highly trained veterinarians, but would provide a venue for increased diversity in the student body as well as an expected increased budget for the CVM. An increase in class size of this magnitude will mandate additional classroom space, specifically a third large lecture theatre and major upgrades to several wet lab space in the existing building. Discussions are already in the preliminary stage with architects to evaluate the best location for such an addition. Some lab sessions will need to be split into two or more sections requiring a significant increase in both faculty and staff.

Justification and Intended Impact

The justification for enrollment expansion is provided above. Enrollment expansion not only addresses key needs for veterinary workforce expansion at the state and national level, but is the key programmatic and financial elements of the following action items. It is integrally linked to almost all of the University's key investment priorities.

Funding Requirements

The initial enrollment increase from 76 to 80 students was without significant capital investment. The immediate requirement for an enrollment increase from 80 to 100 professional students per year is one-time capital for modest expansion of preclinical didactic and laboratory instruction space. This includes a new third lecture theater and improvements to three existing teaching laboratories. We are also in desperate need of additional office and research laboratory space to enable hiring of the additional faculty needed to deliver the curriculum to a class of this size. Early estimates are in the range \$5-8 million for such improvements. Subsequent recurring funds necessary to enable this expansion are built into the CVM enrollment funding model.

Traditionally Veterinary Medicine is funded on a separate line and an FTE rather than SCH basis. Early estimates from University Planning and Analysis predict that this enrollment expansion will produce additional recurring state income to the college of almost \$9 million, with an additional \$500-600 k being available centrally and \$100 k available to the library on an annual basis

2. Action Item: ONE MEDICINE – ONE HEALTH

Human health has historically been seen as separate from domestic animal health, and both are usually treated as isolated from wildlife health. However, the past few decades' experiences with HIV/AIDS, Monkeypox, SARS, Bovine Spongiform Encephalopathy (aka: Mad Cow Disease), and the current global concern about highly pathogenic avian influenza, have shown those views to be parochial, at best, and fatally wrong, at worst. As further evidence that we need to change our health paradigm, the Centers for Disease Control and Prevention state that three of every four new and/or emerging diseases in humans have their sources in domestic and/or wild animals. The 'take home' message of these concerned groups is that to protect the nation we must pay particular attention to recruiting and training DVM scientists and clinicians who will engage in lifelong careers in food animal and mixed private practice, biomedical research, pathology, veterinary public health, and regulatory affairs at the state, national, and international levels.

The need exists in North Carolina, as well. The intensive nature of our food animal agriculture renders it particularly vulnerable to many threats. There is an immediate need to recruit, train and employ increased numbers of talented, motivated veterinarians and other animal health professionals to serve as front line defenders to mitigate the threats to this vital resource. In addition more dedicated biomedical scientists must be recruited, trained, and supported to investigate basic disease biology and to design innovative, effective strategies to prevent these diseases, many of which affect humans and/or find reservoir hosts among wildlife populations – again, a "One Medicine – One Health" approach.

The '**One Medicine – One Health**' concept aims to remove the arbitrary barriers between human and animal health investigation and practice. It recognizes that only when public health and animal health professionals work together can we truly protect either group. The goal is to have the expertise of our graduates help insure a safer food supply, enhance public health, and provide answers to basic and applied research questions surrounding animal and public health.

To operationalize the 'One Medicine – One Health' concept, the College is already pushing several related initiatives forward.

- One of these is an expansion of long-term relations between the UNC-CH School of Public Health, and the NC Departments of Health and Human Services, of Agriculture and Consumer Services, and of Crime Control and Public Safety, in developing and delivering collaborative training and outreach efforts. The highlight of this collaboration is the annual ‘One Medicine’ conference bringing together hundreds of researchers, officials, and practitioners from these areas for networking and cross-discipline training.
- Furthermore, the College’s long involvement with molecular medicine and cross-species research, as evidenced by the CVM Center for Comparative Medicine and Translational Research, has given us a unique ability to drive basic research in these areas.
- Likewise, the College is the lead institution for the national USDA Food Safety Research and Response Network, a basic and applied research consortium whose mission is to protect the nation’s food supply.
- Further cementing our ‘One Medicine – One Health’ national stature, the College initiated and is leading the state of North Carolina’s consortium to attract a federal R&D facility (the DHS/USDA/DHHS National Bio and Agro-Defense Facility) which will be the country’s focal point for the intersection of public and animal health.
- The College’s Teaching Animal Unit, a unique facility allowing us to educate and train both students and outside practitioners in husbandry, emergency/disaster issues related to agriculture, and in public health and responder health concerns, has a history of work with undergraduates, graduates, professional, and continuing education efforts.
- Currently, the College is executing a 6-faculty position ‘Cluster Hire’ aimed at livestock infectious disease, food safety, public health, and biosecurity. The goal is to establish a foundation for training the next generation of animal and public health experts, for ramping up our ability to research, design and deliver new diagnostic and therapeutic tools, and to improve the readiness of the College to rapidly respond to societal needs in disaster situations.

But we realize we need to do more. The following four action items will move us to the next level in addressing the many issues related to “One Medicine – One Health”.

