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

NAME	Jorge D. Miranda	SEX	Male
DATE OF BIRTH	1965	HOME ADDRESS	Cond. Parque de Loyola
PLACE OF BIRTH	PR		600 Ave. Jesus T. Piñeiro
MARITAL STATUS	Married		
CHILDREN	2	TELEPHONE (HOME)	
OFFICE ADDRESS	UPR-School of Medicine	SOCIAL SECURITY NO.	xxx-xx-xxxx
Principal Bld., 6th floor, Rm. A-682, Physiol.		TELEPHONE (OFFICE)	758-2525 x1631

EDUCATION AND DEGREES (CHRONOLOGICAL ORDER)

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

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

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

PROFESSIONAL EXPERIENCE

EMPLOYER	POSITION HELD	DATES
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. Technol. College of 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)

RANKS	**INSTITUTION**	**DATE**
1. Assistant Professor	UPR-School of Medicine	1999- 2003
2. Associate Professor (Tenure-2006)	UPR-School of Medicine	2003-2011
3. Professor	UPR-School of Medicine	2012-present

OTHER APPOINTMENTS (Administrative, Consultative, Others)

	TITLE	**DATE**
1. Intercampus Graduate Program	UPR-RCM representative	2002-2006
2. Physiology Department	Departmental Coordinator	2001-2005
3. Biomedical Graduate Program	Graduate Coordinator	2006-2010
4. Deanship of Biomedical Sciences	Associate Dean	2010-2013
5. Puerto Rico Neuroscience Chapter	Vice-President	2006
6. Puerto Rico Neuroscience Chapter	President	2007
7. Training Program U54 Partners for Excellence in Cancer Research	Liason (UPR-Sch. of Medicine & MD Anderson Cancer Ctr.	2007-2010
8. Human Physiology Course (Medical Students)	Coordinator	2008-2010
9. Human Physiology Course (Dental Students)	Coordinator	2010-2012
10. Vertebrate Physiology I Course (Graduate Students)	Coordinator	2012-2015
11. Puerto Rico Physiological Society	Vice-President	2011
12. Puerto Rico Physiological Society	President	2012
13. Adjunct Professor Selection Committee	Chair	2010-2013
14. Bailey K. Ashford Selection Committee	Chair	2010-2013
15. Neural Regeneration Research	Reviewer	2015-present
16. PR Health Science Journal	Ad-Hoc Reviewer	2007

17. Neurological Research	Ad-hoc reviewer	2008-present
18. Neuroscience	Ad-hoc reviewer	2008-present
19. Brain Research	Ad-hoc reviewer	2008-present
20. Molecular and Cellular Endocrinology	Ad-hoc reviewer	2008-present
21. Molecular Neurobiology	Ad-hoc reviewer	2018-present
22. Journal of Neurotrauma	Ad-hoc reviewer	2017-present
23. Neurochemical Research	Ad-hoc reviewer	2019-present
24. Physiology Department	Departmental Coordinator	2019-present

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

NAME	**ADMINISTRATIVE POSITION**	**DATE**
1. Society for Neuroscience	-	1996- present
2. Society for Neurotrauma	-	2000- present
3. Inter. Soc. for Developmental Neuroscience	-	2000- 2008
4. American Physiological Society	-	2011-2014
5. Puerto Rico Neuroscience Society	2006-Vice President 2007-President	1999-present
6. Puerto Rico Physiological Society	2011-Vice President 2012-President	2010-present

HONORS AND AWARDS

1. Distinguished Faculty, Physiology Department, UPR -Biomedical Graduate Program, 2019
2. Distinguished Faculty, Physiology Department, UPR – Biomedical Graduate Program, 2013-2015
3. Distinguished Faculty, UPR-School of Medicine – Class of Medicine, 2013
4. Distinguished Faculty, Physiology Department, UPR - Biomedical Graduate Program, 2012
5. Distinguished Faculty, UPR-School of Medicine – Class of Medicine, 2012
6. Distinguished Faculty, UPR-Sch. of Medicine – Class of Graduate Students, 2012
7. Distinguished Faculty, Physiology Department, UPR -Biomedical Graduate Program, 2010-2011
8. Distinguished Faculty, Physiology Department, UPR- Biomedical Graduate Program, 2008
9. Alumni Achievement Award of Diversity Program in Neuroscience (Atlanta, GA), 2006
10. Distinguished Faculty, Physiology Department, UPR -Biomedical Graduate Program, 2003-2005
11. Distinguished Faculty - UPR Medical Sciences Campus - XIII Premiación Betanciana – 2002
12. Member of Sigma Xi (International Honor Society of Scientific & Engineering Research)- 2002
13. F32 Postdoctoral Fellowship (NIH-NINDS: #NS10304)), 1997-1998
14. Research Supplement for Minorities (NIH-NINDS: #NS26887), 1996-1997

