TABLE OF CONTENTS

1. Departmental Activity Report and Listing. ............. 3-17

2. Departmental Bibliography. .............................. 18-84
### Instructional Program

The Clinical Sciences faculty continued to provide key instructional offerings. In addition to acting as course coordinators for the courses in the list below, faculty also provide instruction in a number of other DVM and graduate courses.

**CORE COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Careers in Veterinary Medicine (VMC-910)</td>
<td>FALL</td>
<td></td>
</tr>
<tr>
<td>Introduction to Companion Animal Behavior (VMC-927)</td>
<td>SPRING</td>
<td>FISH</td>
</tr>
<tr>
<td>Intro to Physical Exam Skills-Lab Animal and Zoological Species (VMC-931)</td>
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<tr>
<td>Principles of Surgery (VMC-932)</td>
<td>FALL</td>
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<tr>
<td>Theriogenology (VMC-933)</td>
<td>FALL</td>
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<tr>
<td>Introduction to Physical Examination (VMC-937)</td>
<td>FALL</td>
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<tr>
<td>Companion Animal Medicine Surgery (VMC-951)</td>
<td>FALL</td>
<td></td>
</tr>
<tr>
<td>Equine Medicine &amp; Surgery (VMC-952)</td>
<td>FALL</td>
<td></td>
</tr>
<tr>
<td>Laboratory Animal and Special Species Medicine (VMC-953)</td>
<td>FALL</td>
<td></td>
</tr>
<tr>
<td>Introduction to Clinical Practice (VMC-957)</td>
<td>FALL/SPRING</td>
<td>HARDIE/MARKS</td>
</tr>
<tr>
<td>Companion Animal Medicine and Surgery II (VMC-961)</td>
<td>SPRING</td>
<td></td>
</tr>
<tr>
<td>Animal Welfare, Ethics and Societal Responsibility (VMC-962)</td>
<td>SPRING</td>
<td></td>
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<tr>
<td>Large Animal Surgery &amp; Diagnostic Techniques (VMC-965)</td>
<td>SPRING</td>
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**SELECTIVES:**

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<thead>
<tr>
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<th>Semester</th>
<th>Coordinator</th>
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</thead>
<tbody>
<tr>
<td>Active Learning in Companion Animal VTH (VMC-992)</td>
<td>FALL/SPRING</td>
<td>HARDIE</td>
</tr>
<tr>
<td>Advanced Equine Theriogenology (VMC-991)</td>
<td>SPRING</td>
<td>BAILEY</td>
</tr>
<tr>
<td>Advanced Companion Avian Medicine (VMC-991)</td>
<td>SPRING</td>
<td>DEGERNES</td>
</tr>
<tr>
<td>Advanced Ferret Medicine (VMC-991)</td>
<td>FALL (odd years)</td>
<td>HARMs/GRUNKEMEYER</td>
</tr>
<tr>
<td>Advanced Fish Medicine (VMC-991)</td>
<td>SPRING</td>
<td>LEWBART</td>
</tr>
<tr>
<td>Advanced Herptile Medicine (VMC-991)</td>
<td>SPRING</td>
<td></td>
</tr>
<tr>
<td>Applied Equine Behavior &amp; Field Procedures (VMC-992)</td>
<td>SPRING</td>
<td>JONES/GERARD</td>
</tr>
<tr>
<td>Applied Surgical Anatomy (VMC-991)</td>
<td>SPRING</td>
<td></td>
</tr>
<tr>
<td>Equine Colic (VMC-991)</td>
<td>FALL</td>
<td>BLIKSLAGER</td>
</tr>
<tr>
<td>Equine Endoscopy (VMC-991)</td>
<td>SPRING</td>
<td>TATE</td>
</tr>
<tr>
<td>Extramural Experience in Zoo Medicine (VMC-992)</td>
<td>SPRING</td>
<td>LEWBART</td>
</tr>
<tr>
<td>Health/Safety in the Third World (VMC-991)</td>
<td>FALL</td>
<td>STOSKOPF/LOOMIS</td>
</tr>
<tr>
<td>Introduction to Equine Orthopedics &amp; Lameness (VMC-991)</td>
<td>SPRING</td>
<td>REDDING</td>
</tr>
<tr>
<td>Introduction to Zoological Health (VMC-991)</td>
<td>SPRING</td>
<td>STOSKOPF</td>
</tr>
<tr>
<td>Invertebrate Medicine (VMC-991)</td>
<td>FALL</td>
<td>LEWBART</td>
</tr>
<tr>
<td>Lab Animal Medicine (VMC-991)</td>
<td>FALL</td>
<td>FISH</td>
</tr>
<tr>
<td>Large Animal Practice Experience (VMC-992)</td>
<td>FALL/SPRING</td>
<td>PRANGE</td>
</tr>
<tr>
<td>Marketing Communication and Information Management (VMC-991)</td>
<td>SPRING</td>
<td>KEDROWICZ</td>
</tr>
<tr>
<td>Mindful Veterinary Practice (VMC-991)</td>
<td>FALL/SPRING</td>
<td>FLAMMER</td>
</tr>
<tr>
<td>One Medicine One Health (VMC-991)</td>
<td>FALL</td>
<td>KENNEDY-STOSKOPF</td>
</tr>
<tr>
<td>Primate Medicine (VMC-991)</td>
<td>SPRING</td>
<td>FISH/LOOMIS</td>
</tr>
<tr>
<td>Professional Meeting (VMC-991)</td>
<td>FALL</td>
<td>FLAMMER/CLICK</td>
</tr>
<tr>
<td>Psychomotor Skills (VMC-991)</td>
<td>SPRING</td>
<td>HARDIE</td>
</tr>
<tr>
<td>Physical Therapy and Rehabilitation (VMC-991)</td>
<td>FALL</td>
<td>MARCELLIN</td>
</tr>
<tr>
<td>Raptor Medicine and Rehabilitation (VMC-991)</td>
<td>FALL</td>
<td>DEGERNES</td>
</tr>
<tr>
<td>Small Animal Clinical Neurology (VMC-991)</td>
<td>SPRING</td>
<td>MARIANI</td>
</tr>
<tr>
<td>Small Animal Practice Experience (VMC-992)</td>
<td>FALL/SPRING</td>
<td>DUNNING</td>
</tr>
<tr>
<td>Veterinary Acupuncture in China (VMC-992)</td>
<td>SPRING</td>
<td>DEGERNES</td>
</tr>
<tr>
<td>Veterinary Medicine and Farriery (VMC-991)</td>
<td>SPRING</td>
<td>REDDING</td>
</tr>
<tr>
<td>Veterinary Illustration (VMC-991)</td>
<td>SPRING</td>
<td>STOSKOPF</td>
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**ELECTIVES:**

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<tr>
<th>Course</th>
<th>SEMESTER</th>
<th>COORDINATOR</th>
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</thead>
<tbody>
<tr>
<td>Special Topics in Theriogenology I (CBS-810)</td>
<td>FALL</td>
<td>BAILEY</td>
</tr>
<tr>
<td>Special Topics in Theriogenology II (CBS-810)</td>
<td>SPRING</td>
<td>BAILEY</td>
</tr>
<tr>
<td>Advanced Topics in Zoological Medicine (CBS-817/818)</td>
<td>FALL/SPRING</td>
<td>KENNEDY-STOSKOPF</td>
</tr>
<tr>
<td>Ethics in Fisheries &amp; Wildlife Sciences (FW-730)</td>
<td>FALL</td>
<td>STOSKOPF</td>
</tr>
<tr>
<td>Advanced Topics in Equine Medicine &amp; Surgery (VMC-911)</td>
<td>SPRING</td>
<td>DAVIS</td>
</tr>
<tr>
<td>Special Topics in Zoological Medicine (VMC-921)</td>
<td>FALL/SPRING</td>
<td>LEWBARTE</td>
</tr>
<tr>
<td>Veterinary Acupuncture in China (elective) (VMC-922)</td>
<td>SPRING</td>
<td>DEGERNES</td>
</tr>
<tr>
<td>Topics in Wild Reptile Medicine (VMC-928)</td>
<td>FALL/SPRING</td>
<td>LEWBARTE</td>
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**CLINICAL ROTATIONS:**

<table>
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<tr>
<th>Course</th>
<th>SEMESTER</th>
<th>COORDINATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation and Mobility (VMC-930)</td>
<td>FALL/SPRING</td>
<td>DUNNING/SIMS</td>
</tr>
<tr>
<td>General Limited Small Animal Practice (VMC-939)</td>
<td>FALL/SPRING</td>
<td>STEVENS/TAYLOR</td>
</tr>
<tr>
<td>Clinical Theriogenology (VMC-940)</td>
<td>FALL/SPRING</td>
<td>WHITACRE/BAILEY</td>
</tr>
<tr>
<td>Advanced Topics in Theriogenology (VMC-941)</td>
<td>FALL/SPRING</td>
<td>WHITACRE/BAILEY</td>
</tr>
<tr>
<td>Sea Turtle Medicine &amp; Rehabilitation (VMC-950)</td>
<td>FALL</td>
<td>HARMs</td>
</tr>
<tr>
<td>Companion Animal Medicine for Food Animal Students (VMC-954)</td>
<td>FALL/SPRING</td>
<td>HARRELL</td>
</tr>
<tr>
<td>Extramural Experiences in Laboratory Animal Medicine (VMC-955)</td>
<td>FALL/SPRING</td>
<td>FISH</td>
</tr>
<tr>
<td>Advanced Primate Medicine (VMC-959)</td>
<td>FALL/SPRING</td>
<td>STOSKOPF</td>
</tr>
<tr>
<td>Small Animal Emergency Service (VMC-960)</td>
<td>FALL/SPRING</td>
<td>HANEL</td>
</tr>
<tr>
<td>Extramural Experiences in Zoological Medicine (VMC-963)</td>
<td>FALL/SPRING</td>
<td>LEWBARTE</td>
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<tr>
<td>Zoological Husbandry and Nutrition (VMC-964)</td>
<td>FALL/SPRING</td>
<td>STOSKOPF</td>
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<tr>
<td>Equine Emergency &amp; Critical Care (VMC-966)</td>
<td>FALL/SPRING</td>
<td>PRANGE</td>
</tr>
<tr>
<td>Clinical Veterinary Dentistry (VMC-967)</td>
<td>FALL/SPRING</td>
<td>EROSHIN</td>
</tr>
<tr>
<td>Equine Orthopedic Surgery &amp; Lameness (VMC-968)</td>
<td>FALL/SPRING</td>
<td>TATE</td>
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<tr>
<td>Companion Animal Medicine II (VMC-971)</td>
<td>FALL</td>
<td>HARRELL</td>
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<tr>
<td>Clinical Small Animal Veterinary Cardiology (VMC-972)</td>
<td>FALL/SPRING</td>
<td>DEFRANCESCO</td>
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<tr>
<td>Small Animal General Surgery (VMC-973G)</td>
<td>FALL/SPRING</td>
<td>ROE</td>
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<tr>
<td>Small Animal Orthopedic Surgery (VMC-973O)</td>
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<td>ROE</td>
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<tr>
<td>Equine General Surgery (VMC-975)</td>
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<td>TATE</td>
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<tr>
<td>Veterinary Critical Care (VMC-976)</td>
<td>FALL/SPRING</td>
<td>HANSEN</td>
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<tr>
<td>Equine Preventative Health Care (VMC-977)</td>
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<td>BREUHAUS</td>
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<td>Equine Lameness (VMC-978)</td>
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<td>PRANGE</td>
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<td>Equine Medicine (VMC-979)</td>
<td>FALL/SPRING</td>
<td>JONES</td>
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<tr>
<td>Veterinary Clinical Oncology (VMC-980)</td>
<td>FALL/SPRING</td>
<td>WILLIAMS/HAUCK</td>
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<td>Laboratory Animal Medicine (VMC-981)</td>
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<td>FISH</td>
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<tr>
<td>Ophthalmology (Equine) (VMC-982)</td>
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<td>CLODE</td>
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<td>Ophthalmology (Small Animal) (VMC-982A)</td>
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<td>Dermatology (VMC-983)</td>
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<td>MURPHY/BIZIKOVA</td>
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<td>Introduction to Clinical Neurology (VMC-984)</td>
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<td>MUNANA</td>
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<td>Advanced Companion Animal Internal Medicine (VMC-986)</td>
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<td>HARRELL</td>
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<tr>
<td>Exotic Animal Medicine (VMC-988)</td>
<td>FALL/SPRING</td>
<td>GRUNKEMEYER</td>
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<tr>
<td>Zoological Medicine (VMC-989)</td>
<td>FALL/SPRING</td>
<td>STOSKOPF</td>
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<tr>
<td>Musculoskeletal Ultrasound in the Horse (VMC-990)</td>
<td>FALL/SPRING</td>
<td>REDDING</td>
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<tr>
<td>Equine Special Topics (VMC-993)</td>
<td>FALL/SPRING</td>
<td>JONES</td>
</tr>
<tr>
<td>Extramural Experiences in Small Animal (VMC-994)</td>
<td>FALL/SPRING</td>
<td>WILLIAMS/DUNNING</td>
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<tr>
<td>Clinical Conference (VMC-995)</td>
<td>FALL</td>
<td>LEWBARTE</td>
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<tr>
<td>Advanced Avian Clinical Medicine (VMC-996)</td>
<td>FALL/SPRING</td>
<td>DEGERNES</td>
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<tr>
<td>Raptor Medicine and Rehabilitation (VMC-997)</td>
<td>FALL/SPRING</td>
<td>DEGERNES</td>
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<tr>
<td>Basic Wildlife Rehabilitation Medicine (VMC-998)</td>
<td>FALL/SPRING</td>
<td>STOSKOPF</td>
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<tr>
<td>Advanced Wildlife Rehabilitation Medicine (VMC-999)</td>
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**GRADUATE COURSES:**

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<th>Course</th>
<th>SEMESTER</th>
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<tbody>
<tr>
<td>Special Topics in One Health: Philosophy to Practice (CBS-595)</td>
<td>SPRING</td>
<td>KENNEDY-STOSKOPF</td>
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<tr>
<td>Special Topics in Veterinary Medical Sciences One Health Dialogues (CBS-610)</td>
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<td>KENNEDY-STOSKOPF</td>
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<tr>
<td>Special Topics in Veterinary Medical Sciences Theriogenology II (CBS-610)</td>
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<td>KENNEDY-STOSKOPF</td>
</tr>
<tr>
<td>Professional Conduct in Biomedical Research (CBS-662)</td>
<td>SPRING</td>
<td>BAILEY</td>
</tr>
<tr>
<td>Advances in Gastrointestinal Pathophysiology (CBS-764)</td>
<td>FALL</td>
<td>BILIKSLAGER/GOOKIN</td>
</tr>
<tr>
<td>Seminar in Comparative Biomedical Sciences (CBS-800)</td>
<td>FALL</td>
<td>JONES</td>
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</table>
Special Topics in PopMed (CBS-810)  FALL  STOSKOPF
Special Topics Independent Study (CBS-810)  SPRING  JONES/BLIKSLAGER
Conservation Biology in Practice (FW-333)  FALL  HESS/PACIFICI
Epidemiology of Wildlife Diseases (FW-720)  FALL  KENNEDY-STOSKOPF
Ethics in Fisheries and Wildlife Sciences (FW-730)  FALL  STOSKOPF