2. a. Action Item: BIO- and DISASTER-PREPAREDNESS LEADERSHIP

We propose creation of a position in **Bio- and Disaster Preparedness**. Biopreparedness encompasses the disciplines of preventive medicine, biosecurity, and system resilience, necessary in any public health or animal health system. Disaster preparedness covers a suite of activities from research, planning, detection, response, recovery, and mitigation in the face of a disaster, whether the disaster be a primary health disaster (e.g., disease outbreak, bioterror event), or an event carrying secondary high-consequence health impacts (e.g., hurricanes, nuclear/chemical plant catastrophe).

This position will work with the above initiatives and programs and will offer strategic initiatives to advance biopreparedness, disaster readiness, and resiliency. Furthermore, it will be the high level liaison between the College and external agencies, groups, and public/private partners attempting to advance the above goals.

Justification and Intended Impact

Evidence of Need: The introduction to this section offers outside evidence of the need the ‘One Medicine – One Health’ concept. Numerous groups and agencies (e.g., National Research Council, Centers for Disease Control, Department of Homeland Security, World Health Organization, and others) have called for leadership in integration of animal/public health related to high consequence events – the ‘market’ for this concept is ready and waiting.

While the College's previously listed efforts promoting the concept are succeeding, they are now large enough and sufficiently complex to move to the next level of organization and execution. A principle of 'One Medicine – One Health' is that none of the efforts can work efficiently in a vacuum. Therefore, to enhance their collaborative work we need to establish coordination across the different initiatives and programs. In addition, we need to advance an additional 'One Medicine – One Health' thrust in promoting disaster preparedness as it relates to animal and public health. We envision that within 3-5 years of this position's creation the College will establish a Center for research, training, and service aimed to promote bio- and disaster preparedness addressing animal and public health. The College is already moving in that direction with the above initiatives and activities. This position will offer the start of the administrative coordination and vision to allow that aspiration to come to fruition.

Evidence and Measures of Impact: The College's demonstrated ability to work with the relevant stakeholders, to garner extra-mural funding supporting such efforts, to bring together and manage large, multi-disciplinary public and private consortia, and to create nationally recognized expertise in generating and operating complex societally important initiatives at all scales of effort, offer strong evidence that we will also be successful in this effort. Success, for this action item, will be measured by continued and new collaborative efforts between internal constituencies and external stakeholders in animal/public health and emergency management. The efforts will target the above issues and will aim to create tools and products that will be applicable at local, state, regional, and national levels.

Contribution to University Investment Priorities. This action item will contribute to the fulfillment of several University Investment Priorities (UIP). The action item will directly contribute to the following four UIPs:

1. Develop high quality faculty/staff – The position, itself, will be evidence of a high quality faculty. Its ability to promote stakeholder collaborations and achievement of mutual goals will directly support the development of faculty and staff quality.
2. Build research/graduate/professional programs – Biopreparedness and disaster preparedness will offer faculty new venues for curriculum development at undergraduate, graduate, and professional student levels. We foresee these developments crossing campus lines, as well, to support and take advantage of assets and programs in public health (UNC-CH, Wake Forest University Health Sciences), animal health (NC A&T), and emergency management (UNC-Charlotte Institute of Disaster Studies).
3. Commitment to a broad range of disciplines – Discipline range can be enhanced in two ways. One, is to expand into new disciplines. This Action Item accomplishes this by moving scholarly veterinary effort into disaster preparedness as it relates to animal and public health. The other means to expand disciplinary range is to combine existing disciplines to open new avenues of effort. The 'One Medicine – One Health' concept is just such a synergy-invoking activity. It will enhance basic and applied research, undergraduate and graduate teaching, and societal service of the University, by expanding the abilities and skills of our faculty, staff, and students.
4. Promote knowledge-based public policy – Establishing a thrust in biopreparedness and disaster preparedness for animal and public health will inform public policy at the local, state, and federal levels. Our existing collaborative efforts in training and educating practitioners and policy makers at all levels of government will be enhanced and expanded. We foresee the faculty engaged in this effort will also serve as a 'brain trust' for state and federal policy makers.

This action item will indirectly contribute to the following UIPs:

1. Foster innovation-driven economic development – The creation of an active series of public – private partnerships in biopreparedness/disaster readiness related to animal and

public health will allow efficient technology transfer of scholarly effort to the private sector.

2. *Strengthen University resource base* – A logical ripple effect will be to attract extramural and private sector funding for training and research in these areas. Such funding will result in improvements in teaching and research laboratories as well as the previously mentioned improvement in faculty and staff to work in, and deliver products from, these areas.

Funding/Resource Requirements

We request funding for the **Bio- and Disaster Preparedness Leadership** position at \$120K, plus benefits, plus salary for 0.25 FTE administrative support, travel and operating funds.

2.b. Action Item: TEACHING ANIMAL UNIT PROGRAM

Perhaps the center of our efforts in training the next generation of animal health professionals is the CVM Teaching Animal Unit (TAU). The TAU is a unique asset nationally, that offers facilities and opportunities for live animal instruction in health maintenance and production of farm animals and horses. The facility includes small commercially operating agricultural units in dairy, beef, poultry, small ruminants, and swine. It also has a horse breeding and raising division, plus it accommodates other, more unique assets, such as llamas.

The TAU Program delivers several hundred hours of laboratory training each semester for our DVM students, and provides support for our hospital care mission by providing biological materials and herds for diagnostic tool demonstration. It is, for many of our students, the first opportunity to familiarize themselves with animal agriculture. It provides, therefore, avenues for developing confidence and a level of hands-on comfort and understanding of farm animal species and horses in a low-threat and convenient environment. Despite this education-heavy mission, the TAU is partially self-supporting through its commercial sales of milk and animals.