15. American Psychological Association Fellowship, 1995-96
16. MARC Predoctoral Fellowship (NIGMS), 1990-95
17. Dean's Award for Excellence - Baylor College of Medicine, 1992-1996
18. Honorable Mention Award of the Ford Foundation Predoctoral Fellowships,1990
19. Distinguished Student - UPR Rio Piedras, 1988
20. Honor Certificate (Office of the Dean of Students) - UPR Rio Piedras, 1988

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21. Awards as co-author from my graduate and undergraduate students:
    Award for Poster Presentation at the Puerto Rico Physiological Society – 2017
    Award for Poster Presentation at the Puerto Rico Physiological Society – 2016
    Award for Poster Presentation at the Puerto Rico Neuroscience Conference – 2015
    Award for Poster Presentation at the RCM "Foro de Investigacion y Educacion" – 2015
    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
    Poster Presentation Selected in the American Physiological Society for Press Release-2005
    Award for Poster Presentation from the AAAS - 2003

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

Name of Institution	Level	Academic Discipline	Dates
School of Medicine (Students in Medical School)			
1. UPR Medical Sciences Campus	Medicine [L]	Biochemistry of Ion Channels	2017-present
2. UPR Medical Sciences Campus	Medicine [L]	Small Group Discussions	2001-present
3. UPR Medical Sciences Campus	Medicine [L]	Genes & Behavior	2001-02
4. UPR Medical Sciences Campus	Medicine [L]	Mechanism of Hormone Action	2006-2014
School of Dental Medicine (Students in Dental School)			
1. UPR Medical Sciences Campus	Dental [L]	Somatosensory System	2004-present
2. UPR Medical Sciences Campus	Dental [L]	Cell Membrane and Protein Transport	2006-present
3. UPR Medical Sciences Campus	Dental [L]	Signal Transduction	2004-present
4. UPR School of Medicine	Dental [L]	Muscle Physiology	2001 & -02

Graduate Program in Biomedical Sciences at UPR Medical Sciences Campus (Students in the Physiology and Biochemistry Graduate Programs)			
1. UPR Medical Sciences Campus	Graduate [C]	FISA 8525 Neurophysiology	2019
2. UPR Medical Sciences Campus	Graduate [L]	FISA 8601 → now FISA 8105 Signal Transduction	2003-present
3. UPR Medical Sciences Campus	Graduate [L]	FISA 8601 → now FISA 8215 Somatosensory System	2004-present
4. UPR Medical Sciences Campus	Graduate [L]	FISA 8540 (Cell & Mol. Physiol.: Endomembrane System	2006-present
5. UPR Medical Sciences Campus	Graduate [L]	FISA 8601 → now FISA 8105 Spinal Cord & Regeneration	2003-present
6. UPR Medical Sciences Campus	Graduate [C]	FISA 8542: Spinal Cord Injury	2002, 2007, 2012, 2014
7. UPR Medical Sciences Campus	Graduate [C]	FISA 8540: Cellular and Molecular Physiology	2000-2006
8. UPR Medical Sciences Campus	Graduate [C]	FISA 8542: Purinergic Receptor Expression	2004
9. UPR Medical Sciences Campus	Graduate [C]	CNS Regeneration (FISA 8543)	2000
10. UPR Medical Sciences Campus	Graduate [C]	FISA 8525: Introduction to Neuroscience	2000
11. UPR Medical Sciences Campus	Graduate [L]	FISA 8601: Protein Transport	2003-2015
12. UPR Medical Sciences Campus	Graduate [L]	FISA 8532: Western blot	2003- 2008
13. UPR Medical Sciences Campus	Graduate [L]	FISA 8601: Neural Development	2003-2015
14. UPR Medical Sciences Campus	Graduate [L]	FISA 8532: Cloning	2000
15. UPR Medical Sciences Campus	Graduate [L]	Reading in Molecular Biology	1999
Graduate Program at the UPR Rio Piedras Campus (Students in the Biology Graduate Program)			
1. UPR Rio Piedras Campus	Graduate [L]	Axonal Outgrowth	2001-2008
2. UPR Rio Piedras Campus	Graduate [L]	Nerve Regeneration	2002-2008
3. UPR Rio Piedras Campus	Graduate [L]	Rec. Tyrosine Kinases	2002
Undergraduate Program			

