PROGRESS REPORT

1. Narrative Section

As described at the end of the first year of funding, this progress report is based on the establishment and development of an undergraduate training program in neuroscience named "Neuroscience Research Opportunities to Increase Diversity" (NeuroID) under the NIH Blueprint initiative ENDURE (5R25GM097635) at the University of Puerto Rico-Río Piedras Campus (UPR-RPC). The achievements reported below are the result of a team effort by the principal investigators (PD/PIs), Dr. García-Arrarás (1.35 Acad. time effort) and Dr. Irving Vega (1.12 Acad. time, 1.0 Summer time effort) administrative personnel and institutional support. The training program main goal is to increase diversity in the Neurosciences by establishing a cohort of interested students that will receive academic and professional training in neuroscience related research and career developmental activities. The program comprises a comprehensive research and academic experience for undergraduate students based on three training philosophies: student-citizen, service-learning and research-with-purpose. To achieve our goals, the program was divided into three important components:

a. Research Experience – an intense research experience during the academic year and summer experiences at UPR and in a laboratory at an institution in the mainland USA, such as Harvard, Yale, MIT, Univ. of Vermont, Northwestern University, Univ. Florida, Univ. Wisconsin-Madison, that have active graduate programs in neuroscience and/or excellent track record in recruiting and training underrepresented minorities. [*No change from the original proposal*]

b. Academic Training – participation in seminars, workshops and selected courses to enhance their knowledge in neurobiology, and understanding of a research career. [*No change from the original proposal*]

c. Student development activities –a mentoring program that includes community outreach activities, scientific writing and oral presentations and other professional enhancement activities, <u>including education in the responsible conduct of research</u>. [*No change from the original proposal*]

1.1 Development and Implementation of the Proposed Research Education Program (including education in the responsible conduct of research);

As reported on the first progress report, NeuroID started in January 2011 with the recruitment of the administrative personnel and announcement to the student community within the sponsored institutions. The first class of participants started in June 2011. Even though the grant was approved in September 2010, it was decided to follow the recruitment schedule described in the original training plan, as consulted with the grant's Program Officer (Dr. Alberto Rivera-Rentas). The first year of the training program allowed the establishment of the research, academic and extracurricular activities described in the original proposal. In this report we highlighted the achievements obtained in each component of the training program, based on the first cohort of participants and the recruitment of the second cohort.

1.1.1 Program's Administration – A grant administrator (Mrs. Coral Cintrón) fulfilled her responsibilities, that included personnel and students' contracts, purchase ordering, travel orders and budget reports. The secretary (Mrs. Nicole Peña) accomplished all clerical duties of the program, including communication with students, university's administrators and mentors, record keeping, and meeting coordination. The webmaster (Mr. José Serrano) developed and maintained the NeuroID program's website [neuroid.uprrp.edu]. This communication outlet serves as recruitment tool, to communicate with participants, post mentoring tools and showcase the progress and activities of the participants. Additionally, a Facebook group [http://www.facebook.com/groups/282332801800473/] of the NeuroID program was established. The usage of this social network tool allow the establishment of connections between ENDURE Program participants at other institutions (University of Colorado) and the representative of graduate programs interested in recruiting the NeuroID participants. Also, this communication outlet allows the PD/PIs to post news about scientific discoveries and controversies that have ethical implications for an open discussion of the issues. Lastly, the Evaluation Plan was developed to determine the impact of the training and education philosophy described in the original proposal (**see section 1.6**).

1.1.2 Research Experience – NeuroID participants were engaged on an intensive research program. These students received training in Laboratory Safety and Responsible Conduct in Research, as described below in section 1.1.4. The first cohort of NeuroID participant selected on April 2011 chose a mentor from the list of neuroscientists described in the original proposal (see section 2.1) and spent their first year in the program conducting research. Already, several students presented the results at local and national meetings (see section 2.2). The 1st cohort participated in the ENDURE meeting during the Society for Neuroscience (SfN) 2011 Meeting. This year, all students on the 1st cohort will be presenting their research results at the up-coming SfN Meeting, as proposed on the original training plan.

During this second summer section of the program (June-August 2012), the 1st cohort students are participating in a summer research program at mainland US laboratory, as originally proposed.

