



Special Thanks to the RISE Programs' Staff –  
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Ms. Viviana Carrasquillo, Interim Secretary  
Ms. Yadira Ortiz,  
RISE Lab Technician

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Morning - RISE Program  
Luncheon - Chancellor, Dr. Juan Varona



May  
Student  
Research  
Symposium

# Goals

The May Research Symposium is to provide Cayey students an opportunity to present their research results carried out as part of ongoing investigations conducted in Puerto Rico. Research projects were conducted either on Campus with UPR faculty mentors or at other research institutions. Research site is listed with the student.

Research results will be presented in ten minute talks. Questions are welcomed and indicate that these young researchers have been successful with their projects. Practicing their skills as good researchers and communicators of scientific knowledge to the public are their goals. The progress that each student makes in their professional development is the primary goal.

This activity is co-sponsored by the Biology, Chemistry, and Math Departments and by an NIH grant which has been awarded for five years (2011-2016) to UPR-Cayey for developing Biological Undergraduate Research Programs. Since 1985 Minority Biomedical Research Support (MBRS) has provided research experiences to over 760 Cayey students. Additional funds and their sources are listed on the back of this pamphlet. The efforts of mentors, lab technicians, and staff are gratefully acknowledged.

# Schedule

May 12, 2012 Science Amphitheater

- 8:00 Setup & Refreshments
- 8:30 Welcoming Statements – Dr. Robert Ross, RISE Director  
Dr. Eneida Díaz, RISE Coordinator  
Dr. José Molina, Academic Dean  
Dr. Juan Varona, Chancellor
- 8:45 – 10:00 Seminar Session I \*
- 10:00 – 10:20 Break
- 10:20 – 11:20 Seminar Session II \*
- 11:30 – Pizza & Coke

Congratulations to the following RISE students who have been admitted to Post Baccalaureate Programs.

*Ms. Wanda Figueroa* at University of Missouri-Columbia

Congratulations to the following RISE students who have been admitted to graduate programs studying for the Ph.D. in 2012.

*Ms. Jesyka Meléndez* at Univ. of California-Berkeley  
*Mr. Luis De Jesús* at State Univ. of New York- Buffalo  
*Mr. Michael Gómez* at Stockholm University  
*Ms. Yadira Ortiz* at Univ. of Puerto Rico- Río Piedras

Those of 2011 are –

*Mr. Andrés Betancourt* at Univ. of California-San Diego  
*Ms. Frances Rodríguez* at Univ. of California-Berkeley  
*Ms. Francheska Vega* at Michigan State University  
*Ms. Isamar Ortiz* at The Pennsylvania State Univ.  
*Ms. Jaritza Gómez* at Univ. of Wisconsin  
*Mr. José Peña* at Medical Univ. of South Carolina  
*Mr. Jorge Martínez* at Univ. of North Carolina, Chapel Hill  
*Mr. Melvin Aviles* at The Pennsylvania State Univ.  
*Ms. Maryví González* at Univ. of Puerto Rico- Medical Sciences

11:05

Sequence Determination and Bioinformatics  
Analyses of Collagenase (MMP1) Domains  
Cloned from Primate Genomic DNAs

Melisa Medina  
Dr. Michael Rubin



Proposal Day Feb. 25, 2012.

8:45

In Silico Discovery  
of Dengue Virus Methyltransferase Inhibitors

Jessica Díaz  
Dr. Héctor Maldonado



9:00

In-Silico Discovery  
of Dengue Virus Protease Inhibitors

Carlos Santos  
Dr. Héctor Maldonado

9:15

Non PRASA Watershed Quality  
for a Bacteriological Analysis

Krystal Ortiz  
Dr. Javier Arce







9:30  
Magnetic Nanoparticles Based  
Separation Matrices for Protein Isolation

Vivian Rodríguez  
Dr. Vibha Bansal



10:20  
Sputtering Deposition of ZnO:  
From Thin Films to Nanowires

Jennifer Ocasio  
Dr. Wilfredo Otaño

9:45  
Optimization of Assay for Ligand Density  
Determination on an Affinity Adsorbent

Amaris Borges  
Dr. Vibha Bansal



10:35  
Crosslinking of Collagen Fibers  
for Biomedical Applications

Claudia Colón  
Dr. Wilfredo Otaño



10:00  
Break for Refreshments



10:50  
Cloning and Bioinformatics Analyses  
on Novel Plant GAPDH Genes

Valeria Rivera  
Dr. Michael Rubin