

## COLLEGE OF VETERINARY MEDICINE

### 2007-2008 Annual Report

The College of Veterinary Medicine continues to be listed among the top veterinary colleges in the United States by *U.S. News & World Report*. The magazine's current report – "America's Best Graduate Schools, 2009: Health Disciplines (Doctor of Veterinary Medicine)" – lists the NC State CVM fifth among the nation's 28 veterinary programs.

#### CHANGES IN SERVICE ENVIRONMENT

- Completed significant renovations to the CVM's animal facilities.
- To address the predicted critical shortage of veterinarians (particularly in governmental service, public health and food animal practices), CVM has initiated the following actions: 1) Admissions committee members are made aware of shortage areas. 2) Tracked admissions programs have been established in several areas, both at NC State and NC A&T State University to address critical shortage areas in food animal practice and laboratory animal medicine. 3) Planned growth in the MVPH program and planned increased collaboration with the MPH program at UNC-CH will increase the production of graduates with interests and capabilities in public health. 4) A career day has been added to the first year student orientation to make admitted students more aware of the abundant DVM opportunities.
- The trend in food animal practices towards health herd management, food safety, and attention to bioterrorism has resulted in a dramatic decline in the number of individual food animals examined and hospitalized in the Veterinary Teaching Hospital. Clinical exposure of senior veterinary students to agricultural species has shifted to University, corporate and private farms. The ruminant faculty have relied heavily on the University Dairy Farm system and reorganization of this system and closure of the closest farm to the VTH (Umstead Dairy) now requires food animal faculty and students to travel to central North Carolina (Piedmont Dairy) to maintain the same clinical teaching opportunity. The Ruminant Health Group is restructuring their clinical/teaching program to establish a more robust hospital presence, while maintaining their field service emphasis.

#### COMPACT PLAN: MAJOR INITIATIVES

- North Carolina was selected as one of 6 sites to be considered for the National Bio and Agro-defense facility (NBAF). An environmental impact study (EIS) is currently underway. A final decision on the selected site is expected Fall 2008.
- Construction began on Randall B. Terry Jr. Companion Animal Veterinary Medical Center in December 2007.
- The CVM enhanced diagnostic support for North Carolina's livestock industries through a partnership with the NC Department of Agriculture and Consumer Services Animal Disease Diagnostic Laboratory System.
- The VTH expanded the Intermediate Care Unit (IMC) in order to respond to the increased number of cases from the Small Animal Emergency Service and to better match patient needs with care provided. The VTH restructured the

oncology service to better meet the needs of referring veterinarians. The Emergency and Critical Care sections were strengthened by establishing a day-time triage service, adding 4 additional interns and establishing a clinical instructor position in the Triage Service. The VTH is in the final stages of implementing a Bone Marrow Transplant Service. Internal Medicine services were expanded to include state-of-the-art veterinary care in infectious disease, nephrology and urology, and pulmonology. A large animal brachytherapy service was established within the VTH.

- An oncology track was established within the graduate school to help recruit qualified graduate students interested in oncology.
- The College has expanded the food animal scholars program beyond NC State to include interested students at NC &T. The first food animal scholar from NC A&T will be employed at the college this summer.
- The CVM and College of Management admitted the first student for the combined DVM/MBA degree program. The CVM has also strengthened its combined DVM/PhD program.

#### **DIVERSITY: INITIATIVES AND PROGRESS**

- The DVM Class of 2012 represents a higher level of ethnic and professional diversity than the average veterinary class; the class is approximately 10% ethnic minority.
- The college has increased recruiting efforts at predominantly minority colleges and universities to encourage applications from under-represented populations. The college has also begun recruiting at several national events (AAVMC, Annual Biomedical Research Meeting for Minorities in Science).
- The College instituted a cultural awareness program and conducted five modules last year.

#### **INSTRUCTIONAL PROGRAM ADVANCES**

- The College is undertaking a complete review of the DVM professional degree curriculum.
- A new website was developed to host all DVM course materials.
- A streaming video library of clinical skills is being developed with partial external funding from Pfizer Animal Health.
- An on-line voluntary summer course for incoming veterinary students was developed to assist with familiarity with medical terminology and some basic anatomical and physiological concepts.
- “Certified First Responder” training was added into the third year VMC 962 Ethics, Animal Welfare and Social Responsibility course. This is part of a larger effort to certify all NCSU DVM graduates as Certified First Responders in the case of a natural disaster in North Carolina. This is the first program of its kind at a veterinary college.
- The CCMTR developed a comparative medicine and translational research training program for specialty trained post-DVM PhD candidates.
- The North Carolina General Assembly allocated funds for the Veterinary Medicine Clinical Teaching and Research Fund to support advanced diagnosis and treatment for pet owners when their financing options were limited; to support cases

where significant instructional value existed and/or the diagnostic and treatment options had the potential of adding significantly to core knowledge in the relevant clinical area. The VTH Board implemented procedures to define the process for utilizing the funds. Feedback from owners benefiting from the funds, as well as the faculty who have used the funds to support teaching and/or to increase the core knowledge of veterinary medicine, has been overwhelmingly positive.

