



Department of  
Physiology  
Graduate Student Handbook

**LSU Health**  
NEW ORLEANS

**School of Medicine**  
Department of Physiology

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# Welcome to Department of Physiology Graduate Studies

## Graduate Studies Leading to the PhD in Physiology

The Department of Physiology is an integral part of the School of Graduate Studies and offers graduate programs leading to the PhD and MD/PhD degrees. Our training program is renowned for its intensity and passionate dedication to graduate student mentoring and career development. In turn, our students are highly successful researchers, with many obtaining their own fellowship funding and travel awards to present their research at major national and international conferences.

Our PhD and MD/PhD graduates go on to become future leaders in biomedical science and translational medicine. We also welcome students from the MS in Biomedical Sciences Program, and our MS graduates have successfully transitioned to PhD programs or medical school. Our rigorous training program emphasizes customized career development and a team-based mentoring approach that centralizes the needs of our students as individuals with unique interests and a desire to succeed in a competitive job landscape following graduation. Our goal is not to simply provide you with an advanced degree, but to establish a life-long mentoring and collaborative relationship.

Physiology is by nature a highly translational discipline, and requires the effective integration of knowledge related to biochemistry, pharmacology, molecular biology, and other disciplines. Members of the Department of Physiology at LSUHSC conduct NIH-funded research on the function of organisms at every level of biological organization: molecular, cellular, tissue, organ, organ system, and whole-body integration. This approach maximizes the utility of our research as well as the individuals in training.

The Department of Physiology embraces values and celebrates the value of diversity to our research, training, and teaching missions. We are committed to self-education, reflection, and action to eliminate barriers and disparities in academic access, advancement, and promotion of underrepresented students, faculty, and staff in our department and institution.

# Research Topics of Interest in the Department of Physiology

## Alcohol & Drug Abuse: Biomedical Consequences

- Impact of alcohol and drugs of abuse on simian immunodeficiency virus (SIV) disease progression
- Impact of chronic binge alcohol, SIV, and antiretroviral therapy (ART) on immunological abnormalities
- Mechanisms through which chronic binge alcohol alters key signaling pathways and epigenetics

## Alcohol & Drug Abuse: Neurobiology of Stress and Addiction

- Neurobiology of post-traumatic stress disorder (PTSD) and interactions with escalated alcohol drinking
- Neurobiology of traumatic brain injury (TBI) and interactions with endocannabinoid signaling and alcohol drinking
- Neurobiological intersections of pain and addiction, with a focus on alcohol & opioid dependence

## Cardiovascular and Pulmonary Pathophysiology

- Pathophysiology and molecular mechanisms of pulmonary fibrosis
- Pathophysiology of congestive heart failure and cardiac fibrosis
- Adverse cardiac and pulmonary effects of inhaled nicotine

## Metabolism & Obesity

- Interaction of reproductive hormones and brain peptides involved in feeding behaviors
- Models of diet-induced obesity and metabolic disorder
- Lingual receptors and fat-sensing

## Microcirculation

- Microvascular permeability during inflammation
- Lymphatic system physiology, lymph formation and transport
- Effects of alcohol intoxication on the microvasculature of the gastrointestinal tract

The faculty of the Department of Physiology are extensively involved in collaborative research with scientists from the following:

## The LSU Health Sciences Center

- Clinicians from the Departments of Cardiology and Pathology
- Scientists from the Departments of Biochemistry & Molecular Biology, Cell Biology & Anatomy, Genetics, Pharmacology, and Microbiology, Immunology & Parasitology
- Alcohol and Drug Abuse Center of Excellence
- Cardiovascular Center of Excellence
- Neuroscience Center of Excellence
- Stanley S. Scott Cancer Center

# Department of Physiology Faculty

## Patricia Molina, MD, PhD Professor and Department Head Physiology

### Research/Academic Interests:

- Impact of alcohol on SIV/HIV-associated metabolic comorbidities and disease progression
  - Neuropathological consequences of traumatic brain injury
    - Endocrinology & Metabolism



## Lucas Albrechet-Souza, MSc, PhD Instructor of Physiology

### Research/Academic Interests:

- Neurobiology of fear and anxiety
- Changes in brain mechanisms induced by traumatic stress
- Neurobiological mechanisms of alcohol consumption and stress disorders



## Elizabeth Avegno, PhD Instructor of Physiology

### Research/Academic Interests:

- Effects of alcohol dependence on neural circuits
- Characterization of reward/stress circuitry in the brain
- Effects of adolescent alcohol exposure on neural circuits



## Maureen Basha, PhD Associate Professor of Physiology

### Research/Academic Interests:

- Urogenital smooth muscle
- Genitourinary syndrome of menopause
  - Vulvodynia
- Team based learning in medical education



## Lauri Byerley, PhD Associate Professor of Physiology

### Research/Academic Interests:

- Nutrition
- Gut microbiome, diet, and body composition
- Lifestyle and wellness



**Scott Edwards, PhD**  
**Associate Professor of Physiology**

**Research/Academic Interests:**

- Neurobiology of substance use disorders with a focus on stress signaling pathways
- Physiological interactions between pain and addiction
- Medications development for pain and addiction



**Jason D. Gardner, PhD**  
**Professor of Physiology**

**Research Interests:**

- Mechanisms of adverse cardiac extracellular matrix remodeling and heart failure
- Cardiac effects of inhaled nicotine, particulate matter, and cigarette smoke
- Alcoholic cardiomyopathy



**Nicholas W. Gilpin, PhD**  
**Professor of Physiology**

**Research/Academic Interests:**

- The neurobiological mediators of addiction to alcohol, nicotine & opiates
  - The effect of traumatic stress on brain and behavior
- The neurobiological intersection of addiction, traumatic stress, pain & traumatic brain injury