Purpose and Description

The objective of this action item is to sustain and strengthen the educational diversity and opportunities afforded by the TAU Program by expanding into external farm animal educational experiences. As the Triangle area becomes more urban, there will be a greater need for our students to travel further to accomplish externships and other learning experiences on farms and other educational facilities related to farm animals. Additionally, by forming cooperative agreements with other universities and private sector stakeholders (see Justification below), we will open our curriculum to outside students wishing to gain specific training in our areas of demonstrated strength (including, but not limited to, poultry production medicine, swine health and production, animal health epidemiology).

In order to best advantage our College in this new, more mobile, educational environment, we propose [1] creating a position of Director of Off-Site Food Animal/Rural Practice Training who will expand and coordinate the increasingly complex agreements and logistics of mobile education, [2] increasing our attractiveness to outside students by augmenting our program in Animal Agricultural Selectives/Electives, [3] improving the TAU's physical facilities and infrastructure, and [4] increasing our ability to fund our own students' ability to go outside of our College and state to achieve their educational goals.

Justification and Intended Impact

Evidence of Need: Numerous workers have called for national programs to increase the number and breadth of the country's animal health workforce. At the fall 2002 AAVMC-sponsored conference "Agenda for Action: Veterinary Medicine's Role in Biodefense and Public Health", the nation's lack of a 'pipeline' developing veterinarians trained for the newly recognized threats was made stark: "... *approximately 500 veterinarians are expected to*

separate from the USDA in the next five years ... half of the veterinarians in the Commissioned Corps of the United States' Public Health Service are currently eligible for retirement ... the US Army Veterinary Corps requires an addition of 45 new veterinarians each year... Satisfying current projected needs in traditional population health areas of public practice and private practice with a food animal component will require over 500 new entries annually..." The report also voiced considerable concern that projected supply would not meet the national strategic demand for laboratory diagnosticians, pathologists, and applied researchers. By July 2005, however, the issues had not been settled. The National Academies' report "Animal Health at the Crossroads" concluded "... *The workforce on the front lines of animal care is not adequately educated and trained to deal with animal disease issues, and there is a shortage of veterinarians in the workforce for animal disease prevention, detection, and diagnosis...*". Additionally, the report identified urgent needs in [1] improved diagnostics and vaccines; for [2] better collaboration between public health, animal health, and biomedical communities; and in [3] enhanced equipment and facilities availability for research and diagnostics.

At the national level, the AAVMC has sponsored studies and meetings on these issues. Their conclusions for mitigating the problems rely on individual colleges' abilities to form consortia in which areas of excellence in food supply medicine are identified and nurtured, and made available to students from across the country. Examples discussed within the task forces of likely areas of excellence in medicine and production that fit the AAVMC vision include Clay Center, Nebraska (beef cattle), Madison, Wisconsin and Davis, California (dairy), Auburn University and NC State University (poultry), Iowa State University and NC State University (swine), and VA/MD School of Veterinary Medicine and NC State University (domestic/wildlife/human health interface and public policy). As this list indicates, we are already seen as leaders. We wish to cement that leadership role at the national stage.

Evidence and Measures of Impact: The CVM faculty and TAU program has demonstrated an ability to develop and deliver this kind of training effort. For its entire existence the TAU program has facilitated students gaining local and distant specialized experiential training by developing cooperative networks and by offering financial support for travel to distant sites. The above AAVMC recognition of our strengths also demonstrates our likely success in this action item. Success will be measured by short-term and long-term outcomes. Short-term outcomes will include increasing number and student hour exposures to outside experiential educational activities, and an increasing ability to offer funding support for same. Longer term outcomes will include an increase in the number of our graduates entering food supply and public practice career paths, and in the number of non-North Carolinian students coming to our campus to take advantage of our areas of expertise.

Contribution to University Investment Priorities. This action item will contribute to the fulfillment of several University Investment Priorities (UIP). The action item will directly contribute to the following UIPs:

1. *Strengthen our commitment to broader range of disciplines* – Given North Carolina's climate and demography, we cannot reasonably be national leaders in animal agriculture's specialized areas of intensive beef or dairy production. Increasing our network and ability to support extramural training of our students will increase the range of experiential education available to North Carolina.
2. *Enrich educational experiences through engagement with society*, and
3. *Integrate global perspectives into our programs and functions* – An enhanced and coordinated effort at putting our best students in the best learning environments across the country and the globe will expand their perspectives and life-learning experiences. As a result, they will be better decision makers, more flexible workers in a changing environment, and, in the end, will contribute more to society, to the nation, and to the international community.

4. *Strengthen the university's resource base* – Part of the TAU program is a continual evaluation of our own strengths and weaknesses. Strengths are exploited, and weaknesses are mitigated. By allowing our students to identify and take part in training in medical areas where we are not the best is likely more efficient in resource utilization than would be the alternative of trying to build a program that did not fit the needs of North Carolina. Thinking strategically to make full use of our strengths as well as the strengths of our partners is only rational.

Funding/Resource Requirements

[1] Director of Off-Site Food Animal/Rural Practice Training: \$100K + benefits; 0.5 FTE admin support. Operational budget of \$10K/yr for development and delivery of program efforts.

