Looking at different ends of an elephant...

A famous Indian legend depicted in John Saxe poem *The Blind Men and The Elephant* (1873?) describes that: “six men from Indostan to learning much inclined, who went to see the Elephant (Though all of them were blind), that each by observation might satisfy his mind.” The poem narrates how each person hold a different part of the elephant and reaches a different conclusion regarding to what the elephant is like. The first blind man touching the elephant side said: “It was like a wall”. A second man, feeling the tusk said: “The elephant is very like a spear”. The third blind man taking the trunk in his hands concluded that the elephant is: “like a snake”, while the one that felt the elephant knee declared: “It is very like a tree”. The fifth blind man touched the ear and the sixth man seized the tail. Immediately the former shouted: “This marvel of an elephant is very like a fan!”, but the later expressed his disagreement saying that: “The elephant is very like a rope”. Each one of them sustained his own opinion and a fight started. The poem concludes that each was partly right and all were in the wrong. Is the same elephant but diverse personal views derived from what they hold on to.

I always wonder what those men feelings were: what was happening deep inside each blind man that doesn’t allow them to feel safe to open up to other perceptions. Insecurities, need to prevail, stubbornness? I wonder what would have happened if they have maintained an open mind, an empathic attitude, holding as important only what is in their minds? What would have happened if a sincere desire to understand what is happening prevailed? What would have happened if in order to understand the other person they listened to the other instead of saying: “He doesn’t understand me because he won’t listen to me”. Well, if such things would have happened, possibly, a question would have raised in their minds: “How come such diverse concepts of an elephant could be possible simultaneously?” It sounds like “common sense” but not always that prevails. Why? Because it would have taken courage to trust the others and start moving toward each other, hold the other hand and ask: “Guide my hand, please. Allow me to touch what you have touched that leads you to your conclusion”. That way of thinking and acting shows consideration of the other. It also shows courage to reach the other, seeking understanding of others, in addition to being understood. By collaborating and acting with empathy, courage and maturity, probably they will finally get the following picture of what an elephant is alike:

The same happens with learning and practice of ethical behaviors in the personal, labor, academic, social, and research worlds in which we live. Sometimes it was not our intent to violate terms, expectations of others and/or ethical codes or policies, but our evaluation of these or of proposed changes expressed by other person was solely based in our point of view. We wouldn’t allow ourselves to really see or hear the other person point of view, the other person perception or opinion. Sometimes we see and hear “an intention of the other” with the filter of our own prejudices, insecurities, and a “Win/Lose” attitude. Sometimes our fears, our need of recognition or of being “in control” led us to become the “big rock” in the way of others, led us to express belittling remarks instead of celebrating other persons successes. Sometimes our need to be right, our need to appear “good” at the eyes of others and at our own eyes, maybe our need of “not to lose face”, led us to backbiting, gossiping or even, mobbing. Sometimes our “Win/Lose” attitude led us to boycott with comments, lack of commitment, and/or idleness, an institution, an organization or a program effort. With a Win/Lose perspective, we say: “I won’t do that because you want that only to add an item in your report of the program”. Sometimes our vision was occluded by our petty concepts of success. Every choice has a consequence. If we want positive consequences we need to stand in a Win/Win perspective. We need to stand in a mutuality effort where then you could see how your action or word will benefit you and the organization, the institution or the program from which you are part of.
Each person has the power of choosing to look genuinely inside themselves and to look outside themselves, at “the other” and “see” with ethic and empathic eyes. Each person has the power to seek understanding others and, then, with courage, take the steps to be understood by others. These require committed and disciplined practice until it constitutes a habit. In his book *The 7 habits of highly effective people* (2004), Stephen R. Covey explains that such habit is critical in reaching Win/Win solutions. Covey explains that the habit of first seeking to understand and then to be understood entails, first, getting into others frame of mind, and then describing the alternatives that the others prefer, to show your understanding of them. Afterwards, he said, you could proceed to explain the logic behind the ideas which you genuinely believe. He suggests that first, one needs to develop ethos, character. That is, develop personal credibility and the faith people have in your integrity and competency.