**Lisa M. Harrison-Bernard, PhD, FAHA, FASN, FAPS**  
**Professor of Physiology**

**Research/Academic Interests:**

- Renal microvasculature, Renin-angiotensin system in type II diabetic renal disease
  - Renal chymase & angiotensin converting enzyme
  - Renal Physiology



**Rajani Maiya, PhD**  
**Assistant Professor of Physiology**

**Research/Academic Interests:**

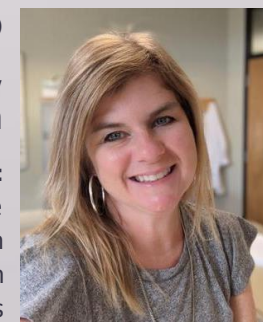
- Molecular mechanisms underlying motivated behaviors
  - Experience-dependent gene expression
- Genetic, molecular, pharmacological, and whole-genome strategies in animal models of drug addiction



**Stefany D. Primeaux, PhD**  
**Associate Professor of Physiology & Joint Diabetes, Metabolism & Endocrinology Program**

**Research/Academic Interests:**

- Susceptibility to obesity and metabolic disease
  - Metabolism, obesity, glucose regulation
  - Feeding-related motivation
- Sex differences in obesity-related comorbidities



**Robert W. Siggins, II, PhD**  
**Assistant Professor of Physiology**

**Research/Academic Interests:**

- Alcohol- and HIV-induced cytotoxic T cell immunosenescence and exhaustion
  - Mitochondrial dysregulation in T cells
- Alcohol- and HIV-associated precocious biological aging
  - GI Physiology



**Liz Simon, PhD**  
**Associate Professor of Physiology**

**Research/Academic Interests:**

- Epigenomic regulation of muscle stem cell differentiation
- Alcohol induced mechanisms of impaired recovery following skeletal muscle disuse atrophy
- Alcohol-mediated mechanisms of metabolic dysregulation in SIV/HIV
  - Endocrine Physiology



**Flavia Souza-Smith, PhD**  
**Assistant Professor of Physiology**

**Research/Academic Interests:**

- Immunometabolic consequences of alcohol-induced lymphatic leakage into perilymphatic adipose tissue
- Gonadal hormone loss and high fat diet effects on lymphatic leakage and the metabolic consequences
  - GI Physiology



**Xinping Yue, MD, PhD**  
**Assistant Professor of Physiology**

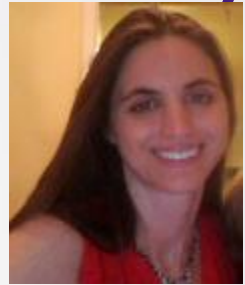
**Research/Academic Interests:**

- Impact of chronic nicotine inhalation on the development of lung diseases and its associated mechanisms
- Role of heparin sulfate sulfatases in acute lung injury, inflammation and fibrosis
  - Therapeutic strategies in lung injury repair
    - Pulmonary Physiology



# Department of Physiology Adjunct Faculty

**Leslie Birke, DVM**  
Director of the Division of Animal Care



**Jimmy Cairo, PhD**  
Dean of the School of Allied Health Professionals;  
Professor and Department Head, Cardiopulmonary  
Science & Physiology

Research/Academic Interests:

- Bioluminescence and neutrophil function
- Septic shock
- Exercise physiology in health and disease
- Respiratory function during speech



**Bennett deBoisblanc, MD**  
Professor of Medicine & Physiology

Research/Academic Interests:

- Pulmonary hypertension
- Acute lung injury
- Sepsis



**Tekeda Ferguson, PhD**  
Assistant Professor of Epidemiology & Physiology

Research/Academic Interests:

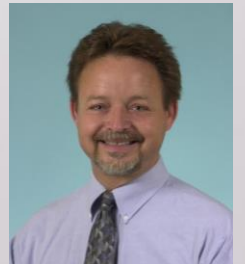
- Chronic disease epidemiology
- Social environment on chronic disease development in people living with HIV



**Jeff Gidday, PhD**  
Professor of Physiology

Research/Academic Interests:

- Adaptive epigenetic responses to stress stimuli in the CNS
- Methyloomic and proteomic changes underpinning injury-resilient phenotypes in retina and brain
- Intergenerational transfer of induced neuroprotective phenotypes



**Steve Nelson, MD**  
Dean, School of Medicine  
Professor of Medicine & Physiology

Research/Academic Interests:

- Host defense
- Sepsis
- Cytokines





**Amanda Pahng, PhD**  
**Instructor-Research (gratis) of Physiology**

**Research/Academic Interests:**

- Neurobiological and behavioral interactions of pain and drug abuse
- Reward and pain-related circuitry
- Prescription opioid addiction



**Andrew Pellet, PhD**  
**Head of Cardiopulmonary Science, School of Allied Health**

**Research/Academic Interests:**

- Respiratory physiology
- Cardiovascular physiology



**Duna Penn, MD**  
**Professor of Pediatrics and Physiology**

**Research/Academic Interests:**

- Neonatal nutrition and metabolism
- Myocardial lipid metabolism
- Carnitine deficiency and metabolism



**Thomas Sharp III, PhD**  
**Assistant Professor, Section of Cardiology**

**Research/Academic Interests:**

- Translational application of novel therapeutic strategies to combat cardiovascular disease



**Jennifer Simkin, PhD**  
**Well-Being Officer, Department of Orthopaedics**

**Research/Academic Interests:**

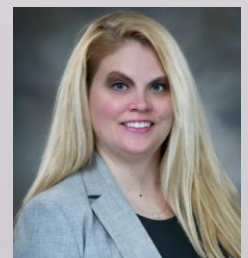
- Burnout
- Dependency
- Sleep and duty hours