[2] Augmenting program in Animal Agricultural Selectives/Electives: 1 FTE admin/teaching support for cooperating faculty (\$30-40K); salary savings (based on faculty FTE commitment) returned to Departments to support temporary positions to cover faculty developing this aspect.

[3] TAU's physical facilities and infrastructure: Establishing field-capable distance teaching laboratories (web-based video/audio systems that are environmentally hardened and mobile) to allow distance education from our barns, production units, and animal areas. Have TAU cabled/networked to allow audio/video from anywhere on the site to anywhere at the CVM. Estimated at \$25K start-up, \$4K annually.

[4] Increasing our ability to fund our own students' ability to go outside of our College and state to achieve their educational goals: Competitive funding resources to allow students to make their mobile education the equivalent of a 'summer/semester break' job, covering travel, room/board, and paying a stipend. Using averages, a two week selective (12 8hr days) would cost approx \$2900. Of the target 320 DVM students, approximately 15% will apply for outside food animal experiences (48 students). If each takes 2 such experiences in 4 years, that equals 24 events per year. With a 10% administrative/misc fee/cost included, that comes to roughly \$80K/yr (\$76.6K).

2.c. Action Item: CLINICAL TRIALS CORE of the CCMTR

Clinical studies involving naturally occurring disease in animals are an important aspect of translational research and as such are an integral part of the mission of the College of Veterinary Medicine. The College is well-positioned in this regard in having a busy veterinary teaching hospital from which to obtain samples. A Clinical Studies Core has recently been established as a unit of the Center for Comparative Medicine and Translational Research (CCMTR) to help support clinically based research. The Clinical Studies Core consists of two interrelated components – the Clinical Trials Program (CTP) and the Clinical Genetics Resource Laboratory (CGRL). The Clinical Studies Core has dedicated space in close proximity to the Veterinary Teaching Hospital. It is anticipated that as this Core expands it will offer services to outside workers on a contractual basis.

The Clinical Trials Program serves to facilitate clinical trials by providing organizational and technical support, as well as dedicated space to process samples in proximity to the VTH. The core will provide support in publicizing studies and case recruitment, as well as support for collection and processing of samples. The Clinical Genetics Resource Laboratory will provide oversight for a biospecimen repository of samples that will support ongoing and developing veterinary and translational research of CVM faculty. Specific services include support for banking of biological samples and support for banking DNA.

Justification and Impact

This center is intended to strengthen the reputation of NCSU-CVM as an established and increasingly productive center for translational research.

The Clinical Studies Core is an important component of the One Medicine concept and a key component of translational medicine. The development of this Core provides unique opportunities for training of Veterinarians for industry related jobs. In addition, it provides increased opportunities for basic and translational research and thus increased funding opportunities for faculty. Unique opportunities for interaction, and contract work, with both large and small biotechnology and pharmaceuticals companies in the area will become available.

Funding Requirements

Continued support for expansion of Center. Permanent funding for administrative support, allowing existing funding to fund programmatic research and equipment. Funding for use of Biostatistician from main campus. Future enhancement to include two FTE's at approximately \$98,000 each, including benefits.

2.d. Action Item: ECOSYSTEM HEALTH SCIENTIST AND FELLOWSHIPS

This proposal is intended to enhance ongoing efforts by the CVM to take a leadership role in developing research, training and outreach programs exploring the interactions between wildlife, domestic animal and human health within a shared ecosystem. It has two fundamental components, 1) hiring of a faculty scientist who will enhance evolving relationships between the CVM and CNR, and the NC Museum of Natural Sciences and 2) funding for training of future leaders (fellowships) in this important emerging area of study.

Ecosystem Health Scientist:

Justification and Impact

There exists enormous opportunity for enhancing existing collaborations between CVM, CNR and NCMNS. There is a shared interest in the ecology of wildlife diseases, particularly those transmissible to domestic animal and human populations. A faculty member dedicated to enhancing these collaborations and focused on research, training and outreach activities involving the three entities is necessary. : It is envisaged that this position be a senior scientist who has experience in outreach and public engagement and a proven track record of collaboration.

Funding Requirements

We believe a salary of approximately \$120,000 plus benefits is competitive. It is proposed that this be split as follows: CNR \$15k (agreed by Dean Brown), CVM \$25k, NCMNS \$40k (in discussion), Provost \$40k (plus benefits).

Ecosystem Health Fellowships:

It is crucial to recruit and educate top graduate DVM talent to play leadership roles in this emerging arena of 'One Medicine - One Health' utilizing the established PhD program in Fisheries and Wildlife Sciences. It requires the establishment of enhanced and targeted graduate student fellowships that offer stipends competitive with the market for DVM graduate students, and an extensive recruitment marketing effort to emphasize NCSU's leadership in this field. The marketing effort will be implemented by the Environmental Medicine Consortium, a well established cross departmental and cross college organization of faculty supported and based at the CVM focused on One Health issues (EMC.NCSU.EDU). The candidate recruitment effort and fellow selection will be managed by the CVM's EMC graduate faculty participating in the Fisheries and Wildlife Sciences Program. The fellowship packages will be developed with compact plan, graduate student plan, and foundation recruited donor funds.

