

Lakshmini Balachandar

Department of Biomedical Engineering, Florida International University

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RESEARCH INTERESTS Experimental neuroscience, Optogenetics, Cellular and molecular biology

EDUCATION

Doctoral Student and Graduate Research Assistant

CGPA: 3.56/4

Dept. of Biomedical Engineering, Florida International University, Miami, FL

August 2013 onwards

B. Tech., Bioengineering

CGPA: 8.5256/10

SASTRA University, Thanjavur, India

August 2012

WORK EXPERIENCE

Graduate Teaching Assistant, Department of Biomedical Engineering, FIU, Miami, FL Aug 2017-Present

Course: Introduction to Biomedical Engineering

Aug 2015-Apr 2016

Graduate Research Assistant, Department of Biomedical Engineering, FIU, Miami, FL Aug 2013-Present

Advisor: Dr. Jorge Riera Diaz, *Dissertation title*: Role of astrogliosis in Epilepsy: from neuroinflammation to seizures and neuronal dysfunction

Project Assistant, Stem cell and Molecular Biology Laboratory

Oct 2012- May 2013

Department of Biotechnology, Indian Institute of Technology, Madras (**IIT-M**)

Advisor: Dr. Rama Shanker Verma, *Topic*: The effect of Microgravity on Cancer cells

Research Intern, Departments of Anesthesia and Medicine and Cardiovascular Research Feb – July 2012

Brigham and Women's Hospital, **Harvard Medical School**, Boston, MA

Advisors: Dr. Piero Anversa/ Dr. Annarosa Leri, *Topic*: Ephrin A1 based Sorting of Young/ Senescent Cardiac Stem Cells for effective Cardiac Regeneration post Myocardial Infarction

LAB TECHNIQUES

Optogenetics, Chronic surgical techniques on rats, Immunocytochemistry, Immunohistochemistry, Cell culture, Molecular Biology techniques, Confocal, Epifluorescent microscopy, Genetic engineering techniques

POSTER PRESENTATIONS

- **March 27th -28th, 2017. Graduate Student Appreciation Week (GSAW), Florida International University, Miami, Florida**
Lakshmini Balachandar, Diana Borrego, Jeremy Chambers, Jorge Riera Diaz
'Serotype based evaluation of an optogenetic construct in rat cortical astrocytes'
- **February 13th -14th, 2017. Sunposium, Max Planck Institute, Palm Beach, Florida**
Lakshmini Balachandar, Diana Borrego, Jeremy Chambers, Jorge Riera Diaz
'Serotype based evaluation of an optogenetic construct in rat cortical astrocytes'
- **November 4th, 2016. 6th Annual Graduate Research Day, Department of Biomedical Engineering, Florida International University, Miami, Florida**
Lakshmini Balachandar, Diana Borrego, Jeremy Chambers, Jorge Riera Diaz
'Serotype based evaluation of an optogenetic construct in rat cortical astrocytes'

- **November 12th -16th, 2016. Society for Neuroscience 46th Annual Meeting, San Diego, California**
Lakshmini Balachandar, Diana Borrego, Jeremy Chambers, Jorge Riera Diaz
'Serotype based evaluation of an optogenetic construct in rat cortical astrocytes'
- **October 8th, 2015. BMES Annual Meet, Tampa, Florida**
Lakshmini Balachandar, Josue Santana, Jorge Riera Diaz
'A Quantitative evaluation of optogenetically induced calcium signaling in Astrocytes'
- **November 15th -19th, 2014. Society for Neuroscience 44th Annual Meeting, Washington D.C.**
Lakshmini Balachandar, Andrea Raymond, Madhavan Nair, Josue Santana, Jorge Riera Diaz
'A Quantitative evaluation of optogenetically induced calcium signaling in Astrocytes'
- **November 7th, 2014. 4th Annual Graduate Research Day, Department of Biomedical Engineering, Florida International University, Miami, Florida**
Lakshmini Balachandar, Andrea Raymond, Madhavan Nair, Jorge Riera Diaz
'A Quantitative evaluation of optogenetically induced calcium signaling in Astrocytes'

AWARDS AND HONORS

- Won First place at the Graduate Student Appreciation Week (GSAW) poster presentation, Florida International University, Miami, FL, 2017
- Won the NGIMS-RISE Summer Research Award at Florida International University, Miami, FL, May 2016
- Won First place in poster presentation at the 4th Annual graduate research day held by the Department of Biomedical Engineering, Florida International University, Miami, FL, 2014
- Department topper in Stem Cell Biology, (2011), Medical Sciences I, Molecular biology, 2009, Medical Sciences II, SASTRA University, Thanjavur, India, 2010
- Topper in Cell biology in the School of Chemical and Biotechnology(SCBT), SASTRA, India, 2009
- FIRST in paper presentation on 'Regenerative medicine' at Reverberations, SASTRA, India, 2009
- CBSE Merit Scholar, Chennai, India, 2008
- All India Second topper in English – Class XII Board Examinations, Chennai, India, 2008
- Topper of the Science Department – Class XI Examinations, DAV Sr. Sec. School, Chennai, India, 2007