MSPVM COURSES:

<table>
<thead>
<tr>
<th>Special Topics in SA Surgery (SVM-595)</th>
<th>SEMESTER</th>
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<tr>
<td>Special Topics in SA Surgery (SVM-595)</td>
<td>SPRING</td>
<td>ROE</td>
</tr>
<tr>
<td>Seminar (SVM-601)</td>
<td>FALL/SPRING</td>
<td>KEENE/MATHEWS</td>
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<tr>
<td>Seminar Small Animal Surgery (SVM-603)</td>
<td>FALL/SPRING</td>
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<tr>
<td>Advanced Reading in SA Surgery (SVM-635)</td>
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<tr>
<td>Supervised Teaching in SA Surgery (SVM-685)</td>
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<tr>
<td>Other Training in SA Surgery (SVM-686)</td>
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<tr>
<td>Supervised Research in SA Surgery (SVM-693)</td>
<td>SPRING</td>
<td>ROE</td>
</tr>
</tbody>
</table>

Research

Volume of Activity
- Extramural Grants as Primary Investigator and/or Co-Investigator – $3,733,747
- CVM/NCSU Grant Funding - $97,247
- DoCS Firestone Canine Research – $2,500
- DoCS Veterinary Practice Plan Research – $2892

Extension and Public Service

Managed a clinical practice that provided effective and efficient service (Information provided for April 1, 2013 – March 31, 2014)

$2,178,981 Total VPP Revenue Generated by Department
$7,403,327 Total Hospital Revenue Generated by Department

Publications and other professional activities

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Original works in peer-reviewed journals</th>
<th>Case Reports in peer-reviewed journals</th>
<th>Review articles in peer-reviewed journals</th>
<th>Books</th>
<th>Book Chapters</th>
<th>Abstracts from scientific &amp; professional veterinary conferences</th>
<th>Electronic Media</th>
<th>Invited Research presentations, professional audience</th>
<th>Continuing Education presentations</th>
<th>Bulletins, Booklets, etc.</th>
<th>Copyrights</th>
<th>Patents</th>
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<tbody>
<tr>
<td>DOCS</td>
<td>135</td>
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<td>17</td>
<td>309</td>
<td>26</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>

Students

Student Activities

Graduate Students:
- 16 # Graduate students receiving CVM graduate student stipends (based on all CVM graduate students)
- 6  # Graduate students supported from extramural funds
- 18 # Graduate students in progress
- 3  # Graduate students completing degrees
- 1  # graduate students discontinuing their programs (on leave of absence)
House Officers:

Faculty supervised the training of 42 residents and 16 interns in 15 specialty areas.

100% Residents accepted this year were in top 10% of applicant pool

527 # of applications for DoCS residency programs

317 # of applications for DoCS Small Animal internship program

Unknown previous residents passing certification exams w/in 4 years

10 previous residents employed in specialty area or graduate program

67 # of applications for DoCS equine intern

Honors and other measures of quality (students, graduate students, house officers with whom faculty have advised, mentored and or served on committees)

Bailey:
- Mouhamadou Diaw – Faculty appointment to the University of Montreal
- Theresa Beachler – Acceptance of abstracts for poster presentation at the TRCB and SFT conferences
- Katherine McKelvey – Acceptance of abstract for poster presentation at the SFT conference

Birkenheuer:
- Michael DiCicco-ACVIM
- Amy Davenport-ACVIM
- Megan Schreeg won ACVP student presentation award
- Megan Schreeg selected to present at the Ninth Annual NC State University Graduate Student Research Symposium
- Megan Schreeg received Hitchings award from Triangle Community Foundation
- Jaime Tarigo won the Phi Zeta National manuscript award for best clinical study

Blikslager:
- Raphael Labens- Recruited to University of Edinburgh, 2013
- Younggeon Jin - CVM Graduate Student of the month, March 2014
- Liara Gonzalez - Winner of Monica Menard Award for Excellent in Pathobiological Research, April 2014
- Liara Gonzalez - Awarded the University Graduate Student Association Award for Conferences, North Carolina State University, April 2014

Breitschwerdt:
- Beth Pultorak – Received Graduate Student of the Month Award, October 2013

Breuhaus:
- Blaire Holland - Passed ACVIM Boards
- Amanda Hilderbran - Hired at NCSU part time as an equine medicine instructor

Clode:
- Julie Hempstead achieved diplomate status in ACVO, August 2013
- Kate Bailey achieved diplomate status in ACVA, 2013
- Kate Bailey awarded faculty position at NCSU, 2013
- Amanda Sherman awarded ophthalmology residency, January 2013
Davis:

- Blaire Holland has passed her qualifying and certifying examinations, as well as her case report requirements.
- Jay Newman had his paper accepted for publication in the Journal of Veterinary Pharmacology and Therapeutics to complete his residency publication requirement.
- Lindsey Waltman successfully defended her dissertation September 2013
- Kristen Messenger was hired as faculty in Anesthesia at NCSU-CVM

DeFrancesco:

- Cullen Domaracki – DOCS proficiency award 2013
- Stephanie Istvan, ECC, completed program July 2013 - achieved diplomate status ACVCECC and has joined Specialty Private Practice in Phoenix, AZ.
- Rafael Obrador, ECC, completed program July 2013 - achieved diplomate status ACVCECC and has joined faculty at Auburn University.
- Mike DiCicco, Internal Medicine, completed program July 2013 - achieved diplomate status ACVIM and has joined Specialty Private Practice in Raleigh NC (VSH)
- Tim Hodge, Cardiology, achieved diplomate status ACVIM and has joined Specialty Private Practice in Phoenix, AZ.
- Catherine Gunther-Harrington-Murphy, SA intern, completed July 2013. Started Cardiology Resident at University of California Davis.
- Marisa Ames, completed NCSU Cardiology Research Fellowship in June 2013, joined faculty at Colorado State University.
- Josh Stern, completed PhD and joined faculty at University of California Davis.

Degernes:

- Laura Ellsaesser, C/O 2013 – Clinical Proficiency in Avian Medicine; also matched for a small animal rotating internship at Texas A&M University 2013-14.
- Elizabeth Rutledge, PhD candidate in Fisheries, Wildlife, and Conservation Biology Program; completed Dec 2013 (committee member)
- Rattapan Pattanarangsan, PhD candidate in Fisheries, Wildlife, and Conservation Biology Program; (committee member)

Fish:

- Sara Andux (c/o 2013) received ASLAP Veterinary Student Award in 2013.
- Debbie Vanderford (c/o 1992): ACLAM Certification 2013

Fogle:

- Rachel Turner (mentored by Drs. Callie Fogle and Mat Gerard) – Hitchings Grant
- Liara Gonzalez – Leroy Coggins award recipient, 2012-2013

Gookin:

- Amy DiDomenico (class of 2016) received a research recognition award for her oral abstract presentation at the 2014 Annual CVM Research Forum on work she performed in Dr. Gookin’s laboratory as part of the Veterinary Scholars program.
- Kristin Manning – MAF Grant
- Jenessa Winston – Clinician Investigator Program
- Megan Duffy – Oncology Residency WSU
- Katharine Crook – DACVIM, Neurology, Specialist in Private Practice

Hanel:

- Molly Shelton Walsh, Summer student scholar (2013)- Presenting an oral abstract based on our research at the ACVIM Forum 2014 in Nashville, TN
- Stephanie Istvan achieved Diplomate Status (ACVECC)
- Rafael Obrador achieved Diplomate Status (ACVECC)
- Rafael Obrador accepted a faculty position at Auburn University
Hansen:
- Rafael Obrador achieved Diplomate status, ACVECC, and obtained faculty appointment at Auburn University
- Stephanie Istvan achieved Diplomate status, ACVECC, and is employed in private practice

Harms:
- Larry “JB” Minter (Zoological Medicine Resident 2013), credentialed for ACZM board examination and accepted position at Great Plains Zoo, Sioux Falls, SD

Harrell:
- Katie Bedard (2014)- DOCs Companion Animal Faculty Clinical Proficiency Award
- Emily Coffey (2014)- BIVI Cardiology Award, Novartis Small Animal Clinical Proficiency Award
- Allison Peters (2014)- Howard Surgical Award, DOCs Companion Animal Faculty Proficiency Award
- Christina Whitley (2014)- ACVIM Certificate of Clinical Excellence
- Sarah Wilson (2016)- Merck Merial Summer Scholar
- Genna Atiee-obtained internal medicine residency- NCSU
- Danielle Conway-obtained nutrition/alternative medicine residency- Tennessee
- Kristen Couto-obtained oncology residency-UCDavis
- Briana Hallman-obtained oncology internship- NCSU
- Chai-Fei Li-obtained neurology residency-UCDavis
- Lindsey McGuire-obtained ER/Critical Care position
- John Nichols-undergoing zoo/wildlife residency search
- Adam Nylund-obtained surgical internship-Santa Fe
- Rachel Policelli-obtained radiology residency-MSU
- Megan Mickelson-obtained surgical residency-Wisconsin
- Amanda Sherman-obtained ophthalmology residency-NCSU
- Matt Takara-paper accepted for publication in JAVMA (last step for board certification)
- Elizabeth Lennon-offered tenure track internal medicine faculty position at UGA
- Allie Mazepa-Internist, VSH
- Michael DiCicco-Internist VSH, board certification
- The majority of students for whom she wrote letters matched to internships.
- All interns for whom she wrote letters matched at specialty internships or residencies

Hauck:
- Nicole Varallo: Award of Excellence for her Poster presentation at the Annual Litwack Research Day, 2014
- Alicia Braxton was accepted into the Cornell Leadership Program for summer, 2014
- Chad Johannes achieved diplomate status in Oncology and is currently the Chief Medical Officer of Aratana Therapeutics, in Kansas City, Missouri
- Jenn Willcox and Meg Musser both passed their qualifying board exams
- Meg Musser presented her research at the Veterinary Cancer Society meeting
- Kelsey Gasior submitted a RISF grant to NCSU (not funded)
- Keara Boss submitted a SERCA K-award for her research (pending)
- Monica Kim successfully defended her Master’s thesis
- Monica Kim was accepted into the UNC summer MED program in preparation for application to dentistry school next fall

Hawkins:
- Justin DeVanna earned MSpVM degree
- Justin DeVanna earned DACVIM, SAIM
• Justin DeVanna had a first author publication in a comparative medical journal
• Justin DeVanna presented an abstract at the ACVIM Forum
• Justin DeVanna presented an abstract at CVM Research Day

Internal Medicine Residents: Significant contribution to training, though not on their committee
• Davenport and Dicicco earned DACVIM, SAIM
• Palerme and Manning passed the ACVIM General Exam

Hess:
• Amy Davenport & Stephanie Istvan won the NCSU VHC Silver Bedside Award, April 2013
• Amy Davenport passed the Certifying Exam in Small Animal Internal Medicine
• Meg Musser passed the General Exam, presented at abstract at VCS in Oct. 2013, and had a first author paper published in J Feline Med Surg on CCNU hepatotoxicity in cats
• Jenn Willcox passed the General Exam
• Colleen Martin and Briana Hallman matched for a Medical Oncology residency and internship, respectively (both at NCSU)
• Megan Duffy completed her Medical Oncology internship in June 2013, and began a residency in Medical Oncology at Washington State University
• Greg Gojanovich presented a poster at the Annual meeting of the American Association of Immunologists, May 2013
• Greg Gojanovich successfully defended his IMM PhD in February 2014, and has taken a post-doctoral fellowship at the UNC-CH School of Medicine
• Farah Alayli passed her Preliminary Exam in October 2013

S. Jones:
• Emily Medlin awarded a Molecular Biotechnology GAANN fellowship, NC State
• Emily Medlin received Leroy Coggins Graduate Fellow Award
• Katie Sheats received Monica Menard award
• Katie Sheats abstract awarded first place, Life Sciences Division, NCSU Graduate Student Research Symposium

Keene:
• Tim Hodge passed ACVIM Cardiology Exam
• Jessica Ward received CVM Research Award

Kennedy-Stoskopf:
• JB Minter, Veterinarian for Great Plains Zoo, Sioux Falls, SD

Lascelles:
• D. Knazovicky, M Freire, B Case, K Jiamachello, B.D.X. Lascelles. Efficacy of canine anti-nerve growth factor antibody for the alleviation of degenerative joint disease-associated pain in dogs. NC State College of Veterinary Medicine Annual Research Forum, 4th April 2014 (Won Certificate of Achievement)

Lewbart:
• Kahlina Frey (’13) received WAAZM’s 2013 Proficiency in Reptile and Amphibian Medicine Award.

Lunn, K.:
• Dr. Lourenco presented an oral abstract of our joint research project at the ACVIM Forum in 2013, and was awarded a prize from the Society for Comparative Endocrinology (these prizes are normally only awarded to residents).
• The resident that I mentored at Colorado State University before I left attained diplomate status in the ACVIM and successfully defended her MS degree in May 2013.

Marcellin-Little:
• Dr. Brett Gulledge (NCSU, DVM student, class of 2013) / They published a research article (first author is his mentee, he funded the study and was corresponding author) in Medical Engineering and Physics / Dr. Gulledge obtained a small animal rotating internship at the University of Georgia in 2013 and a small animal surgery residency at the University of Georgia that will start in July 2014.
• Dr. Laura Greene (NCSU, DVM student, class of 2012) / They published a research article (first author is his mentee, he funded the study and was corresponding author) in the Journal of the American Veterinary Medical Association / Dr. Greene obtained a small animal medicine residency at NCSU in 2013.
• Dr. Toni Kwan, whose program ended on July 1, 2012, passed ACVS Boards.
• Ron Aman obtained his PhD, Industrial and Systems Engineering, NCSU
• Dr. Nathan Brown (University of Louisville, Kentucky) completed his PostDoc program / they wrote 3 articles: one is published / two are in press.