Justification and Impact

Current concerns about emerging diseases in wildlife and their impact on humans and their livestock along with the potential for wildlife and fisheries to be targets of bioterrorism, have

fueled a demand for veterinary scientists trained at the Ph.D. level in cutting edge fisheries and wildlife sciences to fill administrative and research roles for private sector as well as governmental organizations working in the areas of environmental and public health, as well as natural resource management, conservation and preservation. Current Ph.D.-level openings in the government sector alone are estimated at approximately 100 positions, but projections for future needs based on interviews with agency leaders suggest a sharply rising demand specifically for individuals with the training in wildlife and fisheries health related areas.

The impact of the Ecosystem Health Fellowships on College and University goals will be monitored at three levels. Impact on graduate student recruitment will be based on graduate student recruitment statistics focused individual quality of applicants (GRE/DVM class rankings, prior experience/pubs). Success in competitive honors for graduate students with the fellowships will be followed by the success these students have in competing for national fellowships (Fulbright's, STAR, MAF), manuscript awards, and presentation awards. Long-term impact will be monitored looking at successful job placement of graduating fellows. Lastly, the proposed fellowships will contribute directly to achievement of college's priority goal of enhancing the bioprotection of human and animal health with a focus on the food animal industry and public health through the impact the fellowships will have on research and teaching on the health implications of the human/domestic animal/wildlife interface.

University Investment Priorities addressed: The One Health Scientist Fellowships contribute to several of the university investment priorities.

1. Build research and graduate and professional programs aggressively in proven and emerging areas, by deepening and expanding disciplinary strengths in fisheries and wildlife sciences in the CNR and CALS, and in environmental medicine at the CVM, with a focus on a the key emerging area of One Health.
2. Develop a faculty and staff of the highest quality because top quality graduate students contribute to the attraction and retention of high-quality faculty and staff.
3. Strengthen our commitment to a broader, more comprehensive range of Disciplines, by improving our ability to address a complex issue of our times: Environmental Health, which is by its nature, both a local and a global issue.

Funding Requirements

The director of the EMC, a graduate faculty member and Executive Committee Member in the Fisheries and Wildlife Sciences Program and will administer the Fellowships as part of the duties of his existing position with clerical and accounting facilitation by the existing staff of CVM Student Services. Operating funds to support the marketing effort are generated by the EMC Endowment and the Veterinary Practice Plan.

Salary support for faculty effort training the fellows is in place and is achieved by terminating our long standing successful residency in wildlife medicine which will be supplanted by the Ecosystem Health Fellowship.

To be competitive with peer institution offerings, in addition to providing the opportunity to work with top faculty in their disciplines on interesting projects, the fellowships need to carry commitments of three years of support before students would be transferred to grant based support, and need to offer tuition, fees, health coverage and stipends in the range of \$30,000 per year. Outstanding faculty are in place and interesting projects are funded through a wide array of agencies and foundations. Tuition and related costs in the Fellowship packages will be provided by the Graduate Student Support Plan.

Permanent support for 2 Teaching Assistant positions offering \$30,000 stipend per year are requested, one to be implemented in fiscal year 2007-2008 and one to be implemented in fiscal year 2008-2009. These TA positions will be supplemented with RA positions of similar

dimension supported by endowment and direct giving recruited through EMC and NCVMF efforts, with a long term goal of establishing a minimum of 4 ongoing Ecosystem Health Fellowships.

3. Action Item: CLINICIAN SCIENTIST TRAINING PROGRAM

The College has launched an initiative called the Clinician Scientist Training Program that is intended to increase the research training for our veterinary students and post-doctoral veterinarians. Essential to this effort is a means to expand and enrich our pool of trainees. DVM enrollment expansion will meet this need by increasing the number of veterinary students available to recruit into our summer research program and research intensive focus area. Increased enrollment flexibility resulting from capital improvements, faculty additions, and staffing will allow us to increase the number of students that can be accommodated in the combined DVM/PhD program. Our ultimate goal is to matriculate 8 students per year in the Combined DVM/PhD program.

The College has a four-pronged approach to advancing research training for veterinarians that are brought together under the Clinician Scientist Training Program umbrella: [1] a Summer Research Internship Program that allows first and second year veterinary students to work with a faculty mentor in a productive laboratory setting, [2] the Research-Intensive Clinician-Scientist Focus Area for veterinary students who wish to incorporate significant research into their DVM degree program; [3] the combined DVM/PhD training program providing financial support to attract the most talented students possible to enrich our pool of trainees; [4] a college-wide program for clinical residents seeking intensive training in basic research coupled with their post-graduate clinical training program leading to board certification in their specialty.

Currently, there are two factors that limit the number of DVM/PhD students in our program; funding and enrollment restrictions in the DVM curriculum. While accommodations can be made for students in the DVM/PhD program during the first and second years of their training by reducing the number of veterinary students by that number, the variability in the third and fourth years will make it difficult to accommodate more than 2 students per year given our current ceiling of a total of 80 veterinary students per class. In addition to increasing the numbers of potential research trainees in our programs, the proposed enrollment expansion will provide resources critical for the development of these programs (facilities, faculty, and staff).

Justification and Impact

Justification for this action item is offered in the introduction to this section. Additionally, two reports from the National Research Council entitled 'National Needs and Priorities for Veterinarians in Biomedical Research' and 'Critical Needs for Research in Veterinary Science' have carefully documented the growing deficit of veterinary researchers in the face of increasing national need and demand from both academia and industry. The impact of the deficit in veterinarians in research can be felt in 3 of the 4 key underserved areas of veterinary medicine, academia, public health, and biomedical sciences that led to the passage of the Veterinary Workforce Expansion Act.

