

**UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
SCHOOL OF MEDICINE**

DEPARTMENT OF PHYSIOLOGY

Include
2 X 2
Photo
(OPTIONAL)

NOTE: TO BE SUBMITTED TYPEWRITTEN

C U R R I C U L U M V I T A E

NAME <u>Jorge D. Miranda</u>	SEX <u>Male</u>
DATE OF BIRTH <u>-----</u>	HOME ADDRESS <u>-----</u>
PLACE OF BIRTH <u>PR</u>	<u>-----</u>
MARITAL STATUS <u>Married</u>	<u>Caguas, PR -----</u>
CHILDREN <u>-----</u>	TELEPHONE (HOME) <u>-----</u>
OFFICE ADDRESS <u>UPR-School of Medicine</u>	SOCIAL SECURITY NO. <u>xxx-xx-xxxx</u>
<u>Principal Bld., 6th floor, Rm. A-682, Physiol.</u>	TELEPHONE (OFFICE) <u>758-2525 x1631</u>

EDUCATION AND DEGREES (CHRONOLOGICAL ORDER)

<u>COLLEGE OR UNIVERSITY</u>	<u>DEGREE</u>	<u>YEAR OF GRADUATION</u>
1. UPR-Rio Piedras Campus	BS (Biology)	1988

<u>GRADUATE TRAINING</u> <u>(Name of Institutions)</u>	<u>DEGREE</u>	<u>SPECIALTY</u>	<u>YEAR OF GRADUATION</u>
1. University of Puerto Rico	MS	Biology	1990
2. Baylor College of Medicine (Houston, TX)	Ph.D.	Neuroscience	1996

<u>POSTGRADUATE TRAINING</u> <u>INSTITUTION</u>	<u>DATE</u>	<u>AREA OF STUDY</u>
1. University of Miami Sch. of Medicine (Miami Project to Cure Paralysis)	1996-1998	Spinal Cord Injury and Regeneration

MILITARY SERVICE (Type of experience and dates)

1. No

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS (Indicates administrative positions held if any)

<u>NAME</u>	<u>ADMINISTRATIVE POSITION</u>	<u>DATE</u>
1. Society for Neuroscience	-	1996- present
2. Society for Neurotrauma	-	2000- present
3. Puerto Rico Physiological Society	-	2010- present
4. American Physiological Society	-	2011-2012

PROFESSIONAL EXPERIENCE

<u>EMPLOYER</u>	<u>POSITION HELD</u>	<u>DATES</u>
1. UPR-Rio Piedras	Research Assistant	1986-1988
2. UPR-Rio Piedras	Teaching Assistant	1988-1989
3. UPR-Rio Piedras	Research Assistant	1989-1990
4. Col. Tecnológ. de San Juan	Microbiology Professor	1990
5. Baylor College of Medicine	Research Assistant	1992-1996
6. Univ. of Miami Sch. of Medic.	Senior Research Associate	1996-1998

ACADEMIC APPOINTMENTS (Include all appointments ever held)

<u>RANKS</u>	<u>INSTITUTION</u>	<u>DATE</u>
1. Assistant Professor	UPR-School of Medicine	1999- 2003
2. Associate Professor (Tenure-2006)	UPR-School of Medicine	2003-2008
3. Professor	UPR-School of Medicine	2008-present

OTHER APPOINTMENTS (Administrative, Consultative, Others)

	<u>TITLE</u>	<u>DATE</u>
1. Animal Resource Center	Advisory Committee	2000-present
2. Institutional Animal Care & Use Committee	Member	2000-2006
3. Intercampus Graduate Program	UPR-RCM represent.	2002-2006
4. Physiology Department	Program Coordinator	2001-2005
5. Biomedical Graduate Program	Program Coordinator	2006-2010
6. Puerto Rico Neuroscience Chapter	Vice-President	2006

7. Puerto Rico Neuroscience Chapter	President	2007
8. PR Health Science Journal	Ad-Hoc Reviewer	2007
9. Consejo de Interaccion y Programacion Educativa	Representante de la Div. Graduada	2006-2010
10. Comite de Ayudantia	Representante Esc. de Medicina	2006-2010
11. Training Program U54 Partners for Excellence in Cancer Research	Liason (UPR-Sch. of Medicine & MD Anderson Cancer Ct.	2007-2010
12. Brain Research, Neuroscience & Neurological Research Journals	Ad-Hoc Reviewer	2008-present
13. Human Physiology Course (Medical Students)	Coordinator	2008-2010
14. Human Physiology Course (Dental Sch. Students)	Coordinator	2010-2012
15. Vertebrate Physiology I Course (Graduate Students)	Coordinator	2012-2014
16. Deanship of Biomedical Sciences	Dean	2010-2013
17. Puerto Rico Physiological Society	Member of the Executive Committ.	2010
18. Puerto Rico Physiological Society	Vice-President	2011
19. Puerto Rico Physiological Society	President	2012
20. Institutional Animal Care & Use Committee	Alternate Member	2006-present
21. Graduate Committee of Biomedical Sciences	Member	2006-2013
22. Adjunct Professor Selection Committee	Chair	2010-2013
23. Bailey K. Ashford Selection Committee	Chair	2010-2013
24. Institutional Assessment Committee	Member	2010-2013

HONORS AND AWARDS

1. Distinguished Faculty, Physiology Department, UPR - School of Medicine-2013
2. Distinguished Faculty, Physiology Department, UPR - School of Medicine-2012

3. Distinguished Faculty, Physiology Department, UPR - School of Medicine-2011
 4. Distinguished Faculty, UPR-School of Medicine – Class of Medicine 2012 – 2012
 5. Distinguished Faculty, UPR-School of Medicine – Class of Medicine 2013 – 2012
 6. Distinguished Faculty, UPR-Sch. of Medicine–Class of Graduate Students 2012-2012
 7. Distinguished Faculty, Physiology Department, UPR - School of Medicine – 2010
 8. Distinguished Faculty - Physiology Department- Associate Dean Biomedical Sciences – 2008
 9. Alumni Achievement Award of Diversity Program in Neuroscience (Atlanta, GA) - 2006
 10. Distinguished Faculty - Physiology Department- Associate Dean Biomedical Sciences - 2005
 11. Poster Presentation Selected in the American Physiological Society for Press Release-2005
 12. Distinguished Faculty - Physiology Department- Associate Dean Biomedical Sciences - 2004
 13. Award for Poster Presentation from the American Assoc. for Advancement in Science-2003
 14. Distinguished Faculty - Physiology Department- Associate Dean Biomedical Sciences - 2003
 15. Distinguished Faculty - UPR School of Medicine - XIII Premiación Betanciana - 2002
 16. Member of Sigma Xi (International Honor Society of Scientific & Engineering Research) - 2002
 17. F32 Postdoctoral Fellowship (NIH-NINDS: #NS10304)), 1997-1998
 18. Research Supplement for Minorities (NIH-NINDS: #NS26887), 1996-1997
 19. American Psychological Association Fellowship, 1995-96
 20. MARC Predoctoral Fellowship (NIGMS), 1990-95
 21. Dean's Award for Excellence - Baylor College of Medicine - 1992-1996
 22. Honorable Mention Award of the Ford Foundation Predoctoral Fellowships – 1990
 23. Distinguished Student - UPR Rio Piedras - 1988
 24. Honor Certificate (Office of the Dean of Students) - UPR Rio Piedras – 1988
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25. Awards as co-author from my graduate students:
 - Award for Oral Presentation at the RCM “Foro de Investigacion y Educacion” – 2014
 - Award for Poster Presentation at the RCM “Foro de Investigacion y Educacion” – 2011