1. UPR Bayamón Campus	Undergrad. [L]	Spinal Cord Regeneration & Somatosensory System	2007
2. UPR Rio Piedras Campus	Undergrad. [C]	Biology Laboratory (Teacher Assistant)	1988-89
3. Col. Tecnológico de San Juan	Undergrad. [C]	Microbiology	1990

Graduate Courses created:

1) FISA 8540: Cellular and Molecular Physiology
2) FISA 8605: Teaching Physiology
3) FISA 8585: Doctoral Thesis Proposal Preparation in Physiology
4) FISA 8105: Basic Concepts of Human Physiology

Courses revised or re-structured:

1) FISA 8541: Problems in Physiology → Justify the course to be use for rotations
   (new description with justification to be used by students for their rotations)
2) FISA 8525: Neurophysiology → New Description, topics & 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 GABAa 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. Estradiol & Tamoxifen as Neuroprotective agents after spinal cord injury: 2005 – present

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

TITLE	**PLACE**	**DATE**
1. Weekly seminars (sponsored by Physiology &/or Biochemistry Dept.)	A-622, 6th floor amphitheater	Tuesdays/Thur. (12n)
2. Monthly Seminars (sponsored by the RISE Program)	6th floor amphitheater	Tuesdays (12n)
3. Curricular Design	UPR-RCM	10/08
4. How to prepare a course syllabus	UPR-RCM	10/08
5. How to prepare Educational Objectives	UPR-RCM	11/08
6. Effective Retro-communication	UPR-RCM	11/08

7. Excel for Grades	UPR-RCM	11/08
8. How to Design Test with Validity and Dependability	UPR-RCM	12/08
9. How to design questions for Medical students	UPR-RCM	12/08
10. Formative and Summative Assessment: Design & Implementation	UPR-RCM	12/08
11. How to use the Turning Point	UPR-RCM	09/08
12. Process of Academic Changes	UPR-RCM	09/08
13. Sexual Harassment: How to avoid it	UPR-RCM	09/08
14. Third Journey to the Life Sciences and Engineer.	UPR-RCM	2007
15. Assessment Techniques	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. Learning Styles	UPR-School of Medicine	1999
23. Integrative Model of Education	UPR-School of Medicine	2000
24. How to communicate risk situations	UPR-School of Medicine	1999
25. Radioactive Safety Workshop	UPR-School of Medicine	1999
26. Professional Portfolio	UPR-School of Medicine	1999
27. IACUC courses & workshops	UPR-School of Medicine	1999-present
28. iPad as a Learning Tool	UPR-School of Medicine	2014
29. Responsible Conduct in Research	UPR-School of Medicine	2016
30. Working with Blackboard and Exam Soft	UPR-School of Medicine	2017

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

Outreach activities to expose our research and graduate program to the community. In addition, inform students from different levels of education (elementary to high school) about a graduate training, as a future career, as a scientist:

Type	Date	Location
Brain Awareness Week (BAW)	March 2001	Plaza Las Americas Shopping Mall
Brain Awareness Week (BAW)	March 2003	Plaza Las Americas Shopping Mall
Brain Awareness Week (BAW)	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	2008-present	Activity in our campus
PhUN Week	2011	Visit several schools in PR
PhUN Week	2012	Visit several schools in PR
PhUN Week	2018	CIMATEC School, Caguas PR

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

NAME	DATE
1. Institutional Animal Care & Use Committee	2000-2006
2. Alternate Member of the IACUC	2006-present
3. Intercampus Graduate Program Committee	1999-2002
4. Advisory Committee for the Animal Resource Center	2000-2017
5. PR Neuroscience Conference: Organizing Committee	2000-2009
6. Medical Sciences Campus (MSC) Research Forum Organizing Committee	2002
7. Adhoc Committee to develop Interdepartamental Graduate Tracts	2001-2002
8. Subcommittee on Basic Sciences Dept. for the UPR-School of Medicine Accreditation	2001-2002
9. Graduate Program Committee to Develop Informative Bulletin about the research performed in our school	2001-2003

