

Graduate Program in Basic Medical Sciences

Administration

Dr. Ronald Balczon is the current Director of the Basic Medical Sciences Graduate Program. An election will be held in 2011 to determine the directorship for 2012-2015 term.

Admissions

The Graduate Program Office processes applications and hosts interviews for prospective students to the program.

Interviews for Basic Medical Sciences Graduate Program Fall 2011 Class applicants were held in December, March, April, May, June, and July. A total of 16 students were interviewed (US=10; International=4). A summary of Admissions activity is provided below.

Admissions - BMS Graduate Program

		2011
Inquiries	US	116
	International	74
Applicants	US	25
	International	29
Acceptances	US	12
	International	4
Matriculants	US	10
	International	3
	Average GRE	1130
	Average GPA	3.62

Recruitment Activities

1. Talks were given at several local high schools.
2. Graduate Office personnel presented information at regional science conferences.
3. Dr. Balczon met with faculty colleagues at many regional colleges and universities during Fall, 2010. Dr. Balczon and Ms. Flagge participated in the Alabama Connection Graduate School Recruitment Expo in October, 2010. Ms. Flagge represented the program at the Louisiana Regional College Career Fair in north Louisiana in April, 2011.
4. Presentations were made to USA's Premedical Honors Society and Freshman Biomedical Sciences students.
5. Students and faculty from Spring Hill College and William Carey University attended the Graduate Forum on November 19, 2010.

Curriculum

1. Instructional format for IDL 581 Fundamentals of Basic Medical Sciences course was modified.
2. A new mode of training was utilized in the Signal Transduction course, summer, 2011.
3. The fourth COM Research Forum was held on November 19, 2010.

New Programs/Policies/Requirements

1. BMS Graduate Students are insured under the campus-wide health insurance offered through United Health Care.
2. A self-study of the program, as mandated by SACS and USA's Graduate School, was conducted. Data were forwarded to two outside reviewers for assessment and recommendations. Following a site visit in June, their recommendations were reviewed at a faculty retreat held September, 1, 2011. Planned changes in policy include:
 - a. re-instituting preliminary exam, consisting of written and oral components for students to complete at the end of second year.
 - b. deleting medical courses and courses not taught in the last three years.
 - c. establishing criteria for track leaders
 - d. evaluating advanced curricula
 - e. establishing additional tracks
 - f. focusing on mentoring of students
 - g. establishing benchmarks for monitoring student progression in completing degree

BMSSO-Basic Medical Sciences Student Organization

BMSSO hosted meetings, giving various academic, governmental, and industry personnel opportunities to address students on topics including developing CV's and employment opportunities with governmental agencies such as NIH, CDC, etc. The organization also hosted the annual Charles Baugh "Dawg Day" and a Mardi Gras appreciation luncheon for BMS Graduate Faculty. Funds raised from t-shirt sales allowed the BMSSO to make a generous contribution to the Ronald McDonald House.

Extramural Support for Graduate Training

1. The NIH Predoctoral Institutional Training Grant on "Cell Signaling and Lung Pathobiology" provides stipend support for six students.
2. BMS Graduate Program students received extramural grant awards through American Heart Association and EPSCOR. Travel awards for participating at national conferences and annual meetings in the disciplines were also received.

Graduates

One hundred seventy-four students have received a Ph.D. in Basic Medical Sciences. Students completing all requirements during the academic year (September 2010-August 2011) are:

Glenda Bonilla

DISSERTATION TITLE: "Essential Role of Lactate Dehydrogenase-A (LDH-A) in the Proliferative and Neo-angiogenic Phenotype of Pulmonary Microvascular-Endothelial Cells"
MAJOR PROFESSOR: Troy Stevens, Ph.D.
DEPARTMENT: Pharmacology/Center for Lung Biology
CURRENT POSITION: Relocated to Florida

Salina Gairhe

DISSERTATION TITLE: "Myoendothelial Gap Junctional Signaling Regulates Pulmonary Arterial Smooth Muscle Cell Phenotype"
MAJOR PROFESSOR: Ivan F. McMurtry, Ph.D.
DEPARTMENT: Pharmacology/Center for Lung Biology
CURRENT POSITION: Postdoctoral Fellow; Department of Pharmacology, USA

Christina Barry McManus

DISSERTATION TITLE: "Calcium Entry Through the Store-Operated Calcium Current, Isoc, Disrupts the Spectrin-F-Actin Interaction Inducing Interendothelial Gaps"
MAJOR PROFESSOR: Troy Stevens, Ph.D.
DEPARTMENT: Pharmacology/Center for Lung Biology
CURRENT POSITION: Manager, American Red Cross, Birmingham

Darla Jean Reed

DISSERTATION TITLE: "Nuclear Oxidant Stress in Hypoxia"
MAJOR PROFESSOR: Abu Bakr Al-Mehdi, Ph.D.
DEPARTMENT: Pharmacology/Center for Lung Biology
CURRENT POSITION: Seeking Employment

Danalea V. Skarra

DISSERTATION TITLE: "Positive Modulation of Myometrial Small Conductance Ca^{2+} - Activated K^{+} Channels Inhibits Uterine Contraction and Delays Murine Preterm Parturition"
MAJOR PROFESSOR: Mark S. Taylor, Ph.D.
DEPARTMENT: Physiology
CURRENT POSITION: Postdoctoral Fellow; Department of Reproductive Endocrinology, University of California, San Diego

Rebecca Ann Torres

DISSERTATION TITLE: “Slingshot Phosphatase Regulation of Cofilin Activation during Vascular Smooth Muscle Cell Migration and Neointima Formation Following Vascular Injury”

MAJOR PROFESSOR: David S. Weber, Ph.D.

DEPARTMENT: Physiology

CURRENT POSITION: Postdoctoral Fellow, Department of Pathology, Emory University

Audrey Anne Vasaukas

DISSERTATION TITLE: “Expressions and Storage of Squirrel Monkey Chorionic Gonadotropin in the Pituitary Gland”

MAJOR PROFESSOR: Jonathan G. Scammell, Ph.D.

DEPARTMENT: Comparative Medicine

CURRENT POSITION: Postdoctoral Fellow, Department of Biochemistry and Molecular Biology, USA