Award for Oral Presentation at the RCM “Foro de Investigacion y Educacion” – 2008
 Award for Poster Presentation at the RCM “Foro de Investigacion y Educacion” – 2007
 Award for Poster Presentation at the RCM “Foro de Investigación y Educación”-2006

TEACHING EXPERIENCES (Courses [C] & Lectures [L])

<u>NAME OF INSTITUTIONS</u>	<u>LEVEL</u>	<u>ACADEMIC DISCIPLINES</u>	<u>DATES</u>
1. UPR School of Medicine		FISA 8543: New issues in SCI (apoptosis) - 2014	
2. UPR School of Medicine	Graduate [L]	Biological Membranes Biochemistry Department	2008
3. UPR School of Medicine	Graduate [C]	Cell & Molecular Physiology (FISA 8540)	2000- 2006
4. UPR School of Medicine	Graduate [C]	Seminar (FISA 8503)	2003- 2008
5. UPR School of Medicine	Graduate [C]	FISA 8542: Spinal Cord Injury	2002, 2007, 2012, 2014
6. UPR School of Medicine	Graduate [C]	Thesis (FISA 8599)	2002-present
7. UPR School of Medicine	Graduate [C]	FISA 8542: Purinergic Receptor Expression	2004
8. UPR School of Medicine	Graduate [L]	FISA 8532: RT-PCR	2003-present
9. UPR School of Medicine	Graduate [L]	FISA 8532: Western blot	2003- 2008
10. UPR School of Medicine	Graduate [L]	FISA 8601: Protein Transport	2003-present
11. UPR School of Medicine	Graduate [L]	FISA 8601: Second Messengers	2003-present
12. UPR School of Medicine	Graduate [L]	FISA 8601: Neural Development	2003-present
13. UPR School of Medicine	Graduate [L]	FISA 8601: Spinal Cord & Regenerat.	2003-present
14. UPR School of Medicine	Graduate [L]	FISA 8601: Somatosensory System	2004-present
15. UPR School of Medicine	Dental [L]	Somatosensory System	2004-present
16. UPR School of Medicine	Dental [L]	Protein Transport	2006-present

17. UPR School of Medicine	Dental [L]	Signal Transduction	2004-present
18. UPR School of Medicine	Medicine [L]	Small Group Discussions	2001-present
19. UPR Rio Piedras	Graduate [L]	Axonal Outgrowth	2001-2008
20. UPR Rio Piedras	Graduate [L]	Nerve Regeneration	2002-2008
21. UPR Rio Piedras	Graduate [L]	Rec. Tyrosine Kinases	2002
22. UPR School of Medicine	Medicine [L]	Genes & Behavior	2001-02
23. UPR School of Medicine	Dental [L]	Muscle Physiology	2001 & -02
24. UPR School of Medicine	Graduate [C]	Regenerat. (FISA 8543)	2000
25. UPR School of Medicine	Graduate [L]	FISA 8532: Cloning	2000
26. UPR School of Medicine	Graduate [C]	FISA 8525: Introduction to Neurosc.	2000
27. UPR School of Medicine	Graduate [L]	Reading in Mol. Biology	1999
28. UPR Rio Piedras	Undergrad. [C]	Biology (TA)	1988-90
29. Col. Tecnológico de San Juan	Undergrad. [C]	Microbiology	1990

Courses created:

- 1) FISA 8540: Cellular and Molecular Physiology
- 2) FISA 8605: Teaching Physiology
- 3) FISA 8585: Preparation of Physiology Proposal

Courses revised:

- 1) FISA 8541: Problems in Physiology → Justify the course to be use for rotations
- 2) FISA 8525: Introduction to Neuroscience → Description & justification of the course

RESEARCH EXPERIENCE (Describe and include the title and year of investigation conducted)

1. Second messengers as regulators of phagocytosis in *Tetrahymena thermophila*: 1986-1990
2. Down-regulation of GABA_A receptors in chick cortical neurons: 1992-1996
3. Expression profile of EphA after spinal cord injury (SCI): 1999-2004
4. Expression of EphrinsB proteins after SCI: 2001-2004
5. Analysis of EphB protein expression during axonal regeneration in adult rats: 1999-2002
6. Axonal Regeneration after EphA receptor blockade & expression profile of ephrinA ligands after SCI: 2004 – 2011
7. Role of Purinergic Receptors after Spinal Cord Injury: 2005 – 2011
8. Effect of analgesics in the gene profile after spinal cord injury: 2005 – 2008
10. Intracellular Mechanism of Eph Activation after spinal cord injury: 2008- 2014
11. Flotilin-2 expression profile after spinal cord injury: 2007-2011
12. Role of Estrogen & Tamoxifen as a Neuroprotective agent after spinal cord injury: 2005 – present

POSTGRADUATE OR GRADUATE COURSES, SEMINARS AND WORKSHOPS ATTENDED (Title, place and dates)

<u>TITLE</u>	<u>PLACE</u>	<u>DATE</u>
1. Weekly seminars (sponsored by Physiology &/or Biochemistry Dept.)	A-622, 6 th floor amphitheater	Tuesdays/Thur. (12n)
2. Monthly Seminars (sponsored by the RISE Program)	6 th floor amphitheater	Tuesdays (12n)
3. Diseño Curricular	UPR-RCM	10/08
4. Diseñando Prontuarios	UPR-RCM	10/08
5. Redacción de Objetivos Educativos	UPR-RCM	11/08
6. Retrocomunicación Efectiva	UPR-RCM	11/08
7. Excel para notas	UPR-RCM	11/08
8. Diseño de Exámenes con Validez y Confiabilidad	UPR-RCM	12/08
9. Diseño de Ítemes	UPR-RCM	12/08
10. Avalúo Formativo y Sumativo: Diseño e Implementación	UPR-RCM	12/08
11. Turning Point	UPR-RCM	09/08
12. Procesos de Cambios Académicos	UPR-RCM	09/08
13. Hostigamiento Sexual	UPR-RCM	09/08
14. Tercera Jornada de las Ciencias Vivas y la Ingeniería	UPR-RCM	2007
15. Técnicas de Avalúo	UPR-School of Medicine	2006
16. Grants.gov Workshop	UPR-School of Medicine	2006
17. Multiple Choice Item Construction	UPR-RCM	2002
18. Spinal Cord Injury Workshop	University of New Jersey, Rutgers	2001
19. Write Winning Grants Workshop	UPR-Rio Piedras & Sch. Med.	2001-02
20. Research Integrity	Univ. of Kentucky	2001
21. Teaching Survival Skills & Ethic Workshop	Vail, Colorado	2000
22. Estilos de Aprendizaje	UPR-School of Medicine	1999
23. Paradigma/Modelo Integrador de Educación	UPR-School of Medicine	2000

24. Normas de Comunicación de Riesgos	UPR-School of Medicine	1999
25. Curso de Seguridad Radiológica	UPR-School of Medicine	1999
26. Portafolio Profesional	UPR-School of Medicine	1999
27. IACUC courses & workshops	UPR-School of Medicine	1999-present
28. iPad como Herramienta de Aprendizaje	UPR-School of Medicine	2014

EXTRACURRICULAR ACTIVITIES (Community activities, special interests, talents, skills and hobbies)

Type	Date	Location
Brain Awareness Week	March 2001	Plaza Las Americas
Brain Awareness Week	March 2003	Plaza Las Americas
Brain Awareness Week	March 2007	UPR-School of Medicine
Outreach Activity	May 2007	Preparation of a short video about the nervous system and the research performed at the Medical Campus in this field. The video was distributed in more than 80 public schools and in over 10 private schools.
BAW	2010	Activity in our campus
BAW	2011	Activity in our campus
PhUN Week	2011	Visit several schools
PhUN Week	2012	Visit several schools

PARTICIPATION IN SPECIAL COMMITTEES, BOARDS, ACADEMIC SENATE, ADVISORY COUNCIL (Names and dates)