Table I. 1st Cohort NeuroID participants' summer program information

Student	Summer Program/Mentor	Title
Edith Brignoni	CNS-NYU/ Dr. Elizabeth A. Phelps	The influence of stress on extinction recall
Pablo Maldonado	Univ. Wisconsin- Madison / Dr. Corinna Burger	Is the Homer1c/mGluR5 interaction required for LTP?
Gabriel Marrero	SURP-NYU-Medical School/ Dr. Einar Sigurdsson	Assessing tau antibodies in human plasma as an approach for immunotherapy
Raymond Quiles	Univ. Nebraska-SURP/Dr. Shilpa Busch	How cocaine use accelerates neuronal apoptosis in HIV patients?

Andrea Silva	Univ. Florida/ Dr. Marcelo Febo	Adrenergic receptor modulation of cocaine cue reactivity in female rats
Jaime Vaquer	Harvard (SHURP)/ Dr. Michael Wolfe	Effect of Amyloid Precursor Protein intramembrane domain stability on its processive proteolysis by the gamma secretase complex
Lionel Vazquez	SMART-Baylor College/ Dr. Roy Sillitoe	Development and dysfunction of cerebellar circuits

Additionally, the second cohort of NeuroID participants, selected on April 2012, are participating of the immersion summer program at UPR-Rio Piedras. They are taking the same training workshops listed below on section 1.1.4. In addition, this year two technical workshops were incorporated. The technical workshops will be theoretical and practical. The students will receive two theoretical workshops on neuroproteomics and immunohistochemistry, where the theory and application of these techniques will be presented. They will also receive a two days "hand-on" workshop on molecular and biochemical techniques. ***These activities are an addition to those listed on last year's progress report.***

1.1.3 Academic Training – NeuroID participants are required to follow an academic program designed to increase their research capacities and knowledge in neuroscience. These courses do not add extra credits to the students' curriculum, but are taken as electives. The courses are: Scientific Writing, Psychology, Neurobiology and Undergraduate Research. The following table highlights the progress of the 1st cohort of NeuroID participants during their first year in the program. They are expected to fulfill these requirements during the second year in the program, which is their senior year. The 2nd cohort of NeuroID participants will follow the same academic program.

Table II. 1st cohort NeuroID participants' Academic Accomplishments

Name	Scientific Writing	Undergrad. Res.	Psychology	Neurobiology
Edith Brignoni	X	X	X	
Pablo Maldonado	X	X	X	
Gabriel Marrero		X	X	
Raymond Quiles		X		
Andrea Silva		X	X	
Lionel Vazquez	X	X	X	X
Jaime Vaquer		X	X	

X indicates that the student completed the course

1.1.4 Student Development Activities – During the 1st summer at the NeuroID program (June-August), the participants took workshops directed to increase their capabilities and

understanding of a research career, while they began their research projects in the selected laboratory. Every Thursday the students attended a 2-hr meeting where different topics were discussed. These workshops were opened to the entire student community at the UPR-Río Piedras. As described in the original proposal, the 1st cohort of NeuroID participants participated in a series of workshops during the immersion summer research program. The workshops included: laboratory safety, lab notebook and etiquette, how to prepare an abstract and poster, oral scientific presentation, neuroethics and The Graduate School. These workshops were given by the PD/PIs of the NeuroID Program. At the end of the summer, the student gave a 20 min oral presentation of their research work. All 1st cohort students completed this immersion summer program and during this summer (2012) are participating in summer programs in the mainland (see Table I). The 2nd cohort students are participating in the summer immersion research program at UPR. They are expected to complete all workshops during this 2012 Summer Session.

All NeuroID participants are asked to complete an on-line research ethics course. The course is divided on six sections, which are: Ethical Issues in Research, Interpersonal Responsibility, Institutional Responsibility, Professional Responsibility, Animal in Research and Human Participation in Research [http://ori.dhhs.gov/education/products/montana_round1/research_ethics.html]. The participants are asked to complete all six sections. In addition, during the academic year , Dr. Stephanie Bird (MIT), co-Editor-in-Chief of Science and Engineering Ethics was an invited speaker and presented a seminar entitled "Emerging issues in neuroethics: Implications of enhancing brain function." This seminar was open to the academic community, especially students in the MARC and RISE program. Additionally, the NeuroID Facebook group serves as an outlet to post web-based tools on bioethics and responsible conduct in research that have been developed by NIH and other institutions as well as to challenge the student with specific ethical issues in neuroscience research.

During the academic year, the 1st cohort of student participated in one of NeuroID' innovative activities: NeuroPizza Nights. These are informal, meetings between students and guest scientists with open discussions about career development, experiences and, even, how to balance the personal and professional life. The informal setting provides the student the opportunity to develop networking skills, resolve common misconceptions about a research career and the opportunity to discuss details surrounding the application process at different institutions. The guest scientists also serve as role model for the undergraduate students.