Mariani:
• Dr. Malte Schwartz achieved ACVIM Diplomate status, accepted position in private specialty practice
• Dr. Katherine Crook accepted position in private specialty practice
• Dr. Chai Fei Li matched to Neurology residency, University of California, Davis

Marks:
• Justin DeVanna DACVIM-US Army Veterinary Corps
• Stephanie Istvan DACVECC-Private Specialty Practice
• Rafael Obrador DACVECC-Faculty Auburn University
• Christina Marino-IM residency University of Pennsylvania
• Bobbi Connor DACVECC-Faculty University of Florida
• Andrew Woolcock-IM residency-University of Georgia
• Claire Hyatt-ECC residency-Cornell University
• Julie Walker-Faculty University of Wisconsin

Mathews:
• Dr. Toni Kwan – achieved ACVS Diplomate status

Munana:
• Dr. Malte Schwartz, Diplomate ACVIM (Neurology), employed at Sage Centers for Veterinary Specialty and Emergency Care in California
• Dr. Katherine Crook, employed at Veterinary Surgical Centers in Virginia
• Dr. Melissa Lewis accepted into the NIH/NCSU Comparative Medicine and Translational Research Training Program

Murphy:
• Dr. Ben Tham (former dermatology intern at NCSU) began veterinary dermatology residency at NCSU
• Dr. Michael Rossi (former dermatology intern) completed veterinary dermatology residency at private referral practice in Colorado

Musulin:
• Dr. Stephanie Istvan achieved Diplomate status in ECC and accepted a Criticalist position in Arizona.
• Dr. Raphael Obrador achieved Diplomate status in ECC and accepted a faculty position at Auburn University.

Olby:
• Dr. Malte Schwartz became ACVIM board certified in neurology.
• Dr. Melissa Lewis passed qualifier examination in ACVIM board certification.
• Dr. Ganokon Urkasemsin: Appointed Assistant Professor of Neurology at Mahidol University, Thailand. Rapidly promoted to Associate Dean of International Affairs.
• Dr. Nicole Parke, previous summer research student, recently started to work for Zoetis: she used the data she generated in her summer research for her interview presentation.

Prange:
• Rose Baker: Large Animal Intern of the Year, April 2013
• Rose Baker: Started her Fellowship in Large Animal Surgery at Oregon State University after completion of her internship at NCSU and has since matched as a Resident in Large Animal Internal Medicine at Oregon State University.
• Dr. Claudia Reyner matched with the equine surgery residency program at NCSU
• Dr. Jennifer Whyard matched with the large animal surgery residency program at the University of Wisconsin

Redding:
• Jay Newman passed all but one section of the ACVS exam – will sit final section next year
• Claudia Reyner, current intern, has been accepted into NCSU residency.
• Rebecca Riley, sports medicine fellow, accepted a position in a practice specializing in rehab/sports medicine in California
• David Dymock filled and is completing 4th year resident position in ortho/lameness.

Roe:
• Toni Kwan, Diplomate ACVS

Schnabel:
• Dr. Claudia Reyner – Awarded Surgery Residency at NCSU
• Dr. Jennifer Whyard – Awarded Surgery Internship/Residency at Wisconsin

Sherman:
• Marie Hopfensperger, former resident, is currently employed as Assistant Professor at Michigan State University College of Veterinary Medicine. She is completing her specialty training as an ACVB non-conforming resident under the direction of Dr. Katherine Houpt.
• Margaret Gruen, is enrolled in a doctoral program, through a CVM Comparative Medicine and Translational Research Traineeship, and funded by the NIH Ruth L. Kirschstein National Research Service Award T32OD011130.
• Jillian Orlando won the American College of Veterinary Behaviorists, 2014 Resident Award.
• Margaret Gruen, Graduate Student Poster Achievement Award, CVM Research Forum, 2014.

Stoskopf:
• Kate Freeman – (DVM 2008) tenure track faculty position Colorado State University
• Kelly Britt – (DVM 2009) Vancouver Aquarium internship
• Greg Scott (DVM 2012) Navy/Sea World internship
• JB Minter - Senior Veterinarian, Great Plains Zoo
• Ryan DeVoe – Senior Veterinarian – Disney Animal Kingdom
• Felicia Nutter - Assistant Professor - Tufts CVM
• Chris Whittier - Assistant Professor - Tufts CVM
• Lori Westmoreland National Aquarium Internship

Suter:
• Both Sarah Culver and Susan Bowman passed their respective preliminary examinations.
• Tangi Smallwood (UNC Genetics and Molecular Biology Program) was awarded her PhD.
Tou:
- Jessica Ward, 2014 CVM Annual Research Forum, certificate of achievement, oral presentation. “Complication rates associated with transvenous pacemaker implantation in dogs with high-grade atrioventricular block performed during or after normal business hours”

Vaden:
- Michael DiCicco – completed program and became board certified in SA Internal Medicine
- Justin DeVanna - completed program and became board certified in SA Internal Medicine
- Amy Davenport - completed program and became board certified in SA Internal Medicine
- Kristin Manning – passed qualifying SAIM boards
- JS Palerme - passed qualifying SAIM boards

2014 CVM Research Forum Awards:

<table>
<thead>
<tr>
<th>Award</th>
<th>Name</th>
<th>Advisor</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellence</td>
<td>Nicole Varallo</td>
<td>Hauck</td>
<td>CIRCULATING LEVELS OF ANGIPOIETIN-2 AS A PROGNOSTIC MARKER FOR METASTASIS IN CANINE MALIGNANT MELANOMA</td>
</tr>
<tr>
<td>Recognition</td>
<td>Margaret Gruen</td>
<td>Lascelles</td>
<td>CLINICAL TRIAL APPLICATION OF A CLINICAL PHENOMENON: DETERIORATION FOLLOWING WITHDRAWAL OF ACTIVE MEDICATION FOR THE TREATMENT OF CHRONIC PAIN IN CATS WITH DEGENERATIVE JOINT DISEASE</td>
</tr>
<tr>
<td>Recognition</td>
<td>David Knazovicky</td>
<td>Lascelles</td>
<td>EFFICACY OF CANINE ANTI-NERVE GROWTH FACTOR ANTIBODY FOR THE ALLEVIATION OF DEGENERATIVE JOINT DISEASE-ASSOCIATED PAIN IN DOGS</td>
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</tbody>
</table>
### Oral Presentation Winners

<table>
<thead>
<tr>
<th>Excellence</th>
<th>Name</th>
<th>Topic</th>
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<tbody>
<tr>
<td></td>
<td>Lauren Stranahan</td>
<td>REDUCTION IN THE NUMBER OF PROGENITOR AND STEM CELLS IN CASES OF LARGE COLON VOLVULUS</td>
</tr>
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<table>
<thead>
<tr>
<th>Recognition</th>
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<tbody>
<tr>
<td></td>
<td>Jessica Ward</td>
<td>COMPLICATION RATES ASSOCIATED WITH PERMANENT TRANSVENOUS PACEMAKER IMPLANTATION IN DOGS WITH HIGH-GRADE ATRIOVENTRICULAR BLOCK PERFORMED DURING NORMAL BUSINESS HOURS VERSUS AFTER HOURS</td>
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<thead>
<tr>
<th>Recognition</th>
<th>Name</th>
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<tbody>
<tr>
<td></td>
<td>Amy DiDomenico</td>
<td>IMPACT OF ENTEROCOCCUS HIRAE ON GROWTH AND INTESTINAL EPITHELIAL CELL ADHESION OF ENTEROPATHOGENIC E. COLI</td>
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### CVM Awards Banquet 2014:

<table>
<thead>
<tr>
<th>Award</th>
<th>Winner / Recipient</th>
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</thead>
<tbody>
<tr>
<td>Dr. Monica Menard Award for Excellence in Veterinary Pathobiological Research</td>
<td>Liara Gonzalez</td>
</tr>
<tr>
<td>NCSU Outstanding Resident Award</td>
<td>Melissa Lewis (neuro)</td>
</tr>
<tr>
<td>Best small animal intern</td>
<td>Dr. Rachel Policelli</td>
</tr>
<tr>
<td>Best large animal intern</td>
<td>Dr. Georgean Zyrkowski</td>
</tr>
<tr>
<td>Best large animal resident</td>
<td>Dr. Ben Shrauner</td>
</tr>
<tr>
<td>Best large animal faculty member</td>
<td>Dr. Callie Fogle</td>
</tr>
<tr>
<td>Leroy Coggins Graduate Fellowship Endowment</td>
<td>Emily Medlin</td>
</tr>
<tr>
<td>Zoetis Animal Health Award for Research Excellence</td>
<td>Jody Gookin</td>
</tr>
<tr>
<td>Huffman Leadership Award</td>
<td>Gigi Davidson, Mike Davidson</td>
</tr>
</tbody>
</table>
Departmental Listing as of March 31, 2014

Professor
Blikslager, A.T., DVM, PhD, Professor, Equine Surgery
Breitschwerdt, E.B., DVM, Professor, Small Animal Internal Medicine
Bristol, D.G., DVM, Professor, Large Animal Surgery
Davidson, M.G., DVM, Professor, Ophthalmology & Associate Dean/Director VHC
DeFrancesco, T.C., DVM, BS, Professor, Cardiology/Critical Care
Flammer, K., DVM, Professor, Non-domestic Avian Medicine & Assoc Dean, Academic Affairs
Gilger, B.C., DVM, MS, Professor, Ophthalmology
Hardie, E.M., DVM, PhD, Professor & Department Head, Small Animal Surgery
Hauck, M.L., DVM, PhD, Professor, Oncology
Hawkins, E.C., DVM, Professor, Small Animal Internal Medicine
Jones, S., DVM, PhD, Professor, Equine Medicine
Keene, B.W., DVM, MS, Professor, Cardiology
Lascelles, B.D., BVSc, PhD, BS, Associate Professor, Small Animal Surgery
Lewbart, G.A., VMD, MS, Professor, Aquatics, Wildlife & Zoo Medicine
Lunn, D.P., BVSc, PhD, DMRCVS, Professor of Equine Medicine and Dean of CVM
Marcellin-Little, D.J., DEDV, Professor, Small Animal Surgery
Mathews, K.G., DVM, MS, DACVS, Professor, Small Animal Surgery
Meurs, K., DVM, PhD, Professor & Assoc Dean for Research & Graduate Studies, Cardiology
Munana, K.R., DVM, MS, Professor, Neurology
Olby, N.J., VetMB, PhD, Professor, Neurology
Olivry, T.J., DVM, PhD, Professor, Immunodermatology
Roe, S.C., PhD, BVSc, MVSt, MS, Professor, Small Animal Surgery
Stoskopf, M.K., DVM, PhD, Professor, Aquatics, Wildlife & Zoo Medicine
Tate, L.P., VMD, Professor, Equine Surgery
Vaden, S.L., DVM, PhD, BSA, Professor, Small Animal Internal Medicine

Associate Professor
Birkenheuer, A.J., PhD, DVM, BS, Associate Professor, Small Animal Internal Medicine
Breuhaus, B.A., DVM, PhD, Associate Professor, Equine Medicine
Clode, A., DVM, Associate Professor, Ophthalmology
Degernes, L.A., DVM, MPH, BS, BA, Associate Professor, Avian Medicine and Epidemiology
Fish, R.E., DVM, PhD, MS, BS, Assoc. Prof. & Director of University Animal Resources
Gee, J., DVM, PhD, Associate Professor, Small Animal Internal Medicine
Hansen, B.D., DVM, Associate Professor, Critical Care/Emergency Medicine
Harms, C.A., DVM, Associate Professor, Aquatics, Wildlife & Zoo Medicine
Lunn, K., BVMS, MS, PhD, Associate Professor, Small Animal Internal Medicine
Suter, S.E., VMD, MS, BS, Associate Professor, Oncology
Whitacre, M., DVM, Theriogenology

Assistant Professor
Bailey, S., DVM, Assistant Professor, Theriogenology
Bizikova, P., DVM, Assistant Professor, Dermatology
Davis, J., DVM, Assistant Professor, Equine Medicine
Hanel, R., DVM, Assistant Professor, Emergency Medicine
Hess, P.R., DVM, Assistant Professor, Oncology
Kedrowicz, A., PhD, Assistant Professor, Communication Education
Mariani, C.L., DVM, Assistant Professor, Neurology
Montgomery, K., DVM, Assistant Professor, Ophthalmology
Nolan, M., DVM, Assistant Professor, Radiation Oncology
Schnabel, L., DVM, Assistant Professor, Equine Surgery

Clinical Assistant, Clinical Associate, Clinical Professor
Coffman, E.A.; DVM, MS, DACT, Clinical Assistant Professor, Theriogenology
Dunning, D., DVM, MS, DrPh, DACVS, Clinical Assoc Prof & Director, Animal Welfare/Ethics/Public Policy Program, Asst Dean, College Relations
Early, P., DVM, Clinical Assistant Professor, Neurology
Eroshin, S., DVM, Clinical Assistant Professor, Dentistry
Ferris, K.K., DVM, BS, Clinical Assistant Professor, General Practice
Fogle, C., DVM, Clinical Assistant Professor, Equine Surgery
Gieger, T., DVM, Clinical Assistant Professor, Radiation Oncology
Gines, A., DVM, Clinical Assistant Professor, Small Animal Orthopedic Surgery
Grunkemeyer, V., DVM, Clinical Assistant Professor, Avian
Harrell, K.A., DVM, Clinical Assistant Professor, Small Animal Internal Medicine
Marks, S.L., BVSc, MS, Clinical Professor, Small Animal Internal Medicine
Murphy, K. M., DVM, Clinical Assistant Professor, Dermatology
Musulini, S., DVM, Clinical Assistant Professor, Emergency/Critical Care
Prange, T., DVM, Clinical Assistant Professor, Equine Surgery
Redding, W.R., DVM, MS, Clinical Associate Professor, Equine Surgery
Risselada, M., DVM, Clinical Assistant Professor, Small Animal Surgery
Sherman B.S., PhD, DVM, MS, Clinical Professor, Animal Behavior
Stephens, T., DVM, Clinical Assistant Professor, Small Animal General Surgery
Stevens, B., DVM, Clinical Assistant Professor, General Practice
Tayor, A., DVM, Clinical Assistant Professor, General Practice
Tou, S., DVM, Clinical Assistant Professor, Cardiology
Wood, M., Clinical Assistant Professor, Small Animal Internal Medicine

Research Assistant, Associate Professor
Gonzalez, Liara, Research Assistant Professor
Kennedy-Stoskopf, S., Research Professor, Aquatics, Wildlife & Zoo Medicine
Maggi, R.G., Research Associate Professor, Small Animal Internal Medicine
Sheats, Mary Katherine, Research Assistant Professor