NAME	DATE
1. Institutional Animal Care & Use Committee	2000-present
2. Comité Graduado del Programa Interrecinto	1999-2002
3. Advisory Committee for the Animal Resource Center	2000-present
4. PR Neuroscience Conference: Organizing Committee	2000-2009
a) 2006: Vice-President of the Puerto Rico Neuroscience Chapter	
b) 2007: President of the Puerto Rico Neuroscience Chapter	
5. Comité Organizador del Foro de Investigación Biomédica y Conferencia Bailey K. Ashford	2002
6. Comité Adhoc para desarrollo de tractos y/o programas graduados interdepartamentales	2001-2002

7. Subcommittee on Basic Sciences Dept. for the UPR-School of Medicine Accreditation	2001-2002
8. Comité para Desarrollar un Boletín Informativo de los Programas Graduados de la Escuela de Medicina	2001-2003
9. Comité Graduado del Recinto de Ciencias Médicas	2006-2008
10. Review Panel for Research Proposals from the RCMI-Clinical Res. Center	Oct. 2004 2004-2010,
11. Evaluador de Resúmenes Foro Anual de Investigaciones y Educación RCM	2014
12. Comité de Búsqueda Director(a) Departamento de Anatomía	2006
13. Comité de Ayudantías del Decanato de Asuntos Académicos	2006-2010
14. Comité de Programas Combinados (MD/PhD & MD/JD)	2007-2013
15. Consejo de Interacción y Programación Educativa (CIPE) del Decano de Asuntos Académicos	2006-2010
16. Comité de Medicina I y el Comité de Promociones I	2008-10
17. Comité Institucional de Avalúo	2008
18. Comité de Medicina Dental I	2010-2012
19. Reviewer of Journal: Neural Regeneration Research	2015
20. Primate Center Advisory Committee	2013-present
21. Molecular Science Building-Animal House Facility Advisory Committee	2010-present
22. Molecular Science Building-Neuroplasticity Center Advisory Committee	2010-present

PARTICIPATION IN NATIONAL OR INTERNATIONAL SCIENTIFIC MEETING OR SPECIAL LECTURES

MEETING	TITLE	PLACE HELD	DATE	PRESENTOR (YES / NO)
1. Soc. for Neurosc.	EphB3 receptor...	New Orleans	2000	Yes
2. Soc. Cell Biology	Upregulation of ...	San Francisco	2000	Yes
3. Cell Transplantat.	Eph & Ephrin ...	Clearwater, FL	2001	No
4. Soc. for Neurosc.	Screening for the...	San Diego	2001	Yes
5. Soc. for Neurosc.	EphA4 RPTK as ...	San Diego	2001	Yes

6. Soc. for Neurosc.	In adult rats...	San Diego	2001	Yes
7. Neurotrauma Soc.	Expression of EphA7...	Tampa, FL	2002	Yes
8. Neurotrauma Soc.	Upregulation of ...	Tampa, FL	2002	Yes
9. Foro Invest. Biomédica	An axon guidance...	UPR - Sch. of Med	2002	Yes
10. Foro Invest. Biomédica	Differential Expre...	UPR - Sch. of Med	2002	No/coauthor
11. Keystone symposia (Axonal connections: Molecular Cues ...	Upregulation of EphA receptors after SCI.	Keystone, CO	2003	Yes
12. Soc. for Cell Biology	Gene Profile of Eph...	San Francisco, CA	2003	No/coauthor
13. PR Neuroscience Conf.	Differential Express.	San Juan, PR	2003	No/coauthor
14. Foro Investi. Biomédica	Expression of Caveol.	UPR-Sch. Of Med.	2003	No/coauthor
15. Joint COBRE/SNRP	Eph Rec. as a Putative	San Juan, PR	2003	Yes
16. SNRP Meeting	Spinal Cord Contusion	Hawaii, USA	2003	No/coauthor
17. SNRP Meeting	Induction of EphA...	Hawaii, USA	2003	Yes
18. Soc. for Neuroscience	SCI & EphA4 ...	San Diego	2004	No/coauthor
19. Foro Investi. Biomédica	P2Y1 & P2Y2 purin.	UPR-Sch. Of Med.	2004	No/coauthor
20. Foro Investi. Biomédica	Expression of EphA4	UPR-Sch. Of Med.	2004	No/coauthor
21. Foro Investi. Biomédica	Analysis of Eph...	UPR-Sch. Of Med.	2004	No/coauthor
22. Keystone symposium	SCI & EphA7...	Keystone, CO	2005	No/coauthor
23. FASEB	SCI, EphA4 & pain	San Diego	2005	No/coauthor
24. Joint SNRP/COBRE	Expression of Repul.	San Juan, PR	2005	Yes
25. Kentucky Spinal Cord & Head Researt Trust Meeting (KSCHIRT)		Louisville, KY	2005	No
26. Foro Investi. Biomédica	Effect of Analgesics...	UPR-Sch. Of Med.	2006	No/coauthor
27. Foro Investi. Biomédica	The Neuroprotective...	UPR-Sch. Of Med.	2006	No/coauthor
28. Foro Investi. Biomédica	Expression profile of...	UPR-Sch. Of Med.	2006	No/coauthor
29. KSCHIRT meeting		Lexington, KY	2006	No
30. National Neurotrauma Society	1) Effect of buprenor. 2) Possible role of. ...	St. Louis, MO	2006	No/coauthor
31. Intern. Soc. Dev. Neuro	Repulsive Environ. ...	Banff, Canada	2006	Yes

32. AAAS (Caribbean Div)	Porque y como estudiamos regeneració despues de un daño al cordón espinal.	Inter/Bayamon	2006	Yes
33. Society for Neuroscien.	Expres. Profile of P2Y	Atlanta, GA	2006	Yes
34. KSCHIRT meeting		Louisville, KY	2007	No
	1) Ephrin ligands...			
	2) Ephexin...			
	3) Buprenorphine...			
35. Society for Neuroscien.	4) Estrogen receptor...	San Diego, CA	2007	No/coauthor
36. National Neurotrauma		Orlando, FL	2008	No
37. Annual convention of Physical Medicine & Rehabilitation	New Concepts of Basic Science: Mol. Events after SCI & Possible Treatments	Rio Mar Beach Resort, Rio Grande, PR	2008	Yes
38. KSCHIRT meeting		Louisville, KY	2009	No
39. Society for Neuroscien.		Chicago, Illinois	2009	No
40. Grant Writing Workshop - Successful NIH Propo.		Lexington, KY	2011	No
41. Experimental Biology	E2 and TAM as neuro...	Boston, MA	2013	No/coauthor
42. Society for Neuroscien.	TAM treatment promo...	Washington, DC	2014	No/coauthor

LEARNING RESOURCES AUTHORED OR CO-AUTHORED (Video tapes, movies, self study units, othes)

	TITLE	DATE
1. DVD for schools (BAW)	Neuroscience in Puerto Rico	May 2007

THESIS, MENTORSHIP AND SPECIAL REPORTS

	<u>TITLE</u>	<u>DATE of Graduation</u>
1. Sandra I. Vázquez: cAMP-dependent Protein Kinase and Protein Kinase C Activity Profile During the Acquisition of the Hole Board discrimination Task. Advisor: Dr. Sandra Peña		2000
2. Jocelyn Montalvo: Interaction between opioids and estrous cyclicity during cocaine-induced locomotor behavior. Advisor: Dr. Annabell Segarra		2002