**Alison Smith, MD, PhD**  
**Assistant Clinical Professor of Surgery**

**Research/Academic Interests:**

- Wound healing
- Hemorrhagic shock and resuscitation



# Department of Physiology Emeritus Faculty

**Michael G. Levitzky, PhD**  
(Course Director of PHYSIO 250 - Scientific Writing  
for Graduate Students)

**Kathleen McDonough, PhD**  
(Director of Student Work in Progress)

**Gregory Bagby, PhD**  
**Leo Happel, PhD**  
**Conrad Hornick, PhD**  
**Samuel Liles, PhD**  
**Michelle Meneray, PhD**  
**Harvey Miller, PhD**  
**Johnny Porter, PhD**  
**Tetsuo Nakamoto, PhD**  
**Raymond Shepherd, PhD**  
**John Spitzer, MD**

# Getting into the program

## Application for Admission

Admission to the PhD program in Physiology is based on transcripts, recommendations, and GRE scores on the General Test. A letter defining the student's career goals is required as well. Applications should be completed by April 1 for matriculation in August.

[https://graduatestudies.lsuhs.edu/admissions\\_and\\_application.aspx](https://graduatestudies.lsuhs.edu/admissions_and_application.aspx)

## Requirements for Applications

- Official Transcripts
- Official Report of GRE Scores (Our GRE code is 6600)
- Goal Letter that outlines Short -and Long-Term Goals
- 2 Letters of Recommendation
- TOEFL scores (for international applicants; our TOEFL code is B886)

### For application materials or more information contact:

#### **Dr. Scott Edwards**

Associate Professor of Physiology

Department of Physiology

Louisiana State University Health Sciences Center

1901 Perdido Street MEB 7205

New Orleans, LA. 70112

Telephone: 504-568-6171

Fax: 504-568-6158

E-mail: [sedwa5@lsuhsc.edu](mailto:sedwa5@lsuhsc.edu)

## Financial Aid

Graduate student fellowships are available on a competitive basis for PhD and MD/PhD candidates while enrolled in the School of Graduate Studies. Awards are \$26,000 per year and provide a full tuition waiver. PhD candidates will also be mentored to apply for individual fellowships through the National Institutes of Health and other programs such as the American Heart Association.

## Cost of Study

Tuition is \$11,835 per year for Louisiana residents and \$21,766 for nonresidents. In addition, activity and student health fees of about \$300 per year are required.

## Student Benefits

<https://www.lsuhs.edu/orgs/studenthealth/insurance/>

# Graduate School Catalog/ Bulletin

<http://catalog.lsuhsu.edu/>

## Required Courses for Physiology

### Basic Biomedical Sciences

- INTER 111 - Biochemistry [4 Credits]
- INTER 121 - Cell Biology [3 Credits]
- INTER 122 - Molecular Biology [3 Credits]
- INTER 125 - Microbial Pathogenesis [3 Credits]
- INTER 141 - Introduction to Genetics [2 Credits]
- INTER 142 - Principles of Pharmacology I [2 Credits]
- INTER 143 - Experimental Design & Analysis [2 Credits]
- INTER 131 - Biological Systems I [2 Credits]
- INTER 132 - Biological Systems II [5 Credits]
- INTER 191 - Journal Club [1 Credit]
- INTER 220 - Ethics in the Biomedical Sciences [1 Credit]
- INTER 260 - Responsible Conduct of Research [1 Credit]
- Special Topics - Professionalism in Science

### Other Core Requirements

- PHYSIO 205 - Basic Physiology (Medical Physiology) [6 Credits]
- PHYSIO 250 - Scientific Writing for Graduate Students [2 Credits]
- PHYSIO 290 - Physiology Journal Club [1 Credit]
- PHYSIO 299 - Seminar in Physiology [1 Credit]
- PHYSIO 400 - Dissertation Research [1-9 Credits]

### Elective Courses in Physiology (may be offered on a rotating basis)

- PHYSIO 289 - Special Topics in Physiology - Perspectives in Alcohol Research
- PHYSIO 289 - Special Topics in Physiology - Physiology of Neuronal Circuits
- PHYSIO 289 - Special Topics in Physiology – Biostatistics for Graduate Students
- PHYSIO 289 - Special Topics in Physiology – Neurophysiology
- PHYSIO 216 - Endocrinology

[Course Descriptions](#)

# Life as a trainee in Physiology

## Physiology Coursework

The graduate program leading to the PhD in physiology usually requires four to five years. The program is flexible and designed to meet the needs and interests of the individual student. During the first year, most of the student's time is devoted to basic course work, including some medical courses as well as graduate courses. Any deficiencies in undergraduate preparation may be made up in this year. Also, during the first year, the student is expected to examine current research programs in the department and to select a research area. Dissertation research should be under way early in the second year, before the student has completed formal course requirements. The second year and beyond include advanced courses consistent with the student's training and needs, with at least 12 hours in one or more other disciplines (biochemistry, pharmacology, cell biology, etc.) but the student's own research occupies an increasing amount of time as the course requirements are fulfilled. A satisfactory PhD dissertation is an original research contribution of significance, deserving peer reviewed publication in a journal of international repute. All students throughout their tenure are required to participate in the teaching programs of the department and to register for and attend departmental seminars.

## Credit Hours Required for Graduation

A minimum of 60 credit hours is required and at least 30 of those hours must be taken in courses which require a letter grade for evaluation. No more than fifteen credits may be counted for research and dissertation. Registration in and attendance at seminar (Physio 299) and Journal Club (Physio 290) are required during all semesters of enrollment for all graduate students. All students will be required to present a seminar at the end of their tenure. A maximum of four credits for seminar will be counted toward the degree.