Visiting Assistant Professor, Clinical Veterinarian, Visiting Clinical Instructor, Research Associate Postdoc, and EPA Professional
Bogan, J., Research Associate, CCMTR/Clinical Services (Lascelles)
Breen, T., Research Assistant, Oncology (Olby)
Case, B., Research Assistant, Small Animal Surgery (Lascelles)
Harden, L., Research Assistant, Clinical Studies Core (Lascelles)
Hegarty, B., Research Associate, Small Animal Internal Medicine (Breitschwerdt)
Knazovicky, D., Research Assistant, Small Animal Surgery (Lascelles)
Lim, Ji-Hey, Research Associate Postdoc, Neurology (Olby)
Linnihan, R.M., Visiting Asst. Professor, Aquatics, Wildlife & Zoo Medicine
Pridgen, T., Research Associate, Equine Surgery (Blikslager)
Curollo, B., Research Associate Postdoc (Breitschwerdt)
Shroff, V., Research Assistant, Oncology (Suter)

Adjunct Professor, Associate Professor, Assistant Professor
Abrams, Frank, Assoc Status, Professor Emeritus Bio & Ag Engineering, Ortho Surgery
Adams, Allison, Adjunct Assistant Professor, Cardiology
Akiliu, Nigatu, Adjunct Professor, Equine (working with Dean Lunn on project)
Ames, Marisa, Adjunct Assistant Professor, Cardiology
Atkins, C.E., Professor Emeritus, Cardiology
Atlee, Barbara, Adjunct Assistant Professor, Dermatology
Baden, Daniel, Adjunct Professor, Aquatics, Wildlife & Zoo Medicine
Baker, Shannon, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Barker, Piers, Adjunct Professor, Cardiology
Bergyl, Richard, Adjunct Lecturer, Aquatics, Wildlife and Zoo Medicine
Bowman, Karl, Associate Professor Emeritus, Equine Surgery
Brown, Virginia, Adjunct Associate Professor, Special Species Medicine
Burkett, Richard, Adjunct Assistant Professor, Avian Medicine
Chanoit, Guillaume, Adjunct Assistant Professor, Small Animal Surgery
Chappell, Kim, Adjunct Assistant Professor, Clinical Studies/Dermatology
Chinambo, Sathy, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Coffer, Natalie, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Deresinski, Diane, Adjunct Asst Professor, Aquatics, Wildlife & Zoo Medicine
Devoe, Ryan, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
DeYoung, David, Adjunct Professor, Small Animal Surgery
Dombrowski, Daniel, Adjunct Lecturer, Aquatics, Wildlife & Zoo Medicine
Dye, Janice, Adjunct Associate Professor, Internal Medicine
Eckerman-Ross, Christine, Adjunct Assistant Professor, Nondomestic Avian Medicine
Erding, Thomas, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Eward, Cindy, Adjunct Assistant Professor, Small Animal Surgery
Eward, William, Adjunct Assistant Professor, Small Animal Surgery
Falk, Ronald, Adjunct Professor, Small Animal Internal Medicine
Flannigan, Gerrard, Adjunct Assistant Professor, Behavior Medicine
Ford, Richard, Professor Emeritus, Small Animal Internal Medicine
Frazier, Matthew, Adjunct Assistant Professor, Equine Medicine
Gess, Melanie, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Graffinger, Michael, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Hammer, Douglas, Adjunct Associate Professor, Occupa. Health/Zoonotic Disease
Harling, David, Adjunct Assistant Professor, Ophthalmology
Haulena, Martin, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Hennessy, Catharine, Adjunct Assistant Professor, Equine Medicine and Surgery
Hennessy, Jeff, Adjunct Status, Associate Professor, Zoology and Aquatic Medicine
Hoglund, Don, Adjunct Associate Professor, Equine Medicine
Holmes, Elaine, Adjunct Assistant Professor, Small Animal Surgery
Howard, James, Adjunct Professor, Neurology
Johnson, Daniel, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Kornegay, Joe, Adjunct Professor, Neurology
Labens, Raphael, Adjunct Assistant Professor, Equine Surgery
Larsen, Scott, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Leonatti, Stacey, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Levine, David, Adjunct Professor, Small Animal Surgery
Loeffler, Ingrid, Adjunct Assistant Professor, Avian Medicine
Loomis, Michael, Adjunct Associate Professor, Zoological Medicine
Mansmann, Richard, Professor Emeritus, Equine Surgery
Matthews, Charles, Adjunct Professor, Equine Surgery
McCashin, Frederick, Adjunct Clinical Professor, Equine Medicine and Surgery
McMullen, Richard, Adjunct Assistant Professor, Ophthalmology
Monteiro-Riviere, Nancy, Professor Emeritus, Dermatology and Toxicology
Mozzachio, Kristie, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Mulcahy, Daniel, Adjunct Associate Professor, Aquatics, Wildlife & Zoo Medicine
Norton, John, Adjunct Associate Professor, Laboratory Animal Medicine
Norton, Terry, Adjunct Assistant Professor, Zoological Medicine
Powers, Lauren, Adjunct Assistant Professor, Avian Medicine
Preston, Gloria, Adjunct Associate Professor, Small Animal Internal Medicine
Ruslander, David, Adjunct Assistant Professor, Oncology
Sabin, Leilani, Adjunct Assistant Professor, Cardiology
Schopler, Robert, Adjunct Assistant Professor, Avian Medicine
Scott, David, Adjunct Assistant Professor, Avian Medicine
Sharp, Nicholas, Adjunct Associate Professor, Neurology
Shuler, Jack, Adjunct Assistant Professor, Equine Health Program
Sifers, Thomas, Adjunct Assistant Professor, Internal Medicine, Intensive Care Unit
Simmons, Betsy, Adjunct Assistant Professor, Internal Medicine
Simmons, Wendy, Adjunct Assistant Professor, Equine Surgery
Sontakke, Sushama, Adjunct Assistant Professor, Internal Medicine/Microbiology
Spodnick, Gary, Adjunct Assistant Professor, Surgery
Stroud, Cheryl, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Taylor, Brian, Adjunct Assistant Professor, Equine Surgery
Taylor, Karen, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Tocidlowski, Mary Ann, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Trumpatori, Brian, Adjunct Assistant Professor, Small Animal Surgery
Tuttle, Allison, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Vasbinder, Mary-Ann, Adjunct Assistant Professor, Laboratory Animal Medicine
Wheeler, Simon, Adjunct Professor, Small Animal Surgery
Williams, Cathy, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine
Zalutsky, Michael, Adjunct Associate Professor, Oncology

Support Staff
Joy Beaston, Department Accountant – DoCS Administration
Julie Bradley, Research Technician – Breitschwerdt/Hegarty
Heather Broadhurst, Research Technician – Harms
Rose Casper, Research Specialist – Hauck
Eva Cook, Executive Assistant – DoCS Administration
Gail Druley, Research Technician – Mathews
Stan Dunston, Research Specialist – Olivry
Patricia Faw, Research Specialist – Hegarty
Sarah Hammond, Research Technician – Kedrowicz
Tonya Harris, Research Specialist – Vaden
Jennifer Holmes, Research Specialist – Hess
Allison Klein, Research Specialist – DeFrancesco
Tonya Lee, Processing Assistant – DoCS Administration
Julie Long, Research Specialist – Schnabel
Lisa Mamo, Research Specialist – K. Lunn
Henry Marr, Research Specialist – Birkenheuer
Fonda Martin, Research Specialist – Mathews
Caroline Meek, Research Specialist – Degernes
Julie Nettifee-Osborne, Research Specialist – Munana
Judy Paps, Research Technician – Olivry
Kent Passingham, Research Specialist – Lewbart
Beth Salmon, Research Specialist – Gilger
Jenna Schirmer, Research Specialist – Davis
Brittany Sherbert, Research Technician – Maggi
Jennifer Sollinger, Research Technician – Suter
Andrea Thomson, Research Specialist – Hansen
Sarah Wall, Research Specialist – Lascelles
Kimberly Williams, Laboratory Supervisor – Olby
Jackie York, Administrative Support Associate – Hegarty

Residents – House Officers
Kathleen Aicher, Small Animal Medicine
Matthew Arkans, Oncology
Frane Banovic, Dermatology
Lisa Bazzle, Emergency/Critical Care
Theresa Beachler, Theriogenology
Jocelin Blake, Small Animal Surgery
Ashley Brandes, Oncology
Kathryn Bray, Neurology
Amenda Cavanaugh, Emergency/Critical Care
Emily Christiansen, Zoological Medicine
Elizabeth Curto, Ophthalmology
Lauren Devine, Small Animal Medicine
David Dymock, Equine Surgery
Joey Gerding, Ophthalmology
Jenessa Gjeltema, Zoological Medicine
Laura Greene, Small Animal Internal Medicine
Meredith Kapler, Small Animal Surgery
Blaire Kraszeski, Equine Medicine
Kristin Manning, Clinical Investigator
Michael Mastromauro, Oncology
Mischa McDonald-Lynch, Small Animal Surgery
Katherine McKelvey, Theriogenology
Christopher McLaughlin, Emergency/Critical Care
Margaret Musser, Oncology
Jillian Orlando, Animal Behavior
Jean-Sebastien Palerme, Small Animal Medicine
Brianne Phillips, Zoological Medicine
Nelson Pinto, Ophthalmology
Jessica Pritchard, Small Animal Medicine
Rebecca Riley, Equine Sports Medicine Fellowship
Benjamin Shrauner, Equine Surgery
Heng Leet Tham, Dermatology
Andrea Tomas, Small Animal Surgery
Joanne Tuohy, Small Animal Surgery
Rennie Waldron, Neurology
Rebecca Walton, Emergency/Critical Care
Jessica Ward, Cardiology
Jennifer Willcox, Oncology
Jenessa Winston, Clinical Investigator (Breitschwerdt)
Kathleen Woodruff, Cardiology

Interns
Lauren Adelman, Emergency/Critical Care
Genna Alee, Small Animal
Kristen Couto, Small Animal
Briana Hallman, Small Animal
Chai-Fei Li, Small Animal
Erin Long, Emergency/Critical Care
Lindsey McGuire, Small Animal
John Nichols, Small Animal
Adam Nylund, Small Animal
Rachel Policelli, Small Animal
Megan Ramaker, Small Animal
Claudia Reyner, Equine Medicine & Surgery
Amanda Sherman, Small Animal
Samantha Swisher, Exotic Animal Medicine
Jennifer Whyard, Equine Surgery
Georgean Zyrkowski, Equine Medicine & Surgery

Graduate Students
Stasia Bembenek-Bailey, Fisheries Wildlife and Conservation Biology (Stoskopf)
Mary Boss, CBS (Hauck)
Teresa Buchheit, CBS (Jones)
Lauren Charles-Smith, Fisheries Wildlife and Conservation Biology (Kennedy-Stoskopf)
Mila Freire-Gonzalez, CBS (Lascelles)
Gregory Gojanovich, Immunology (Hess)
Younggeon Jin, CBS (Blikslager)
Monica Kim, CBS (Jones)
Amanda Kortum, CBS (Jones)
Emily Medlin, CBS (Jones)
Jennifer Niemuth, Fisheries Wildlife and Conservation Biology (Stoskopf)
Rattapan Pattanarangsan, Fisheries Wildlife and Conservation Biology (Stoskopf)
Elizabeth Pultorak, CBS (Breitschwerdt)
Hannah Reynolds, CBS (Jones)
DEPARTMENTAL BIBLIOGRAPHY FOR 2013-2014

1. Original works in peer-reviewed journals.


Tolbert MK, Stauffer SH, Gookin JL*. Feline Tritichomonas foetus adhere to the intestinal epithelium by receptor-ligand dependent mechanisms. Vet Parasitol 2013;192:75-82. (*corresponding author, first author graduate student)


Mascarelli PE, McQuillan M, Harms CA, Harms RV, Maggi RG, Breitschwerdt EB. Bartonella henselae and Bartonella koehlerae bacteremia in birds [letter]. Emerg Infect Dis 2014;20(3);490-492. (second author Merck veterinary student summer scholar)


2. Case reports in peer-reviewed journals.


Bizikova P. Localized demodicosis due to Demodex cati on the muzzle of two cats treated with inhalant glucocorticoids. Vet Derm 2014;25(2).


3. Review articles in peer-reviewed journals.

Bailey CS. Update on placentitis – What has been accomplished in the last 3 years. Clin Theriogenol 2013;5(3):326-333.

Blikslager AT. Misoprostol: is it safety or a lack of understanding that prevents its more frequent usage? Equine Vet J 2013;45:8.

Blikslager AT. Feeding intravenously saves the patient but starves the gut: consequences for the intestinal barrier. J Physiol 2013;591:3673.


None

5. Chapters in Books.


6. Titles of abstracts from scientific and professional veterinary conferences (i.e. abstracts submitted for presentation as papers or posters at scientific/clinical conferences where the proceedings are citable).


Jin Y, Blikslager AT. Lubiprostone protects against murine colitis principally in a CLC-2 dependent manner. CVM Research Forum, April 2014.

Stranahan L, Gonzalez LM, Blikslager AT. Reduction in the number of progenitor and stem cells in cases of large colon volvulus. CVM Research Forum, April 2014.


De Tommasi DAS, Otranto D, Dantas-Torres F, Capelli G, Breitschwerdt EB, de Caprariis D. Are vector-borne pathogen co-infections complicating the clinical presentation in dogs? 8th CVBD World Forum, St. Petersburg, Russia, April 14-17, 2013.

Yore K, Di Gangi B, Brewer M, Blakrishnan N, Breitschwerdt EB, Lappin MR. Flea species infesting dogs in Florida and *Bartonella* spp. prevalence rates. 8th CVBD World Forum, St. Petersburg, Russia, April 14-17, 2013.


Fujishiro M, Scorza V, Gookin JL*, Lappin MR. Evaluation for associations between Coxiella burnetti and uterine inflammation in cats. 31st Annual Forum of the American College of Veterinary Internal Medicine, Seattle, WA, June 2013 (poster). (*contributing author)

Ghosh A, Borst L, Stauffer SH, Suyemoto M, Moisan P, Zurek L, Gookin JL*. Mortality in foster-age kittens is associated with a shift from ileum mucosa-associated Enterococcus hirae to colonization by E. faecalis and enteropathogenic E. coli. 31st Annual Forum of the American College of Veterinary Internal Medicine, Seattle, WA; June 2013 (oral). (*corresponding author)


Tolbert K, Stauffer SH, Gookin JL*. Serine and cysteine proteases of feline T. foetus promote survival and adhesion to intestinal epithelial cells. 31st Annual Forum of the American College of Veterinary Internal Medicine, Seattle, WA; June 2013 (poster). (*corresponding author)

Istvan SA, Hanel RM, Motsinger-Reif AA, Suter SE. The effect of platelet-containing products on hemostasis in dogs after total body irradiation induced thrombocytopenia. American College of Veterinary Internal Medicine, 32nd Annual Scientific Forum, Seattle, WA, June 2013.