3. Marcelo Febo: Modulation of locomotor reactivity to cocaine by estrogen and opioids.
Advisor: Dr. Annabell Segarra 2002
4. Ricardo Chiesa: The molecular characterization of Emotional Memory in Rodents.
Advisor: Dr. Sandra Peña 2002
5. Yolanda Robles: Rat Hippocampal Gene Expression in Spatial Learning
Advisor: Dr. Sandra Peña 2003
6. Karen Tossas: Tubulin expression during the regeneration of the gastrointestinal tract and the radial nerve of the sea cucumber *Holothuria glaberrima*.
Advisor: Dr. José E. García 2010
7. Jorge González: Effects of Toremifene on the Vascular function of ovariectomized rats.
Advisor: Dr. María Crespo 2003
8. Melissa Colón: Possible role of the gene encoding terminal deoxynucleotidyl transferase in learning and memory.
Advisor: Dr. Sandra Peña 2005
9. Anita Rivera: Effects of Heat Stress on Physiological Function in Young and Adult Individuals
Advisor: Dr. Guido Santacana 2004
10. Luis Vidal: Neuropeptide Y expression in the circadian system of diurnal rodent, the 13-lined ground squirrel *Spermophilus tridecem lineatus*: an anatomical and molecular biology approach.
Advisor: Dr. Nidza Lugo 2003
11. Lillian Cruz: Role of EphA4 in the Neurodegenerative Process after SCI
Advisor: Jorge D. Miranda 2005
12. Johnny Figueroa: Role of EphA7 after spinal cord trauma
Advisor: Jorge D. Miranda 2005
13. Laurivette Mosquera: Estrogen as Neuroprotective agent after SCI
Advisor: Jorge D. Miranda 2012
14. Ana Rodríguez: Role of Purinergic Receptors after spinal cord injury
Advisor: Jorge D. Miranda 2011
15. José Santiago: Expression Profile of Flotilin-2 after SCI
Advisor: Jorge D. Miranda 2011
16. Luz Arocho: Role of EphrinA1 after SCI
Advisor: Jorge D. Miranda 2011
17. Odrick Rosas: Cellular mechanism of Eph activation after SCI 2012
Advisor: Jorge D. Miranda 2011
18. Carmelo Cardona: Roles of HPS1 variants in Biogenesis of Lysosomes
Advisor: Dra. Carmen Cadilla 2008
19. Michelle Burgos: Role of Nucleotide Rec. in Injury-Activated Astrocytes
Advisor: Dr. Fernando González 2006
20. Blanca L. Valle: Ectodomain Shedding of EGFR and p110 sEGFR
Advisor: Dra. Elsa Cora 2008
21. Guermarie Velázquez. 2006

- Advisor: Dr. Walter Silva
22. Jose García Colón: Patterns of Nucleotide Rec. Exp. During Differentiation
Advisor: Dr. Walter Silva 2012
 23. Kandy Velázquez
Advisor: Dr. Juan C. Jorge 2005
 24. Enrique Fuentes
Advisor: Dr. Braulio Jimenez 2011
 25. Migdalia Chevere
Advisor: Dr. Fernando Gonzalea 2009
 26. Lixmar Pereira
Advisor: Dr. Sandra Peña 2012
 27. Jorge Rodriguez
Advisor: Dr. Nuri Rodriguez 2011
 28. Lisa del Valle
Advisor: Dr. Jose Ortiz 2011
 29. Elsie Orellano
Advisor: Dr. Fernando Gonzalez 2010
 30. Raissa Menendez
Advisor: Dr. Annabell Segarra 2011
 31. Natasha Lugo
Advisor: Dr. Annabell Segarra 2009
 32. Nildris Cruz
Advisor: Dr. Maria J. Crespo 2014
 33. Karina Acevedo
Advisor: Dr. Carlos Torres 2009
 34. Ivan Santos: Effect of exercise in memory consolidation
Advisor: Dr. Sandra Peña 2012
 35. Liz Valle: Identification & Characterization of a Calcium/Calmodulin
Protein Kinase Gene in *Sporothrix schenckii* 2006
 36. Hector Franco 2011
Advisor: Dr. Carmen Cadilla
 37. José Quidgley 2014
Advisor: Dr. Maria J. Crespo
 38. Edgardo Castro 2014
Advisor: Dr. Sandra Peña
 39. Maria I. De Jesus 2012
Advisor: Dr. Nivia Perez
 40. Bermery Santos 2010-present
Advisor: Dr. Carlos Jimenez
 41. Maria Velez 2012
Advisor: Dr. Carlos Jimenez
 42. Francisco Arencibia 2013
Advisor: Dr. Carlos Jimenez
 43. Ana Vacquer 2014-present

Advisor: Dr. Carlos Jimenez	
44. Yaria Arroyo	2014
Advisor: Dr. Carlos Torres	
45. Iris Salgado	2012
Advisor: Dr. Walter Silva	
46. Amarilis Morales	2014
Advisor: Dr. Carmen Maldonado	
47. Samir Bello	2010-present
Advisor: Dr. José E. Garcia Arraras	
48. Namyr Martinez	2010-present
Advisor: Dr. Walter Silva	
49. Carolina Vazquez	2013
Advisor: Dr. Carlos Jimenez	
50. Jeanmarie Acevedo	2012-present
Advisor: Dr. Manuel Diaz	
51. Carmelo Orengo	2012-present
Advisor: Dr. Carmen Cadilla	
52. Mildred Duprey	2013-present
Advisor: Dr. Rosa Blanco	
53. Stephanie Palacios	2015
Advisor: Dr. Steve Treistman	
54. Rebeca Nuñez	2013-present
Advisor: Dr. Nelson Escobales	
55. Coriness Piñeyro	2014-present
Advisor: Nivia Pérez	

Present graduate students under my supervision:

- 1) Jennifer Colon: 2012-present
- 2) Nilmary Grafals: 2013-present

Postdoctoral Fellows under my supervision:

- 1) Dr. Margarita Irizarry: 2000-2002
- 2) Dr. Iris Salgado: 2013-present

Training of Medical and Undergraduate students:

- 1) Ariel Vera: Medical Student (2009-2010)
- 2) Monica Grafals: Medical Student (2000-2002)
- 3) Kathia Alejandro: Medical Student (1999-2000)
- 4) Alex Rosa: UPR-Rio Piedras (1999-2000)
- 5) Hildamary Diaz: UPR-Rio Piedras (1999-2001)
- 6) Adolfo Fernandez: UPR-Rio Piedras (2000-2001)
- 7) Juan J. Diaz: UPR-Rio Piedras (2000-2001)
- 8) Juoaquin Sole: UPR-Rio Piedras (2000-2001)
- 9) Jose J. Diaz: UPR-Rio Piedras (2001-2002)
- 10) Aranza Torrado: UPR-Rio Piedras (2001-2003)
- 11) Anayra Tua: UPR-Rio Piedras (2002-2003)

- 12) Jackelin Aquino: UPR-Rio Piedras (2002-2004)
- 13) Suldelka Cabrera: UPR-Arecibo (2002-2003)
- 14) Jessica Torres: UPR-Bayamon (2003-2004)
- 15) Glorimar Rivera: UPR-Rio Piedras (2003-2004)
- 16) Cristina Ortiz: UPR-Rio Piedras (2003-2004)
- 17) Monica Rivera: UPR-Bayamon (2005-2006)
- 18) Maria Gonzalez: UPR-Rio Piedras (2007-2008)
- 19) Franchesca Konig-Toro: UPR-Rio Piedras (2009-2010)
- 20) Monica Cruz: UPR-Carolina (2013)
- 21) Ambar Cajiga (09/2013-present)

BIBLIOGRAPHY

PLEASE LIST BOOKS FIRST, THEN FULL ARTICLES AND LAST, THE ABSTRACTS

Peer Reviewed Manuscripts:

