

Comparative Biomedical Sciences

The Comparative Biomedical Sciences Graduate Program is a multidisciplinary graduate program with faculty who are employing state-of-the-art techniques to address interesting scientific problems in the basic and applied biomedical sciences. The Comparative Biomedical Sciences Graduate Program confers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees.

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.

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.

Comparative Biomedical Sciences Program Website (<https://cvm.ncsu.edu/education/comparative-biomedical-sciences/>)

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.

Applicant Information

- **Delivery Method:** On-Campus
- **Entrance Exam:** None
- **Interview Required:** None

Application Deadlines

- **Fall:** December 1 or by special permission of the Director
- **Spring:** N/A exceptions apply, contact program
- **Summer 1:** N/A exceptions apply, contact program

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/>)
- 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
 Michele Battle
 Ronald E. Baynes
 Adam Joseph Birkenheuer
 Anthony T. Blikslager
 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
 Jan Hawkins
 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
 Yogesh Saini
 Kaori Sakamoto
 Philip L. Sannes
 Barbara Sherry
 Robert Charles Smart
 Geoffrey W. Smith
 Joshua Stern
 Michael K. Stoskopf
 Siddhartha Thakur
 Jun Tsuji
 Jeffrey A. Yoder

Associate Professors

Petra Bizikova
 Luke B. Borst
 Nicolas Emile Buchler
 Jeffrey Eells
 Jonathan E. Fogle
 Derek M. Foster
 Shobhan Gaddameedhi
 Michala de Linde Henriksen
 Paul R. Hess
 Megan E. Jacob
 Cristina Lanzas
 Ronald H Li
 Sara K. Lyle
 John Edward Meitzen
 Nanette M. Nascone-Yoder
 Michael Warren Nolan
 Monique Danielle Pairis-Garcia
 Xinxia Peng
 Antonio Planchart

Marcelo Rodriguez-Puebla

Michael Sano

Lauren V. Schnabel

Michael L. Sikes

Barrett D Slenning

Susan T. Tonkonogy

Gregory Wilkerson

Assistant Professors

Belinda Sena Akpa

Abigail Armwood

Christa Baker

Tal Ben-Horin

Eric Robert Brooks

Yevgeny Brudno

Benjamin John Callahan

Elisa Crisci

Glenn Paul Cruse

Christopher Matthew Dekaney

Natalia Duque-Wilckens

Joshua R Fletcher

Lisa Gamsjaeger

Lira M. Gonzalez

Margaret Elizabeth Gruen

Christopher Daniel Guilluy

Jennifer Lauren Halleran

Tobias Ernst Kaeser

Albert Jun Qi Keung

Manuel Kleiner

Raveendra Rangarao Kulkarni

Yen-Hao Lai

Caroline Laplante

Elizabeth Lucas

Jennifer Ann Luff

Gustavo Machado

Kurt Marsden

Neil McCarthy

Kelly Ann Meiklejohn

Kristen Michele Messenger

Santosh Kumar Mishra

Hiroyuko Mochizuki

Annie Oh

Karen Min-Jee Park

Kursten Veronica Pierce

Michael Rahe

Sarah Kathleen Rhea

Breanna Jo Sheahan

Mary Katherine Sheats

Sarah Elizabeth Shelton

Thiago Vilar Silva

Panchan Sitticharoenchai

Eduardo Javier Lopez Soto

Casey Michelle Theriot

Laurianne Chantal Van Landeghem

Jose Augusto Len Yin

Kelley Varner

Practice/Research/Teaching Professors

Alix Berglund

Phuong-Uyen Cao Dinh

Ke Huang

Ricardo G. Maggi

Caroline McKinney

Thierry Jean Marie Olivry

Erin Frey Pearson

Teaching Assistant Professors

Emily Martin

Kristen Sullivan

Adjunct Faculty

Hannah Atkins

Jennifer Lynn Davis

Majid Douraki

Janice A. Dye

Johanna Rebecca Elfenbein

Holly Roessner

Elizabeth Caitlin Rose

Alexander Tran

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

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