Christiansen EF, **Harms CA, Stoskopf MK.** Evaluation of antemortem body condition scoring techniques in the herring gull (*Larus argentatus*). Proceedings of the International Association for Aquatic Animal Medicine, Sausalito, California, April 21-26 2013;44:360.


Kleiter M, Sampl S, Kreilmeier T, Walter I, Reifinger M, **Hauck M,** Borst L, Holzmann K. Alternative lengthening of telomeres was detected as a telomere maintenance mechanisms in canine sarcoma. Oral presentation at European College of Veterinary Internal Medicine annual meeting, September 12-14, 2013.


Wofford JA, **Hauck ML.** Sequencing of feline antiduretic hormone for mutations associated with central diabetes insipidus. Poster presentation at the American College of Veterinary Internal Medicine, June 12-15, 2013.


**Holmes JC,** Homer SG, Gojanovich GS, Ross P, **Hess PR*.** Polymorphisms and tissue expression of the Feline Leukocyte Antigen class I loci FLA I-E, -H and –K. J Immunol 2013;190;141-149. (*corresponding author)

Medlin E, Yoder J, **Jones SL.** The role of MARCKS protein in in vivo neutrophil migration in zebrafish. NC State Molecular Biotechnology Training Program Symposium, 2013.


Knazovicky D, Freire M, Case B, Jiamachello K, Lascelles BDX. Efficacy of canine anti-nerve growth factor antibody for the alleviation of degenerative joint disease-associated pain in dogs. NC State College of Veterinary Medicine Annual Research Forum, April 4, 2014. (Won Certificate of Achievement)


Maggi RG, Ericson M, Mascarelli PE, Bradley JM, Breitschwerdt EB. Bartonella henselae bacteremia in a mother and son from the Netherlands. 8th CVBD World Forum, St. Petersburg, Russia, April 14-17, 2013.

Maggi RG, Mascarelli PE, Havenga LN, NaidooV, Breitschwerdt EB*. Co-infection with Anaplasma platys, Bartonella henselae and Candidatus Mycoplasma hematoparvum in a veterinarian. 8th CVBD World Forum, St. Petersburg, Russia, April 14-17, 2013.

Mascarelli PE, Maggi RG, Hopkins S, Mozayeni BR, Trull CL, Bradley JM, Hegarty BC, Breitschwerdt EB*. Bartonella henselae infection in a family experiencing neurological and neurocognitive abnormalities after woodlouse hunter spider bites. 8th CVBD World Forum, St. Petersburg, Russia, April 14-17, 2013.


Benson K, Marcellin-Little DJ. Validation and reliability of goniometry in the rock pigeon (Columbia livia), the cockatiel (Nymphicus hollandicus), the barred owl (Strix varia), the red-tailed Hawk (Buteo jamaicensis). 2013 NCSU CVM Research Forum, April 2013.


**Marks SL.** Advanced CPR. K9 Down, NCSU-CVM, February 2014.


**Marks SL.** Flexible/Rigid Endoscopy/Laparoscopy Lab, Oquendo Center, Las Vegas, NV, November 2013. (24 hrs of laboratory instruction)

**Marks SL.** How to get the most out of your labwork. North Carolina Veterinary Conference, Raleigh, NC, November 2013. (2 hrs)

**Marks SL.** ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.** CPR. ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.** Triage. ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.** Critical care techniques. ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.** Oxygen therapy. ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.** Fluid therapy for trauma. ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.** Interesting cases in IM. ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.** Interesting cases in ER. ECG’s in ER. NCVC/NCSU Destination Education, Atlantis, Bahamas, October 2013.

**Marks SL.**, Atkins CE. ECG’s in the ER. ACVIM Annual Forum, Seattle, WA, June 2013.


**Marks SL.** Introduction to CPR. Florida Veterinary Medical Association, Orlando, FL, April 2013.

**Marks SL.** Fluid therapy for the trauma patient. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.

**Marks SL.** Practical emergency medicine techniques. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.
Marks SL. Diagnosis and management of respiratory trauma. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.

Marks SL. Interesting ER cases. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.


Marks SL. Triage of the trauma patient. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.

Marks SL. ECG’s in the ER. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.

Marks SL. Interesting respiratory cases. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.

Marks SL. Overview of flexible endoscopy. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.


Marks SL. Interactive presentations. Association des Medecins Veterinaires du Quebec (AMVQ), Montreal, March 2013.


Lim JH, Olby NJ. Stem Cell Sources In Adult Dogs. ACVIM Congress, Seattle, June 2013.

Lewis M, Olby NJ* Clinical and imaging findings associated with brain herniation IN dogs and cats. ACVIM – ACVIM congress, Seattle, June 2013.

Olivry T, Dunston SM. Expression patterns of selected desmosomal, tight and adherens junction proteins in an experimental model of canine atopic dermatitis skin lesions. 26th Annual Congress of the European Society of Veterinary Dermatology (ESVD) and European College of Veterinary Dermatology (ECVD), Valencia, Spain, 2013. Veterinary Dermatology 2013;24:389.


Redding WR. The Use of MRI in the Evaluation of the Fetlock BEVA, Manchester 2013.


Redding WR. Experience with US/MRI Fusion in the Operating Theater, Manchester 2013.

Redding WR. The Use of MRI in the Evaluation of the Fetlock, 40 cases ACVS 2012 (2013).

Mathis KR, Johnson KA, Roe SC. Plate contouring significantly affects osteotomy compression. Poster at ECVS Annual Scientific Meeting, Rome, July 2013. (1st author trainee)

Sheats MK*, Adler KB, Jones SL. Myristoylated Alanine Rich C Kinase Substrate (MARCKS) is an important regulator of Beta2-Integrin dependent functions in equine neutrophils. NC State Graduate Student Symposium, 2013. (awarded 1st place, Life Sciences Division)

Sheats MK, Adler KB, Jones SL. Myristoylated Alanine Rich C Kinase Substrate (MARCKS) is an important regulator of Beta2-Integrin dependent functions in equine neutrophils. CVM Research Forum oral presentation, 2013.


Frantz E, Stevens B, Orlando J, Gruen M, Sherman B.* The Use of Trazodone to Reduce Feline Travel Anxiety and Increase Veterinary Exam Tractability, 2013 Merial-NIH Veterinary Scholars Symposium Poster Presentation, Michigan State University College of Veterinary Medicine, East Lansing, MI, August 1-4, 2013. (*senior author with veterinary student trainee first author)

Stevens BJ, Gruen ME. Training Veterinary Students in Shelter Medicine; A Service-Learning Community Classroom Based Technique. AAVMC, Alexandria, VA, March 2014.

Saker K, Stevens B, Bullen L. Selected interventions improve nutrition recommendations on patient discharges. AAVN Meeting at ACVIM, June 2013.


7. Works prepared for presentation and distribution through electronic media, including CD-ROMS, audio and video disks and tapes, computer-generated presentations, broadcast videos, etc.

Breitschwerdt EB. Featured Intereview: Bartonella is Everywhere, So Why Don’t We Know More About It? By Stephanie Soucheray, North Carolina Health News, December 5, 2013.


Breitschwerdt EB. Flea and Tick Borne Diseases. International Web Conference sponsored by Bayer Animal Health, Berlin, Russia, April 17, 2013. (transmitted to all continents)


Fogle C. What to expect when your horse has been referred to NCSU for treatment of colic. Carolina Hoofbeats TV, 2014.


Mariani CL, Thomson CE. Neurology core case videos, online module for Canine and Feline Neurology (distance education course 118.756), Massey University, 2013.

Mariani CL. Mechanisms of neurological dysfunction and disease aetiologies, online module for Canine and Feline Neurology (distance education course 118.756), Massey University, 2013.

Mariani CL. Principles of diagnosis and neurodiagnostic options, online module for Canine and Feline Neurology (distance education course 118.756), Massey University, 2013.

Mariani CL. Therapeutic principles and practical application, online module for Canine and Feline Neurology (distance education course 118.756), Massey University, 2013.


8. Titles of invited presentations/papers/proceedings (including CE) where the primary audience was professionals (veterinarians, scientists, etc.)


Birkenheuer AJ. Vector-Borne Diseases: Jefferson Area Veterinary Medical Association, Charlottesville, VA, September 18, 2013.


Birkenheuer AJ. Internal medicine and Infectious Disease. Florida Veterinary Medical Association, Orlando, FL, April 5-6, 2013. (10 hrs)


Bizikova P. Selected mechanisms of autoimmunity. DermDay, Raleigh, NC, USA, 2013. (electronic proceedings)


Blikslager AT. Intestinal seromuscular injury. ACVS Surgical Summit, San Antonio, TX, October 2013.

Blikslager AT. Porcine models for translational approaches to intestinal stem cells. NCSU-UNC Regenerative Medicine Symposium, Research Triangle Park, NC, October 2013.


Blikslager AT. Return to performance in horses with colic surgery. Florida Association for Equine Practitioners, Ocala FL, October 2013.

Blikslager AT. Ileus – Have we learnt anything recently? British Equine Veterinary Association Congress, Manchester, UK, September 2013.

Blikslager AT. NSAIDs: Do we need to worry about side effects? British Equine Veterinary Association Congress, Manchester, UK, September 2013.

Blikslager AT, Davis MS. Getting grants. Becoming Young Faculty, Burroughs Welcome Foundation, East Lansing, MI, August 2013.


Breitschwerdt EB. Vector-borne diseases of zoonotic importance. Texas Veterinary Medical Association, Dallas TX, February 20, 2014.


Breitschwerdt EB. Infectious Diseases. North Carolina Academy for Small Animal Medicine, Asheville, NC, October 10-13, 2013. (8 hours of lecture)

Breitschwerdt EB. Bartonellosis: A one health approach to an emerging infectious disease. DVM Research Careers Seminar Series. College of Veterinary Medicine, Texas A&M University, College Station, TX, September 11, 2013.

Breitschwerdt EB. Bartonellosis: A One Health Approach to an Emerging Infectious Disease. Pediatric Infectious Disease Grand Rounds, Western Wake Medical Center, Raleigh, NC July 31, 2013.


Clode AB. How to approach evaluation of the fundus. Vermont Veterinary Medical Association Winter Meeting, Burlington, Vermont, February 9, 2014. (1 lecture hr)

Clode AB. How to approach acute and chronic glaucoma in a dog. Vermont Veterinary Medical Association Winter Meeting, Burlington, Vermont, February 9, 2014. (1.5 lecture hr)

Clode AB. What to do with the ulcer that won’t heal in a cat. Vermont Veterinary Medical Association Winter Meeting, Burlington, Vermont, February 9, 2014. (1 lecture hr)

Clode AB. What to do with the ulcer that won’t heal in a dog. Vermont Veterinary Medical Association Winter Meeting, Burlington, Vermont, February 9, 2014. (1.5 lecture hr)
Clode AB. Techniques and Challenges in Veterinary Ocular Pharmacology. United States Pharmacopiea, Workshop on Ophthalmic Products, Rockville, MD, October 21, 2013. (1 hr)

Clode AB. Managing common ocular problems in small animals. International Veterinary Seminars, Kauai, Hawaii, June 24–27, 2013. (8 lecture hrs)


DeFrancesco TC. Updates in canine and feline heart disease: focus on diagnosis and monitoring. Proceedings of the Oklahoma VMA Conference, Oklahoma City, Oklahoma, February 1, 2014.

DeFrancesco TC. Cardiology case discussions. Invited dinner seminar sponsored by Boehringer-Ingelheim, Wilmington, NC November 5, 2013.

DeFrancesco TC. Abdominal fluid assessment by sonography for trauma (AFAST) and thoracic fluid assessment by sonography for trauma (TFAST) wet lab. International Veterinary Emergency and Critical Care Conference, San Diego, TX, September 8, 2013.


Degernes L. GI Disease in Parrots – a Case-based Approach to Diagnosis and Treatment. Proceedings, Western Veterinary Conference, Las Vegas, NV, February 2014.


Degernes L. Supportive Care of Severely Injured or Debilitated Raptors. Proceedings, Western Veterinary Conference, Las Vegas, NV, February 2014.


Degernes L. Avian anesthesia, emergency support and diagnostic surgical techniques (lecture and labs). Annual Conference of the Association of Avian Veterinarians, Jacksonville, FL, August 2013.


Fish RE. Anesthesia, analgesia and euthanasia. NCALAM Workshop in Laboratory Animal Medicine, May 17, 2013.


Gilger BC. Practical Equine Ophthalmology – A 2-Day Course. Munich, Germany, October 11-12, 2013. (5 hrs lecture; 8 hrs laboratory, invited)

Gilger BC. International Equine Ophthalmology Consortium, Jackson Hole, WY, June 8-9, 2013. (3 lectures)

Gilger BC. Advanced diagnosis, treatment, and surgery of the cornea. Virginia Small Animal Academy, Roanoke, VA, October 6, 2013. (6 hrs)


Gookin JL. Targeting crypt cell proliferation to promote control of C parvum infection. Center for Gastrointestinal Biology and Disease, University of North Carolina, Chapel Hill, February 14, 2014.

Gookin JL. Grant Writing for Animal Health Foundations. College of Veterinary Medicine, November 4, 2013 & February 6, 2014.

Gookin JL, Levy MG. Update on feline trichomonosis and giardiosis; epidemiology, diagnosis, and treatment. 10th Merial Symposium on parasitosis and arthropod-borne diseases. Dubai, United Arab Emerites, November 12, 2013.

Gookin JL. Twelve minutes to kill: Presenting an outstanding research abstract. Clinician Scientist Training Workshop, University of Wisconsin-Madison, October 6, 2013.


Hansen B. Initial assessment and monitoring of emergency and critical illness. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)

Hansen B. What’s that noise? Principles of the respiratory system examination. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)

Hansen B. Respiratory system support. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)

Hansen B. Cardiovascular system support. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)

Hansen B. Severe sepsis and septic shock. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)

Hansen B. Laboratory evaluation in critical illness. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)
Hansen B. Fluid therapy I & II. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)

Hansen B. Fat dogs don’t have heart failure: Cardiology pearls. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)

Hansen B. Managing acute pain and the complications of analgesic treatment. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 16-17, 2013. (electronic proceedings)


Harms CA. Session Planner/Chair, Veterinary Session, Regional Aquatics Workshop, Wilmington, NC, April 23, 2014.