- Mosquera L, Arocho L, Torrado A, Torres Y, Miranda JD and Segarra AC (2014) Comparison of two methods of estradiol replacement: their physiological and behavioral outcomes. (*Manuscript submitted to the Journal of Neuroendocrinology*).
- Salgado IK, Torrado AI, Santiago JM, Miranda JD (2014) Tamoxifen and Src kinase inhibitors as neuroprotective/neuroregenerative drugs after spinal cord injury. (*Manuscript in revision after submission to Neural Regeneration Research*)
- Rosas OR, Santiago JM, Torrado AI, Rodriguez AE, Salgado IK, Miranda JD (2014) Inhibition of Src kinase after spinal cord injury resulted in functional locomotor recovery and increased spared tissue. *Neurochemistry International* (Accepted in: *Neural Regeneration Research*)
- Mosquera L, Colón JM, Santiago JM, Torrado AI, Melendez M, Segarra AC, Rodriguez-Orengo, JF, Miranda JD (2014) Tamoxifen and estradiol improved locomotor function and increased spared tissue in rats after spinal cord injury: their antioxidant effect and role of estrogen receptor alpha. *Brain Research*. March 15 (Epub ahead of print). PMID: 24637260; PMC4046634
- Santos-Vera B, Vázquez-Torres R, Marrero HG, Acevedo JM, Arencibia-Albite F, Vélez-Hernández ME, Miranda JD, Jiménez-Rivera CA. (2013) Cocaine sensitization increases I h current channel subunit 2 (HCN₂) protein expression in structures of the mesocorticolimbic system. *J Mol Neurosci*. 50(1):234-45. PMID: 23203153; PMC3742011
- Santiago JM, Torrado AI, Arocho LC, Rosas OR, Rodríguez AE, Toro FK, Salgado IK, Torres YA, Silva WI, Miranda JD. (2013) Expression Profile of Flotillin-2 and Its Pathophysiological Role After Spinal Cord Injury. *J. Mol. Neurosci*. 49(2): 347-59. PMID: 22878913; PMC3545048
- Figueroa JD, Cordero K, Baldeosingh K, Torrado AI, Walker RL, Miranda JD, and De Leon M (2011) Docosahexaenoic Acid Pretreatment Confers Protection and Functional Improvements after Acute Spinal Cord Injury in Adult Rats. *J Neurotrauma* . 29(3), 551-66. PMID: 21970623; PMC3278822
- Rodriguez-Zayas AE, Torrado AI, Rosas OR, Santiago JM, Figueroa JD and Miranda JD (2011) Blockade of P2 Nucleotide Receptors After Spinal Cord Injury Reduced the Gliotic Response and Spared Tissue. *J. Mol. Neurosci*. 46(1), 167-176. PMID: 21647706; PMC3522077

- Arocho LC, Figueroa JD, Torrado AI, Santiago JM, Vera AE and Miranda JD (2011) Expression Profile and Role of EphrinA1 Ligand After Spinal Cord Injury. *Cell Mol. Neurobiology*. 31(7), 1057-1069. PMID: 21603973; PMC3216482
- Odrick R, Figueroa JD, Torrado A, Rivera M, Konig-Toro F and Miranda JD (2011) Expression and activation of Ephexin Expression is altered after spinal cord injury. *Developmental Neurobiology*. 71(7): 595-607. PMID: 20949525; PMC3514508
- Rodríguez-Zayas A, Torrado A, Miranda JD (2010) P2Y₂ Receptor Expression is Altered in Rats after Spinal Cord Injury. *International J. of Devel. Neurosci. Int. Journal of Developmental Neurosci.* 28(6), 413-21. PMID: 20619335; PMC3225399
- Santiago JM, Rosas O, Torrado AI, González MM, Kalyan-Masih PO, and Miranda JD (2009) Molecular, Anatomical, Physiological and Behavioral studies of rats treated with Buprenorphine. *J. Neurotrauma*. 26 (10), 1783-1793. PMID: 19653810; PMC2864459
- Cruz-Orengo L, Figueroa JD, Torrado A, Puig A, Whittemore SR and Miranda JD (2007) Reduction of EphA4 receptor expression after spinal cord injury does not induce axonal regeneration or return of tcMMEP response. *Neuroscience Letters*. 418(1), 49-54. PMID: 17418490; PMC2570091
- Willson CA, Foster RD, Onifer SM and Whittemore SR and Miranda JD (2006) EphB3 receptor and ligand expression in the adult rat CNS. *J. Mol. Histol.* 37(8-9), p.369-380. PMID 17103029
- Cruz-Orengo L, Velázquez I, Torrado A, Ortiz C, Hernández C, Puig A, Segarra A, Whittemore SR and Miranda JD (2006) Blocking EphA4 upregulation after spinal cord injury results in enhanced chronic pain. *Experimental Neurology*. 202, p.421-433. PMID: 16959251
- Figueroa JD, Benton R, Willson CA, Velázquez I, Torrado A, Ortiz C, Whittemore SR and Miranda JD (2006) Inhibition of EphA7 Upregulation after spinal cord injury reduces Apoptosis and Promotes Locomotor Recovery. *J. Neurosci. Res.* 84(7), p. 1438-51. PMID: 16983667
- Irizarry-Ramírez M, Willson CA, Cruz L, Figueroa JD, Velázquez I, Jones H, Foster R, Whittemore SR and Miranda JD (2005) Upregulation of EphA3 Receptors After Spinal Cord Injury. *J. of Neurotrauma* 22(8), p.929-935. PMID: 16083359
- Silva WI, Maldonado HM, Velázquez G, Rubio-Dávila M, Miranda JD, Aquino E, Mayol N, Cruz-Torres A and Salgado-Villanueva IK (2005) Caveolin isoforms expression during differentiation of C6 glioma cells. *Internat. J. of Developmental Neuroscience* 23, p. 599-612. PMID: 16135403
- Willson CA, Miranda JD, Foster RD, Onifer SM and Whittemore SR (2003) Transection of the adult rat spinal cord up-regulates EphB3 receptor and ligand expression. *Cell Transplantation* 12(3), p. 279-290. PMID: 12797382
- Willson CA, Irizarry-Ramírez M, Gaskins HE, Cruz-Orengo L, Figueroa JD, Whittemore SR and Miranda JD (2002) Upregulation of EphA Receptor Expression in the Injured Adult spinal Cord. *Cell Transplantation* 11(3): p.229-239. PMID: 12075988
- Miranda JD, White LA, Willson CA, Marcillo A, Jaggid J and Whittemore SR. (1999) Induction of Eph B3 after spinal cord injury. *Exp.Neurol.* 156, p.218. PMID: 10192794
- Miranda JD, Sin-Chieh L, Díaz ME and Barnes EM, Jr. (1997) Developmental Expression of Chick GABA_A Receptor $\alpha 1$ subunit *in vivo* and *in vitro*. *Dev. Brain Res.* 99, p.176-186.

Miranda JD and Barnes EM, Jr. (1997) Repression of GABA_A Receptor $\alpha 1$ Polypeptide Biosynthesis Requires Chronic Agonist Exposure. *J. Biol. Chem.* 272 (26), p.16288-16294.

Renaud FL, Chiesa R, De Jesús JM, Lopez A, Miranda JD and Tomassini N. (1991) Hormones and Signal transduction in Protozoa. *Comp. Biochem. Physiol.* **100A** (1), p. 41-45.

