

# Comparative Biomedical Sciences

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Course offerings and research topics currently include, but are not limited to: cell biology, genomics, infectious diseases, developmental biology, immunology, cardiology, pharmacokinetics, oncology, toxicology, gastroenterology, neuroscience, reproductive physiology, biotechnology, microbiology, aquatic/ wildlife biology, biomedical engineering, endocrinology, molecular biology, pulmonary biology, epidemiology, population medicine, health systems monitoring, transplantation and radiology.

## Admission Requirements

All applications are reviewed by the Graduate Studies Committee of the CBS Program, composed of faculty members representing each area of the graduate program and a graduate student representative. Scores from the GRE are not required for admission. Candidates who do not have a DVM degree must have a baccalaureate degree or advanced degree from a college or university recognized as standard by a regional or general accrediting agency. Students with a 3.0 (on a 4.0 scale) undergraduate or DVM curriculum with appropriate course background will be considered for admission.

## Doctoral Degree Requirements

Credit hour requirements for the Ph.D. degree are determined by the graduate student's committee with approval of the Director of Graduate Programs and the Graduate School.

## Student Financial Support

Research assistantships and fellowships are awarded to qualified candidates on the competitive basis by the College. These are for 12-month periods, and stipends are competitive with those of other programs. These positions are funded by the grants of individual faculty members and the state appropriations to the College and departments.

## Other Relevant Information

The program is organized as seven areas of concentration which include: cell biology, immunology, neuroscience, infectious diseases, pathology, pharmacology, and population and global health. These provide extensive interdisciplinary training and maintain a highly effective liaison with graduate programs in other colleges of the university, as well as those of nearby Duke University and the University of North Carolina at Chapel Hill.

## Degrees

- Comparative Biomedical Sciences (MS) (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-ms/>)
- Comparative Biomedical Sciences (MS): Food Animals Concentration (PSM) (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/food-animals-psm-concentration/>)
- Comparative Biomedical Sciences (PhD) (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd/>)
- Comparative Biomedical Sciences (PhD): Cell Biology Concentration (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-cell-biology-concentration/>)

<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-cell-biology-concentration/>)

- Comparative Biomedical Sciences (PhD): Immunology Concentration (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-immunology-concentration/>)
- Comparative Biomedical Sciences (PhD): Infectious Diseases Concentration (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-infectious-diseases-concentration/>)
- Comparative Biomedical Sciences (PhD): Neurosciences Concentration (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-neurosciences-concentration/>)
- Comparative Biomedical Sciences (PhD): Pathology Concentration (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-pathology-concentration/>)
- Comparative Biomedical Sciences (PhD): Pharmacology Concentration (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-pharmacology-concentration/>)
- Comparative Biomedical Sciences (PhD): Population and Global Health (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-sciences-phd-population-med-vet-public-health-concentration/>)
- Comparative Biomedical Science (Minor) (<http://catalog.ncsu.edu/graduate/veterinary-medicine/comparative-biomedical-sciences/comparative-biomedical-science-minor/>)

## Faculty

### Full Professors

Kenneth B. Adler

Glen William Almond

Kevin L. Anderson

Christopher M. Ashwell

Ronald E. Baynes

Adam Joseph Birkenheuer

Anthony T. Bliklager

James C. Bonner

Russell J. Borski

Matthew Breen

Edward Bealmear Breitschwerdt

Ke Cheng

Maria T Correa

Paula J Cray

Rocio Crespo

Frederick J. Fuller  
John E. Gadsby  
Troy Ghashghaei  
Isabel M. Gimeno  
John R. Godwin  
Jody L. Gookin  
Bruce Hammerberg  
Lee-Ann Jaykus  
Samuel L. Jones  
Matthew D. Koci  
Seth William Kullman  
Duncan X. Lascelles  
Scott M. Laster  
Jerry M. Law  
Keith E. Linder  
Carolyn Jane Mattingly  
Kathryn Montgome Meurs  
Paul Edward Mozdziak  
Natasha J. Olby  
Mark G. Papich  
Heather Patisaul  
Jorge A. Piedrahita  
Emilie Francesca Rissman  
Philip L. Sannes  
Barbara Sherry  
Robert Charles Smart  
Geoffrey W. Smith  
Michael K. Stoskopf  
Siddhartha Thakur  
Jeffrey A. Yoder

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## Associate Professors

Petra Bizikova  
Luke B. Borst  
Nicolas Emile Buchler

Jonathan E. Fogle  
Derek M. Foster  
Paul R. Hess  
Megan E. Jacob  
Cristina Lanzas  
Sara K. Lyle  
John Edward Meitzen  
Nanette M. Nascone-Yoder  
Michael Warren Nolan  
Monique Danielle Pairis-Garcia  
Xinxia Peng  
Antonio Planchart  
Marcelo Rodriguez-Puebla  
Lauren V. Schnabel  
Michael L. Sikes  
Barrett D Slenning  
Susan T. Tonkonogy  
Gregory Wilkerson

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## Assistant Professors

Belinda Sena Akpa  
Tal Ben-Horin  
Eric Robert Brooks  
Yevgeny Brudno  
Benjamin John Callahan  
Elisa Crisci  
Glenn Paul Cruse  
Christopher Matthew Dekaney  
Liana M. Gonzalez  
Margaret Elizabeth Gruen  
Christopher Daniel Guilluy  
Jennifer Lauren Halleran  
Tobias Ernst Kaeser  
Albert Jun Qi Keung  
Raveendra Rangarao Kulkarni

Caroline Laplante  
 Elizabeth Lucas  
 Jennifer Ann Luff  
 Gustavo Machado  
 Kurt Marsden  
 Kelly Ann Meiklejohn  
 Kristen Michele Messenger  
 Santosh Kumar Mishra  
 Hiroyuko Mochizuki  
 Annie Oh  
 Karen Min-Jee Park  
 Kursten Veronica Pierce  
 Sarah Kathleen Rhea  
 Mary Katherine Sheats  
 Thiago Vilar Silva  
 Eduardo Javier Lopez Soto  
 Casey Michelle Theriot  
 Laurianne Chantal Van Landeghem  
 Jose Augusto Len Yin

Cynthia L. Hemenway  
 Suzanne Kennedy-Stoskopf  
 Michael Green Levy  
 David H. Ley  
 Nancy A. Monteiro-Riviere  
 William M. Morrow  
 Paul E. Orndorff  
 W. Rich Redding  
 Jim E. Riviere  
 Malcolm C. Roberts  
 Barbara Lynn Sherman  
 Clifford Richard Swanson  
 Donald E. Thrall

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### **Adjunct Faculty**

Jennifer Lynn Davis  
 Janice A. Dye  
 Johanna Rebecca Elfenbein

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### **Practice/Research/Teaching Professors**

Phuong-Uyen Cao Dinh  
 Ke Huang  
 Ricardo G. Maggi  
 Thierry Jean Marie Olivry  
 Erin Frey Pearson

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### **Emeritus Faculty**

Harold J. Barnes  
 Talmage T. Brown Jr.  
 John Michael Cullen  
 Lloyd Norman Fleisher  
 Oscar J. Fletcher Jr.  
 Sarah Y. Gardner  
 Marlene L. Hauck