## Teaching

The faculty considers teaching an important part of academic training. After passing the qualifying exam students will be expected to participate as teaching assistants in medical, nursing, dental, or allied health courses offered by the Department. Teaching assignments will be made before the beginning of each academic year. During the second and third years, students may be responsible for lecture and laboratory attendance, supervised presentation of a portion of lecture and/or laboratory material, administration of exams, grading of quizzes, participation in review and discussion sessions, and tutoring as assigned by the course director.

## Graduate Student Expectations

1. Graduate students are expected to adhere to the Graduate School's expectations of graduate study which are available at: <http://graduatestudies.lsuhscc.edu/>
2. Graduate students are expected to take primary responsibility to inform themselves about specific regulations and policies governing their graduate studies at the department and Graduate School levels, including ensuring that they meet departmental and graduate school deadlines.
3. Graduate students are expected to conduct themselves in a mature, professional, courteous manner toward other students, staff and faculty.
4. Graduate students are expected to manage their time effectively for maximum professional development as well as personal health and well-being, balance competing demands such as being a student, a graduate assistant, a parent, a spouse, a caregiver, etc. Graduate students must be present in the department during normal business hours as well as hours mutually agreed upon between the student and his/her advisor.
5. Leave (vacation, absences, etc) time must be requested on the Request for Leave –Graduate Student Form with the prior approval of the advisor. See page 15 for leave instructions.
6. Graduate students will be granted time to attend professional meetings and meetings in which they are representing the Department or University. These meetings will not be counted as student vacation time. All students should discuss attendance of these meetings with their advisor prior to planning to attend. Money to attend professional meetings is not guaranteed to any student from the department or their advisor. See page 25 for travel instructions.
7. Graduate students are expected to submit initial and revised grant applications to NIH, NSF, AHA, or APS or an appropriate funding source.
8. Stipends will be awarded based on performance (academic and research), funding availability and qualifications.
9. An acceptable Ph.D. dissertation must contain at least one first author original research article, either published or in press, related to their dissertation research.

## **The following guidelines are recommended to facilitate the completion of the PhD program in a timely fashion:**

1. Graduate student progress will be tracked by the chair of the graduate student mentoring committee.
2. Qualifying exams should be taken within six months following the completion of the medical physiology course for PhD students.
3. Qualifying exams should be taken within six months following entrance into the PhD portion for MD/PhD students.
4. Selection of dissertation committee members should be completed within three months of passing the qualifying exams.
5. Students should meet with the dissertation committee members at least once every six months to provide an update on progress to completion of the PhD degree.
6. Preliminary exams to be taken within 12-24 months of passing qualifying exams and 12 months prior to graduation
7. It is encouraged that the dissertation defense be presented 2 months prior to graduation.

## **The following guidelines are recommended for graduate student teaching and tutoring following the successful completion of Qualifying Exams:**

1. Graduate students should give a maximum of 4 hours of lecture per semester with prior approval of the graduate student committee chair.
2. Tutoring sessions should be limited to group sessions not to exceed 2 hours per week.
3. Graduate students should set the time and date of the session so that tutoring (whether part of a course or private) does not interfere with academic progress and the sessions are scheduled outside of normal work hours.
4. Tutoring sessions (whether part of a course or private) should not interfere with research progress.

## Faculty Expectations

1. Interact with students in a professional, civil, and collegial manner in accordance with University policies and relevant laws.
2. Impartially evaluate student performance.
3. Promise a reasonable degree of confidentiality in communication with students, taking care not to discuss a student's performance or behavior with other students.
4. Acknowledge student contributions to research presented at conferences, in professional publications, or in applications for copyrights and patents.
5. Ensure that a student's experience as a research assistant contributes to his/her professional development and does not impede the student's progress toward the degree.
6. Create an environment that stimulates and encourages students to learn creatively and independently while respecting the academic freedom for students to express opinions that may differ from those of faculty.
7. Refrain from requesting students to do tasks not closely related to their academic or professional development for the personal advantage of a faculty member.
8. Familiarize themselves with policies that affect graduate students.
9. Respect students' need to allocate their time among competing demands, while maintaining timely progress towards degree.
10. Create an inclusive environment in which people feel valued, have their differences respected, and have their voices heard.



# Wellness at LSUHSC

## Campus Assistance Program (CAP)

- The mission of the LSUHSC Campus Assistance Program (CAP) is to support the mental, emotional, and physical well-being of students, faculty, staff, and immediate family members in order to promote the overall health and effectiveness of the LSUHSC-NO community.
- The Campus Assistance Program is a free service provided by LSU Health Sciences Center at New Orleans to assist faculty, staff, residents, students and their immediate family members in resolving personal, academic or work-related problems. Faculty, staff or residents who are enrolled or employed with LSUHSC-NO programs in other cities are also eligible for CAP services

<https://www.lsuhschool.edu/orgs/campushealth/cap.aspx>

## Wellness Center

- The Wellness Center is dedicated to promoting the health and wellbeing of all members of the LSU Health Sciences Center community in a safe and educational environment.
- To maintain the interest of all members of the LSU Health Sciences Center community through various programs and equipment promoting and encouraging fitness and wellness.

To provide education on all aspects of fitness and wellness components.

<https://www.lsuhschool.edu/administration/Wellness/>

## LSUHSC Wellness Committee

- The goal of the LSUHSC Wellness Committee is to promote a healthy learning and working environment, building resiliency, and personal well-being among faculty, staff, residents, and students in LSUHSC School of Medicine and the Health Sciences Center.
- Visit the page to see the Calendar of Events

<https://www.medschool.lsuhschool.edu/wellness/>

# Graduate Student Leave Guidelines

The department's graduate student leave provisions are in alignment with those of the Graduate School, and are universally applied to all physiology graduate students, even if they are not financially supported through the department or university.