Average GPA and GRE Scores

	GRE Verbal	GRE Quantitative	GRE Analytical	Cumulative GPA	Prerequisite Course GPA	Last 45 credit GPA
Resident	518	671	4.28	3.61	3.64	3.71
Non-resident	517	644	4.53	3.78	3.74	3.83

**RESEARCH**

Volume of Activity

Original Works in peer-reviewed journals	Case Reports in peer-reviewed journals	Review articles in peer-reviewed journals	Books	Book Chapters	Abstracts from scientific & professional veterinary conferences	Electronic Media	Invited Research presentations, professional audiences	Continuing Education presentations	Bulletins Booklets etc.	Copyrights	Patents
329	47	44	7	122	315	51	649	116	20	0	10

- Extramural research awards totaled \$13,718,842. Combined extramural and intramural research awards totaled \$13,877,561. Primary funding sources: federal government [73.19% (\$10,041,203), including miscellaneous, "flow through" awards], e.g., NIH, NSF, NCI, EPA, NIEHS and the USDA. Industrial-, Foundation-, and State-, sponsored awards summed to 16.7% (\$2,325,699), 6.82% (\$935,561), and 3.04% (\$416,409) of the total, respectively.
- The Associate Dean for Research worked with the Wake County Economic Development and Raleigh Chamber of Commerce Precision Marketing Campaign to recruit new companies to NC and, in particular, the Centennial Biomedical Campus. The Associate Dean held discussions with several potential corporate partners to locate on the Centennial Biomedical Campus.

## **EXTENSION: INITIATIVES AND PUBLIC SERVICE ACTIVITIES**

### College Relations

- Produced three issues of CVM magazine.
- Created a brochure to highlight the programs and services at the Equine Health Center at Southern Pines.
- Several CVM stories were covered by national media outlets: MSNBC did a feature related to pet nutrition, CNN conducted an interview with Dr. Marcellin-Little and others for an upcoming national feature, Time magazine interviewed Dr. Marchellin-Little on prosthetics.
- Initiated several new CVM internal communications tools including the monthly Dean's update, internal CVM website and *CVM This Week* email newsletter.

### Continuing Education

- Conducted 33 professional continuing education programs with 2,273 registrants.
- With NCVMA, organized and administered North Carolina Veterinary Conference with over 1268 registrants. With Ross University, organized West Indies Veterinary Conference for NC veterinarians and Ross alumni.
- The 2008 Open House was canceled due to ongoing construction of the new Terry Center.
- Organized the 24<sup>th</sup> Annual Equine Medicine Symposium.

### Student Services

- Organized and arranged a job fair held during North Carolina Veterinary Conference with more than 75 veterinary clinics represented. Maintained the Vet Career Network and the NC Veterinary Medical Association for online job postings targeting DVM students.
- Hosted 200 attendees for admission information sessions. Responded to 875 email requests.
- Jeff Huckel completed the final year of a three year term on the AAVMC Executive Admissions committee, having served as Chair and Immediate Past Chair during that term.
- Dr. Taylor conducted 24 presentations through the counseling office including modules on stress management, time management and nutrition.

### Alumni

- Working with the Class of 1994, established the Class of 1994 Endowment in memory of Dr. Alan Fiemster. With the Class of 2004, created the Captain Michael Shean Fielder DVM Memorial Scholarship in honor of their classmate.
- Held alumni receptions at the AVMA meeting in Washington, DC, NAVC meeting in Orlando, Florida and the WVC meeting in Las Vegas, NV.

## **FACULTY: HONORS, AWARDS AND RECOGNITION**

### International

- Dr. Duncan Lascelles received the Simon Award, presented at the Congress of British Small Animal Veterinary Association for Outstanding Contributions in the field of veterinary surgery.
- Dr. Matthew Breen won the American Kennel Club Canine Health Foundation's Asas Mays Award for Excellence in Canine Health Research.

### National

- Dr. Steve Marks was selected as the new president-elect of the American College of Veterinary Internal Medicine (ACVIM), Specialty of Small Animal Internal Medicine.
- Dr. Allen Cannedy received the Animal & Health Inspection Service Administrator's Civil Rights Award.
- Dr. Eleanor Hawkins was elected Vice-President of the American College of Veterinary Internal Medicine.
- Dr. Barbara Sherman is President-elect, American College of Veterinary Behaviorists.
- Dr. Kenneth Adler received the NIH NHLBI MERIT Award.