10. Graduate Committee of the School of Medicine (Biomedical Sciences)	2006-2013
11. Review Panel for Research Proposals from the RCMI-Clinical Res. Center	Oct. 2004
12. Evaluator of Abstracts submitted to the MSC Research Forum	2004-2010, 2014
13. Search Committee for a Chair for the Anatomy Department	2006
14. Teacher Assistantship Evaluation Committee (Academic Affair Deanship)	2006-2010
15. MD/PhD & MD/JD Combined Programs Committee	2007-2013
16. Educational Programming & Interactive Council(Academic Affair Deanship)	2006-2010
17. First Year Medicine Progress and Advancement Committee	2008-2010
18. Institutional Assessment Committee	2008
19. First Year Dental Medicine Progress Committee	2010-2012
20. PR Physiological Society Executive Committee	2010-2013
21. Primate Center Advisory Committee	2013-2017
22. Molecular Science Building-Animal House Facility Advisory Committee	2010-2017
23. Molecular Science Building-Neuroplasticity Center Advisory Committee	2010-2017
24. Advisor for the Graduate Student Association at the UPR-MSC	2015-2016
25. School of Medicine Adverse Decision Committee	2017-2018
26. School of Medicine Promotions 1-2 Committee	2019-present
27. School of Medicine Curricular Revision Committee	2019-present
28. Faculty/Personnel Promotions Committee	2019-present
29. Member of the Medical Science Campus Senate	2020-present
30. Member of the Medical Science Campus, Student Affairs Council	2020-present
31. Curricular Implementation Sub-committee I	2020-present
32. Adhoc Committee about EBM (Evidence Base Medicine)	2020-present

PARTICIPATION IN LOCAL, NATIONAL OR INTERNATIONAL SCIENTIFIC MEETINGS

MEETING	TITLE	PLACE HELD	DATE	PRESENTOR (YES / NO)
1. Soc. for Neurosc.	EphB3 receptor…	New Oleans	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. MSC Research Forum	An axon guidance…	UPR - Sch. of Med	2002	Yes
10. MSC Research Forum	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. MSC Research Forum	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. MSC Research Forum	P2Y1 & P2Y2 purin.	UPR-Sch. Of Med.	2004	No/coauthor
20. MSC Research Forum	Expression of EphA4	UPR-Sch. Of Med.	2004	No/coauthor
21. MSC Research Forum	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 Research Meeting		Louisville, KY	2005	No
26. MSC Research Forum	Effect of Analgesics…	UPR-Sch. Of Med.	2006	No/coauthor
27. MSC Research Forum	The Neuroprotective…	UPR-Sch. Of Med.	2006	No/coauthor
28. MSC Research Forum	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)	Why and how we study Regeneration after Spinal cord injury?	Inter/Bayamon	2006	Yes
33. Society for Neuroscien.	Expres. Profile of P2Y	Atlanta, GA	2006	Yes
34. KSCHIRT meeting		Louisville, KY	2007	No
35. Society for Neuroscien.	1) Ephrin ligands… 2) Ephexin… 3) Buprenorphine… 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
43. KSCHIRT Meeting	Effect of TAM in…	Louisville, KY	2015	No/coauthor
44. Society for Neuroscien.	Effect of TAM in male…	Chicago, IL	2015	No/coauthor
45. Society for Neuroscien.	Effect of TAM on single…	San Diego, CA	2016	No/coauthor
46. MSC-Research Forum		UPR-MSC	2014, -15, -16	
47. PR Neuroscience Conference		Puerto Rico	2011, -12, -13, 14, -15	

48. PR Physiological Society Meeting Puerto Rico 2012, -13, -14, -15, -16, -17

49. Experimental Biology Meeting Orlando, FL 2019 No/Co-author
→ two posters about PhuN Activities (exercise and departmental)

50. Meeting Association of Academic Physiatrists Orlando, FL 2020 No/Co-author

Oral Presentations:

1) SNRP Meeting	Induction of EphA…	Hawaii, USA	2003
2) Joint SNRP/COBRE	Expression of Repul.	San Juan, PR	2005
3) AAAS (Caribbean Div)	Why and how we study Regeneration after Spinal cord injury?	Inter/Bayamon	2006
4) 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