Non-Peer review Communications:

- 1) Miranda JD. Puerto Rico Physiological Society (PRPS) Annual Meeting Report (2013) *The Physiologist*. vol. 56, No. 4, p. 95-97.
- 2) Miranda JD. Puerto Rico Physiological Society Newsletters: July 2012 and May 2013
- 3) Sosa M, Miranda JD, Perez-Acevedo N, Santos Quiñones L, Prado Otero J (2014) Las Ciencias Biomédicas en la Escuela de Medicina de la UPR. Buhiti (Publicacion de la Escuela de Medicina de la UPR). Vol. 18, No. 3, pag. 2
- 4) Cadilla CL and Miranda JD (2014) History, Impact, Achievements and Future Directions of the UPR Medical Sciences Campus MBR RISE Program. Buhiti (Publicacion de la Escuela de Medicina de la UPR). Vol. 18, No. 3, pag. 48

Manuscripts in preparation:

- 1) Colon JM, Cajigas A, Torrado AI, Santiago JM, Salgado IK, Grafals N and Miranda JD (2015) Long-term beneficial effect of Tamoxifen in locomotor recovery, spared tissue and gliotic response after spinal cord injury. (Will be submitted to Neurophatology and Experimental Neurology).
- 2) Cruz N, Quidgley J, Miranda JD and Crespo MJ. (2015) Expression profile of ACE and NO synthase in the aorta of young Syrian Cardiomyopathic Hamsters.
- 3) Figueroa JD, Serrano-Illan M, Licero J, Cordero K, Miranda JD and De Leon M. (2015) Expression and roles of the lipid chaperone, FABP5, in the restorative actions mediated by docosahexaenoic acid (DHA) following experimental spinal cord injury. (Will be submitted to American Society for Neurochemistry Open Access: ASN Neuro).
- 4) Martínez N, Ayala AM, Martínez M, Martínez M, Quiñones M, Miranda JD, Silva WI (2015) Caveolin-1 Regulates P2Y₂ Receptor Signaling in Human 1321N1 Astrocytoma Cells. Submitted to Journal of Biological Chemistry and will be resubmitted with the new experiments suggested by the reviewers.

Abstracts (local, national and/or international meetings):

- 1) Miranda JD, White LA, Willson CA, Marcillo A., Jagid J. and Whittemore SR. (1998) Role of Eph Receptor Protein Tyrosine Kinase after Spinal Cord Injury. Abstract Society of Neuroscience. 24,(1).
- 2) Whittemore SR, Miranda JD, White LA, Willson CA, Marcillo A and Jagid J (1998) Altered Eph B and ephrin B expression after spinal cord injury. Abstract National Neurotrauma Society.
- 3) Willson CA, Foster RD, Miranda JD, Onifer SM, Irizarry M, Cruz L and Whittemore SR. (2000) Role of EphB Receptor and ephrin B ligands after Spinal Cord Injury. Presentation at the Kentucky Spinal Cord and Head Injury Research Trauma (KSCHIRT) Center. [Summer 2000; Lexington, KY]

- 4) Willson CA, Foster RD, Miranda JD, Onifer SM, and Whittemore SR. (2000) Eph B3 Receptor Expression in the Spinal Cord and Supraspinal Nuclei of Spinal Cord Transected Rats. Abstract Society of Neuroscience. 26 (1), p.576
- 5) Irizarry M., Willson C, Cruz L, Foster R, Whittemore S and Miranda JD (2000) Up-regulation of EphA3 and EphA4 Receptor after spinal cord injury. Abstract Society of Cell Biology: Molecular Biology of the Cell. 11 (Suppl.), p.474A
- 6) Irizarry M., Willson C, Cruz L, Foster R, Whittemore S and Miranda JD. (2001) Spinal Cord Injury Induces the Expression of Putative Repulsive Proteins. 21st F.L. Raffucci Memorial Lecture and Surgical Research Forum. Condado Plaza Hotel, San Juan, Puerto Rico.
- 7) Whittemore SR, Willson CA, Irizarry-Ramirez M, Cruz-Orengo L, Foster RD and Miranda JD (2001) Eph and Ephrin Expression after spinal cord injury. Abstract American Society for Neural Transplantation & Repair
- 8) Irizarry-Ramírez M, Willson C A, Foster R, Gaskins H, Whittemore S and Miranda JD (2001) In adult rats the expression of EphA3, a protein tyrosine kinase receptor, is induced after spinal cord injury. Society for Neuroscience 31st Annual Meeting (368.10).
- 9) Cruz-Orengo L, Willson CA, Foster RD, Gaskins H, Whittemore SR, Miranda JD (2001) Eph A4 RPTK as Putative Inhibitory Cue after Spinal Cord Injury. Society for Neuroscience 31st Annual Meeting (368.9)
- 10) Willson CA, Irizarry-Ramírez M, Cruz-Orengo L, Foster RD, Gaskins H, Figueroa JD, Grafals M, Whittemore SR and Miranda JD.(2001) Screening for the expression of Eph and Ephrin molecules after Spinal Cord Injury in Adult Rat. Society for Neuroscience 31st Annual Meeting (368.8).
- 11) Figueroa JD, Willson CA, Gaskins H, Whittemore SR and Miranda JD (2002) Expression of EphA7 suggest roles in spinal cord injury pathophysiology. National & International Neurotrauma Societies. (P188)
- 12) Torrado AI, Túa AI, Grafals M, Gaskins H, Whittemore SR and Miranda JD (2002) Upregulation of ephrin ligands after spinal cord injury. National & International Neurotrauma Societies. (P492)
- 13) Figueroa JD, Willson CA, Gaskins H, Whittemore SR and Miranda JD (2002) An Axon Guidance Molecule and its Roles after Traumatic Spinal Cord Injury Turning Repulsion into Adhesion. Foro de Investigaciones Biomedicas UPR-School of Medicine.
- 14) Silva W, Miranda JD, Ramos Y, Irizarry T, Rodríguez S, Cruz Y, Velázquez G and Maldonado H (2002) Differential Expression of Caveolin Isoforms during C6 Astroglial Cell Differentiation. Foro de Investigaciones Biomedicas UPR-School of Medicine.
- 15) Miranda JD, Figueroa JD, Cruz L, Velázquez I, Irizarry M, Willson CA, Gaskins H, and Whittemore SR (2003) Upregulation of EphA receptors after spinal cord injury. Keystone symposia (Axonal connections: Molecular Cues for development and regeneration) 241, p.60
- 16) Cruz-Orengo L, Velázquez I, Torres-Lebrón JM, Arzola-Figueroa LE, Willson CA, Ixane, Whittemore SR, and Miranda JD (2003) Gene profile of EphA4 receptor tyrosine kinase after spinal cord injury. Molecular Biology of the Cell. Vol. 14, p.128A (#710).
- 17) Cruz-Orengo L, Velazquez I, Figueroa JD, Diaz JJ, Willson CA, Jones H, Whittemore SR and Miranda JD (2004) Spinal cord injury causes changes in EphA4 RTK expression. Society for Neuroscience. (619.18)

