Fundamental Questions

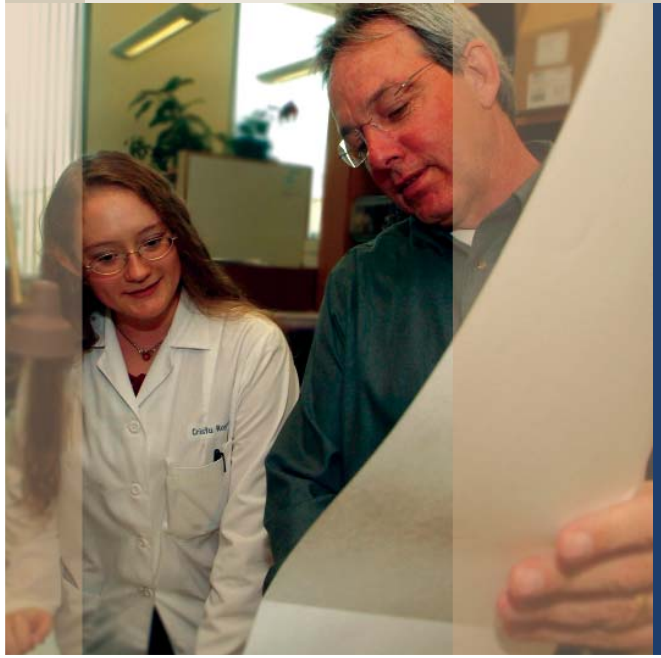
Physiologists strive to understand how living systems function and to discover the mechanisms to explain living processes, from the most basic to the most complex.

If you want to know how life works, whether at the cellular level, in organ systems or in the living animal...

If you love the study of life, and in particular the study of function...

...then you are asking the fundamental questions that define Physiology!

Integration is an underpinning of Physiology.



Student Awards

Our Physiology students have received prestigious individual awards from organizations including:

- The American Heart Association
- The National Science Foundation
- The National Institutes of Health
- The United Negro College Fund and The Merck Company Foundation
- National associations for travel awards to scientific meetings
- The Medical College of Georgia for recognition of research excellence

Graduate Program in Physiology

contact

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Learn how life works...

Medical College of Georgia
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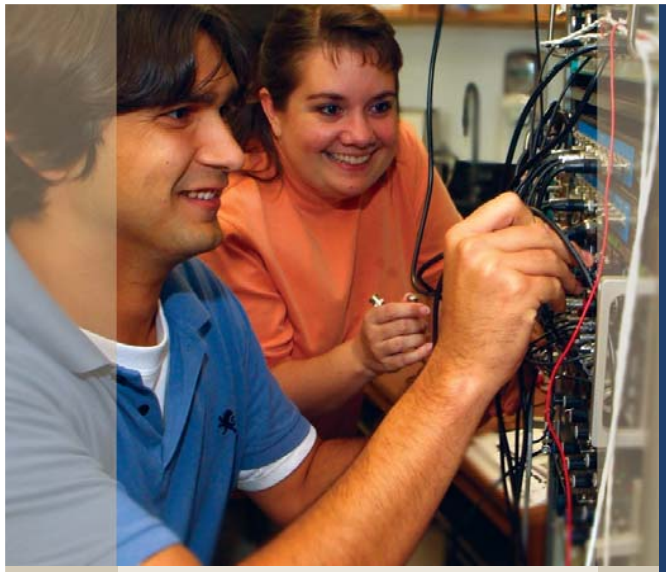

Physiology at MCG

Experienced, Dedicated Faculty

As a graduate student in Physiology, you will learn from our experts in molecular, cellular and whole animal approaches in the areas of cardiovascular, neural and endocrine physiology.

Outstanding New Facilities

You will work in our new state-of-the-art research building that opened in 2004.

Cutting-Edge Approaches

You can advance science in your area using techniques that we routinely use in many of our laboratories, such as: gene transfer and gene expression analyses, real-time RT-PCR, cell culture techniques, immunohistochemistry, microcirculation videomicroscopy, fluorescence microscopy, chronic direct measurement of blood pressure, renal function and blood flow in animals.

Affordable Education

You will be eligible for a graduate research assistantship which provides a stipend ($23,000 per year in 2007-08). Student fees, including tuition, total approximately $300 per semester.

Faculty & Research Interests

R. Clinton Webb, Ph.D.
Professor & Chair
cwebb@mcg.edu
Physiology of vascular smooth muscle: vascular reactivity in hypertension and diabetes, mechanisms of contraction and relaxation, intercellular communication.

Michael Brands, Ph.D.
Professor; Program Director
Cardiovascular-renal physiology angiotensin II, superoxide and nitric oxide in diabetes; long-term circulatory control.

Anne M. Dorrance, Ph.D.
Assistant Professor
Blood vessel structure and the outcome of cerebral ischemia; the roles of aldosterone and growth factors in hypertensive vascular disease.

Adviye Ergul, M.D., Ph.D.
Associate Professor
Interaction between endothelin and matrix metalloproteinases in regulating vascular function and remodeling in clinical and experimental models of diabetes.

John D. Imig, Ph.D.
Associate Professor
Renal vascular physiology and end organ damage associated with cardiovascular diseases; endothelial factors and arachidonic acid metabolites and hypertension.

Edward Inscho, Ph.D.
Professor
Renal microvascular function and signal transduction in aging, diabetes and hypertension; cellular mechanisms of vascular control.

www.mcg.edu/SOM/Phy

Paul Kruzich, Ph.D.
Assistant Professor
Genetic and environmental influences on neurotransmission and self-administration of cocaine, methamphetamine and opioids such as morphine.

William Rainey, Ph.D.
Professor
Adrenal steroid production as it relates to normal physiology and to diseases resulting from the dysregulation of steroidogenesis, such as hypertension, obesity and infertility.

Ann M. Schreihofer, Ph.D.
Assistant Professor
Neural control of the circulation; central control of sympathetic activity and arterial pressure using electro-physiological, molecular, behavioral and neuroanatomical approaches.

Derek A. Schreihofer, Ph.D.
Assistant Professor
Tissue-specific actions of estrogen. Central nervous system mechanisms of steroid receptor action and interactions with intracellular signaling pathways.

Tsugio Seki, M.D., Ph.D.
Assistant Professor
Angiogenesis and vascular remodeling in patho-physiological conditions; vascular development in embryos; endothelial cell responses to shear stress; TGF-beta signaling in endothelial cells

David W. Stepp, Ph.D.
Assistant Professor
Control of cardiac blood flow; study of coronary microvessels in vivo and in vitro. Microvascular structure and function in diabetes and obesity.

Mong-Heng Wang, Ph.D.
Assistant Professor
Molecular regulation of cytochrome P- 450 (CYP)-derived eicosanoids - biosynthesis in renal physiology and hypertension.