### University

- Dr. Dick Mansmann and Dr. Mark Alley were named Outstanding Extension Service Award recipients by the Office of Extension, Engagement and Economic Development.
- Dr. Barbara Sherry was selected as one of this year's NC State Alumni Distinguished Graduate Professors.
- Dr. Cliff Swanson won the university's Outstanding Teaching Award.
- Dr. Peter Cowan received the Faculty Diversity Award.

### College

- The Leroy Coggins Graduate Fellowship Award: Dr. John Marshall; The Charley, Hannah & Samantha Collins Coat of Excellence: Dr. Paul Hess, The Jane & Terry Seaks Coat of Excellence: Dr. Kyle Matthews, Pfizer Animal Health Award for Research Excellence: Dr. Mark Papich, Huffman Leadership Award: Dr. Mark Papich and Ms. Kathryn Byrd.
- Dr. James Floyd received the Norden Distinguished Teaching Award.
- Dr. Philip Sannes was selected as CVM's recipient of the Board of Governor's Award for Excellence in Teaching.

## **STUDENTS: HONORS, MEASURE OF QUALITY AND STUDENT ACTIVITIES**

### Scholarships/Fellowships/Grants

- Lacey Wright ('10) and Melany Landry ('08) won \$1000 AVMA scholarships for their unique externship experiences. Lacey completed her externship at the Rocky Creek Veterinary Services and Melany at Sea World in Florida. Other scholarship awards went to Alicia Cawfield ('09) (Army Health Professions Scholarship), Amanda Floeringer ('09) (Pfizer Veterinary Scholarship) and Cynthia Wilson ('11) (AKC scholarship and AKC Presidents Scholarship).

## Publications

- Estrada J, Sommer J, Collins B, Mir B, **Martin A**, York A, Petters RM, Piedrahita JA. Swine generated by somatic cell nuclear transfer have increased incidence of intrauterine growth restriction (IUGR). *Cloning Stem Cells* June 2007;9(2):229-36.
- Lascelles BDX, Gaynor J, Smith ES, Roe S, Marcellin-Little D, Davidson G, Boland E, **Carr J**: Evaluation of amantadine as part of a multimodal analgesic regimen for the alleviation of refractory canine osteoarthritis. *J Vet Intern Med.* 2008 Jan-Feb;22(1):53-9 (Jen Carr '08 also presented the results at the ACVS annual meeting.)

## Honors

- Adam King won the academic competition held at the annual SCAVMA meeting.
- Amanda Lumsden received the college's Murphy Alford Coat of Excellence Award.
- Danielle Irving ('09) First Place: Society for Veterinary Medical Ethics veterinary student contest.
- Janessa Gjeltema ('11) received the NC Zoo's 2007 President's Volunteer Service Award.
- Kaelyn Moury ('08): American Association of Bovine Practitioners Bovine Veterinary Student Award and first place in the AABP student case study competition
- Katie Hendrix ('09): NCVMA Industry Council Award.
- Lacey Wright ('10): American Association of Bovine Practitioners Student Recognition Award
- Stephanie Montgomery, Katharine Holder and Blaire Holland were recipients of the Morris Animal Foundation research stipend award.
- Christopher Koivisto ('11) received an Intramural Research Training Award pre-doctoral research position at NIEHS.
- Amy McCalla ('10) won first place in the student research poster sessions from both the Genetics and Environmental Mutagenesis Society Conference and the American College of Veterinary Pathology.

## **FUND-RAISING: PRIVATE FUND-RAISING SUCCESSES**

- FY 2008 (as of March 31, 2008) raised: \$6,069,805 (59% of goal); Individual Gifts: \$690,723; Deferred Gifts: \$360,000; Corporations: \$249,365; Foundations: \$3,093,750; Non-government grants: \$1,423,560; Organizations and Gift-In Kinds \$228,923; Pledges: \$23,475.
- Currently at 183% of original \$50 million goal for the NCSU Achieve! Campaign. Re-established goal to \$100 million; currently at \$91,602,270.
- The NC Veterinary Medical Association pledged \$100,000 toward creation of an endowment (NCVMA Leadership Award Endowment) to provide an annual award to a student or students enrolled in the NCSU-CVM who have contributed most to the cause of veterinary medicine.