Table III. NeuroPizza Night guest scientists

Date	Name	Institution
Sept. 21st	Dr. Daniel Colón	Yale University
Oct. 14th	Dr. Mandana Sassanfar	MIT
Oct. 19th	Dr. Corinna Burguer	Univ. Wisconsin-Madison
Feb. 23rd	Dr. Gregory Quirk	UPR-Medical Sciences
March 1st	Dr. Sebastian Seung	MIT-HHMI

March 15th	Dr. Stephanie Bird	MIT
April 26th	Dr. Jim Vigoreaux	Univ. Vermont

Another innovate component of the Student Development program is the integration of a novel training philosophy developed by the NeuroID Program that was named Research-with-Purpose. As explained in the original proposal, NeuroID participants are required to participate in community outreach activities. Research-with-Purpose seeks to entice students to pursue a research career that is relevant to unanswered biomedical questions in their respective communities. The 1st cohort of students participated and developed different activities that are highlighted in the following table:

Table IV. 1st Cohort NeuroID Participants: Community Outreach Activities

Name	Community Outreach Activities
Edith Brignoni	1. Down Syndrome Awareness Month (October, 2011); Information booth 2. Brain Awareness Week (March, 2012); Visited School Juan Ponce de Leon to talk about neuroscience to students 3. Brain Awareness Week (March, 2012); Laboratory tour for elementary students 4. Visit of AD Caregiver Support Group to the UPR (March, 2012); Participation of seminar and Lab tour
Pablo Maldonado	1. Puerto Rican Down Syndrome Foundation (October, 2011); Painting activity with teenagers and adults with Down Syndrome 2. Visit of AD Caregiver Support Group to the UPR (March, 2012); Participation of seminar and Lab tour
Gabriel Marrero	1. Community Service (October, 2011); feed the homeless 2. Brain Awareness Week (March, 2012); activity at the College of Natural Sciences, provide information about Alzheimer's disease 3. Brain Awareness Week (March, 2012); Visited Wesleyan Academy and gave a seminar title "Introduction to Neuroscience" to high school students 4. Visit of AD Caregiver Support Group to the UPR (March, 2012); Participation of seminar and Lab tour
Raymond Quiles	1. Visit of AD Caregiver Support Group to the UPR (March, 2012); Participation of seminar and Lab tour 2. Seminar "Science an opened door"; Science Society at the Interamerican University, 3. Seminar "Neuroscience and the future", Honor Program at the Interamerican University
Andrea Silva	1. Seminar "What is the brain?" at Republica de Brasil School (April, 2012) 2. Visit of AD Caregiver Support Group to the UPR (March, 2012); Participation of seminar and Lab tour
Lionel Vazquez	None
Jaime Vaquer	1. Acacia Juvenile Fraternity (August, 2011); Lectured teenagers on the biology and current research on Alzheimer's disease 2. UPR-Rio Piedras Campus (November, 2011); Lectured fellow university

	students (30) on vascular dementia and Alzheimer's disease 3. Masonic Lodge Cosmos #62 (February, 2012); Seminar "Alzheimer's disease research: how can I contribute?" 4. Coordination of Brain Awareness Week (March, 2012); at College of Natural Sciences 5. Published Article: Vaquer-Alicea, Jaime III, Making myself smarter. The Catalyst. Vol. 1. Issue 1. March 15, 2012

1.2 Modifications to the Research Education Program as Originally Proposed;

New courses have become available in the Department of Biology since the original proposal was submitted. Thus, in order to enhance the academic training of the NeuroID participants and their competitiveness, it has been decided to label as highly recommended three courses. These highly recommended courses are: Bioinformatics, Molecular Genetics and Proteomics. The student will select from these advanced courses based on their respective academic curriculum. The Department of Biology requires the selection of three advanced courses as part of its academic curriculum. Thus, the courses do not represent additional credits for the curriculum. However, the PD/PIs will advice the students which courses to take depending on their curriculum and academic interests.

Participants in the 2nd cohort will carry out two community outreach activities during their immersion summer research training. These will be coordinated by a Graduate Assistant (Mr. Rey Rosa) and the Co-PI (Dr. Vega). The proposed activities are a visit to a Senior Care Facility (that has Alzheimer's and Parkinson's disease patients) and the preparation of a short informative documentary video on a selected disease that affect the nervous system. The 9 students in this cohort are going to be divided into three groups to foment team-work skills.