Subsequently, said Covey, develop pathos, the emphatic side, the feeling, and your relationships with others. This requires more than listening to evaluate if you agree or disagree with others. It entails not asking questions from our own frame of reference, not counseling based on our own experience, not trying to explain other motives or behavior based on our own motives and behavior. Think about it! I could see myself trying to understand another person based on the words alone through my own glasses. I can hear and see my own typical responses. Awful ones! Covey suggests that we hear and look, not just at the other person words, but at his/her thoughts and feelings below the words. <<*Rephrase the content and reflect the feeling, give the person psychological air*>> he said. Real understanding is an “inside job” at the individual and collective level. In the process we continually develop maturity, as individuals and as group. Covey defines maturity as the one that balance courage with consideration of others. After ethos, and pathos, then, and only then, we could get into logos, the logic, and the reasoning part of our presentation. There we can present ideas clearly and contextually.

In our personal, social, labor, academic and research worlds the above recommendations contribute to the individual and collective work ethic. Here at the Undergraduate Research Education and Training Program (URGREAT) from Universidad del Este, we have a work ethic in the form of several principles to guide all participants and program actions. At URGREAT we said value being a system in which students, staff, mentors, faculty, administrators, external forces, influence each other and work together for a common goal. We said we value our diversity: diverse academic levels, diverse levels of expertise, diverse disciplines, and diverse backgrounds. That no one should lessen or bring down other for being different, for being of a different school or discipline. Nursing is as important as neurobiology. Microbiology and molecular biology research is as important as stem cell or food safety research. Apprentice student participants are as important as experienced participant students. We said that although diverse we value unity in diversity. Particularly important at URGREAT are the principles of social responsibility, definition of success: collaborative work. He called collaboration an “ethic for success” (*http://ethicsforsuccess.blogspot.com*). The elements essential to a collaborative work include trust, accountability, mutual respect, and fairness.

However, since a work ethic is not just a set of and construction of knowledge. To put into practice the above have a principle that adheres to the Larry Perry policies or principles of ethical standards, we know that just memorizing, reciting the principles and saying that we should follow them in our actions doesn’t ensure that our behavior will be ethic, reflecting our exposed values or principles. A work ethic entails “knowing the difference between right and wrong and choosing to do what is right”(*www.business.lovetoknow.com*). Yes, it is right to listen emphatically and learn from each other. This requires also “an “inside job” at the individual and collective level. This requires change and change produces resistance, internal and external resistance. This requires also to “see” ourselves and “the others” with ethic and empathic eyes.

In his blog Larry Perry shared that he decided to be glad for the increase in wisdom that conflict situations has provided him: “*Sometimes we have to learn ethical behavior the hard way!*” Let’s us at the Undergraduate Research Education and Training Program (URGREAT) learn also from our conflict situations. Let’s learn, as a lifelong process, how to comply with our program principles in the way we behave with each other, and with the program. Sometimes conflict develops when we have differences in opinion. However, we need to remember, the above story: Maybe we are just looking at different ends of an elephant, but we need to see below the words trusting and listening emphatically to understand the other, and, with courage, take the steps that allows ourselves to be understood.

Dr. Lilliam Lizardi O`Neill  
Principal Investigator, Project RISE  
UNE, Carolina
The External Advisory Board is formed by eminent scientists in different specialties. They are members of universities and organizations in Puerto Rico and the United States. This board meet annually to assess the overall progress of the program and provide recommendations for improvement and further development. The Advisory Board meets with RISE Principal Investigator and staff, UNE’s Chancellor and Vice Chancellor, RISE students, mentors and other members of the UNE’s Academic Community.
To finance the activities URGREAT requested and obtained institutional and federal funds. The federal funds came from the National Institutes of Health (NIH) through its Minority Biomedical Research Support Branch (MBRS) - Research Initiative for Scientific Enhancement Program (RISE). The NIH grant obtained proposes the following goal and objectives.

We intend to increase the proportion of graduates from UNE's RISE Program who enter Ph.D. programs in biomedical sciences. In order to achieve this the students will:

- Graduate with a bachelor degree in Science and will apply to a biomedical science doctoral program.
- Participate in a Summer internship program in a research intensive institution.
- Maintain a GPA of 3.20 or higher.
- Attend and participate in professional scientific meetings, conferences or symposia.