- Board member Terry Seaks provided funding for the CVM's first endowed professorship (Jane Lewis Seaks Distinguished Professorship for Companion Animal Medicine) with \$335,000 in contributions, matched by the R.B. Terry Charitable Foundation. Additional matching funds from the state legislature are pending.
- The R.B. Terry Charitable Foundation issued a dollar-for-dollar challenge grant, up to \$5 million, to match all new gifts made after October 25, 2007 for the completion of the Terry Center.
- Worked with the Triangle Community Foundation to establish an annual and an endowed Equine Scholarship (Fritz and Softy Endowed Equine Scholarship). Through donors Olive & Lewis Greenwald, we will receive \$10,000 each year for the next five years, \$5,000 is to be used for an annual scholarship each year, and \$5,000 is to be used towards building a \$25,000 endowed scholarship.
- Novartis Animal Health pledged \$625,000 over five years in support of the Clinical Trials Program (CTP) at the Center for Comparative Medicine and Translational Research (CCMTR). This contribution will enable the CCMTR to fund a clinical trials veterinarian, a veterinary research technician, and provide training, travel, and equipment necessary to successfully grow the CTP.
- Through their charitable remainder trust, NCVMF Board president Luther Hodges and his wife Cheray have made a \$333,000 commitment for a future endowed professorship, to be known as the Luther and Cheray Hodges Professorship in Companion Animal Health.

## **ADMINISTRATION: ACHIEVEMENTS AND STAFF CHANGES**

### Administrative Changes/Appointments

- Dr. David Dorman was appointed as Associate Dean for Research and Graduate Studies, replacing Dr. Neil Olson who left to become Dean of the College of Veterinary Medicine at the University of Missouri-Columbia.
- Dr. David Bristol's title was changed to Senior Associate Dean with additional assigned administrative responsibilities.
- Dr. Jim Floyd returned to active military service and Dr. Malcolm Roberts will serve as Interim Head of the PHP Department.
- Dr. Lizette Hardie was appointed as Interim Head of the Department of Clinical Sciences.
- Ms. Susan Lilly was named Executive Director of Development.
- Dr. Betsy Taylor replaced Dr. Rhonda Sutton as the Clinical Counselor
- Ms. Johanna Donovan was promoted to Assistant Director of Student Services, replacing Charles Clift who accepted a position on campus.
- Ms. Kristine Alpi was appointed Director of the Veterinary Medical Library. Ms. Carol Vreeland was appointed Associate Director.

- Mr. Dan Tucker resigned as Director of Biomedical Communications to take a more senior position with the university. Dan McWhorter has assumed the supervisory responsibility for BMC while maintaining his position as Director of Web Based Instruction.
- Ms. Kathryn Byrd retired as Director of Continuing Education and Ms. Samantha Hartford was promoted to that position.
- Faculty New Hires: *Department of Clinical Sciences:* Alison Clode, Assistant Professor of Ophthalmology, Jennifer Davis, Clinical Assistant Professor of Equine Medicine, Peter Early, Clinical Assistant Professor of Neurology, Callie Fogle, Assistant Professor of Equine Surgery, Jody Gookin, Assistant Professor of Small Animal Internal Medicine, Keiri Jermyn, Clinical Instructor of Small Animal Surgery, Ana Oliveira, Clinical Assistant Professor of Dermatology. *Department of Molecular Biomedical Sciences:* Dr. James Brown, Clinical Research Professor of Anesthesiology, Dr. Troy Ghashghaei, Assistant Professor. *Department of Population Health and Pathobiology:* Sid Thakur, Assistant Professor in the Swine Health and Production, Dr. Anne Schramme, Clinical Assistant Professor in Theriogenology, Dr. Xin Rui Xia, Research Assistant Professor in Pharmacology and Risk Assessment and Dr. Derek Foster, Instructor, Ruminant Health Management.

#### Staff Changes/Appointments

- Ms. Sarah Cohen joined CVM as Executive Assistant to Dean Arden.
- CVM's Development office welcomed Ms. Kate Azizi as Director of Corporate and Foundations Relations, and Michael Strader as Director of Development for Equine Programs.

#### **RECOMMENDATIONS AND CONCERNS FOR THE FUTURE**

- The aging research infrastructure at the College is particularly critical in the CVM's laboratory animal facilities. Additional renovations are needed to support research activities at the Equine Health Center in Southern Pines.
- A request to increase enrollment has been submitted as part of the university's response to the UNC-tomorrow report. An increase in enrollment will require an investment in a new academic building and renovation of current facilities as the college was built for a target class size of 72 students and most of our classrooms and laboratories are already at capacity. This will require support from the state legislature
- Recruitment and retention of faculty is an ever-increasing challenge as more private specialty practices offer enhanced opportunities and salaries.
- The CVM should continue to strengthen the programs of Infectious Diseases and Biosecurity, Food Supply Veterinary Medicine and Public Health and Food Safety.
- The ability to grow extramural research funding continues to be challenging due to decreases in funding availability from national sources.