Even though NeuroID participants do not need to apply for funding for summer programs, the 1st cohort of students submitted applications for Summer Undergraduate Research Programs at mainland US. The decision was made due to the fact that the application process to these summer programs is very similar to the application to graduate school. Thus, the students were exposed to the application process that includes selecting the summer program, writing a personal statement, requesting letters of recommendations, academic transcripts and completing the application forms by a specific deadline. Once the students were selected (see Table I), the Co-PI (Dr. Vega) contacted the specific program director to offer support for the expenses associated to the participation of the students. In most cases, the summer program and NeuroID shared the expenses.

1.3 Description of the Applicant Pool;

The selection process took place with minor changes from the original proposal. Briefly, the interested students submitted an application that was evaluated by the PD/PIs. Pre-selection was made based on the selection criteria established for the program. The original proposal established that the pre-selected students will be interviewed by three professors from the Department of Biology and the PD/PIs. This process was followed for the selection of the 1st

cohort of students as described on the last progress report. However, the interview process for the selection of the 2nd cohort of students was carried out by the PD/PIs and students of the 1st cohort. The participation of the students in the evaluation of their peers allow them to contribute to the enhancement of the program, understanding of the interview process and provide a sense of responsibility with the program. After each interview, the Co-PI (Dr. Vega) discussed the evaluation with the students directing them to identify the weaknesses and strengths of each applicant. The involvement of the 1st cohort of students in this process will prepare them for their graduate school interviews.

Table V. Applicant Pool

Applicants	**1st Year**	**2nd Year**
Total of Applicants	22	30
Selected students	8	9
UPR-Río Piedras % Total/% Selected	90%/75%	90%/77%
Other Institutions % Total/% Selected	10%/25%	10%/23%
GPA	range from 3.0 to 4.0	range from 3.0 to 4.0
Student by discipline Biology Chemistry Psychology	 82% 14% 4%	 74% 13% 13%

The student Jeniffer Olan, that was selected on the 1st cohort of students, decided to resign from her appointment at the NeuroID Program. Her decision was based on her desire to pursue a career in Veterinary Medicine. Therefore, 9 students were selected in the 2nd cohort, to add up to the total of 16 students proposed in the original application. In order to increase the number of applications from students at private universities close to UPR-RP, participating institutions were expanded from the original 3 (Univ Metropolitana, Interamerican Univ and Univ. del Este) to incorporate the University of Sagrado Corazon. The PD/PIs identified several misconceptions about research that will be addressed during the next funding period by giving oral presentations at these institutions to provide information about the NeuroID program and the application process. Also the interested students will be invited to visit several research labs at the UPR-RP to be familiarized with the research endeavor.

1.4 Integration with Other Institutional Research-Training Programs Supported by the NIH and/or Neuroscience Blueprint Institutes (i.e., MARC, RISE, IMSD, T32)

As explained above, all our research and student development activities were opened to the entire student body at the UPR-RP, including students in the MARC and RISE programs. In addition, the PD/PIs have been in constant communication with collaborators at T32-Graduate Programs in the mainland. Based on these communications, during the Fall semester Dr. Corina Burger from the Neuroscience Training Program at the University of Wisconsin-Madison met with the students to discuss opportunities and the application process at her

institution. Also, Co-PI (Dr. Vega) was invited to Univ. of Wisconsin-Madison and MIT. The purpose of this visit was to give a seminar about his research and training program. Additionally, the Co-PI talked with faculty members about the admission and selection criteria for the graduate program at these institutions. It is important to emphasize that all activities programmed by NueroID will be opened to all students at the UPR-RPC, specifically to MARC and RISE students. Finally, the PD/PIs also trained undergraduate students from the MARC and RISE programs. These students and others participated in the NeuroPizza Nights and workshops developed by the NeuroID program.

1.5 Collaboration with Research and Research Capacity Building/Infrastructure Programs Supported by the NIH and/or Neuroscience Blueprint Institutes (i.e., SNRP, RCMI, RIMI)

The PD/PIs expect that the students utilize facilities that have been established with the support of NIH through its diverse programs. For example, the NeuroID-student Jaime Vaquer has worked at the Protein Mass Spectrometry Core Facility, which was established in part by funds from NCRR-COBRE program, and the Sequencing and Genotyping Facility supported by the UPR-INBRE program and Raymond Quiles utilizes the Mass Spectrometry facility at the Medical Sciences Campus, established by RCMI funds and supported by the Neuro-HIV SNRP program.