### Activities...

### Courses:

**Responsible Conduct of Research Course**, offered by Dr Félix Castrodad, Professor from the University of Puerto Rico at Humacao, January 12, 14 & 15, 2010.

**Math for the Lab Course**
Offered by Prof. Sandra González from Universidad del Este, June 1-7, 2010.

**Good Lab Practices**
Prof. Karlo Malave and Prof. Sandra Gonzalez, Universidad del Este, January 21, 2010.

**Responsible Conduct of Research: Case Studies**
Dr. Michael Leibowitz, Graduate School in Molecular BioSciences, Rutgers University, New Jersey, March 5, 2010.

**Protective Mechanisms in Alcohol Induced dendritic cells: A proteomics based study.**
Dr. Nawal Bowkli, Associate Professor, Universidad Central del Caribe, Bayamón, March 8, 2010.

**Graduate Studies and Opportunities at Universidad Central del Caribe.**
Dr. Luis A. Cubano, Associate Dean Universidad Central del Caribe, Bayamón, March 8, 2010.

**Enhancement of Fear by Stress: A role of MGlur5.**
Dr. Jelena Radulovic, Associate Professor, Department of Molecular Pharmacology, Northwestern University, Illinois, May 6, 2010.

**Math for the Lab Course**
Offered by Prof. Sandra González from Universidad del Este, June 1-7, 2010.

**Importance of Curriculum Vitae, Resume and Personal Statement in the professional development of the undergraduate student.**
Dr. Lilliam Lizardi, Universidad del Este, June 18, 2002.
This year the 45th American Chemical Society (ACS) Junior Technical Meeting and the 30th Puerto Rico Interdisciplinary Science Meeting (PRISM) was held at University of Puerto Rico, Mayagüez Campus. This event gathers representatives of different fields of science and technology.
Students 2010–2011

Paul Brito Vargas

Biology Student, with his mentor Dr Jennifer Barreto Estrada of University of Puerto Rico, Recinto de Ciencias Médicas, researched on the brain’s circuitry of reward after exposure to anabolic steroids. His poster presentations titled: Class I and II anabolic steroids produce opposite hedonic and rewarding effects in pubertal and adult mice were at two locations: in Anaheim, California last semester and Washington, DC this summer, under the Institutional Development Award.

Carol Díaz Díaz

Microbiology Student, with her mentor Dr. Nydia Rodríguez Bonano she researched Bacterial and Clinical Microbiology Antibiotic resistance of Enterococcus species isolated from recreational waters in Puerto Rico. She was accepted for summer internship at the University of Wisconsin-Madison, Wisconsin. There she did a presentation on The optimization of transduction of B cells using retroviral vectors pseudotyped with measles virus envelope glycoproteins.

Juliana M. Falero Pérez

Biology Student, studied at UNE with her mentor Dr José L. Roig. During summer 2010 she did an Internship in Granada, Spain, where she made some experimental studies for development drug resistance in Leishmania braziliensis under Dr. Francisco Gamarro Conde. In August-December 2010 she will make several presentations: one in SACNAS 2010, one in XXX Undergraduate research symposium and another in Simposio de Investigación Subgraduada URGREAT-MBRS-RISE.

Odelys López Espinet

Biology Student: Has worked at UNE with her mentor Dr Mariel Pérez. During summer 2010 she did a summer internship at University of Wisconsin–Madison, Illinois and at SROP Conference in Ohio she made a poster presentation on Potential Sex Difference of Progestin Receptor within the Posnatal Amygdala.

Linnette D. López Figueroa

Microbiology Student, did research on RNA editing with her mentor Dr. Joshua Rosenthal in Instituto de Neurobiología de la Universidad de Puerto Rico during summer 2010. In particular, her investigation consisted on mRNA editing catalyzed by ADAR1 and ADAR2 in the squid.
Nicsa Tanco Valcárcel

**Biology Student**, worked in research predicting vertebrae nervous wreck associations with Nwk binding partners using the moles of nervous wreck interactions in summer 2010 at the *Drosophila* NMJ in Madison-Wisconsin, under Prof. Laura Shank. She made two presentations during this time.