5) UPR-Humacao Campus– RISE Program April 8, 2008

6) UPR - Mayaguez Campus - November 14, 2011

7) UPR-Cayey Campus– RISE Program November 21, 2013

8) UPR-Rio Piedras Campus– RISE & MARC Programs October 20, 2014

8) Interamerican University – Tribeta Guayama Campus – March 10, 2018

9) UPR-Cayey - Asociación de Neuroboricuas March 28, 2019

10) UPR-Humacao Campus – Tribeta April 9, 2019

11) UPR-Aguadilla - 5ta Conferencia Anual del Desarrollo April 30, 2019

12) UPR-Bayamon Campus - BIOG/BHUM CESMI August 20, 2019

13) UPR-Rio Piedras Campus: RISE & MARC Programs September 6, 2019

14) UPR-Arecibo Campus First semester 2019-2020

15) La Catolica Pontificia de Ponce First semester 2019-2020

LEARNING RESOURCES AUTHORED OR CO-AUTHORED

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

THESIS, MENTORSHIP AND SPECIAL REPORTS

	TITLE	**DATE of Graduation**
1. Sandra I. Vázquez: Advisor: Dr. Sandra Peña		2000
2. Jocelyn Montalvo: Advisor: Dr. Annabell Segarra		2002
3. Marcelo Febo: Advisor: Dr. Annabell Segarra		2002
4. Ricardo Chiesa: Advisor: Dr. Sandra Peña		2002
5. Yolanda Robles: Advisor: Dr. Sandra Peña		2003
6. Karen Tossas: Advisor: Dr. José E. García		2010
7. JorgeGonzález: Advisor: Dr. María Crespo		2003
8. Melissa Colón: Advisor: Dr. Sandra Peña		2005
9. Anita Rivera: Advisor: Dr. Guido Santacana		2004
10. Luis Vidal: Advisor: Dr. Nidza Lugo		2003
11. Lillian Cruz: Advisor: **Jorge D. Miranda**		2005
12. Johnny Figueroa: Advisor: **Jorge D. Miranda**		2005
13. Laurivette Mosquera: Advisor: **Jorge D. Miranda**		2012
14. Ana Rodríguez: Advisor: **Jorge D. Miranda**		2011
15. José Santiago: Advisor: **Jorge D. Miranda**		2011
16. Luz Arocho: Advisor: **Jorge D. Miranda**	2012	
17. Odrick Rosas: Advisor: **Jorge D. Miranda**		2011
18. Carmelo Cardona: Advisor: Dra. Carmen Cadilla		2008

19. Michelle Burgos:
Advisor: Dr. Fernando González 2006
20. Blanca L. Valle:
Advisor: Dra. Elsa Cora 2008
21. Guermarie Velázquez.
Advisor: Dr. Walter Silva 2006
22. Jose García Colón:
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 Gonzalez 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:
Advisor: Dr. Sandra Peña 2012
35. Liz Valle: 2006
Advisor: Dr. Nuri Rodríguez
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. Iris Salgado 2012
Advisor: Dr. Walter Silva
41. Maria Velez 2012
Advisor: Dr. Carlos Jimenez

42. Francisco Arencibia 2013
Advisor: Dr. Carlos Jimenez
43. Carolina Vazquez 2013
Advisor: Dr. Carlos Jimenez
44. Yaria Arroyo 2014
Advisor: Dr. Carlos Torres
45. Amarilis Morales 2014
Advisor: Dr. Carmen Maldonado
46. Jeanmarie Acevedo 2015
Advisor: Dr. Manuel Diaz
47. Carmelo Orengo 2015
Advisor: Dr. Carmen Cadilla
48. Stephanie Palacios 2015
Advisor: Dr. Steve Treistman
49. Coriness Piñeyro (MS) 2015
Advisor: Nivia Pérez
50. Bermary Santos 2016
Advisor: Dr. Carlos Jimenez
51. Namyr Martinez 2016
Advisor: Dr. Walter Silva
52. Mildred Duprey 2016
Advisor: Dr. Rosa Blanco
53. Ana Vacquer 2017
Advisor: Dr. Carlos Jimenez
54. Rebeca Nuñez 2017
Advisior: Dr. Nelson Escobales
55. Jennifer Colon 2018
Advisor: **Jorge D. Miranda**
56. Adlin Rodríguez 2018
Advisor: Dr. Carlos Torres
57. Cristina Roman 2018
Advisor: Dr. Guillermo Yudowski & Co-Advisor: **Jorge D. Miranda**
58. Nilmary Grafals 2019
Advisor: Dr. Pablo Vivas & Co-Advisor: **Jorge D. Miranda**
59. Samir Bello 2019
Advisor: Dr. José E. Garcia Arraras
60. Magdiel Martinez 2020
Advisor: Dr. Walter Silva
61. Luis Colon 2019
Advisor: Dr. Martine Behra
62. Melissa Rivera Torres 2016-present
Advisor: Dr. Demetrio Sierra
63. Coriness Piñeyro 2020
Advisor: Dr. Juan C. Jorge
64. Ernesto Cabezas 2017-present
Advisor: Dr. Manuel Díaz & Co-Advisor: **Jorge D. Miranda**