As reported on the last progress report, the students will receive training in different research techniques. The training activities are carried out in Core Facilities available at the UPR, which have been established in part by funds from NIH-NCRR. These training activities will continue during the next funding period.

1.6 Updates on the Evaluation of the Research Education Program and Dissemination Activities (if applicable);

As described on the last progress report, the Research Training Program follows a holistic approach that integrates research, academic and community outreach. The "Research-with-Purpose" philosophy integrates these three important components of the NeuroID program. Research-with-Purpose is a philosophical approach that intends to provide tools for self-motivation, career-engagement, social responsibility and empathy. The incorporation of activities that allow students to see their contribution to society through research and scientific learning will create real expectations and provide the basis to continue through the difficult, sometime tortuous, path of a research career. The evaluation of all activities associated to the NeuroID program will assess the impact and influence that "Research-with-Purpose" has on future career choices made by its participants.

The CoPIs have established a contract agreement with the Center for Evaluation and Sociomedical Research (CIES, for its acronym in Spanish). CIES is an independent entity specialized in conducting evaluation on the performance of research programs and has the capabilities of conducting social studies. The PD/PIs have sustained several coordination meetings with personnel from CIES to develop the evaluation instruments that will assess the performance of the NeuroID program. One product of these meetings was the development of

the ***Theory of Change***. The ***Theory of Change*** is based on three major components: Motivation, Mentoring and Civic Responsibility. The final document defines each component, establishes the training activities associated to them and describes the evaluation instrument that will be used to assess the impact that these activities have on career decision making. After the ***Theory of Change*** was described, a detailed ***Evaluation Logic Model*** was developed to describe all the activities, expectations and outcomes of the proposed training program. Based on this Logic Model an ***Evaluation Plan*** was developed. The instances and instruments to be used are delineated on this ***Evaluation Plan***. These documents and evaluation reports are available at the NeuroID webpage [neuroid.uprrp.edu] under the section ***Program Assessment***.

The NeuroID program uses different outlets to disseminate its goals, activities and recruitment. The program's webpage and Facebook group serve to connect with the general public and disseminate NeuroID's activities and the achievements of its participants. Community outreach activities are also an important outlet to disseminate the activities of the NeuroID program. At these activities, the students use the logo of the program in a polo shirt that was designed for this purpose. In addition to contribute to the integration and projection of NeuroID within the UPR community and Puerto Rico, the usage of the program's logo provides the students with a sense of pertinence and responsibility. The students used the program's logo during the ENDURE Program meeting at the 2011 SfN Meeting. The CoPIs will continue interacting with the student community and general public to disseminate the benefits and achievements of the NeuroID program.

1.7 List of Publications and/or Other Materials Arising from the Research Education Program

a. Training manuals
Tips for the better understanding of Research Articles, by Irving E. Vega, Ph.D.

How to write a Scientific Article (Instructional Power Point Presentation),
by Gregory Quirk, Ph.D.

Tutorials on stoichiometry: How to prepare solutions, by Irving E. Vega, Ph.D. (three tutorial documents depicting how to calculate Molarity, dilutions, w/v and v/v)

2. Data Section

2.1 List of appointed (program-supported) undergraduate participants, their current academic status, degree pursued and institution;

Name	Institution/Department Current Status	Degree	Mentor	Research
1st Cohort				
Andrea Silva	UPR-RPC/Chemistry Senior	BS	Dr. Jennifer Barreto	Cell/Mol substrates of anabolic steroids behavioral effects
Edith Brignoni	UPR-RPC/Psychology Senior	BA	Dr. Gregory Quirk	Neural mechanisms of fear extinction
Gabriel E. Marrero	UPR-RPC/Biology-Chemistry Senior	BS	Dr. Irving Vega	Subcellular localization of the novel protein EFhd2 during neurodegeneration
Jaime Váquer	UPR-RPC/Biology Senior	BS	Dr. Irving E. Vega	Epiproteomics changes underlying neurodegeneration
Lionel D. Vázquez	UPR-RPC/Biology-Chemistry Senior	BS	Dr. José García-Arrarás	Gene profiling of nervous regeneration processes
Pablo J. Maldonado	UMET/Biology Senior	BS	Dr. Sandra Peña	Genomics of learning and memory
Raymond L. Quiles	Inter-Bayamón/Biology Senior	BS	Dr. Loyda Meléndez	Neuroimmunology of HIV Associated Dementia
2nd Cohort				
Ionnisely Berrios-Torres	UPR-RPC/Psychology Junior	BA	Dr. Guillermo Bernal	Psychotherapeutic intervention for depressed latino youth
Alma Catala	UPR-RPC/Biology Junior	BS	Dr. Sandra Peña	Genomics of learning and memory
Katherine M. Cepeda	UPR-RPC/Psychology Junior	BA	Dr. Sandra Peña	Genomics of learning and memory