Argenys Robles Rondón

**Microbiology Student**, who studied the identification of the *Enterococcus* specially in recreational waters through PCR gender-species techniques in January-May 2010 under the supervision of Dr. Mariel Perez in Universidad del Este. In summer 2010 he was accepted for an internship in University of Rochester-School of Medicine and Dentistry, Rochester, New York and there studied morfogenesis, Vaccinia Virus genetics and Frog Virus under Dr. Brian Ward. Next semester he will return to Universidad del Este to continue his last semester’s studies. He has made several presentations since his admittance into Universidad del Este, including one in 67th Joint Annual Meeting of National Institutes of Science in New Orleans, LA and one in Congreso de Investigación Subgraduada de Estudiantes de Programas de Honor UPR Carolina, during May 2010. In summer 2010 he did an oral and a poster presentation in University of Rochester’s School of Medicine and Dentistry. He is scheduled to make several more presentations in August-December 2010.

**Félix Román**

**Nursing Student**, investigative study on community health with emphasis on respiratory conditions of the students of Universidad del Este under Prof. Clara L. Roman, MSN; which he will continue on August-December 2010. During summer 2010, he worked on promoting cultural competency in undergraduate nursing students through community and learning services in University of Texas Health Science Center at San Antonio, School of Nursing under tutelage of Dr. María Danet Lapiz-Bluhm, where he made UT Health Science Center scholars class presentation.

**Elisa Sáez Morales**

**Biology student.** Recently admitted to RISE. Her mentor is Dr Ana T Mendez at UNE, Carolina. In summer 2010 she worked standardizing the immune responds using total CREB protein in brain sections including hippocampus amygdala and insular cortex (as control). She assessed the expression of CREB with these neural nucleus, comparing between them and hand J. mice substrains.

**Darleen González**

**Nursing Student**, recently obtained an Associate Degree in Nursing and was admitted for a summer internship at University of Texas, San Antonio, under tutelage of Dr. María Danet Lapiz-Bluhm. She participated in Texas Folklife Festival Health Screening and will continue to get her Bachelor’s Degree in Nursing at Universidad del Este next semester.

**Giovann Vizcarrondo Martínez**

**Biology Student**, researched cellular molecular biology with José Luis Roig, PhD, in Universidad del Este. During January-May 2010 he has made three presentations: a poster presentation, an oral presentation and a round table presentation. In summer 2010 he researched analytical chemistry under Dr. Scott Shippy in the University of Illinois at Chicago. There he made three additional presentations: a poster and an oral presentation in Ohio State, and another oral one in University of Illinois at Chicago. In August-December 2010 he will have made a ABRCMS presentation while continuing research with PhD José Luis Roig.
Microbiology Student, worked on Cellular Molecular Neuroscience research under Ana T. Méndez Merced, PhD, in Universidad Del Este, Carolina campus. She will continue this research next semester. During January through June 2010 she made the following presentations: Scientific Meeting/45th ACS Junior Technical Meeting, 3rd Annual Inaugural Meeting of the Puerto Rico Chapter of the Molecular & Cellular Cognition Society in Centro para Puerto Rico, Río Piedras and the International Behavioral Neuroscience Society (IBNS) in Sardinia, Italy. During summer 2010 she will be researching vaccine development in the University of Wisconsin-Madison, Building of Animal Health and Biomedical Sciences (AHABS) under Jorge E. Osorio, PhD, D.V.M.

Luis Lebrón-Marrero

Biotechnology Student, who studied the resistance profile towards antibiotics of isolated Enterococcus in recreational beaches under the tutelage of Dr. Nydia Rodríguez in Universidad del Este during January-May 2010; during this time he made a presentation in the semi-annual Sociedad de Microbiólogos de Puerto Rico convention. In summer 2010 he studied molecular techniques for the identification of isolated Enterococcus in recreational beaches with his teacher in the same university. In the next semester he will continue his studies with his teacher Dr. Rodriguez on the plasmoids on isolated Enterococcus and make a presentation at RISE Symposium.