65. Roberto Rodriguez 2020
Advisor: Dr. Martine Behra
66. Enrique Perez 2019
Advisor: Dr. Annabell Segarra
67. Michael Rivera 2017-present
Advisor: Dr. Suranghani Dharwandani
68. Marie Roman 2017-present
Advisor: Dr. Maria Crespo
69. Carmen Pérez 2018-present
Advisor: Dr. Carlos Torres
70. Carlos Rivero 2019-present
Advisor: Dr. Annabell Segarra
71. Jaime Freire 2019-present
Advisor: Dr. Annabell Segarra
71. Wickensonn Norze 2019-present
Advisor: Dr. Carmen Maldonado
72. Hector Bravo 2019
Advisor: Dr. Gregory Quirk
73. Mauricio Caceres 2018-present
Advisor: Dr. Demetrio Sierra
74. Daisy Consuegra 2019-present
Advisor: Dr. Carlos Jimenez
75. Cristhian Calo 2019-present
Advisor: Dr. Carlos Jimenez
76. Cindy López (MS Student)
Advisor: Dr. José Colón and Co-Advisor: **Dr. Jorge D. Miranda** 2019-present

Present graduate students under my supervision:

1) Ernesto Cabezas – Co-Advisor: 2013-present
2) Cindy López – Co-Advisor 2019-present

Postdoctoral Fellows under my supervision:

1) Dr. Margarita Irizarry: 1999-2001
2) Dr. José Santiago: 2012-2013
3) Dr. Yaria Arroyo: 2013-2014
4) Dr. Iris Salgado: 2013-2016

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) José J. Díaz: 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) Mónica Rivera: UPR-Bayamon	2005-2006
18) Maria Gonzalez: UPR-Rio Piedras	2007-2008
19) Franchesca Konig-Toro: UPR-Rio Piedras	2009-2010
20) Mónica Cruz: UPR-Carolina	2013
21) Ambar Cajiga	2013-2016
22) Lyanne García	2014-2015
23) Pablo González	2015-2016
24) Wanda Maldonado	2016-2017

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Colón JM, Torrado AI, Santiago JM, Salgado IK and Miranda JD (2021) Effect of Tamoxifen in mechanical allodynia is sex-specific. (*In preparation*)

Garcia-Sanchez LM, Colon-Mercado JM, Torrado-Tapias AI, Padin-Diaz K, Miranda JD and Santiago Santana JM (2021) The limited effects of estradiol administration immediately after spinal cord injury (*In preparation*)

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Colón JM, González PA, Cajigas A, Maldonado WI, Torrado AI, Santiago JM, Salgado IK and Miranda JD (2018) Continuous Tamoxifen delivery improves locomotor recovery 6 hours after spinal cord injury by neuronal and glial mechanisms in male rats. Experimental Neurology. 299, p. 109-121. https://doi.org/10.1016/j.expneurol.2017.10.006

Colon JM and Miranda JD (2016) Tamoxifen: an FDA approved drug with neuroprotective effects for spinal cord injury recovery. Neural Regeneration Research. 11(8): 1208-1211. PMID: 27651756

Cruz N, Miranda JD and Crespo MJ (2016) Modulation of Vascular ACE by Oxidative Stress in Young Syrian Cardiomyopathic Hamsters: Therapeutic Implications. Journal of Clinical Medicine. 5(7). PMID: 27420103

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2) Miranda J and McManaman J(1992) Factors required to induce neuritic process in LAN-2 cells. Second Annual Rush and Helen Record, Neuroscience Forum. Houston, Texas.
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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 Eprhin 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-Ramiréz 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 pahtophysiology. 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.
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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 JD[1], 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).

