

## CURRICULUM VITAE

### Manuel Miranda-Arango, Ph.D.

**Associate Professor – Dept. of Biological Sciences**  
The University of Texas at El Paso (UTEP), El Paso, TX.  
Phone: (915) 747-6645 e-mail: mmiranda3@utep.edu

#### **1. Education**

- 1996-1999 Postdoctoral Fellow, Department of Genetics  
Yale University School of Medicine  
Mentor: Carolyn W. Slayman, Ph.D.
- 1993-1996 Doctor of Philosophy in Biochemistry  
Department of Microbiology  
Cellular Physiology Institute, at the  
National University of Mexico (UNAM)  
Mentor: Antonio Pena
- 1993-1996 Master of Science Department of Microbiology  
Cellular Physiology Institute, at the  
National University of Mexico (UNAM)  
Mentor: Antonio Pena/Aurora Brunner
- 1986-1990 Bachelor of Science in Biology  
School of Sciences, at the National  
University of Mexico (UNAM)  
Mentor: Antonio Pena/Aurora Brunner

#### **2. Academic appointments**

- 2011-Present **Co-Director**, Neuroscience and metabolic disorder project  
Border Biomedical research Center  
University of Texas at El Paso, El Paso, TX.
- 2013-Present** **Associate Professor**, Department of Biological Sciences  
and Border Biomedical Research Center (BBRC)  
University of Texas at El Paso, El Paso, TX.
- 2007-2013 **Assistant Professor**, Department of Biological Sciences  
and Border Biomedical Research Center (BBRC)  
University of Texas at El Paso, El Paso, TX.
- 2009-Present **UTEP Graduate Faculty**
- 2003-2007 **Senior Scientist**, Department of Pharmacology University of  
Colorado Health Science Center

2000-2002            **Associate Research Scientist**, Department of Genetics,  
Yale University School of Medicine

1992-1995           **Instructor of Molecular Biology**, School of Science  
at the National University of Mexico (UNAM)

### **3. Professional memberships**

2004 - present        Member of the Society for Neuroscience.  
2005 – present        Member of the Society for Advancement of Native  
                                 Americans and Chicanos in Science  
2008 - present        Member of the Sigma Xi Society  
2008 - present        Member of the National Hispanic Science Network on Drug  
                                 Abuse.  
2014 – present        Member of the Network of Minority Research Investigators at  
                                 NIDDK, NIH

### **4. Language**

First Language:       Spanish  
Second Language:    English

### **5. Awards and Honors**

2011                    Travel Award to the University of Kentucky/NIGMS grant  
                                 writing workshop  
2010                    Travel award to the 2010 Junior Faculty and Postdoctoral  
                                 Fellows Career Development Workshop, American Society  
                                 for Cell Biology  
2010                    Travel award to 2010 Joint Annual Meeting-NSF, National  
                                 Science Foundation  
2010                    Travel Award to the grant writing workshop for diversity  
                                 investigators, NIH/NINDS  
1996 - 1998            Postdoctoral Fellowship from Fogarty International Center.  
                                 National Institute of Health. Yale University School of Medicine  
1991 - 1995            Scholarship from the National University of Mexico  
                                 toward Master and Ph.D. studies.  
1991 - 1993            Scholarship from CONACYT toward Master studies.

- 1986 - 1990      Biology degree with honors. Biology School at the National University of Mexico.
- 1991 - 1993      Master's degree with honors. Cellular Physiology Institute at the National University of Mexico

## 6. Research Mentoring

### Post-Doctoral Fellows:

- 04/2009-4/2012      Luciana Giroto-Gentil, Ph.D, Dissecting the role of the Glycine Transporter 2 *N*-terminus on function.  
Current position: Research Scientist at Abbott Laboratories
- 10/2009-9/2010      Vicente Castrejon-Tellez, Ph.D, PKC-dependent phosphorylation of the neuronal glycine transporters  
Current position: Assistant Professor at the Hospital Nacional de Cardiologia, Mexico, D.F.

### PhD students:

- 9/2013 – present      Rosalia Ortega, "Glycinergic nigrostriatal pathway: structure and function". In progress.
- 8/2014 – present      Ashley Bryan Lopez, "Genetic mapping of glycinergic neurons in the inferior colliculus". In progress
- 9/2008 – 11/2013      Susana P. Barrera, "Regulation of the glycine transporter 1 by PKC alpha dependent ubiquitination".  
Award to the best thesis
- 9/2010 – 5/2013      Leobarda Robles, at the National University of Mexico.  
Characterization of the plasma membrane H-ATPases from the fungi *Ustilago maydis*.  
Co-mentored with Dr. Juan Pablo Pardo.
- 6/2008- 12/2010      Vargas-Medrano, Javier, "Identification of the PKC responsible for glycine transporter 1 phosphorylation.  
Current position: Postdoctoral fellow at Texas Tech University Health Sciences Center, El Paso, TX.
- 1/2009 – 12/2009      Karina G. Salmeron, at the National University of Mexico.  
Characterization of the threose enzymes from the pathogenic fungi *Ustilago maydis*. Co-mentored with Dr. Juan Pablo Pardo. Instructor at the University of Oaxaca, Mexico.
- Spring 2009      Carylinda Serna, laboratory rotation in the Miranda Lab.
- Summer 2009      Jorge Anibal Sierra, laboratory rotation in the Miranda Lab.