Liz García

Microbiology Student, trained in GCAT Microarrays: Qualitative and Quantitative analysis of RNA and 3DNA for labeling cDNA under José Luis Roig, PhD, in Universidad del Este during January-May 2010. In summer 2010 she researched the Localization of Histamine: Immunoreactive Neurons in the Snail Nervous System under Prof. Mark Miller in Instituto de Neurobiología del Recinto de Ciencias Médicas, Universidad de Puerto Rico, and did a presentation on this very subject.
**Students 2010–2011**

**Juliana Santiago**

**Nursing Student.** Assigned to Mentor Benjamín Bolaños at Recinto de Ciencias Médicas, Universidad de Puerto Rico, Río Piedras during summer 2010. With him she was studying the detection of allergy to the airborne fungal spores using an air sampler.

**Jesús Vilarchao Caballero**

**Biotechnology Student.** Investigated post-traumatic stress disorder during January-May 2010 under Dr. Ana Méndez in Universidad del Este. On his summer internship at University of Wisconsin-Madison, he made a poster presentation on: Identification of the Transcriptional Targets of FoxQ-1 using ChiP on Chip Analysis, with Dr. Hilary Gerstein and Dr. Corinna Burger as tutor.

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**A MOMENT TO REMEMBER**

School of Science and Technology and RISE students and Faculty shared with Clifford Houston who is: President of American Society of Microbiology (ASM), Chair of Annual Biomedical Research Conference for Minority Students (ABRCMS), and member of NIH Advisory Council. Dr Clifford Houston is the first African American President of ASM.

This photograph was taken at the 110th American Society for Microbiology Meeting (2010, ASM) at San Diego, California, held from May 23–27.

The 110th American Society for Microbiology Meeting (2010, ASM) included five days of scientific program. It featured nearly 300 individual colloquia, symposia, roundtable discussions, award lectures and posters sessions. Each year students are offered an opportunity to compete for travel awards.
Unveiling a Scientific Poster Presentation
By Karlo Malavè Llamas, MS

Giving thought to their significance, as current scientific disseminating tools, Posters Presentations are of the utmost importance; for the advancement of the presenter as well as for representing the quality of research done at the institution from which the presenter comes.

Poster sessions in different scientific meetings and congresses are an increasingly important part of the scientific world. Many students and young scientist around different universities in Puerto Rico and the United States are rather inexperienced in their preparation and presentation. Since the beginning of the URGREAT-MBRS-RISE Project we have identified this situation. Having been involved in organizing and judging poster sessions we have given some thought to what we consider to be desirable features of a poster; features, that are common in the holistic spectrum of the scientific disciplines.

Now, to start we need to establish what a poster is. A poster is a visual presentation comprising whatever the contributor, author or researcher wishes to display on a poster board. It is a very different way of addressing the public or presenting ongoing research. It is a communication tool which combines a verbal presentation with a visual aid; it is a fairly large display that quickly and effectively communicates information. Usually the poster is prepared on a single PowerPoint Slide with the specific measures, and page layout, that comply with the meeting specifications; some fairly standard measures are 48 inches in width and 36 inches in height. After completion, the poster is printed as a single unit or sheet preferably in vinyl or semi-gloss photo paper. These presentations are given to a small group of people, are limited in time and range of view, and are more personal and interactive than the average oral presentation. Posters should look as professional as your research is.

In preparing a poster, the rule of thumb is, simplicity; telling a story in an attractive, factual and simple way. The typical reader may spend a few minutes looking at the poster. Therefore conciseness, informative statements, well prepared graphics and tables and a bit of an artistic way of thinking are the characteristics a well prepared poster should have.

Although these information tools are limited only by the imagination of the preparer of the poster, a typical poster for a scientific convention should include a: (1) title, (2) contributors/affiliation, (3) abstract, (4) introduction, (5) materials and methods, (6) results, (7) discussion, (8) conclusion and (9) acknowledgments. As scientists we are prone to detail, nonetheless, it is recommended that the poster do not carry too many details, that way more people can be attracted to the research presented. Then, depending on the audience the presenter can be as general or specific as necessary in the description of the research, appealing, in this way to a wider spectrum of participants.