When applicable, the Department will utilize the Ruth L. Kirschstein National Research Service Awards (NRSA) leave policy as a guideline for student leave. Those guidelines can be found at: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-154.html>

However, it is recognized that Graduate Students/Assistants do not accrue vacation or sick leave. Therefore, this document serves as an advisory for students requesting a leave of absence from the laboratory. Upon completion of this leave form, submit to advisor for signature and then to Leslie Brennan ([lbrenn@lsuhsc.edu](mailto:lbrenn@lsuhsc.edu)) for routing to the Graduate Program Director and the Department Head.

Any students wishing to take up to one-week absence from laboratory work, coursework or other school duties must get prior approval from their advisor. In the absence of a permanent advisor, the Graduate Program Director should be consulted. With prior approval, stipend payments will be unaffected. Students who do not seek prior approval will be removed from the payroll for a duration equivalent to their absence.

Any students wishing to take more than one week off must adhere to the same guidelines as stated above; however, continuation of stipend payments will be reviewed on a case-by-case basis depending on the length and reason for the absence.

It is essential for students to discuss any planned absence with their supervisor well in advance, so that the timing of leave can be coordinated with the work requirements of their area.

sample

**LSUHSC Department of Physiology**  
Request for Leave - Graduate Students

**SECTION I. TO BE COMPLETED BY STUDENT AND SUBMITTED TO SUPERVISOR**

Student's name (print): \_\_\_\_\_

Dates of requested absence: From \_\_\_\_\_ To \_\_\_\_\_

Leave designation:

<input type="checkbox"/> short-term absence (2 weeks or less)	<input type="checkbox"/> leave of absence (over 2 weeks)
<input type="checkbox"/> personal illness/injury	<input type="checkbox"/> personal serious health condition
<input type="checkbox"/> death in family	<input type="checkbox"/> care for an immediate family member with a serious health condition
<input type="checkbox"/> personal leave (vacation)	<input type="checkbox"/> childbirth or adoption
<input type="checkbox"/> other (explain) _____	<input type="checkbox"/> other (explain) _____

Check short-term absence or leave of absence and reason for request.

Student's signature: \_\_\_\_\_ Date: \_\_\_\_\_

I certify that the information provided as part of this request is true, accurate, and complete. I acknowledge receipt of the leave policy, and this request is in compliance with the graduate student leave guidelines.

**SECTION II. TO BE COMPLETED BY SUPERVISOR (In the absence of the supervisor, the graduate program director would be considered the supervisor)**

ACTION:

Approved

Not Approved. Comments (or attach explanation): \_\_\_\_\_

Continue stipend  \_\_\_\_\_

Discontinue stipend during dates of absence  \_\_\_\_\_

Supervisor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Graduate program director's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Department Head's signature: \_\_\_\_\_ Date: \_\_\_\_\_

In accordance with the graduate student leave guidelines, both the student's supervisor and the department graduate program director must approve the leave request. T32-supported trainees must also obtain approval from the T32 program director. Upon approval, the student must submit the form to the appropriate office staff.

Comments: \_\_\_\_\_

[Download Graduate Student Leave Request Form](#)

# Applying for a Fellowship

- Graduate students in the Department of Physiology are expected to apply for a research fellowship to support their dissertation project. Students will work with their mentors during their second year to determine the best fellowship opportunity (e.g. NIH, American Heart Association) and to develop a proposal and training plan.

[Visit NIH Grants & Funding – How to Apply – Application Guide webpage](#)

[Download Fellowship Instructions for NIH and Other PHS Agencies](#)

## New Application Checklist

DEADLINES: Varies by Funding Announcement

ORS: At least 10 Days before Submission Date - Abstract, budget COI

NIH: See Funding Opportunity

- Title - character length limited to 200 characters, including the spaces between words and punctuation
- Conflict of Interest Attestation for each participant on the grant
- Significant Financial Interests Disclosure for each participant on the grant
- Budget
- IRB Approval Number and Date
- IACUC Approval Number and Date
- IBC Approval Number and Date
- Project Summary / Abstract (*R&R Other Project Information #7*)

Final Required Documents to Submit in Assist

- Key Personnel information & biosketch - **Be sure to review Personal Statement and include PMCID's**
- Project Narrative (*R&R Other Project Information #8*)
- Bibliography & References Cited (*R&R Other Project Information #9*)
- Facilities & Other Resources (*R&R Other Project Information #10*)
- Equipment (*R&R Other Project Information #11*)
- Specific Aims (*PHS Fellowship Supplemental Form #2*)
- Research Strategy (*PHS Fellowship Supplemental Form #3*)
- Letters of Support (*PHS 398 Research Plan #12*)
- Resource Sharing Plan(s) (*PHS Fellowship Supplemental Form #14*)
- Respective Contributions (*PHS Fellowship Supplemental Form #15*)
- Selection of Sponsor and Institution (*PHS Fellowship Supplemental Form #16*)
- Responsible Conduct of Research (*PHS Fellowship Supplemental Form #17*)
- Alternate Phone Number (Cell Phone) (*PHS Fellowship Supplemental Form, C, #2*)
- Expected Completion Date for degree (*PHS Fellowship Supplemental Form, C, #3*)
- Field of Training for Current Proposal (*PHS Fellowship Supplemental Form, C, #4*) - *This is a drop down menu. I entered Microbiology and Infectious Diseases. If this is incorrect, please let me know.*
- Have you ever had Kirschstein-NRSA Support? (*PHS Fellowship Supplemental Form, C, #5*) - *I selected yes and entered the T32 information.*
- Applications for Concurrent Support? (*PHS Fellowship Supplemental Form, C, #6*)
- Goals for Fellowship Training and Career (*PHS Fellowship Supplemental Form, C, #7*)
- Activities Planned Under this Award (*PHS Fellowship Supplemental Form, C, #8*)
- Doctoral Dissertation and Other Research Experience (*PHS Fellowship Supplemental Form, C, #9*)