Harms CA. Seafood Parasites. Seafood Quality and Safety for Environmental Health Specialists. Morehead City, NC, November 5–7, 2013. (45 minute presentation)

Harms CA. Live Cetacean Stranding Response Training. Virginia Aquarium, Virginia Beach, Virginia, February 8, 2014. (2.5 hr lecture, 2 hr laboratory instruction)

Harms CA. Sea turtle medicine. American College of Zoological Medicine Ultra-short Course [board preparation], Salt Lake City, Utah, September 28, 2013. (1 hr lecture plus study strategies)


Lascelles BDX. Decision making in preventing and treating hip dysplasia in the young dog. Presentations at 25th AMVQ Congress, Montreal, April 26-27, 2014.


Lewbart GA. Advances in fish, amphibian, and reptile analgesia, anesthesia, and surgery. The International Conference on Diseases of Zoo and Wild Animals, Vienna, Austria, May 9, 2013.


Lunn K. Hypothyroidism: Monitoring and Management. Veterinary Medical Forum (NCSU CVM Office of Continuing Education), Raleigh, NC, November 13, 2013. (1 hr lecture, handout provided)

Lunn K. Leptospirosis: Don’t be Fooled! Lecture to veterinarians, in Burlington, NC. April 16, 2013. (1.5 hr lecture, handout provided)


Maggi RG. Hemotropic Mycoplasmas: Insight into reservoirs and new species. Department of Biomedical Sciences. Old Dominion University, Norfolk, VA, February 28, 2014.


Maggi RG. *Bartonella henselae* bacteremia in a mother and son from The Netherlands. 8th Canine Vector-Borne Diseases (CVBD) Symposium, St. Petersburg, Russia, April 2013.

Maggi RG. Hemotropic *Mycoplasma* species infection in people and animals. 8th Canine Vector-Borne Diseases (CVBD) Symposium, St. Petersburg, Russia, April 2013.

Marcellin-Little DJ. Managing osteoarthritis over a lifetime, Western States Veterinary Conference. Las Vegas, NV, February 2014. (electronic proceedings)


Marcellin-Little DJ. Custom implants for companion animals: indications, design and fabrication. British Veterinary Orthopaedic Association, Fall Conference, Manchester, UK, November 2013. (printed notes)


Marcellin-Little DJ. Clinical use of socket prostheses in companion animals. American College of Veterinary Surgeons Symposium, San Antonio, TX, October 2013. (electronic proceedings)

Marcellin-Little DJ. Transdermal osseointegrated implants in companion animals. American College of Veterinary Surgeons Symposium, San Antonio, TX, October 2013. (electronic proceedings)

Marcellin-Little DJ. Custom Prostheses. American College of Veterinary Surgeons Symposium, San Antonio, TX, October 2013. (electronic proceedings)

Marcellin-Little DJ. Prostheses in limb salvage for neoplasia. American College of Veterinary Surgeons Symposium, San Antonio, TX, October 2013. (electronic proceedings)

Marcellin-Little DJ. Biomodeling and Biomanufacturing in Orthopedic Surgery. Annual Meeting of the American Veterinary Medical Association, Chicago, IL, July 2013. (electronic proceedings)

Marcellin-Little DJ. Managing osteoarthritis over a lifetime. Annual Meeting of the American Veterinary Medical Association, Chicago, IL, July 2013. (electronic proceedings)

Marcellin-Little DJ. Lifetime of fitness for working dogs. Annual Meeting of the American Veterinary Medical Association, Chicago, IL, July 2013. (electronic proceedings)

Marcellin-Little DJ. Practical orthopedic screening for working dogs. Annual Meeting of the American Veterinary Medical Association, Chicago, IL, July 2013. (electronic proceedings)

Marcellin-Little DJ. Patellar luxations in working dogs. Annual Meeting of the American Veterinary Medical Association, Chicago, IL, July 2013. (electronic proceedings)


Marcellin-Little DJ. Hind limb orthopedic problems in the feline patient Feline orthopedic seminar. Raleigh, NC, June 2013. (electronic proceedings)

Marcellin-Little DJ. Managing osteoarthritis over a lifetime, North Carolina Academy of Veterinary Medicine, Wilmington, NC, May 2013. (printed notes)

Thomson CE, Mariani CL. Localization of Nervous System Disease. Contact Course Lecture, Part of Canine and Feline Neurology Course 118.756, Massey University, North Palmerston, New Zealand, 2013.

Thomson CE, Mariani CL. Neurologic Exam Demonstration and Practical. Contact Course Practical Session, Part of Canine and Feline Neurology Course 118.756, Massey University, North Palmerston, New Zealand, 2013.


Mariani CL. Advanced Neurodiagnostics. Contact Course Lecture, Part of Canine and Feline Neurology Course 118.756, Massey University, North Palmerston, New Zealand, 2013.

Thomson CE, Mariani CL, Cohen E. Brain Dissection. Contact Course Practical Section, Part of Canine and Feline Neurology Course 118.756, Massey University, North Palmerston, New Zealand, 2013.


Cohen E, Mariani CL, Thomson CE. Radiograph Reading Session, Part 2. Contact Course Practical Section, Part of Canine and Feline Neurology Course 118.756, Massey University, North Palmerston, New Zealand, 2013.


Mariani CL. Use of Newer Anticonvulsant Medications. Contact Course Lecture, Part of Canine and Feline Neurology Course 118.756, Massey University, North Palmerston, New Zealand, 2013.


Mariani CL. Updates on Inflammatory CNS Disease, Diagnosis and Treatment. Proceedings, 31st Annual Forum of the American College of Veterinary Internal Medicine, Seattle, WA, 2013.

Mariani CL. Seize the Day! Management of Refractory Seizures and Status Epilepticus. 32nd Annual Meeting of the Society of Veterinary Hospital Pharmacists, Raleigh, NC, 2013.


Murphy KM. Getting the most from your dermatologic examination. Proceeding, North Carolina Veterinary Conference, Raleigh, NC, November 2013.

Murphy KM. Diagnosis and treatment of superficial and deep bacterial pyoderma. Proceedings, Veterinary Medical Forum, Raleigh, NC, September 2013.

Murphy KM. Otitis externa: Diagnosis and treatment: Part I and II. 59th International Military Veterinary Medical Symposium, Ramstein Air Base, Germany, May 15-17, 2013.

Murphy KM. Dermatologic Problems: Part I and II. 59th International Military Veterinary Medical Symposium, Ramstein Air Base, Germany, May 15-17, 2013.

Murphy KM. Feline Allergies. 59th International Military Veterinary Medical Symposium, Ramstein Air Base, Germany, May 15-17, 2013.


Musulin S. Treatment Updates: Anti-emetics & Gastroprotectants. 18th Annual North Carolina Veterinary Conference, Raleigh, NC, November 2, 2013.


Olby NJ. Muscle and nerve biopsy. Advanced Neurosurgical Techniques (ACVIM) Las Vegas, NV, September 2013. (course organizer)

Olby NJ. Spinal Neurosurgery: Beyond the Hemilaminectomy. Seoul National University, Seoul, South Korea, July 2013.

Olby NJ. Intracranial Surgery. Seoul National University, Seoul, South Korea, July 2013.

Olby NJ. Clinical Case Discussions. Seoul National University, Seoul, South Korea, July 2013.

Olby NJ. Lame, paretic, ataxic? How to analyze gait. San Diego VMA, San Diego, April 2013. (conference proceedings manual)

Olby NJ. Acute Disc Disease: the Old, the New and the Future. San Diego VMA, San Diego, CA, April 2013. (conference proceedings manual)


Olby NJ. Weak Old Dogs: is it just their Age? San Diego VMA, San Diego, CA, April 2013. (conference proceedings manual)

Olby NJ. Paresis in Cats: they are not Small Dogs. San Diego VMA, San Diego, CA, April 2013. (conference proceedings manual)

Olby NJ. Spinal Radiographs for General Practitioner San Diego VMA, San Diego, CA, April 2013. (conference proceedings manual)


Olivry T, Bäumer W. Mechanism of atopic itch in humans and animals: selected (a)topics. Proceedings 26th Annual Congress of the European Society of Veterinary Dermatology/European College of Veterinary Dermatology, Valencia, Spain, 2013; 156-161.


Olivry T. Update on autoimmune skin diseases: selected topics (2 parts; in Spanish). 2nd Congress of the Latin American Society of Veterinary Dermatology, Bogotá, Colombia, 2013. (with proceedings notes)

Olivry T. Is the skin barrier defective in dogs with atopic dermatitis? (in Spanish). 2nd Congress of the Latin American Society of Veterinary Dermatology, Bogotá, Colombia, 2013. (with proceedings notes)


Roe SC. Implant Design and Performace, Principles and Application of Cerclage Wire, Biomechanical considerations in th fixation of comminuted fractures, SOP Plate system, Infection of bone and Implants. Surgical Fixation of Fractures, Course Notes, Columbus, OH, April 2013.


Stoskopf MK. In-depth fish physiology. AquaVet, Rhode Island, 2013. (8 hrs lecture)


Tate LP. Endoscopic diagnosis of diseases of the paranasal sinuses and surgical approaches for the horse. NCVC Equine Spring Meeting, February 2013.


Di Cicco MF, Vaden SL. Make your Diagnosis: Severe Diarrhea in a Wheaten Terrier. NAVC Clinician’s Brief, April 2014.


**Vaden SL.** Chronic Kidney Disease – Medical Management. American Veterinary Medical Association Annual Convention, Chicago, 2013.

**Vaden SL.** Recurrent UTI: Can We Prevent It?. American Veterinary Medical Association Annual Convention, Chicago, 2013.

Pressler BM, **Vaden SL.** Inside the Issues Panel Discussion: Ten Articles that Changed Urology Practice This Decade. Parts 1 and 2. American Veterinary Medical Association Annual Convention, Chicago, 2013.


9. **Titles of continuing education presentations/papers/proceedings where the primary audience was not professionals (livestock producers, dog breeders, horse owners, etc.)**


**Bailey CS.** Cloning and other Advanced Reproductive Techniques: How do they work, and what is their place in horse-breeding? Annual AMHA Convention, Raleigh, NC February 2014.

**Bailey CS.** Should I breed my performance mare, and what do I need to know? NCSU Equine Health Symposium, Raleigh NC, February 2014.

**Birkenheuer AJ.** Vaccines: The good, the bad an the ugle. The AKC CHF, St. Louis MO, August 10, 2013.

**Bizikova P.** Janus kinases and their potential in treatment of canine atopic dermatitis (sales representatives and marketing). Novartis, Greensboro, 2013.

**Cardenas F, Blikslager AT.** The importance of horse insurance. Equine Health Symposium, Raleigh, NC, February 2013.

**DeFrancesco TC.** Common heart diseases in dog and cats. NC State University Vet Camp – gateway camp for underprivileged middle school students. NCSU CVM, June 18, 2013.

**Degernes L.** Heavy Metal Poisoning in Birds – It Can Happen to Anyone! Proceedings, American Federation of Aviculture, Raleigh, NC, August 2013.

**Ferris KF.** The role of shelter workers and volunteers in managing infectious diseases shelter animal populations. 2013 Learning DOG Conference, Swansboro, NC, September 14, 2013.

**Fogle CF, Prange T.** Equine preventive health jeopardy. 2014 Equine Health Symposium, Raleigh, NC, February 8, 2014.

**Fogle C.** Ten things YOU can do to prevent colic. Carolina Hoofbeats Magazine, May 2013.

Gieger T. Update on canine nasal tumors. NCSU Student Critical Care Club, September 2013.


Gookin JL. Research needs in canine gastroenterology – A clinician-scientists perspective. American Kennel Club Canine Health Foundation Conference, St. Louis, MO, August 10, 2013.


Hanel R. Course coordinator, lecturer and laboratory instructor. Physical Examination. K9 First Aid. IV fluid therapy and therapeutic interventions for shock, heatstroke, smoke inhalation and burn wound management in the “K9 Down; Are You Prepared? Immediate Care of the Injured Dog for Emergency Personnel” course. NC State University, College of Veterinary Medicine, Raleigh, NC, February 15, 2013. (Developed an on-line lecture series that was initiated in December and maintained chat sessions in Jan/Feb with wet lab delivered at NCSU on Saturday, Feb. 15th.)


Lewbart GA. Exotic animal medicine. The NC Junior Statesman Program, Dr. Betsy Sigmon, organiser, NCSU-CVM, December 9, 2013.


10. **Bulletins, booklets, and similar educational material developed for distribution.**


11. **Copyrighted software and other copyrighted scholarly material (if not included in 1-10).**

**Hansen BD.** Veterinary Emergency and Critical Care Resources. A collection of instruction manuals and calculators for emergency and critical care, maintained at [http://www.ncstatevets.org/ECCresources/](http://www.ncstatevets.org/ECCresources/).


12. **Patents.**

None

13. **Awards/Other Contributions.**

**Birkenheuer A.** University of Florida College of Veterinary Medicine Alumni Achievement Award, 2014.

**Bizikova P.** Best Laboratory Short Communication (established investigator) at the 26th Annual congress of the ESVD-ECVD, September 2013.

**Breitschwerdt EB.** Holliday Medial receipient, North Carolina State University 2013.

**Breitschwerdt EB.** Reappointment, Adjunct Professor of Medicine, Duke University Medical Center.

**DeFrancesco T.** Bayer Faculty Award awarded by Class of 2013.

**Degernes L.** Successfully applied to the Chi Institute in Riddick, FL for a $2645 faculty scholarship to attend the Small Animal Veterinary Acupuncture course in Guangzhou, China (this scholarship allowed her to attend the course as a full participant and will save the CVM money for travel expenses during the course).

**Fogle C.** CAAEP equine faculty member of the year, 2012-2013.

**Gookin JL.** Received “Thank a Teacher” Program recognition from Provost Arden on behalf of a first year veterinary student’s nomination.

**Gookin JL.** Invited to join the Merial Advisory Board on parasitoses of the dog and cat.

**Gookin JL.** Invited to join the Merial Advisory Board on parasitoses of the dog and cat, 2013.
**Grunkemeyer V.** Association of Avian Veterinarians American Veterinary Medical Association Emerging Leader 2014.

**Hanel RM.** Invited speaker regarding viscoelastic testing modalities for an Advanced Medicine Course (House Officer course) at Iowa University, November 2013.


**Jones S.** University Distinguished Graduate Professor.

**Jones S.** Thank A Teacher Award.

**Kennedy-Stoskopf S.** Work with the One Health course resulted in a presentation at the 2014 AAVMC meeting and a trip to University of Surrey as part of the University Global Network Partnership (UGPN) to discuss strategies for teaching One Health concepts.