After all the information to be presented is gathered the preparation of the poster begins. As you could see a poster consists of about nine individual parts; in this edition we will talk about the first three. First, the Title, it should be concise, direct and to the point, but giving the potential interested party a global idea of what the research is about; including all the necessary information with the least quantity of words. Although this is correct it is important to never use acronyms, letters or abbreviations in a title. This can be distracting and misleading to the reader. Second, the Contributors/Affiliations, authors are individuals involved actively in the development of the research. A question you could ask yourself to see is a person should be an author is: could I have done this research without this person’s help? If the answer is no, then you got yourself an author, if the answer is yes, then you don’t. Persons that had helped you but did not meet these criteria can be placed in the acknowledgement section. Affiliations, on the other hand, refer to any professional connections related to the contributors, this means the department, university or laboratory sponsoring those contributors in their research. The Abstract is, after the title and contributors/affiliations, the first part of the poster, and maybe the most important. It is imperative that all contributors realize that a prestigious congress is a competitive congress. So, all entries are scrutinized and only the finest and most interesting researches achieve a spot on the selected congress. A well written abstract in compliance with the congress guidelines and policies is the first step to be admitted as a presenter in that congress. Accomplishing this it is not easy but attainable. It is vital to write a complete but concise abstract to entice potential researchers to visit your poster and inquire more about your line of work. Despite the fact that an abstract is quite brief, it must do almost as much work as the whole presentation that follows it. It should comprise: (1) introduction, (2) materials and methods, (3) results, (4) discussion, and (5) conclusion. Commence the abstract with a definition of the problem, a concise statement of the motivation of the research and a description of the approach you devise to solve the problem at hand. Short sentences or bullets are favor since they are easier to comprehend and express. This may be the most difficult task of the poster. An abstract must be a fully self-contained, capsule description of the research. It can’t assume the reader into flipping through looking for an explanation of what is meant by some vague statement. It must make sense all by itself. All this within the congress policies and word limitation; which it is usually between 200-350 words. Poster presentations carry a lot of benefits. First, a poster can be displayed for a longer period of time, in comparison with an oral presentation and also, because of the nature of this type of presentation, visitors, other researchers or interested parties have direct contact with the presenter. This gives the presenter the opportunity to address the audience for a longer period and answer specific questions asked by them. Given its nature it is expected that approximately 50% of the poster is composed of graphic, pictures or tables, making it more attractive and easily explained.

Incorporating good basic graphic design principles, using good quality art materials and papers, and the use of color as an organizing tool will contribute to the professional approach of this scientific communication. For a poster to communicate the work, the poster first has to orient an audience that is not seated, but that is standing. Often the audience has distractions of noise and movement from other people. Given those distractions, a journal article tacked into a board fails as an effective poster because the audience cannot concentrate for a time long enough to read through the paper. In fact, given the distractions that the audience faces, many in the audience will not even bother trying to read a journal article. Therefore conciseness, informative statements, well prepared graphics and tables and a bit of an artistic way of thinking are the characteristics a well prepared poster should have.

Well I hope this was enlightening, we had covered about 33.33% of what a poster is, now for the other 66.66% of the information please wait for the next edition of our newsletter.
Carlos Coriano Vega

**Biology student.** Accepted for PhD., with a full scholarship from SciMed Graduate Research Scholars Program (SciMed GRS) at the University of Wisconsin-Madison.

**Microbiology student.** He worked with mentor Dr Nydia Rodríguez. At UNE graduation ceremony he received the Ana G Méndez medal, for his commitment and leadership. He was admitted to Graduate School at Michigan State University where he will study for a Ph D. specializing in Environmental Neurotoxicology.

Emmanuel Vázquez Rivera

Marisela Figueroa Vázquez

**Biotechnology Student.** She worked with her mentor Dr. José Roig, at UNE, Carolina. She is seeking for admission to Universidad Central del Caribe Graduate Program in Puerto Rico.

Biology student. He worked with Dr José Roig at UNE, Carolina. Received a Cum Laude distinction. He was admitted to Universidad Central del Este School of Medicine at Santo Domingo.

Emmanuel Moreno Candelaria

Shirley Díaz Hernández

**Microbiology student.** She worked with mentors Dr Lilliam Lizardi and Dr Ana T. Méndez.

**Microbiology student.** Bachelor’s degree in Science, major in Microbiology. She is currently working in the pharmaceutical industry.

Stephanie Arroyo Pietri
Juliana Falero presenting at XX Undergraduate Research Symposium. On summer 2010 she participated in an internship in Granada, Spain under the tutelage of Dr. Francisco Gamarro Conde.