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57) Jennifer M. Colón, Ámbar Cajigas, José M Santiago, Aranza Torrado, Iris K. Salgado, Nilmary Grafals, Jorge D. Miranda. · Tamoxifen treatment promotes locomotor recovery, increases white matter spared tissue and decreases reactive gliosis after chronic Spinal Cord Injury. Society for Neuroscience Meeting, Washington, DC (November 2014)

58) Lyanne M. García, Jennifer M. Colón, Ámbar Cajigas, Aranza I. Torrado, Iris K. Salgado, José M. Santiago, Jorge D. Miranda. Estradiol administration after spinal cord injury enhances white matter spare tissue. Research Forum at the UPR-Medical Sciences Campus. (March 2015).

59) Jennifer M. Colón, Aranza Torrado, Ámbar Cajigas, José M Santiago, Iris K. Salgado, Jorge D. Miranda. Tamoxifen improves locomotor recovery after moderate spinal cord injury: Assessing the therapeutic window available in female rats. Kentucky Spinal Cord and Head Trust Research Symposium 2015.

60) Cajigas A, Colon JM, Gonzalez P, Torrado A, Santiago JM, Salgado IK and Miranda JD. (2015) Tamoxifen improves locomotor recovery in male rats after spinal cord injury and

changes the expression profile of the estrogen receptor alpha and GAP-43. ABRCMS Conference November 11-14 at the Washington State Convention Center in Seattle, WA.

61) Colón JM, Torrado AI, Santiago JM, Salgado IK, Cajigas A, Arroyo Y, Miranda JD (2015) Tamoxifen improves locomotor recovery after spinal cord injury in male and female rats: establishing a therapeutic window for this condition. Society for Neuroscience in Chicago, IL from October 17-21.

62) González PA, Colón JM, Torrado AI, Santiago JM, Salgado IK, Cajigas A, Arroyo Y, Miranda JD (2015) Effects of Tamoxifen on Secondary Damage and Regenerative Proteins after Spinal Cord Injury in Male Rats. Puerto Rico Neuroscience Conference in December 5, 2015.

63) Colón JM, González PA, Torrado AI, Santiago JM, Miranda JD (2016) Tamoxifen mediated recovery after spinal cord injury is sex and time dependent. Medical Sciences Campus Annual Research and Educational Forum.

64) Pérez A, Ayuso S, Colón J, Millán D, Rodríguez L, Rivera S, Arroyo Y, Padín K , Rosas O, Rivera J, Colon JM, Torrado AI, Salgado IK, Miranda JD and Santiago JM (2016) Amantadine administration after spinal cord injury does not enhances functional locomotor recovery in female Sprague-Dawley rats. Medical Sciences Campus Annual Research and Educational Forum.

65) Salgado IK, Rodríguez A, Torrado AI, Santiago ME, Colón JM, González P, Frontera WR, Miranda JD. (2016) Effects of Tamoxifen on single muscle fiber function and protein expression after spinal cord injury. Society for Neuroscience. San Diego, CA.

66) Colon JM, Torrado AI and Miranda JD (2017) Effects of continuous Tamoxifen treatment in mechanical allodynia after spinal cord injury. Puerto Rico Physiological Meeting at University Central del Caribe in Bayamón, PR.

Additional abstracts (oral & poster) were presented in local and national meetings: PR Neuroscience Conference, PR Physiological Meeting, Annual COBRE meetings, Medical Science Campus (MSC) Research & Education Annual Forum and Specialized Neuroscience Research Program (SNRP) Annual 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: $756,670 (with consortium: $1,292,510)
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, 2013-2016, NIMH, Total direct costs for entire proposed period: $581,078
9. Interdisciplinary Biomedical Research Seminar Series (IBRSS), Coordinator of activity #3, 2012-2017, NIGMS/RISE, Total direct cost for entire proposed period: $77,894
10. Center of Biomedical Research Excellence, Director of the NIEF (Neuroimaging and Electrophysiology Facilities) 2019-23. Total direct cost for entire proposed period: $2,307,148

Active

COBRE/NIEF PI: Dr. José Lasalde 07/01/18-06/30/23
NIH/NIGMS Role: Director of NIEF 25% Effort (Total Direct Cost: $2.3M)
The major goal of this activity is to develop microscopy and electrophysiological core facilities for the use of investigators in the University of Puerto Rico and private academia, as well as pharmaceutical companies. Technical and state-of-the-art equipment will be available for those users interested to look at high resolution level and functional activity of channels in oocytes, cultured neurons, brain slices or anesthesized animals.

