Graduate Program in Biomedical Sciences

University of Puerto Rico
School of Medicine

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Graduate Program in Biomedical Science

What?

Why?

How?

When?

Where?
Departments

- ANATOMY & NEUROBIOLOGY
  - locomotion, hormones, behavior, etc
- BIOCHEMISTRY
  - cell division, angiogenesis, genetics, etc
- MICROBIOLOGY & ZOOLOGY
  - virology, immunology, etc
- PHARMACOLOGY & TOXICOLOGY
  - cancer, toxicology, heart disease
- PHYSIOLOGY
  - drug addiction, heart failure, DNA repair

(Degree requirements may vary between departments. Check this carefully!)
Studies at Different Levels

From nucleic acids

To cells

To tissues

To whole animals
Degrees Offered

Master in Science (M.S.) (min 2 years)
- 25-29 Credits in Courses
- 6 Credits in Thesis Research
- Total 31 - 35 credits

*Doctor in Philosophy (Ph.D.) (min 4 years)
- 46 - 50 Credits in Courses
- 15 Credits in Thesis Research
- Total 61 - 65 credits

*Sub-specialties (tracks) in Neuroscience, Virology and Molecular Genetics
MD/Ph.D. Program

- A period of **6-8 years** of clinical & graduate studies

- **Years 1-2: Medical School Curriculum**
  - Summer: research activities
  - USMLE step I: medical licensure examination

- **Years 3-7: Ph.D. Curriculum**
  - Basic science course & thesis research
  - Summer: clinical research experiences

- **Years 7-8: Medical School Curriculum**
  - USMLE step II: medical licensure examination

MD/Ph.D. in our academic institution or in collaboration with Mayo Clinic and MD Anderson Cancer Center.
Additional Research Facilities

- Individual Research Laboratories
- RCMI Facilities
- Caribbean Primate Center
  - Sabana Seca
  - Cayo Santiago
- Neurobiology Institute (San Juan)
- RCMI Clinical Research Center
General Admission Requirements to Our Graduate Program in Biomedical Sciences

- BS or BA degree from accredited institution
- 3.0 minimum grade point average in Science
- 3.0 minimum general grade point average
- Recent GRE exam scores
  - General and specialized area
- Three (3) letters of recommendation
- Submission of complete application
- An interview
Required Courses

• General Chemistry
• General Biology
• General Physics
• Organic Chemistry
• Pre-Calculus & Calculus

Recommended Courses

• Analytical Chemistry (required for some depts.)
• Biochemistry
• Cell & Molecular Biology
• Genetics
• Anatomy & Physiology
• Microbiology & Immunology
GRE General and Subject Secrets Study Guide

How to Ace the GRE, using easy step-by-step GRE test prep study guide, without weeks and months of endless studying

http://www.gre-secrets.com/

Free GRE Secrets Email Course:

Day 1: How to ace a sentence completion problem with our techniques of prediction and answer grouping.

Day 2: How to master a quantitative comparison problem utilizing problem simplification and equalities.

Day 3: How to solve a reading comprehension problem with key word identification, synonym analysis and logical choice elimination.

Day 4: How to crack a tough discrete quantitative problem by using easy algebra and common-sense probability reasoning.

Day 5: How to understand the most difficult analogy with simple backward and forwards relationship deconstruction.

Day 6: How to quickly solve a troublesome data interpretation problem with proportional ratios and pattern analysis using only minimal information.
Course Work
(Ex. Physiology)

1st Year
Vert. Physiology I & II
Biochem and Labs.
Cell & Molecular Phys
Instrumentation
Seminar
Some Research

2nd Year
Statistic
Rotation
Electives-out
Electives-in
Seminar
Some Research

3rd & up
Thesis

Summer: 2nd Year Examination

Full Time
FINANCIAL AID INCLUDE:

- Teaching Assistant
- Research Assistant
- RISE Minority Program UPR-MSC
- Federal Research Fellowships
- Foundations and Scientific Societies Fellowships
- Funds from investigator’s grants
Work Opportunities in:

- Academia
- Industry
- Government
- Research Laboratories
  - Clinical, Veterinary, Research, Forensic
- Teaching
Something New ALL the Time

- Different strategies
- New questions
- Networking
- Different tasks (scientific vs. administrator)
- Travel (National and International traveling)
DEADLINES FOR APPLICATION

• February 15\textsuperscript{th} for admission in August 2011

• September 15\textsuperscript{th} for admission in January 2011
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News

- UPR On the use of animals in biomedical and behavioral research
- Informe Facultad Mayo, 2010
- Protocolo de Manejo de Epidemia de Influenza A H1N1 en RCM

New Director for Urology

Marcos Pérez-Brayfield, MD FAAP is the new director of the Urology Residency Program. He is a faculty member of the Section of Urology at the University of Puerto Rico. He is a board certified pediatric urologist and a fellow of the American Academy of Pediatrics. He received his medical degree from the University of Puerto Rico and completed his residency in surgery and urology and a fellowship in pediatric urology at Emory University Hospital in Atlanta, Georgia.

His achievements include his past role as an assistant professor at the University of Miami Urology Department, current president of the Society for Fetal Urology, recipient of the Pfizer Scholar in Urology Award, author of multiple peer reviewed articles, and invitations as visiting professor to numerous countries including Chile, Colombia, Mexico, Venezuela, and the Dominican Republic. Dr. Pérez-Brayfield has...
Welcome to the Biomedical Sciences Graduate Program (BSGP) at the University of Puerto Rico Medical Science Campus (MSC), where education and research are our highest priority. Our goal is to educate individuals dedicated to pursuing an exciting and rewarding career, in an academic environment leading to excellence in research and teaching. We are the only academic institution in Puerto Rico that offers programs leading to a Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees with specialties in our basic departments of Anatomy, Neurobiology, Biochemistry, Microbiology & Zoology, Pharmacology, Toxicology and Physiology. In addition, we provide doctoral degree sub-specialties (tracks) in Neuroscience, Virology and Molecular Genetics. Moreover, we support combined MD/PhD degrees programs in our academic institution or in collaboration with Mayo Clinic and Anderson Cancer Center. Our BSGP cosponsor an intercampus Ph.D. program with the Department of Biology at the Rio Piedras Campus.

We have an outstanding, motivated and experienced faculty who...
Travel Around the World!!!
Local Travel

Luchetti Lake
Contact Us

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Ms. Julia Prado
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Questions?

We will see you soon in our program