### HUMAN SUBJECTS:

- Protection of Human Subjects (*PHS Fellowship Supplemental Form #8*)
- Inclusion of Women and Minorities (*PHS Fellowship Supplemental Form #9*)
- Inclusion of Children (*PHS Fellowship Supplemental Form #10*)
- Planned Enrollment (*Additional Form*)

### ANIMAL RESEARCH:

- Vertebrate Animals (*PHS Fellowship Supplemental Form #12*)

### IF APPLICABLE:

- Select Agent Research (*PHS Fellowship Supplemental Form #13*)

sample

[Download New Application Checklist](#)

# Trainee Travel

## Prior Approval Phase

*Travel Priors need to be submitted and approved BEFORE abstract submission*

Complete a **Travel Request Form** containing Conference costs for the following expenses

1. Registration

*Note: Registration is to be completed during the Early Registration Period. Registrations made after this date will require the traveler to cover the difference in cost.*

1. Airfare – Obtain flight estimate from Christopherson Business Travel (See below)
2. Lodging – Note who is sharing the lodging with you.
3. Ground Transportation – Taxifinder.com/Uber/Lyft for prices
4. Meals – Indicate the days that meals will **not** be provided by the Conference. Refer to the Travel Pocket Guide for Meal Per Diems based on City, State of travel destination.

Indicate the Account/Grant that is covering the travel, the number of days the conference will take place (include flight days).

Provide a copy of the following from the Conference Website:

- Conference Announcement and Schedule
- Cost of Registration
- Cost of Lodging
- Estimate of Airfare
- Travel Award Opportunities

Submit these electronically with the completed Travel Request Form to the Administrative Office, [lbrenn@lsuhsc.edu](mailto:lbrenn@lsuhsc.edu), for Department Head review/approval. Following approval Trainee may proceed with sending in their Abstract, Registering, Booking Flight, etc.

Administrative Office will create a **Travel Prior Approval** form that traveler and department head will sign.

**Travel Award Applications** – Please consult the Administrative Office to discuss the details of the Travel Award and to be advised on how to proceed in covering the cost of various pre-travel expenses **prior to** pre-paying any expenses.

### During Travel Phase

- If breakfast is provided by the conference, you will not be reimbursed for breakfast purchases.
- If lunch is provided by the conference, you will not be reimbursed for lunch purchases.
- If dinner is provided by the conference at either an opening or closing ceremony, you will not be reimbursed for any dinner purchases on these days.
- If consuming alcohol with a meal, please ask for the alcohol to be placed on a separate receipt as you will not be reimbursed for the alcohol purchase.
- Receipts must be itemized/detailed to show purchases, date and time.

### Post Travel Phase

Complete a **Travel Expense Report** to itemize all of the costs for the Conference travel. Attach receipts for reimbursement. Please tape receipts in date order on a blank piece of paper.

Administrative Office will create a **Travel Voucher** for reimbursement of out-of-pocket travel costs. Traveler will sign the Travel Voucher. Reimbursement will be made by direct deposit from the Travel Department. Reimbursements are usually direct deposited one month after travel voucher is signed.

### Download Travel Documents

- [Travel Request Form \(sample\)](#)
- [Travel Request Form \(blank\)](#)
- [Travel Expense Report \(sample\)](#)
- [Travel Expense Report \(blank\)](#)
- [LSUHSC Permanent Memo 13 \(PM13\) – rules for University Travel](#)

# Graduate Student Timeline

Graduate Student Timeline 2020							
Physiology Graduate Student Committee							
Chair: Scott Edwards, PhD; Committee: Lisa Harrison-Bernard, PhD, Stefany Primeaux, PhD							
Graduate Student	Start Date Graduate Program	Graduate Program MS, IDP, PHD, MD/PHD	Date Submit Advisor Form	Graduate Research Advisor	Initial Project Title	Date Create CV, Updated CV	Date Create IDP, Updated IDP

sample

Create IDP, Updated IDP	Member of APS	Date Complete Medical Physiology	Date Pass Written Qualifying Exams	Date Pass Oral Qualifying Exams	Date Select Committee	Dissertation Committee Members	Date Grant Submitted	Dates of Committee Meetings (apprx 1/6mo)

Course Credits Completed & Date	Date Planned Research Proposal	Date Submit Written Research Proposal	Submit 1st Author Research Publication	Date Dept Seminar	Teaching: Lecture Responsibilities	Teaching: Lab Responsibilities	Teaching: Proctoring Responsibilities	Teaching: Tutoring Responsibilities

Select Program for Managing References	Begin Outline of Dissertation/ Thesis	Date Planned Preliminary Exam	Postdoctoral Preparations	Date Submit (or Written) Preliminary Exam	Date Defend (or Oral) Preliminary Exam	Date Defend Dissertation/ Thesis	Planned Graduation Date	Actual Graduation Date

[Download Graduate Student Timeline Individual Development Plan \(IDP\)](#)

# Important Benchmarks

## Qualifying Exams

### Department Of Physiology Policy Regarding the Qualifying Examination

Physiology graduate students will take the Qualifying Examination within six months of completion of the medical physiology course for PhD students or within six months following entrance into the PhD portion for MD/PhD students. Students will consult with their primary mentor and the Graduate Student Committee to determine their readiness to schedule the Qualifying Examination. Students are encouraged to form their Dissertation Committee (see below) prior to or soon after the completion of the Qualifying Examination. **Students are strongly encouraged to be proactive and meet with individual faculty members to review depth and breadth of content to be covered on the qualifying exam.**