- 18) Figueroa JD, Santiago J, Benton R, Velázquez I, Hernandez C, Torrado A, Ortiz C, Whittemore SR and Miranda JD. (2005) Keystone symposia (Axonal connections: Molecular Cues for development and regeneration)
- 19) Cruz-Orengo L, Figueroa JD, Velazquez I, Irizarry-Ramirez M, Willson CA, Jones H, Whittemore SR and Miranda JD (2005) Expression profile of EphA receptors after spinal cord injury in adult rats. *The FASEB Journal*. 19(5), A1650
- 20) Miranda JD, Figueroa JD, Cruz-Orengo L, Velázquez I, Torrado A, Hernández C, Ortiz C and Whittemore S. (2006) Repulsive Environment After Spinal Cord Injury Is Not Always A Bad Thing. *International Society for Devel. Neuroscience*. Banff, Canada
- 21) Santiago J, Cruz A, Torrado A, Kalyan-Masih P, and Miranda JD (2006) Does Buprenorphine treatment after Spinal Cord Injury Affect Gene Expression?. *Society of Neurotrauma* (St. Louis, MO).
- 22) Mosquera L, Torrado A, Hernández C, Kalyan-Masih P, and Miranda JD (2006) Estrogen Receptors Expression after Spinal Cord Injury and their Potential Role in Neuroprotection. *Society of Neurotrauma* (St. Louis, MO).
- 23) Miranda JD, Rodríguez A, Figueroa JD¹, Torrado A, Santiago J, Kalyan-Masih P, Hernández C, and , González F (2006) Expression Profile of P2Y₂ Purinergic Receptor After Spinal Cord Injury. *Society for Neuroscience* (Atlanta, GA).
- 24) Rodríguez A.E., Figueroa J.D., Torrado A., González F.A. and Miranda J.D. (2006) *Possible Role of P2Y₂ nucleotide receptor in the environment generated after injury*. 2nd ISN Special Neurochemistry Conference. Antigua, West Indies.
- 25) Santiago JM, González M M, Cruz A, Torrado A, Kalyan-Masih P, and Miranda JD (2007). The effect of Buprenorphine on the gene profile after spinal cord injury. 37th annual meeting of the Society for Neurosciences, San Diego, California.
- 26) Rosas OR, Figueroa JD, Rivera M, Torrado AI, and Miranda,JD. (2007) Up-regulation of Ephexin-mRNA expression after spinal cord injury in rats. 37th annual meeting of the Society for Neurosciences. San Diego, California.
- 27) Arocho L, Figueroa JD, Torrado A and Miranda JD (2007) Evaluation of Ephrin Ligands Expression after Spinal Cord Injury. 37th Annual Meeting of the Society for Neuroscience, San Diego, California
- 28) Vega G, Rosas OR, Santiago J, Salgado I, Rodriguez AE., Silva W, and Miranda JD (2007) Caveolin Expression after Spinal Cord Injury. *Annual Biomedical Research Conference for Minority Students (ABRCMS)*.
- 29) Rodríguez AE, Torrado A, Figueroa JD, González F and Miranda JD. (2008) Transient Increase in P2Y₂ Receptor Expression After Spinal Cord Injury in Rat Model. *Experimental Biology*. San Diego Convention Center. San Diego, CA.
- 30) Santiago JM, Torrado AI, Salgado IK, Silva WI and Miranda JD. (2008). Flotillin-2 expression profile after spinal cord injury. *Beijing Joint Conference of Physiological Sciences Physiology in medicine: Bridging Bench and Bedside*.
- 31) Rosas OR, Figueroa JD, Rivera M, Torrado AI, and Miranda,JD. (2008) Ephexin Expression is transiently Increased at 2 Days after Spinal Cord Injury in Rats. *Beijing Joint Conferences of Physiological Societies*". Beijing, China.
- 32) O Rosas; J Figueroa; A Torrado; J Miranda. (June-09) Moderate contusion to the spinal cord increased ephexin expression and its phosphorylation (P288). *Society for Neurotrauma*. Las Vegas.
- 33) J. D. FIGUEROA^{1,2}, R. L. WALKER, III¹, L. BU¹, J. D. MIRANDA³, M. DE LEON^{1,2}

- (2009) Docosahexaenoic acid confers neuroprotection, prevents demyelination, and reduce functional deficits after traumatic spinal cord injury. Society for Neuroscience. Chicago.
- 34) José M. Santiago, Aranza I. Torrado, Iris K. Salgado, Walter I. Silva, and Jorge D. Miranda. (2009). *Flotillin-2 expression profile after spinal cord injury*. Puerto Rico Neuroscience Conference. Interamerican University at Ponce. December, 2009.
 - 35) Ana E. Rodríguez-Zayas, Aranza Torrado, and Jorge Miranda (2009) *P2Y₂ Receptor Expression is Transiently Increased in Rats After Spinal Cord Injury*. Puerto Rico Neuroscience Conference, Interamerican University; Ponce, PR.
 - 36) Santiago JM, Torrado AI, Salgado IK, König F, Silva WI and Miranda JD (2011) Expression profile of flotillin-2 and its pathophysiological role after spinal cord injury. FASEB J. 25: 857.2 (D566)
 - 37) Rosas OR, Torrado AI, Rodríguez AE, Santiago JM and Miranda JD (2011) Blockade of Ephexin phosphorylation with PP2 promotes locomotor activity after spinal cord injury in rats. 31st Annual Research and Education Forum. University of Puerto Rico Medical Sciences Campus. (R-267)
 - 38) Cruz N, Guidgley J, García JM, Méndez C, Beaton D, Meléndez G, Escobales N, Miranda JD, Altieri PI and Crespo MJ (2011) Vascular eNOS and iNOS Expression is Altered in Young Syrian Cardiomyopathic Hamsters. FASEB J (March 17) 25:1099.5
 - 39) García J, Cruz N, Guidgley J, Escobales N, Miranda J, Altieri P and Crespo MJ (2011) *Vascular eNOS and iNOS Expression is Altered in Young Syrian Cardiomyopathic Hamsters*. 31st Annual Research and Education Forum. University of Puerto Rico Medical Sciences Campus.(R-192)
 - 40) Santos-Vera B, Ramos Acevedo JM, García Marrero HG, Vázquez Torres R, Miranda JD and Jiménez C (2011) Hyperpolarization-activated cyclic nucleotide gated channel subunits expression in the Mesocorticolimbic System after Cocaine Sensitization. 31st Annual Research and Education Forum. University of Puerto Rico Medical Sciences Campus. (R-051)
 - 41) Martínez NA, Ayala AM, Martínez M, Miranda JD, Silva WI. “Caveolin-1 & the P2Y₂Rs’ Anti-Apoptotic Actions During Mechanical Injury”. Poster presentation, MBRS-RISE Retreat 2012, May 6th 2012, Rincón, PR.
 - 42) Martínez NA, Ayala AM, Martínez M, Miranda JD, Silva WI. “Expression of Membrane Raft-Associated Proteins During Mechanical Injury of 1321N1 Human Astrocytoma Cells”. Poster presentation, Experimental Biology 2012, April 25th 2012, San Diego, CA.
 - 43) Martínez NA, Ayala AM, Martínez M, Miranda JD, Silva WI. “Caveolin-1 & the P2Y₂Rs’ Anti-Apoptotic Actions During Mechanical Injury”. 2nd Annual Puerto Rico Physiological Society Meeting, March 2012, Ponce School of Medicine, Ponce, PR. Obtained First Place Award – Poster Presentation.
 - 44) Cruz N, Guidgley J, García JM, Torres GM, Escobales N, Miranda JD, Altieri PI, and Crespo, MJ. Developmental time-course of vascular RNA expression and protein levels for ACE, eNOS and iNOS in young Syrian cardiomyopathic hamsters. Experimental Biology 2012, San Diego, CA. FASEB J March 29, 2012 26:1093.12.
 - 45) Jennifer Marie Colon, Laurivette Mosquera, José M Santiago, Aranza Torrado, Margarita

Melendez, Annabell C. Segarra, José Rodríguez-Orengo, Jorge D. Miranda. *Estradiol and Tamoxifen Produce Acute and Chronic Neuroprotective Effects after Spinal Cord Injury*. *Experimental Biology* 2013, Boston MA, April 20-24, 2013,

46) Jennifer Marie Colon, Laurivette Mosquera, José M Santiago, Aranza Torrado, Margarita Melendez, Annabell C. Segarra, José Rodríguez-Orengo, Jorge D. Miranda. *Analysis of Estrogen Receptor Alpha after Spinal Cord Injury and its possible role in neuroprotection* 33rd Annual Research Education and Forum, UPR School of Medicine, March 13-15, 2013