**Marcellin-Little DJ.** Invited speaker at the Center for the Intrepid, San Antonio, TX.

**Marcellin-Little DJ.** Interview for article in Reader’s Digest.

**Marcellin-Little DJ.** Article in Veterinary Practice News.

**Marcellin-Little DJ.** Interview for article in Triangle Dog Journal.

**Marcellin-Little DJ.** Invited to present research at the ACVS symposium.

**Marcellin-Little DJ.** Invited to present research at the British Veterinary Orthopedic Association.

**Marcellin-Little DJ.** Invited to collaborate in a research project at The Ohio State University.

**Mariani C.** Invitation to be on “Panel Discussion: Inflammatory Brain Disease.” 31st Annual Forum of the American College of Veterinary Internal Medicine, Seattle, WA, 2013. (2 hrs)

**Munana KR.** Keynote speaker at the 20th Annual Congress of the Japanese Society of Veterinary Neurology, Toyko, Japan, July 2013.

**Munana KR.** Recipient of annual donations from Epi-K9 Foundation and the Krauss Charitable Foundation in support of research on canine epilepsy, 2013.

**Olby NJ.** Recipient of the Zoetis Research Award, College of Veterinary Medicine, Raleigh, NC, May 2013.
Olby NJ. Invited speaker for Breakfast with a Specialist at ACVIM, Seattle, WA, June 2013.

Olivry T. The sole veterinarian invited to speak at the World Congress on Itch in Boston in September 2013.

Sherman B. Ranked above the national average for: “How likely would you recommend to other DVM’s the NCSU Behavior Service” (CalPro Research Referring DVM Survey, 2014).

Stevens B. Faculty award for Outstanding Extension and Engagement


14. Grants Applied for as Principal or Co-Investigator.

Bizikova P, Olivry T (co-PI), Yoder J. Feline pemphigus foliaceus – detection of circulating antikeratinocyte autoantibodies and screening for anti-desmoglein-1 and anti-desmocollin-1 autoantibodies. 2013 (European Society of Veterinary Dermatology, Luxembourg, Luxembourg) $19,281. (not funded)

Breitschwerdt EB, Maggi RG. Anaplasma platys and Ehrlichia canis neglected zoonotic tick borne pathogens. February 2013 (National TickBorne Disease Research Fund) $58,388. (not funded)

Breitschwerdt EB, Maggi RG. Identification of new medical uses for BAPGM enrichment culture. February 2013 (North Carolina Biotechnology Grant Program) $80,000. (not funded)

Breitschwerdt EB. Bartonella spp. and Canine Idiopathic Nodular Panniculitis. May 1, 2013-April 30, 2014 (ACVIM Foundation Grant) $25,000. (not funded)

Breitschwerdt EB, Qurollo B, Hegarty BH. Serological and molecular analysis of feline exposure to vector-borne diseases, Ehrlichiosis, Anaplasmosis and Borreliosis, using species-specific peptides and Anaplasma/Ehrlichia genera-specific PCR. March 1, 2014-February 28, 2015 (Winn Feline Foundation) $24,500. (not funded)


Guillaumin J, Bonagura JD, Scansen BA, Quinn R, Whelan M, DeFrancesco T, Hanel R (Co-I), Bublot I, Goy I. Early use of tissue plasminogen activator for thrombolysis in feline acute aortic thromboembolism. 2014 (Morris Animal Foundation) $95,000.

DeFrancesco T. Agreed to be contributor to multicenter clinical trial. Comparison of rivaroxaban vs. clopidogrel (18.75 mg) for prevention of recurrent arterial thromboembolism in cats with heart disease who have experienced a prior thromboembolic event. Submitted grant to Morris Animal Founation. (~$500/cat – target 90 cats total)

Gieger T, Nolan M, Seiler G, Griffin E. Treatment of feline gastrointestinal lymphoblastic lymphoma with cobalamin (vitamin B12), prednisone, lomustine, +/- 8 Gy abdominal cavity radiation therapy. November 2013 (Winn Feline Foundation) $19,400. (not funded)


Gookin JL (PI), Jacobs M, Watson V (co-I). Proof of disease causation of EPEC in kittens has translational benefits for improving survival in children. April 14, 2014 (State Appropriated Research Funds) $20,000. (under review)

Gookin JL (PI), Bruno-Cardenas, JM (co-I), Jacob M (co-I), Watson V (co-I). Validation of efficacy of an innovative strategy using host-derived commensal enterococci to prevent colonization and diarrhea caused by enteropathogenic *E. coli*. March 7, 2014 (Research Innovation and Seed Fund) $36,250. (under review)

Gookin JL (PI), Foster DM (co-I), Sherry B (co-I), Magness (co-I). Targeting crypt cell proliferation to promote recovery from *C. parvum* infection. November 5, 2013 (NIH-NIDDK R01DK099471-01A1) $1,500,000. (not funded)

Gookin JL (PI), Sherry B (co-I), Foster DM (co-I). Controlling the crypts to combat *Cryptosporidium* in children and calves. November 5, 2013 (Bill and Melinda Gates Foundation) $100,000. (not funded)

Foster DM (PI), Gookin JL (co-I). Harnessing the microbiome to prevent cryptosporidiosis in children and calves. May 7, 2013 (Bill and Melinda Gates Foundation) $100,000. (not funded)

McLaughlin C, Hanel R (Co-PI), Motsinger-Reif A, Marks S, Dorman D. Use of thromboelastography for monitoring unfractionated heparin therapy in normal canines. 2013 (American College of Veterinary Emergency and Critical Care) $9,900.


Hawkins EC (PI), Meurs KM (Co-PI), Mathews KG (Co-I). Genetic evaluation of tracheal collapse in toy breed dogs, with emphasis on Yorkshire Terriers. 2013 (Comparative Medicine and Translational Research Clinical Genomics Pilot Projects) $14,100. (not funded)


Hess PR. *Ex vivo* selection of TALEN-modified, MHC class Ia*low* stem cells for improved islet cell transplantation. February 7, 2014 (Novo Nordisk [Diabetes and Obesity Biologics Science Forum]) No amount specified – preproposal (not funded).
Fogle J, Hess PR (Co-I). Lentivirus-Activated T Regulatory Cells Alter CD8+ T Cell Epigenetic Profiles. May 7, 2013 (NIH/NIAID) $1,893,750, 5-year proposal. (not funded)


Kedrowicz AA, Schoenfeld-Tacher R. Communication skills training and social cognitive learning theory: The NCSU College of Veterinary Medicine video series. 2013 (Internal Technology Innovation Grant) $2,819.


Buckner G, Jernigan S, Keene B, Mathews KG. A tumor-targeting infusion system for transarterial treatment of liver cancer. 2013 (NIH Small Business Technology Transfer Grant Applications) $106,000. (not funded)


Kennedy-Stoskopf S, Fornaro R. WolfScout. Feb. 15, 2013 (Chancellor’s Innovation Fund) $41,941. (not funded; notified after March 31, 3013)

Piedrahita JA, Lunn KF (co-PI), Starly B, Gerber D. Regenerative medicine approaches for the treatment of diabetes: An interdisciplinary approach. Pilot Projects in Comparative Medicine and Translational Research – Critical Issues in Clinical Research: “Meet and Greet” Proposals. 2014 (NCSU Research and Innovation Seed Funding Program) $13,500. Submitted and successfully completed Phase 1. (This means we have been invited to phase II).

Maggi RG. The Artic Fox, Vulpes Lagopus, as a Surrogate Sentinel Model for Polar Bears in the Study Vector-Borne Pathogen Ecology in the Arctic Region. 2014 (Sea World Busch Gardens Conservation Fund) $24,576.


Maggi RG. Prevalence and characterization of hemotropic Mycoplasma species in Little Brown Bats (Myotis lucifugus) affected with the White Nose Syndrome (WNS). 2013 (Bernice Barbour Foundation, Inc.) $19,850. (not funded)

Maggi RG. Prevalence of Bartonella spp. in skin cancers in dogs. 2013 (American Kennel Club Canine Health Foundation, Inc.) $11,100. (not funded)


Bray KY, Mariani CL. Investigation of the etiology of granulomatous meningoencephalitis in dogs using laser capture microdissection and PCR for antigen receptor rearrangement. 2013 (Holliday Neurology Resident Research Grant) $7,023 (not funded).


Nolan MW (PI), Gieger T. Stereotactic body radiation therapy for lung cancer in dogs: a feasibility study. April 2014 (CVM Internal Grant Program) $20,000.

Nolan MW (PI), Gieger T, Chang S, LaLush D, Roback D, Posner L. Phase I dose-escalation study of GRID therapy for macroscopic soft tissue sarcomas in dogs. March 2014 (NC State University Research Innovation Seed Funding) $36,829. (not funded)

Nolan WM, Lunn KF (Co-PI). Radiation therapy for treatment of lymphoplasmacytic rhinitis in dogs. 2013 (AKC Canine Health Foundation) $137,678. (not funded)


Olby NJ. Investigation of Sensory Deficits and Quantitative Trait Loci in Chiari-like Malformations and Syringomyelia in Cavalier King Charles Spaniels. 2013 (American Kennel Club Canine Health Foundation) $143,910. (pending)

Olby NJ. Investigation of Sensory Deficits and Quantitative Trait Loci in Chiari-like Malformations and Syringomyelia in Cavalier King Charles Spaniels. 2013 (Morris Animal Foundation for $133,866. (pending)

Fogle J, Olivry T (co-PI): Characterization of the prostaglandin D2 receptor 2 (PD2R2, CRTH2) in dogs. 2013 (LEO Pharma, Copenhagen, Denmark) $71,303. (Status March 31, 2014: preapproved by March 2013, project abandoned by sponsor in June 2014)

Olivry T (PI): Pilot evaluation of the efficacy and safety of VBY-129, a cathepsin S inhibitor, to treat atopic dermatitis in dogs. 2013 (LEO Pharma, Copenhagen, Denmark) $38,983. (Status March 31, 2014: preapproved in July 2013, project abandoned by sponsor in August 2014 due to some toxicity in dogs)

Baeumer W, Olivry T (co-PI). Development of a canine model of atopic pruritus. 2014-2016 (R21; NIH-NAIMS) $416,625. (not funded)
Baeumer W, Olivry T (co-PI). Exploratory study of the efficacy of a topical formulation of LEO 29102 on house dust mite allergen-induced skin inflammation in a canine model of atopic dermatitis. 2014-2015 (LEO Pharma, Copenhagen, Denmark), $46,316. (Status March 31, 2014: preapproved, contract currently being negotiated)

Baeumer W, Olivry T (co-PI). Development of a canine model of atopic pruritus. 2014-2015 (Bayer Animal Health, Leverkusen, Germany) $25,000. (Status March 31, 2014: preapproved as an MOA, contract currently being negotiated)


Saker KE, Stevens B, Lunn KF (Co-I). Enhancing acceptance of a renal diet in the management of feline CKD patients. 2013 (Winn Feline Foundation) $8,276. (not funded)

Won IJ, Stoskopf MK. SBIR Marine Aquaculture Noninvasive Health Monitoring System. 2013 (NOAA) $100,000. (not funded)

Stoskopf MK, Harms C, Macdonald, Nelson. The Physiologic Basis for Improving Treatment of Sea Turtles Suffering from Cold Stun Syndrome 2013 (Morris Animal Foundation) $162,941. (not funded)

Stoskopf MK, Eggleston D, Harms C, Yoder J, Gamcsik M. Ocean Acidification: Metabolic dynamics of physiological responses of bivalve mollusks to ocean acidification. 2013 (National Science Foundation) $904,218. (pending)


15. Grants Received as Principal and Co-Investigator.

Poole DH, Bailey CS (Co-I), Poore MH. Improving reproductive tract function and pregnancy success in cattle consuming endophyte-infected fescue. 2013 (North Carolina Agricultural Foundation Research Grant) $21,600.


Birkenheuer AJ. Summer Scholar Hitchings Proposal 2013 (Triangle Community Foundation) $5,000.


Birkenheuer AJ, Breitschwerdt EB. Vetmedica Post-Doctoral Scholar for 2013 (Boehringer Ingelheim) $54,000.
Bzikova P (PI), Olivry T (co-PI). A randomized controlled trial of the benefit of Royal Canin Anallergenic veterinary diet in dogs with spontaneous pruritic chicken hypersensitivities. 2013-2014 (Royal Canin, Aimargues, France) $27,299.


Breitschwerdt EB. Potential role for Bartonella spp. in human vascular tumors. June 1-December 31, 2013 (Center for Research and Analysis of Vascular Tumors) $5,000.

Breitschwerdt EB. Salary Support, Nandu Balakrishnan. 2013 (Bayer Animal Health) $42,000.

Breitschwerdt EB. Clinical and molecular studies of Anaplasmosis, Bartonellosis and Ehrlichiosis In Dogs. 2014 (IDEXX Continuation Grant) $56,243


Degernes L (PI). Investigation of low level laster therapy for rehabilitating raptors. 2014 (Raleigh-Durham Caged Bird Society) $750.


Gilger BC. Testing Service Agreement: A Pilot 3-day Repeat Dose Ocular Tolerability Study for CsA formulation and two excipients (HCO-40 and Octoxynol-40) in New Zealand White Rabbits. October 2013-December 2013 (CT Development of America, NY, NY) $18,000.


Tolbert MK (PI), Gookin JL (co-I). Modeling the intestinal epithelium through recapitulation of the intestinal stem cell niche. November 1, 2013-October 31, 2014 (Center of Excellence in Livestock Diseases and Human Health) $14,900.


McLaughlin C, Hanel R (Co-PI), Motsinger-Reif A, Marks S, Dorman D. Use of thromboelastography for monitoring unfractionated heparin therapy in normal canines. 2013 (Firestone) $2,500.

Funded, but contract is at Texas A&M: Advanced Gene Therapy for Treatment of Cardiomyopathy and Respiratory Insufficiency in Duchenne Muscular Dystrophy. US Department of Defense (DoD), Congressionally Directed Medical Research Programs (CDMRP), Duchenne Muscular Dystrophy Research Program (DMDRP) Investigator-Initiated Research Award. BJ Byrne, Principal Investigator, University of Florida; JN Kornegay, Principal Investigator on the Texas A&M University subcontract; 10% effort; 07/01/14-06/30/16; $348,640 Total; $238,794 Direct. Hawkins EC, consultant, $10,000 on Texas A&M subcontract.


Shea D (PI), Kennedy-Stoskopf S (Co-PI representing CVM). Southeast Regional Climate Center. 2010-2015 (US Department of Interior and US Geological Survey) $1,200,064. (Has funded graduate student stipend for 2 years for Lauren Charles Smith)

Baeumer W, Hammerberg B, Lascelles BDX (co-I). Upgrade of aNikon TE200 fluorescence microscope for realtime Ca2+ imaging. 2013 (CVM Research Office) $14,484 requested (total with matching, $40,484).