Rigo Cintron	Univ. Sagrado Corazon /General Natural Sciences Junior	BS	Dr. Irving E. Vega	Epiproteomics changes underlying neurodegeneration
Celimar Negron	Inter-Bayamón/Biology Junior	BS	Dr. Eduardo Rosa-Molinar	Connectomics of the Vertebrate Spinal Cord
Monica C. Quiñones	UPR-RPC/Biology Junior	BS	Dr. Jose E. Garcia-Arraras	Gene profiling of nervous regeneration processes
Jean Saenz	UPR-RPC/Biology Junior	BS	Dr. Jose E. Garcia-Arraras	Gene profiling of nervous regeneration processes
Stephanie Santiago	UPR-RPC/Psychology Junior	BA	Dr. Gregory Quirk	Neural mechanisms of fear extinction
Arayoan Vergara-Mojica	UPR-RPC/Chemistry Junior	BS	Dr. Jose Lasalde	Structure-Function Studies of the Nicotinic Receptor

2.2 List of presentations, as well as the number of peer-reviewed publications including program-supported participants as co-authors;

Name	Presentations
Edith Brignoni	Poster: American Association for the Advancement of Science – Caribbean Division, 2011 Annual Conference: Genetics, Environment, Society. UPR-Mayaguez Poster: 2011 Society for Neuroscience, Washington DC Poster: 20th Puerto Rico Neuroscience Conference. San Juan, PR Poster: 32nd Annual Forum of Research and Education, UPR-Medical Sciences Campus
Pablo Maldonado	Participation: 2011 Society for Neuroscience, Washington DC
Gabriel Marrero	Participation: 2011 Society for Neuroscience, Washington DC
Raymond Quiles	Participation: 2011 Society for Neuroscience, Washington DC
Andrea Silva	Participation: 2011 Society for Neuroscience, Washington DC Poster: 20th Puerto Rico Neuroscience Conference, San Juan, PR Poster: INBRE-External Advisory Committee meeting
Lionel Vazquez	Participation: 2011 Society for Neuroscience, Washington DC Poster: 20th Puerto Rico Neuroscience Conference, San Juan, PR

Jaime Vaquer	Participation: 2011 Society for Neuroscience, Washington DC Oral Presentation: Puerto Rico Interdisciplinary Scientific Meeting, UPR-Carolina Campus

2.3 List of former program-supported participants initiating and/or continuing Ph.D. degree training (including name, current academic status, degree pursued and institution);

The 1st cohort of NeuroID participants are entering their senior year and will apply to graduate programs during the next funding period.

2.4 List of former program-supported participants engaged in research careers (including name, institution, and current academic status);

N/A

2.5 Since the BP-ENDURE program is an institutional program, the report must also provide the following information:

Reporting Period: August 31, 2010 to May 31, 2011

Table 1A - Undergraduate (B.S.) Institutional Student Data

Institutional Baseline Data	UR	non UR
Total number and percent of undergraduate students that completed B.S. degrees in biomedical	438 (99.77%)	1 (0.23%)
Total number and percent of graduate students that completed M.S. degrees in biomedical/behavioral sciences (if the institution awards the M.S. degree)	8 (100%)	0
Total number and percent of graduate students that completed Ph.D. degrees in biomedical/behavioral sciences (if the institution award the Ph.D. degree)	8 (100%)	0
Total number and percent of students that completed a biomedical/behavioral sciences degree at the grantee institution and completed a Ph.D. degree in Neuroscience at the grantee institution or elsewhere	**Not Available for other institutions* *[UPR-RP: 4 (100%)]*	**Not Available for other institutions* *[0]*
Total number and percent of undergraduate students that enrolled in Ph.D. programs in Neuroscience fields at institutions with research-intensive environments	**Not Available*	**Not Available*

** This data is not collected at the UPR. The NeuroID program will talk with officials at the Academic Planning Office, branch dedicated to collect academic data, to coordinate the collection of this important information.*