47) Jennifer Marie Colon, Laurivette Mosquera, José M Santiago, Aranza Torrado, Margarita Melendez, Annabell C. Segarra, José Rodríguez-Orengo, Jorge D. Miranda. *Estradiol and Tamoxifen produces acute and chronic neuroprotective effects after Spinal Cord injury* . PR Physiological Society, UPR, San Juan, February, 8, 2013

48) Laurivette Mosquera, Jose M. Santiago, Aranza Torrado, Jennifer M. Colón, Margarita Meléndez, Annabell C. Segarra, José Rodríguez Orengo and Jorge D. Miranda. *17β-Estradiol and Tamoxifen Administration Offers Neuroprotection and functional locomotor recovery after Spinal Cord Injury* PR Neuroscience, San Juan, December, 1, 2012

49) Martínez NA, Ayala AM, Martínez M, Quiñones M, Miranda JD, Silva WI. "Caveolin-1 Supports the P2Y₂ Receptor Signaling". Poster presentation, Experimental Biology 2013, April 2013, Boston, MA. (The FASEB Journal. 2013;27:729.5)

50) Martínez NA, Ayala AM, Martínez M, Quiñones M, Miranda JD, Silva WI. "Caveolin-1 Supports the P2Y₂ Receptor Signaling". Oral presentation, 33rd Annual Research and Education Forum, University of Puerto Rico, Medical Sciences Campus, San Juan, PR.

51) Martínez NA, Ayala AM, Martínez M, Quiñones M, Miranda JD, Silva WI. "Caveolin-1 Supports the P2Y₂ Receptor Signaling". Poster presentation, 3rd Annual Puerto Rico Physiological Society Meeting, February 2013, University of Puerto Rico, San Juan, PR.

52) Martínez NA, Ayala AM, Martínez M, Quiñones M, Miranda JD, Silva WI. "Caveolin-1 Supports the P2Y₂ Receptor Signaling". Poster presentation, 21st PR Neuroscience Conference, UPR-Río Piedras Campus, December 1st 2012, San Juan, PR.

53) Nildris Cruz, Jose Quidgley, Laurianne El Musa, Juan Garcia, Giselle Torres, Jorge Miranda, and Maria J Crespo. Increased ACE Expression and iNOS Protein Levels in the Aorta of 2-month-old Syrian Cardiomyopathic Hamsters. *FASEB J April 9, 2013 27:1165.6*

54) Jorge D. Miranda. The neuroprotective role of estradiol after spinal cord injury in adult rats. University of Puerto Rico, Cayey Campus. **Seminar Presentation**. November 21, 2013.

55) Jennifer M. Colón, Ámbar Cajigas, José M Santiago, Aranza Torrado, Iris K. Salgado, Nilmary Grafals, Mónica Cruz, Jorge D. Miranda · Comparative Evaluation of Estradiol and Tamoxifen neuroprotective effects during Chronic Spinal Cord Injury. Puerto Rico Neuroscience Conference (December 2013)

56) Jennifer Marie Colón, Ámbar Cajigas, José M Santiago, Aranza Torrado, Iris K. Salgado, Nilmary Grafals, Mónica Cruz, Jorge D. Miranda. Tamoxifen Treatment Improves Locomotion and Vestibular Function during Chronic Spinal Cord Injury. Puerto Rico Physiological Conference (February 2014)

57) Jennifer M. Colón, Ámbar Cajigas, José M Santiago, Aranza Torrado, Iris K. Salgado, Nilmary Grafals, Mónica Cruz, Jorge D. Miranda. Tamoxifen Neuroprotective effects during Chronic Spinal Cord Injury. Foro del Recinto de Ciencias Médicas (Marzo 2014).

58) Cruz N, Quidgley J, Dorna L, Miranda JD, and Crespo, MJ. ACE and iNOS Overexpression Correlates with Vascular Reactivity in Young Syrian Cardiomyopathic Hamsters FASEB J. (April 2014).

59) Jorge D. Miranda. Estradiol and Tamoxifen as neuroprotective agents after spinal cord injury. University of Puerto Rico, Rio Piedras Campus. **Seminar Presentation**. October 17, 2014.

Additional abstracts (oral & poster) were presented in local and national meetings: PR Neuroscience Conference, PR Physiological Meeting, SNRP/COBRE meeting, Foro de Investigación y Educación del Recinto de Ciencias Médicas and SNRP meetings (Hawaii and Tennessee).

PARTICIPATION IN PROJECTS, PROGRAMS, GRANTS, CONTRACTS (Title of Project, position held, dates, sources, and amount of funding if known)

1. Expression profile of EphA and Ephrins A ligands after Spinal Cord Injury, PI of subproject #2, 1999-2004, NINDS, Total direct costs for entire proposed project period: \$1,519,370
2. Expression of EphrinsB proteins after spinal cord injury, PI of subproject #12, 2000-2004, NIH/MBRS/SCORE, Total direct cost for entire proposed pilot project period: \$102,832
3. Analysis of EphB protein expression during axonal regeneration in adult rats. PI, 1999-2002, NSF/EPSCOR, Total amount of research funds: \$149,978
4. Axonal regeneration after EphA receptor blockade, PI of subproject #9, 2004-2008, NIGMS/MBRS, Total direct cost for entire proposed period: \$537,559
5. Role of Purinergic Receptors after spinal cord injury, PI of subproject #2, 2005-2009, NIMH/MRISP, Total direct cost for entire proposed period: \$165,435
6. Interdisciplinary Biomedical Research Seminar Series (IBRSS), Coordinator of activity #3, 2004-2008, NIGMS/RISE, Total direct cost for entire proposed period: \$48,000
7. Interdisciplinary Biomedical Research Seminar Series (IBRSS), Coordinator of activity #3, 2008-2012, NIGMS/RISE, Total direct cost for entire proposed period: \$80,000

8. Estradiol and Tamoxifen as neuroprotective/neuroregenerative agents after spinal cord injury, PI of subproject #1, 2013-2018, NIMH, Total direct costs for entire proposed period: \$878,823

Submitted but not granted:

- 1) Department of Defense Dr. Jorge D. Miranda 08/01/10-07/31/13
Spinal Cord Injury Program Role: PI 15% Effort (Total Direct Cost: \$450,000)
- 2) MBRS/SCORE-SC3 Dr. Jorge D. Miranda (PI) 08/01/10-07/31/14
NIH/NIGMS Role: Principal Investigator 15% Effort (Total Direct Cost: \$300,000)

LANGUAGES (Includes native language, other and level of command)

COMMAND OF LANGUAGES
Indicate level with number

	<u>SPEAKING</u>	<u>WRITING</u>	<u>COMPREHENSION</u>
SPANISH	1	1	1
ENGLISH	1	1	1
OTHER			
1. GOOD	2. FAIR	3. A LITTLE	4. NOT AT ALL

REFERENCES (List name and address of three persons who have knowlegde of your qualifications)

1. Dr. Nelson Escobales: Chair, Physiology Department, UPR School of Medicine, PO Box 365067, San Juan PR 00936
2. Dr. Annabell Segarra: Professor, Physiology Dept., UPR School of Medicine, PO Box 365067, San Juan PR 00936
3. Dr. Guido Santacana: Professor and Associate Dean of Medicine, Physiology Dept., UPR School of Medicine, PO Box 365067, San Juan PR 00936
4. Dr. Walter Silva: Associate Dean Division of Biomedical Science, UPR School of Medicine, PO Box 365067, San Juan PR 00936
5. Dr. Carmen Cadilla: Professor, Biochemistry Department, UPR School of Medicine, PO Box 365067, San Juan PR 00936

December 23, 2014



DATE

SIGNATURE

DECLARATION

I hereby declare that the facts set forth on this Curriculum Vitae are true and complete to the best of my knowledge and by no means had been made an act of deceiving or misrepresenting.

You are hereby authorized to make any investigation of my personal history.



Signature

December 23, 2014

Date