#### Part 1: Written Qualifying Examination

Questions from all areas of physiology (neural, cardiovascular, pulmonary, renal, endocrine, gastrointestinal, etc.) will be solicited from the entire Department of Physiology faculty for the Written Qualifying Examination. These questions will be discussed and reformulated by the Physiology Graduate Program Committee (PGPC). The questions may be multi-layered, asking for basic information about physiological processes as well as questions on how experiments could be designed to address physiological questions. The student will answer 8 of 10 questions over a period of 2 days. Answers will be read by all members of the faculty and opinions submitted to the PGPC, which will then determine whether the student's performance is satisfactory. Grading will be on a Pass/Fail basis. Students must pass Part 1 to progress to Part 2. At the discretion of the committee, a student will be allowed to retake the Written Qualifying Examination within a designated period of time.

#### Part 2: Oral Qualifying Examination

Upon successful completion of Part 1, a student will be given an Oral Qualifying Examination. All Department of Physiology faculty and members of the student's Dissertation Committee (if formulated) will be invited to attend and ask questions, which may pertain to any area of physiology. Following the question-and-answer period, the PGPC will discuss the student's performance, determine whether the student passed Part 2, and recommend further coursework if appropriate. Grading for this component will be based on general physiology knowledge, and the ability to respond to questions and integrate answers. Grading will be on a Pass/Fail basis. At the discretion of the committee, a student will be allowed to retake the Oral Qualifying Examination within a designated period of time.

# Dissertation Committee

## **LSUHSC-NO Graduate Studies Policy Regarding the Dissertation Committee**

The Dissertation (and Preliminary Examination committee) will ordinarily consist of the student's advisor and at least four other Graduate Faculty members. At least one member must be from another department and one member may be from outside the Health Sciences Center.

## **Department Of Physiology Policy Regarding the Dissertation Committee**

Additionally, at least one Dissertation committee member must be from the Physiology Graduate Program Committee. Students are encouraged to form the Dissertation Committee prior to or soon after the completion of the Qualifying Examination. The Dissertation Committee will guide a student's research, conduct the Preliminary Exam, and conduct the Dissertation Defense. The Dissertation Committee should meet with the graduate student regularly (2 times per year) to assess research progress and set benchmarks toward completing the PhD requirements.



# Dissertation Advisor Form

sample

## Request to Select Thesis/Dissertation Major Professor for the Physiology Graduate Program

A major professor should be selected and approved before the research program is started. This occurs by the end of your first year for students in the Masters or PhD Program and by the end of the second year of medical school for students in the MD/PhD Combined Program. This form should be filled out, signed and submitted to the Department Head for approval.

<i>Name of Major Professor</i>	<i>Signature</i>	<i>Date</i>
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*Initial project title:*

<i>Signature of Student</i>	<i>Date</i>
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.....

Approved:

<i>Head, Department of Physiology</i>	<i>Date</i>
---------------------------------------	-------------

Please submit the original signed copy to the Chair of the Graduate Studies Committee and copies to the Department Head and Chair of the Graduate Student Mentoring Committee.

[Download Dissertation Advisor Form](#)

# Dissertation Committee Members Form

sample

## Request to Select Thesis/Dissertation Committee Members for the Physiology Graduate Program

I hereby select the following faculty to serve as members of my committee in completion of my terminal degree in the Physiology Graduate Program. The examining committee is made up of no less than five graduate faculty members (including the major advisor), one of whom must be from a Department other than the student's Department.

<i>Name of Major Professor</i>	<i>Initial</i>	<i>Date</i>
<i>Name of Committee Member</i>	<i>Initial</i>	<i>Date</i>
<i>Name of Committee Member</i>	<i>Initial</i>	<i>Date</i>
<i>Name of Committee Member</i>	<i>Initial</i>	<i>Date</i>
<i>Name of Committee Member</i>	<i>Initial</i>	<i>Date</i>
<i>Name of Committee Member</i>	<i>Initial</i>	<i>Date</i>

<i>Signature of Student</i>	<i>Date</i>
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.....  
Approved:

<i>Head, Department of Physiology</i>	<i>Date</i>
---------------------------------------	-------------

Please submit the original signed copy to the Chair of the Graduate Studies Committee and copies to the Department Head and Chair of the Graduate Student Mentoring Committee.

[Download Dissertation Committee Members Form](#)

## Preliminary Exams

### **LSUHSC-NO Graduate Studies Policy Regarding the Dissertation Committee and Conducting the Preliminary Exam**

The applicant becomes eligible for the Preliminary Examination after consulting with their primary mentor and the Graduate Student Committee to determine their readiness to schedule the Preliminary Examination but not less than one academic year (three consecutive semesters) before graduation. The student and their advisor, with the approval of the Department Head and the Dean, will petition to schedule the examination. Examination and defense request forms are available from the Student Affairs Office.

The Preliminary Examination committee will ordinarily consist of the student's advisor and at least four other Graduate Faculty members. At least one member must be from another department and one member may be from outside the Health Sciences Center. The Preliminary Examination is the most thorough in the PhD program. It should require the candidate to demonstrate competence in a broad segment of their research fields. Although the examination may be solely oral or written and oral, a written section is strongly recommended. If there is no more than one negative ballot out of a minimum of five, the student becomes a "candidate" after the Dean has been notified by the student's advisor and Department Head of successful completion of the Preliminary Examination.