From June 8 –13 Solymar Landrau had a Poster Presentation with her mentor Dr. Ana T. Méndez in Sardinia, Italy at the International Behavioral Neuroscience Society (IBNS). The Poster Presentation was based on Dr. Mendez’ research: Determination of Pre-existing Anxiety Differences Between C57BL/6 N and J mice substrain to investigate Fear Extinction Learning Disparity Related to Post Traumatic Stress Disorder (PTSD). In summer 2010, she also participated in an internship at University of Wisconsin-Madison, Wisconsin, under the tutelage of Dr Jorge E. Osorio.

Giovann Vizcarrondo Martínez, doing a Poster presentation titled: Down-regulation of Noggin Gene in the Bone Morphogenetic Protein (BMP) Signaling Pathway by the Presence of Class I Androgen Analog Testosterone Propionate. The presentation was held at the PRABREE-INBRE Meeting, Hotel El Convento, San Juan, March 1st, 2010.

On summer 2010 he participated in an internship at the University of Illinois in Chicago, under the tutelage of Dr Scott Shippy.

PRAABRE stands for Puerto Rico Alliance for the Advancement of Biomedical Research Excellence it is a program hosted by the University of Puerto Rico. PRAABRE is inspired by the National Institutes of Health Institutional Developmental Awards: IDeA Networks of Biomedical Research Excellence (INBRE). Thus, PRAABRE is a program whose efforts are to promote the continued development of biomedical research infrastructure in Puerto Rico. Such continued development is achieved through the implementation of a strengthened and cohesive structure and integration of common scientific and educational interests, collaborations, and a newly created Mentoring Initiative.

Argenys Robles Rondón summer internship at Rochester, New York, under the tutelage of Dr Brian Ward.
UT Health Science Center nursing students, led by the International Nursing Students Association (INSA), volunteered to conduct health screenings at the 39th Annual Texas Folklife Festival on June 12. INSA offered glucose, body mass index, cholesterol and mood screenings along with health education to some 200 festival attendees.

INSA faculty advisor M. Danet Lapiz-Bluhm, Ph.D., said student evaluations showed improvements in both clinical skills and confidence in understanding and communicating with individuals from various cultures. “It is very rewarding to see a shy student smiling and interacting with confidence and ease with patients from different backgrounds,” she said.

The free health screening may have been the only access to health care for some individuals.

Nursing Students Félix Román and Darlene González at their internship at Texas University at San Antonio, did volunteer work at the 39th Annual Texas Folklife Festival, on June 12, 2010.

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Carol Díaz Díaz and her poster presentation: The optimization of transduction of B cells using retroviral vectors pseudotyped with measles virus envelope glycoproteins.

Jesús Vilarchao Caballero and his poster presentation on: Identification of the Transcriptional Targets of FoxQ-1 using ChiP Analysis.

Odelis López Espinet, poster presentation at SROP conference in Ohio: Potential Sex Differences of Progestin Receptor within the Posnatal Amygdala.
Benjamín Bolaños, Ph.D., Assistant Professor, Department of Microbiology and Medical Sciences Campus, University of Puerto Rico. Research interests: Micology and asthma.

José Agosto, Ph.D., Professor, Department of Neuro Science, Río Piedras Campus, University of Puerto Rico. Research interests: Neural development and regeneration, the use of the sea cucumber as a model system to understand model system to understand the process of organogenesis and how the multiplicity of cell types are generated and assembled into a functional organ.

Mark W. Miller, Ph.D., Institute of Neurobiology, Medical Sciences Campus, University of Puerto Rico. Research interests: Central pattern generators and the control of motor behavior. Neurotransmitters and modulators that control repetitive motor activity in all nervous systems such as GABA and dopamine.

Joshua Rosenthal, Ph.D., Institute of Neurobiology, Medical Sciences Campus, University of Puerto Rico. Research interests: Theory of genetic complexity through the process of RNA editing. The study of mRNA networks and their relation to their functions within an organism in relation to the protein output from genes, as well as RNA mapping.

Jennifer Barreto Estrada, Ph.D., Assistant Professor, Department of Anatomy and Neuroscience, Medical Sciences Campus, University of Puerto Rico. Research Interests: CNS molecular/cellular changes linked to reproductive health after exposure to androgens during puberty.