Dorman D, Ghashghai T, Lascelles BDX (Co-I). Upgrade to rodent behavioural equipment. 2013 (CVM Research Office) $6,790.


Lascelles BDX (PI), Tuohy J, Fogle J. AKC-CHF Research Fellowship for Dr. Joanne Tuohy. November 14, 2013-November 30, 2014 (Canine Health Foundation) $12,000.

Murrell J (PI), Lascelles BDX (Co-I). Defining a pain phenotype that is predictive of altered central pain processing in dogs with spontaneous osteoarthritis. October 1, 2013 – September 30, 2016 (Direct Sponsor, Biotechnology and Biological Sciences Research Council) $917,300. (funds held at the University of Bristol)


Lewbart GA, Harms CA. Veterinary Medical Services Rendered to the Museum of Natural Sciences. 2013-2014 (NC DENR) $25,000.


Lewbart GA, Harms CA. Sea turtle research fieldwork to support veterinary student participation in ongoing fieldwork. 2000-present (SC DNR) $3,600.

Marcellin-Little DJ. Bioprosthetics program support grant. EOS M-280 machine. May 2013 (Leonard X. Bosack & Bette M. Kruger Charitable Foundation) $593,852.

Marcellin-Little DJ. Feline carpal hemiarthroplasty. (Leonard X. Bosack & Bette M. Kruger Charitable Foundation) $33,000 per year for 3 years.

Marcellin-Little DJ. 1.9 mm 30° oblique rigid arthroscope. (Sandy Lerner donation) $9,000.

Marcellin-Little DJ. BioMedtrix TATE total elbow arthroplasty system. (Sandy Lerner donation) $18,000.

Charlton A, Mathews KG (faculty mentor). George H. Hitchings New Investigator Award in Health Research. 2013 (Triangle Community Foundation) $5,000.


Montgomery KW. A prospective genetic evaluation of crystalline corneal dystrophy in the Siberian husky. July 1, 2013-June 30, 2014 (NCSU College of Veterinary Medicine Grant) $14,469.


Muñana KR (site investigator). A pivotal, randomized, blinded, placebo-controlled, clinical field study evaluating the effectiveness and safety of imepitoin in dogs with idiopathic epilepsy. September 2012 – September 2014 (Boehinger Ingelheim Vetmedica, Inc.) $35,000.


Prange T, Blikslager AT, Campbell NB, Davis JL. Feasibility and safety of standing lumbosacral epiduroscopy in horses. July 1, 2013-June 30, 2014 (New Investigator or Feasibility Fund, NCSU CVM Intramural Grant) $ 17,308.

Sheats MK (PI), Jones SL (supervisor/mentor). Targeting the Marcks-family proteins to inhibit neutrophil migration. 2012-2017 (NIH/ORIP [K01OD015136) $634,500 total, $126,900 this grant year.


Frantz E, Sherman B. The use of trazodone to reduce anxiety in cats during veterinary visits. 2013 (Morris Animal Foundation, Veterinary Student Scholar Program, #D14MS-602) $5,000. (Senior author with veterinary student trainee first author).

Stoskopf MK (PI), Niemuth J. The Physiologic Basis for Improving Treatment of Sea Turtles Suffering from Cold Stun Syndrome. 2014 (Bernice Barbour Foundation) $18,000.


Shea D (PI), Stoskopf M (Co-PI representing CVM). Southeast Regional Climate Center. 2010-2015 (US Department of Interior and US Geological Survey) $1,200,064. (Has funded graduate student stipend for 1 year for Jennifer Niemuth)


Dr. P.C. Barker, Adjunct Professor, Cardiology

Publications


Abstracts


Thattaliyath BD, Forsha DE, Stewart C, Barker PCA, Campbell MJ. Evaluation of right ventricular myocardial mechanics using Velocity Vector Imaging of cardiac MRI cine images in transposition of the great arteries following atrial and arterial switch operations. Abstract presented in the Young Investigators Award competition at the American Academy of Pediatrics National Conference and Exhibition 2013, Orlando, FL.


Committees
- Currently serves on the Guidelines and Standards and Education Committees of the American Society of Echocardiography and will rejoin the Council on Pediatric and Congenital Heart Disease for the American Society of Echocardiography June 2014.

Dr. G. Chanoit, Adjunct Assistant Professor, Small Animal Surgery

Examination Committee
Chief Examiner, European College of Veterinary Surgeons, 2014-2015

Publications

Abstracts


Editorials

Dr. S. K. Chinnadurai, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine

Publications

Dr. D. DeYoung, Adjunct Professor, Small Animal Surgery
Publications


Dr. D. Dombrowski, Adjunct Lecturer, Aquatics, Wildlife & Zoo Medicine

- The Veterinary Services (VetS) Unit of the North Carolina Museum of Natural Sciences Living Collections Section, supervised by Chief Veterinarian, Dr. Daniel S. Dombrowski, expanded the frontiers of Veterinary Medicine to include a novel field termed Museum Medicine.
- The VetS Unit partnered with Museum Research and Education Sections to develop a collaborative team approach to evaluating and delivering audience-focused programming. The Museum applied for and received an Institute of Museum and Library Services grant totaling over $130,000 to support the hiring of 3 new positions to focus on enhancing the public’s understanding of and engagement with science.
- In collaboration with University and Community Partners, Veterinary Services staff of the North Carolina Museum of Natural Sciences has collectively published 3 peer-reviewed scientific articles advancing Wildlife and Museum Medicine.

Dr. T. Edling, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine

- Board of Directors – Pet Industry Joint Advisory Council
- Pet Industry Joint Advisory Council Ambassador of the Year 2014
- Centers for Disease Control and Prevention (CDC) zoonotic education committee member
- American Humane Association “No Animals Were Harmed” board member
- Chairman – Pet Industry Joint Advisory Council zoonosis committee
- Matera of Public Health (MPH Johns Hopkins University
- President – Society for Veterinary Medical Ethics

Dr. D. H. Johnson, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine

New Appointment/Responsibilities
- Vice President, Association of Exotic Mammal Practitioners

Presentations
- Metropolitan New Jersey Veterinary Medical Association, Newark, New Jersey, March 19, 2014.
- Symposium of the American Board of Veterinary Practitioners, Phoenix, AZ, November 1-3, 2013.
- Association of Exotic Mammal Veterinarians Annual Conference, Indianapolis, IN, September 15-19, 2013.
• International Veterinary Emergency & Critical Care Symposium, San Diego, CA, September 7-11, 2013.
• Delaware Valley Academy of Veterinary Medicine, Plymouth Meeting, Pa, June 12, 2013.
• North American Veterinary Community Institute, Orlando, FL, May 19-22, 2013.

Dr. J. Kornegay, Adjunct Professor, Neurology

• Association of American Veterinary Medical Colleges (AAVMC) Recognition Lecturer (2014)

Publications


Cotten SW, PhD, **JN Kornegay**, DJ Bogan, KM Wadosky, C Patterson, MS Willis: Genetic myostatin decrease in the golden retriever muscular dystrophy model does not significantly affect the ubiquitin proteasome system despite enhancing the severity of disease. Am J Transl Res 2013;16:43-53.


RD Wuebbles, A Sarathy, **JN Kornegay**, DJ Burkin: Prednisone increases $\mu$7 integrin and laminin-$\alpha$2 in the mdx mouse and GRMD dog models of Duchenne muscular dystrophy. Dis Model Mech 2013;6:1175-84.


Research Presentations

Research Supported as Principal Investigator
Cardiomyopathy in the golden retriever model of muscular dystrophy. Morris Animal Foundation. Fellowship for Dr. Sarah Schneider. 01/01/14-12/31/17; $160,000 Total; $147,200 Direct.
Advanced Gene Therapy for Treatment of Cardiomyopathy and Respiratory Insufficiency in Duchenne Muscular Dystrophy. US Department of Defense (DoD), Congressionally Directed Medical Research Programs (CDMRP), Duchenne Muscular Dystrophy Research Program (DMDRP) Investigator-Initiated Research Award. BJ Byrne, Principal Investigator, University of Florida; JN Kornegay, Principal Investigator on the Texas A&M University subcontract; 10% effort; 07/01/14-06/30/16; $348,640 Total; $238,794 Direct. We have been notified that this project has been recommended for funding. The Texas A&M University subcontract is pending.

Laminin-111 protein therapy for Duchenne muscular dystrophy. Muscular Dystrophy Association. Burkin DJ, Principal Investigator, University of Nevada-Reno; Subcontract to Texas A&M University pending; JN Kornegay, Principal Investigator on the Texas A&M University subcontract; 5% effort (no salary per MDA guidelines); 08/01/12-07/31/15 (A&M Yrs 2 and 3); $147,813 Total; $134,376 Direct.

MG53 as a therapeutic protein for treatment of muscular dystrophy. NIH-NIND (S2R44AG060019-02). Cooperative Program in Translational Research Small Business Awards (SBIR [U44]). Norio Takizawa, TRIM-edicine; Subcontract to Texas A&M pending; JN Kornegay, Principal Investigator on the Texas A&M subcontract; 10% effort; 07/01/12–06/30/14; $420,073 Total; $286,739 Direct.

DP ARF ultrasound for monitoring muscle degeneration in Duchenne muscular dystrophy. NIH-NIAMS (1R01NS074507-01A1). Gallippi CM, Principal Investigator; University of North Carolina-Chapel Hill; JN Kornegay, Co-Investigator; 10% effort; 10/01/11–09/31/16; $2,321,573 Total; $1,486,613 Direct. Subcontract to Texas A&M University (Yrs. 2-5) pending; JN Kornegay, Principal Investigator on the Texas A&M University subcontract; 10% effort; 09/01/12-08/31/16; $547,061 Total; $374,699 Direct.

Systemic molecular therapy for muscular dystrophy. NIH (NINDS) (R01NS042874). HH Stedman, Principal Investigator, University of Pennsylvania. Subcontract to the University of North Carolina-Chapel Hill (Yrs. 1-3); JN Kornegay, Principal Investigator on the UNC-CH subcontract; 10% effort; 04/01/2009-3/31/2012; $569,728 Total; $381,331 Direct. Subcontract to Texas A&M University (Yrs. 4 and 5); JN Kornegay, Principal Investigator on the Texas A&M University subcontract; 10% effort; 09/01/12-08/31/14; $319,088 Total; $218,544 Direct.

Myostatin inhibition in DMD dogs by gene transfer. NIH (NIAMS) (1R01AR056394-01A2). Xiao Xiao, Principal Investigator, University of North Carolina-Chapel Hill; JN Kornegay, Co-Investigator; 5% effort; 07/01/09–6/30/13; $1,843,750 Total; $1,250,000 Direct. Subcontract to Texas A&M University (Yr. 5) pending; JN Kornegay, Principal Investigator on the Texas A&M University subcontract; 5% effort; 07/01/13-06/30/14; $25,325 Total; $39,608 Direct. (Year 5 award to Texas A&M pending).

Dr. R. Labens, Adjunct Assistant Professor, Equine Surgery

Projects Relevant to NCSU-CVM

- February/March 2014: “Effect of intra articular gold nanoparticles” ongoing project supported by Drs Lascelles, Blikslager and Gerard and Ms Anna Charlton
- All year: “Effect of foot conformation in horses undergoing MRI” ongoing project supported by Dr Redding
Funding Received for Projects Supervised – University of Edinburgh

- Wellcome Trust Pump Priming Award: ‘Utility of an ex-vivo model to study NFK-B dependent inflammatory cell recruitment into the synovial space’
- Roslin Institute Small Scale Project Award: “The inflammatory potential of intra-articular gold nanoparticles”
- University of Edinburgh studentship in support of the doctoral program: “Ex-vivo modelling techniques of synovial inflammation”
- BBSRC studentship for undergraduate summer project: “Chemotactic stimulus of select gold nanoparticles on synovial membrane”
- Institutional discretionary funds: “Gold nanoparticle adsorbance of prostaglandin E2”

Conferences

- Congress Committee for the 2013 and 2014 Congress of the British Equine Veterinary Association
- Presentations at the 2013 BEVA conference:
  - “Use of 3D digital photography in equine medicine and surgery”
  - “Indications of advanced diagnostic imaging”

Dr. S. Leonatti, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine

- Became a Diplomate of the American Board of Veterinary Practitioners in Reptile & Amphibian Medicine

Dr. D. Levine, Adjunct Professor, Small Animal Surgery


Dr. K. Loeffler, Adjunct Assistant Professor, Avian Medicine

- Serve as veterinary advisor for the projects of the International Fund for Animal Welfare (IFAW)

Dr. C. Mathews, Adjunct Professor, Equine Surgery

- Completed a study on EEG response to peripheral stimulation

Dr. R.J. McMullen Jr., Adjunct Assistant Professor, Ophthalmology

Invited Presentations


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**Dr. D. M. Mulcahy, Adjunct Associate Professor, Aquatics, Wildlife & Zoo Medicine**

*Publications*


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**Dr. B. Schopler, Adjunct Assistant Professor, Avian Medicine**

*Publications*


*Posters*


*Conference Presentations*

- Aye-aye conference in San Diego, CA
  - Medical issues of the Aye-aye and its tapping finger
  - Dental problems and solutions for aye-aye
- Attended Prosimian Congress 2013, Ranamafana, Madagascar

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**Dr. W. Simpson, Adjunct Assistant Professor, Equine Surgery**

*Publications*


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**Dr. C. Stroud, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine**

- Appointed Executive Director of the One Health Commission, September 2013
• With the leadership of Suzanne Kennedy-Stoskopf, Peter Cowen, Jay Levine, Barrett Slenning and Dean Lunn, and One Health colleagues from Duke and UNC, the NC OHC-sponsored course, One Health: From Philosophy to Practice, cross listed at Duke, UNC, and NCSU, completed its fourth year of offering as a spring course run in parallel with the weekly NC OHC One Health Intellectual Exchange Group discussion series.

Dr. K. Taylor, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine

Participation in the Multi-Species Medicine Group
- Rabbit Medicine Lecture, VMC953, Fall 2013
- Rabbit Handling and Biology Lecture, VMC931, Spring 2014
- Rabbit and Rodent Handling and Procedures, 4 Lab sessions, VMC931, Spring 2014

Publications

Dr. A. D. Tuttle, Adjunct Assistant Professor, Aquatics, Wildlife & Zoo Medicine

• Honored as a 40 under 40 award recipient by the Chamber of Commerce in Southeastern Connecticut., January 2014.