This need arises from an awareness that through their clinical training, veterinarians have an appreciation for the animal as a whole, intellectually appreciate common themes that transcend the numerous species they encounter clinically, and that they embrace the concept of 'One Medicine – One Health'. As a result, there is an increasing awareness that veterinarians are essential for multidisciplinary approaches to translational research aimed at mining basic research discoveries for discoveries that have the potential to impact clinical medicine and moving those discoveries to the clinical setting. Increasing the number of trainees in the Clinician Scientist Training Programs will not only have a quantitative impact on our research training programs, but will also increase the quality of our trainees by enhancing the College's

research training visibility and reputation amongst veterinary school applicants and enrolled students, attracting more students who seek research training as part of their curriculum. Increased resources (faculty, staff, and funds) resulting from enrollment expansion will also benefit these programs.

University Investment Priorities addressed: The Clinician Scientist Training Program contributes to several of the university investment priorities.

1. Build research and graduate and professional programs aggressively in proven and emerging areas, by deepening and expanding research strengths.
2. Develop a faculty and staff of the highest quality because top quality graduate students contribute to the attraction and retention of high-quality faculty and staff.
3. Strengthen our commitment to a broader, more comprehensive range of Disciplines, by improving our ability to address complex issues in animal and public health research workforce needs

Funding Requirements

Resources needed for direct support of these programs include:

- Faculty positions to provide more research training opportunities-provided by the college
- Staff positions (both research and teaching) to accommodate the increased number of students-provided by the college
- Administrative costs-provided by the college and grants (Hi Priority; See below)
- Stipend support for trainees-provided by the programs and the mentors (Hi Priority; See below)
- Research project costs-generally provided by mentors

The two most compelling needs in direct support of these programs are stipend support and an administrative staff position.

Administrative staff position

We request 1 FTE position needed to support the 4 training programs: \$31,500 starting in FY 2007-2008 (Salary plus fringes, permanent)

Stipend support

Summer research internship program: We currently are unable to fund about 10 students per year. While about a third apply again and are accepted, about two thirds do not apply if they are not accepted the first year and are lost. We estimate that an additional 5 slots per year will capture these students. With enrollment expansion, we expect that participation in this program will increase 25%, or by 5 students per year. Stipend support is currently \$4,250 per year.

Total requirements for program expansion: \$42,500. Part of this will be provided by a NIH T35 short term training grant that is in preparation. We expect that this training grant will be quite competitive, but we will be more competitive if the College can partially match the number of slots requested from the NIH.

We request 4 additional slots by fiscal year 2007-2008 (\$17,000 per year, permanent).

Research Intensive Clinician Scientist Focus Area: There are no funds committed to this program to date. Summer research is paid by participation in the summer research internship program in year 1. Project funds must be provided by the mentor. We request that an additional summer stipend for year 2 be provided by the program. There are about 2 students per year in this focus area.

We request 2 summer research stipends per year by fiscal year 2007-2008 (\$8,500 per year, permanent).

Combined DVM/PhD program: Funding (Tuition and fees) is provided to students in the DVM years of this combined program and stipend support is earmarked for the first year of the graduate school portion of the program. Funding for the remaining years is the responsibility of the student's mentor. The College has already committed to providing two graduate stipends per year for students in their first year of the program and funds for DVM tuition and fees for up to 8 students per year in this program, amounting to about \$112,000 per year. In addition, funds have been committed by the College for administrative purposes and programmatic activities bringing the total commitment to over \$132,000 per year. To increase enrollment to the target of matriculating 6-8 students per year, an additional \$364,000 will be needed if the current funding structure is maintained. We expect most of these funds to be provided by a VMSTP training grant that will be submitted to the NIH in year 5 of the program. However, as with all NIH Training grant applications, matching funds will increase the likelihood of funding.

We request an additional 2 slots (\$112,000, permanent) by fiscal year 2009-2010 to match the number of slots we will be requesting from the NIH.

4. Action item: ANIMAL WELFARE, ETHICS AND PUBLIC POLICY (AWEPP)

With continued progress toward scientifically and technologically intensive modalities of animal care, and sustainable animal resource use, it is imperative that the college establish leadership in complementary programs focused on the humane and ethical care of animals within our society. Over the past five years, through the Campus-Community Partnership Program, the college has taken a regional leadership role in shelter animal medicine and the issues of marginalized companion animals within central North Carolina.

Justification and Impact

It is now time to build on this start and develop a comprehensive animal welfare program that also includes an extensive student and public education element, and a public policy research and development component. It is also necessary to move beyond issues relating to exclusively to companion animal welfare, and lead the national discussion of agricultural, laboratory, zoological and wild animal welfare. Within three to five years it is expected that this program achieve the status of University recognized Center for Animal Welfare Studies, and be nationally and internationally recognized as a model for combining effective public engagement, professional and graduate education and public policy research.

University Investment Priorities addressed: The Animal Welfare, Ethics, and Public Policy action item contributes to several of the university investment priorities.