Sandra Peña de Ortiz, Ph.D., Associate Professor, Department of Biology, Río Piedras Campus, University of Puerto Rico. Research interests: We use a multidisciplinary approach for the understanding of the mechanisms used by the rodent central nervous system to acquire, process, and store information. Our studies involve behavioral experiments as well as cellular, biochemical, molecular, and genomic approaches aimed at relating the expression and/or activation of specific molecules with learning and memory processes in the brain.
**Research Mentors and Research Related Activities Trainers**

**Mariel Pérez, Ph.D.,** Science and Technology School, Universidad del Este. **Research interests:** Microbiology and Public Health Pathogenic Bacteroides species in recreational waters in Puerto Rico.

**Nydia Rodríguez Bonano, Ph.D.,** Science and Technology School, Universidad del Este. **Research interests:** Bacterial and Clinical Microbiology Antibiotic resistance of Enterococcus species isolated from recreational waters in Puerto Rico.


**Ana T. Méndez, Ph.D.,** Assistant Professor Science and Technology School, Universidad del Este. **Research Interests:** Developmental Neuroscience. Behavioral, neuroanatomical, and gene expression differences within brain regions related with emotional preservation in two of different mice strains.

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**An Effective Mentor**

- Keeps promises
- Treats all protégés with respect
- Encourages positive behavior
- Is non-judgmental and accepts personal differences
- Has realistic expectations of protégés
- Is sensitive to protégés’ needs
- Values STEM education and the benefits it has to offer
- Enjoys watching protégés develop and grow
- Is consistent in dealing with protégés
- Exhibits high professional and moral character

*The Undergraduate Research Experience–Howard G. Adams, 2004*
Dr. Ana T Méndez Merced, sponsored by UNE’s NiH-RiMi subproject, inaugurates her laboratory at UNE, Carolina. From left to right: 1st Science and Technology Dean Dr. Wilfredo Colón Guasp, Dr. Sandra Peña, Dr. Ana T. Méndez and Vice Chancellor Dr. Mildred Huertas, 2nd Chancellor Alberto Maldonado Ruiz addressing the audience, 3rd Vice Chancellor addressing the audience, 4th Chancellor Maldonado with Dr. Gladys Escalona, former Chancellor of University of Puerto Rico, Río Piedras, 5th Dr. Ana T Mendez addressing the audience, 6th and 7th Students at the lab.

UrS Success Center offers tutoring and study group meetings to RISE and non RISE students. Prof Sandra González is in charge of this center. The Project helps to develop: a) mathematical skills, b) thorough understanding of scientific concepts, c) a sense of self efficacy and self esteem as a science student and future scientist, and d) a learning community among participants. The Center’s goal is to increase the number of science students benefitted by the Project.
Achievement Night for Participants and their Significant Others
At URGREAT we celebrate our achievements!

Addressing attendees are Dr. Lilliam Lizardi, Program Principal Investigator, top left and Dr. Mildred Huertas, Vice-Chancellor of Universidad del Este, Carolina, top right.

Achievement Night is an activity with several purposes. It is certainly a celebration of achievements of our participants in terms of their performance as undergraduate researchers: presentations, attendance, travel awards, best GPA, improvement, etc. This is one of several activities that allows URGREAT-MBRS-RISE-student's family and significant others to be conscious of the implications of personal effort, committed work-time, and possibility of continuing graduate studies away from home, that this program entails. Another purpose of the activity is to give recognition to those persons that program participants identify as the one that during that year significantly encouraged and helped him or her to pursue a degree, to commit efforts to the program, and to continue graduate studies. A certificate was handed to each of them in gratitude for their help. Emotions overflow as parents, spouses or other significant others, as well as students talk to the audience during the activity and share their experiences and their gratitude.
Mayra Ferrán, Director of External Resources Program, parent of student Paul Brito, Dean of Science and Technology School, Dr. Wilfredo Colón Guasp and Vice Chancellor Dr. Mildred Huertas.

After graduating in June 2009, Alexandra Colón transitioned to the Post Baccalaureate Research Program: Bridges to Neuroscience at Michigan State University. Afterwards, she was accepted to the PhD Program in Comparative Medicine and Integrative Biology at Michigan State University starting August 2010.
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