### **Department Of Physiology Policy Regarding the Dissertation Committee and Conducting the Preliminary Examination**

The applicant becomes eligible for the Preliminary Examination. Students are encouraged to form the Dissertation Committee prior to or soon after the completion of the Qualifying Examination. It is recommended that the student begin the Preliminary Examination 12-18 months following the completion of the Qualifying Examination. The student will obtain a signature from the advisor and each member of the Dissertation Committee confirming the date of the scheduled Preliminary Exam prior to submitting the Request for Preliminary Examination form to the Department Head. At least two weeks prior to taking the written component of the Preliminary Exam, a "Request for Preliminary Examination" form should be submitted to the Dean of the School of Graduate Studies. The Preliminary Exam will be conducted by the student's Dissertation Committee and will consist of written and oral components.

# Preliminary Examination

The Preliminary Exam is an opportunity to assess overall competence in physiology as it relates to the PhD candidate's area of research. Rather than focusing on a general knowledge of physiology as tested in the Qualifying Exam, at this stage it is expected that the PhD candidate can demonstrate critical thinking and a substantial integration of their research topic and preliminary findings with broad physiological principles and mechanisms, as well as experimental design and alternative research approaches. The preliminary exam consists of two parts (written and oral), and its final evaluation is the sole responsibility of the student's inter-departmental Dissertation Committee.

## Part 1: Written Preliminary Examination

**It is the student's obligation and responsibility to be proactive and work very closely with each member of the Dissertation Committee in preparation for the Preliminary Exam.** Each committee member will be provided exam guidelines and will be asked by the Physiology Graduate Program Coordinator to submit one essay-type question for the written portion. The Written Preliminary Examination will occur over two consecutive days beginning at 9:00 AM and ending at 5:00 PM. On the first day, students will be presented with half of the questions and will receive the other half of the question on the morning of the second day. Students are expected to discuss their written exam performance with Dissertation Committee members prior to the oral examination.

## Part 2: Oral Preliminary Examination

The oral portion of the exam will be conducted approximately two weeks after the written exam and is scheduled according to the availability of the Dissertation Committee and Physiology Department Chair. A member of the Physiology Graduate Committee that does not serve on the student's Research Committee will facilitate the oral exam. The oral portion of the exam will be open to the Physiology Graduate Faculty (Assistant to Full Professors), to which a one-page research topic summary will be provided before the oral exam. The oral exam will primarily consist of questions from Dissertation Committee members for a total duration of no more than ninety minutes. Following this period, non-Dissertation Committee faculty members in attendance will be allowed no more than thirty minutes to ask pertinent questions that allow for further demonstration of the student's critical thinking skills and ability to integrate their physiology knowledge with major themes of the research topic, including experimental design and alternative research approaches.

## Evaluation of the Preliminary Examination:

Research Committee members will vote pass or fail at the completion of the oral exam. If there is no more than one negative ballot out of a minimum of five, the student becomes a PhD candidate after the student's major professor and Physiology Department Chair have notified the Dean of successful completion of the Preliminary Exam.

[Download Request for Preliminary Exam](#)

[Download Report for Preliminary Exam](#)

# Dissertation Defense

## Department Of Physiology Policy Regarding the Dissertation and Dissertation Defense

The dissertation must represent a significant contribution to the field, with its contents suitable for publication in refereed journals of international repute. The dissertation work should reflect the scientific input from the student, advisor, Dissertation Committee, and other departmental and institutional faculty. Between passing the Preliminary Exam and the Dissertation Defense, members of the Dissertation Committee should meet regularly with the student to assess progress, encourage publishing completed work, determine when research becomes a "significant contribution to the field", help guide the general format of the dissertation, and establish an appropriate timeline for graduation.

The dissertation should be submitted to the Dissertation Committee members at least 4 weeks prior to the desired defense date. The Committee members will then submit comments and suggestions to the student within 2 weeks, along with a recommendation for a final defense date to the student and Mentor. The student must also petition the Dean for permission to take the final examination at least 2 weeks prior to the scheduled date of the examination by submitting a "Request for Dissertation/Thesis Defense and Final Examination" form that is signed by all members of the Dissertation Committee prior to receiving the signature of the Department Head.

An open seminar of the student's dissertation research will precede the final examination. Traditionally, this examination is a test of the student's intimate knowledge of the area of the research field in which the student is working. Voting is by secret ballot with no more than one negative vote permitted. If not more than one member of the examining committee dissents and if the dissertation is accepted, the candidate will be certified to the Graduate Faculty and Chancellor as having met all requirements for the degree of Doctor of Philosophy.

[Download Dissertation Defense Guidelines](#)  
[Download Request for Dissertation Defense](#)  
[Download Report for Dissertation Defense](#)

# Postdoctoral Decisions Guide

sample

## Postdoctoral Training Interview Summary

Prepared by Physiology Mentoring Task Force

**Best, Good, Neutral**

	Postdoctoral Mentor #1	Postdoctoral Mentor #2	Postdoctoral Mentor #3
Does the position match your desired postdoctoral track? (academic, industry, government, military, teaching, international?) <sup>1</sup>			
Is my mentor supportive of my ultimate career / next step goal?			
Is my mentor supportive of my ultimate career / next step goal?			
Will this training provide me with all of the tools that I need to achieve my career goals? Consult your individual development plan.			
How well does the lab meet my scientific interests? <sup>2</sup>			
What is the training track record of my mentor? (number and success of previous trainees—current position, publications, etc.)			
How well does the department / institution serve my scientific interests?			
Will the animal/disease model & techniques utilized provide me with sufficient data & publications to advance my career? <sup>3</sup> (e.g., cell culture, animal models, patient samples, computational)			
Will I learn new laboratory techniques? Will these make me marketable or better suited for independence/funding?			
Will I have the opportunity to present at scientific meetings? Organize symposia? How many national or international meetings? Travel funding?			

[Download Complete Postdoctoral Decisions Guide](#)