1. Develop quality faculty/staff. by expanding our engagement with public policy and disciplines not currently involved in veterinary medicine
2. Build professional programs in emerging areas, and
3. Commitment to broader range of disciplines, and
4. Promote knowledge-based public policy. Combining veterinary medicine, animal and human behavior, social sciences, and other seemingly disparate disciplines will improve public policy. The above justification indicates this arena to be an exploding area needing the insights of clinicians, researchers, and policy makers that did not exist a decade ago.
5. Enrich student experiences through societal engagement. Student involvement in public policy issues ranging from shelter medicine through to domestic abuse will force new thinking and new understanding beyond those currently common

Funding Requirements

To accomplish this, we need a highly visible outreach program that will extend current community and academic partnerships and encourage private and foundation based donor

activity. Critical hires have been made on temporary funding, but permanent funding is needed to insure continued growth of the program. The CVM is currently supporting salaries on soft money for the Director, two clinical faculty, a veterinary technician, resident and an administrative support position. Matching funding is being requested for the Director's salary, and resident funding.

5. Action Item: RESEARCH RESOURCES

5.a. Action Item: Director of Biomedical Program Development

This position will oversee Centennial Biomedical Campus program development and ensure programmatic alignment with the One-Medicine initiative, existing faculty programs, university resources and private sector partners.

Justification and Impact

If the Centennial Biomedical Campus is to grow and flourish, and contribute fully to the development of the One-Medicine Initiative, we must have dedicated leadership focused on planning, oversight of the growing physical facility, private sector engagement, marketing and coordination with faculty academic programs. It is envisaged that this position will be a senior college leadership position at the Director level and be the college's primary interface with other University resources such as the Centennial Campus office, Business and Finance and Facilities for development of the Centennial Biomedical Campus.

Funding Requirements

The College will provide one half of the salary for such a position (approximately \$120,000 plus benefits) and we request matching funds. Also requested is matching support for administrative assistance and operating funds for such a position. These are projected to total \$80,000 annually.

5.b. Action Item: Laboratory Animal Resources Facilities

The laboratory animal housing facilities (CVM "Finger Barns") are in extremely poor condition. The wellbeing of research animals is constantly compromised and the conduct of major federally funded biomedical research programs jeopardized. This, in turn, jeopardizes our ability to attract and retain the very best biomedical scientists necessary to develop our program in Comparative Biomedical Sciences and the Centennial Biomedical Campus. Shortcomings in these facilities have been cited by IACUC and AAALAC since the late 1990's.

Justification and Impact

LAR facilities cannot provide the quality of environmental control that is expected in today's research environment. This may have direct consequences as the CVM seeks to attract corporate partners to the Centennial BioMedical Campus. These partners may expect more than we can currently provide, and they will certainly expect AAALAC accreditation, which is threatened without specific plans for correction of HVAC problems.

Most recently, the NCSU Institutional Animal Care and Use Committee voted (unanimously) to not accept our latest response to a cited HVAC deficiency in the finger barns. They are not satisfied with an uncertain plan (i.e., unknown time frame or financial commitment for all the finger barns), and have insisted on a specific schedule for correction of deficiencies; this is consistent with regulatory language. Without such a schedule, the IACUC would be justified, if not obligated, to suspend ongoing work in these facilities.

Funding Requirements

Through several years of R and R allocations and allocations from the college, approximately \$2.5 million has been set aside for these renovations. The current estimates of cost are \$5.2 million leaving a shortfall of \$2.7 million. It is essential, for the wellbeing of research animals and the stability of our research programs that this allocation is made soon such that these long overdue renovations can occur in an expeditious manner.

6. Action Item: INTERNATIONAL PROGRAMS

Globalization and the impact of global events (e.g. avian influenza, trade and food safety, ecosystem conservation, and others) necessitate close international linkages and working partnerships that are mutually beneficial and most importantly, established with genuine intent prior to the occurrence of such events. The CVM is committed to being an international partner and leader in education, research and medicine.

Over the last few years, NCSU veterinary students have traveled to different countries around the globe for clinical, research, educational and cultural experiences (~5-10% of student pool per year); students have funded these trips through personal funds and small college awards. There are practically no resources for faculty and their graduate students to travel abroad, visit laboratories, understand the conditions and capabilities of their international colleagues, and to develop working relationships and collaborative programs that will sustain over the long term.

Additionally, faculty expertise in clinical medicine is desired at colleges in developing countries e.g. interest from the Bangalore Veterinary College in India for CVM faculty to train them in ultrasound diagnostics, for their students to get clinical training opportunities here, interest in research collaborations and willingness to accommodate our students at their college. In line with university priorities, the CVM would like to accomplish the following long term goals:

- Strengthen faculty, and veterinary and graduate student programs as a 2-way exchange
- Target strategic partnerships in Asia (China, India, Thailand), South America (Chile, Uruguay), Europe (Czech Republic, Germany) and Australia/New Zealand. (*Links have already been initiated in most of these countries but this will not preclude new ties with other regions.)

Justification and Intended Impact

Impact will be assessed on [1] number and quality of working partnerships, [2] number of extramural awards, and [3] number and quality of completed training projects.

University Investment Priorities addressed: The International Programs action item contributes to several of the university investment priorities.

1. Develop quality faculty/staff. by expanding our engagement with global issues not currently seen in US veterinary medicine
2. Enrich students' educational experiences through societal engagement, and
3. Integrate global perspectives. Experiencing other areas' issues, mandates, and limitations with regards to animal and public health, for ecosystem conservation, and for education, will only improve our understanding of our won issues in these and other areas.