MBRS/RISE PI: Dr. Carmen Cadilla (PI) 09/01/17 – 08/31/22
NIH/NIGMS Role: Coordinator Activity #2
Interdepartmental Seminar Series (Activity #2) 10% Effort (Total Direct Cost: $108K)
The major goal of this activity is to coordinate a monthly seminar series and an annual departmental mini-symposium. This involves the invitation of well-known investigators from the US mainland (different fields of research), and the coordination of seminars (and round table discussions) with the invited speaker and students/faculty.

Proposals Submitted in the last few years:

SC1 Miranda (PI) 09/01/19-08-31/23
NIH/NIGMS
Sex-specific Mechanisms Activated by TAM after Spinal Cord Injury and its Role in Allodynia
The major goal of this project is to determine the mechanisms used by Tamoxifen (TAM) to confer neuroprotection and stimulate locomotor recovery after spinal cord injury (SCI) in adult male and female rats. Among the mechanisms that will be evaluated are the possible potentiation of TAM by estradiol, which estrogen receptor mediates TAM effects and metabolic pathways activated by this drug, which results in behavioral recovery. Finally, we will investigate the mechanisms used by TAM to reduce mechanical allodynia after SCI and mechanisms that confers the sex differences observed in our laboratory.
Role: PI 40% effort-4.8 months calendar Direct cost: $1,000,000

Department of Defense Miranda (PI) 06/01/17-5/31/20
Cellular and molecular mechanisms activated by TAM to improve locomotor recovery after SCI
The major goal of this project is to establish the mechanism of Tamoxifen activity in male and female rats and determine why this drug provides different therapeutic window after spinal cord injury.
Role: PI 20% effort-2.4 months calendar Direct cost: $743,277

NINDS-R01 Miranda (PI) 06/01/16-05/31/21
Neuroprotective Effect of Tamoxifen and Exercise after Spinal Cord Injury

The major goal of this project is to determine the therapeutic window of tamoxifen treatment after spinal cord injury (SCI) and if there is any sex difference with this treatment in locomotor recovery. In addition, if tamoxifen produces changes at the anatomical and electrophysiological level. Moreover, the study includes the analysis of apoptotic, regenerative and repulsive proteins after SCI and if tamoxifen affect the expression of those factors. Finally, if the combinatorial treatment of tamoxifen with forced treadmill exercise improved the locomotor recovery in the injured animals.
Role: PI 50% effort-6 months calendar Direct cost: $1,250,000

NINDS-R21 Miranda (PI) 02/01/17 – 01/31/19
Effect of Tamoxifen and exercise in skeletal muscle after spinal cord injury.
The major goal of this project is to determine if tamoxifen, a selective estrogen receptor modulator, prevent the changes in the expression profile of myosin proteins after spinal cord injury and maintains the contractile properties of single muscle fibers. In addition, this activity will investigate the effect of early treatment with tamoxifen on Satellite cell proliferation and muscle regeneration, and if both events are potentiated by exercise.
Role: PI 25% effort – 3 months calendar Direct cost: $275,000

Craigh Neilsen Foundation Dr. Miranda (PI) Submitted: May 5, 2017 (07/18-06/21)
Mechanisms activated by Tamoxifen after spinal cord injury
The major goal of this proposal will be to establish the estrogen receptor activated by Tamoxifen and if estradiol participates in the sex difference observed when injured rats are treated with this drug. Moreover, molecular mechanisms related to the gliotic response and axonal regeneration will be investigated, and if the effect of Tamoxifen to improve locomotor recovery could be potentiated with physical exercise.
Role: PI 15% effort- 1.8 months calendar Direct cost: $569,724

Wings for Life Foundation Dr. Miranda (PI) August 31, 2016
Mechanisms of Tamoxifen neuroprotective effects in male and female rats with spinal cord injury
The major goal of the pre-proposal was to establish, why the response to TAM is different in female versus male rats with SCI and to identify through which estrogen receptor tamoxifen improves functional recovery.

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

COMMAND OF LANGUAES
Indicate level with number

	SPEAKING	**WRITING**	**COMPREHENSION**
SPANISH	1	1	1
ENGLISH	1	1	1

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)

Available upon request

January 12, 2021

Jorge D. Miranda

DATE **SIGNATURE**