Funding Requirements

1. Funds are requested for linkages with China (China veterinary colleges at Zhejiang University, Hangzhou, and China Agricultural University, Beijing) and Chile (Chile veterinary colleges at University Austral de Chile, Valdivia, and Universidad de Concepcion, Chillan). Operating funds of \$15,000 per year are requested for 3 consecutive years (fiscal years 07/08, 08/09 and 09/10). Note that the CVM Director of International Programs/lead faculty for these programs will solicit extramural funding (NIH Fogarty International

Awards, NSF Travel Awards, WHO, USDA) to sustain these research and educational programs.

2. 30% salary release for Director of International Programs; operating funds to support travel for faculty advisors; student stipends being provided by Associate Dean Academic Affairs and SCAVMA

7. Action Item: DIVERSITY

Veterinary Medicine as a profession has relatively few non-white students and the number of minorities in our national applicant pool and in our student population continues to be low, at about 2%. There is a need to increase the number of under represented people in our profession so that the profession can provide for the animal health care needs of an increasingly diverse population in the state, region, and meet our opportunities in the world. The CVM Director of Diversity has a comprehensive approach to increasing the diversity of the College, and continues to develop and promote programs that support our diversity goals, such as the Laboratory Animal Scholars Program, Tuskegee Visiting Veterinary Scholar Program, Diversity Enhancement House Officer Program, Mentoring Program, Recruitment and scholarships, and CVM Professional Diversity Development opportunities.

Justification and Impact

The justification and impact of a diverse academic community are explained above in the introduction.

This action item addresses the following University Investment Priority:

1. *Develop a faculty and staff of the highest quality.* Greater racial and economic diversity in the faculty and staff will better reflect the world in which our graduates will work.

Funding Requirements

The Director of Diversity and Multi-Cultural Affairs is currently a soft funded .8fte The CVM is requesting matching permanent funds for one half of that commitment and administrative support (.25fte) for the Director.

Resources

- **Progress Report on 2000-07 Compact Plan Initiatives**

The CVM has only received one allocation of \$55K in the last Compact cycle to support a new IT position. These funds have been permanently allocated to the Computing Resources group and a new position has been created and filled. In addition to the Compact funded position, the College is also funding an additional computer support technician position from soft funds, as well as funding a new Web developer position from central College funds.

- **Budget Review**

The FY06 expenditures net of transfers, was \$53,982,121.86. Of this, salary and benefits, from all sources was \$36,484,322, or 67.59%; operating was \$16,082,718 or 29.8%, and the balance \$1,315,519 (2.4%) was student support/awards and subcontracts. Total expenditures on only state appropriated funds was \$27,599,458 with \$23,918,102 (87%) for salaries and benefits, and \$3,658,344 (13%) operating expenses.

Further clarification of expenditures can be discussed at the Provost's meeting.

- **Summary of Efficiency Improvements**

The biggest staffing need in the CVM is in the Veterinary Teaching Hospital. The Hospital has had significant growth in recent years, not only in staff, but in clinical faculty and resident positions, and these have been funded from VTH generated revenue.

In FY 03, the CVM addressed the severe budget cuts by doing substantial Reductions-In-Force. At that time, 11 permanent positions were abolished; positions in office support as well as technical support were eliminated. As a result, the productivity of many faculty and/or programs were negatively impacted. The current economic climate has since improved and the College is attempting to rebuild this important infrastructure.

- **Future Efficiency Improvements**

As detailed in this compact plan, the College is experiencing significant growth in numerous programmatic areas. As these programs mature, there is need for office support staff so that faculty program leaders are not relegated to time consuming administrative activities. The college is addressing these requests conservatively and only adding staff positions where the need is greatest and/or where administrative positions can be shared between programs.

- **Summary of action items requiring new resources**

See spreadsheet provided by the Provost's Office (Spreadsheet 4.e.).

Planning process

The College of Veterinary Medicine completed a two day administrative retreat in October to review and discuss issues and directions of this College. This retreat was not a meeting to discuss programmatic priorities but rather to look at the general objectives of the College in teaching, research and engagement and outreach. The retreat was facilitated by Ben Edwards of the Art&Science Group, and he also presented some survey results he had garnered from recent interviews both from campus and off campus constituents. The discussions of this retreat started with detailing strengths and weaknesses, and all participants coming up with external trends or events impacting veterinary education and/or the profession. It is these discussions that will provide the framework, or 'context for planning', for the CVM compact plan.

The Dean is summarizing the outcome of the retreat and is preparing a whitepaper presenting the broad scope of the decisions. He will be meeting with each department to present and review this information, laying the groundwork for department's compact planning. Each department and unit head will be charged with reviewing departmental programs and preparing action items that support the CVM priorities. This will be initiated at department faculty meetings and developed through the departmental organizational structure (work groups, service groups, etc). Each department head meet with the Dean to review and discuss departmental plans. Department heads will then be presenting prioritized departmental action items to Cabinet. The full Cabinet, which includes faculty representation, will consolidate and prioritize the action items from the College as a whole, based on the College goals. The faculty, through the departmental review, will also be asked to suggest strategies for improvements in efficiency. After the Cabinet review and prioritization of action items and budget requests, a first draft will be consolidated in the Dean's Office. This will be presented back to Cabinet for review and edit prior to submission to the Provost.