### Masters students:

- 9/2009 – 8/2014 Shweta Lavania, “Glycine transporter 2: Expression and interactions in the CNS”.
- 9/2010 – 12/2012 Joe E. Luevano, Effect of amphetamines on stability of the dopamine transporter in a self-administration paradigm. Current position: Laboratory technician at Texas Tech University Health Sciences Center, El Paso, TX.
- 5/2012 – 7/2013 Annie Espinal, at University of Ciudad Juarez. Identification of glycine transporters in mouse amacrine neurons from the retina.  
Co-mentored with Dr. Jorge Perez Leon.  
Current position: Laboratory technician at National Polytechnic Institute, Irapuato, Mexico.

**Undergraduate Students Thesis Supervised:**

- 9/2010 – 4/2012 Alejandra Villescás (MARC Program) – Instructor at Isleta High School
- 5/2008 - 9/2009 Joe Luevano (MARC Program) – Research Assistant at Texas Tech Medical Center
- 9/2011 – 6/2013 Alejandra C. Camacho (MARC student) – Mapping mouse glycinergic circuits containing the neuronal glycine transporter 2. In Ph.D. program at Texas A & M
- 9/2011 – 6/2014 Miryam Pando (MARC student) – Localization of the neurotransmitter transporter GlyT1 in the rodent central nervous system. In Ph.D. program at the university of Texas at San Antonio.

**Undergraduate Students Supervised:**

- 5/2012 – present Ana E. Garibay (Special problems/volunteer)
- 9/2011 – 6/2012 Sara N. Alonso (Special problems/BURS) – In Othodontics program at University of Guadalajara.
- 9/2011 – 5/2012 Bernadette De La Rosa (Special problems//volunteer)
- 1/2011 – 12/2011 Cesar Perez (BURS program) – In PHD program at Princeton University
- 6/2010 – 5/2011 Monica Gamez (Special problems, HHMI) – In Master’s program at University of New Mexico, Albuquerque
- 7/2009 – 6/2010 Krystin Petry (HHMI student) – Human Biology at Texas Tech Health Sciences Center, Lubbock
- 5/2009 – 5/2010 Margarita T. Gomez (Special problems, HHMI) – In Ph.D. program at the National University of Mexico
- 5/2009 – 12/2010 Ivan Y. Ramirez (RISE program) – Medical School at Texas Tech
- 5/2009 – 5/2010 Ana Teran (Special problems)
- 5/2009 – 12/2010 Elisa Robles (RISE program/Special problems) – In PhD program at UTEP
- 1/2009 – 9/2009 Samantha Henderson (REU student/volunteer)
- 9/2007- 8/2008 April Davalos (REU/RISE Program)

5/2008 – 9/2009	Rosalia Ortega (Special problems) – Research associate at UTEP
9/2007 – 8/2008	Susana Barrera (Special probles/BURS) – In PhD program at UTEP
9/2007 – 5/2008	Kristina Aguilera (RISE student) – In PhD program at UT Southwestern
9/2007 – 5/2008	Astrid Aguilera (BURS program) Instructor at El Paso community college

## **7. Dissertation and Thesis Committees Other than Those in My Laboratory**

### **Graduates with thesis:**

1/2008 – 12/2009	Karina Scnittker (MARC program) – Graduated
5/2009 – 5/2010	Kristina Aguilera (MARC program) - Graduated

### **Masters:**

5/2011 – Present	Naima Alshrif (Biological Sciences), – Graduated
5/2010 – 7/2012	Joaquin DeLeon (Biological Sciences) – Graduated
1/2010 – 8/2011	Emmanuel Zubia (Chemistry department) – Graduated
1/2010 – 7/2011	Erich Valenzuela (Chemistry department) – Graduated
9/2009 – 7/2011	Jennifer Johnson (Biological Sciences) – Graduated
1/2008 – 5/2010	Atanu Paul (Biological Sciences), member –Graduated
5/2008 – 5/2011	Lorena De Los Santos (Biological Sciences) – Graduated

### **PhD candidates:**

9/2010 – Present	Felipe Gazos Lopes (Biological Sciences), Graduated
5/2011 – Present	Matthew R. Gaynor (Biological Sciences), member
5/2011 – Present	Christine Darcy (Biological Sciences), member
5/2008 – Present	Diondra Harris (Biological Sciences), member
5/2008 – 5/2013	Carylinda Serna (Biological Sciences), member
5/2008 – 3/2014	Jorge Sierra (Biological Sciences), Graduated
8/2007 – 5/2012	Margaret Costanzo (Biological Sciences) – Graduated
8/2008 – 5/2012	Derbashi Roy (Biological Sciences) – Graduated
1/2008 – 4/2011	Jaidee Zavala (Biological Sciences) – Graduated
8/2007 – 5/2012	Luis Natividad (Psychology department) – Graduated

## **8. Faculty committees**

6/2012 - present	<b>Institutional Animal Care and Use Committee (ACUC), Chair</b> , evaluation of research protocols that involve animal activities and to ensure that ethical and sensitive care and use of animals are applied at the institution.
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- 6/2012 – present Institutional Animal Program Council, **Committee Member**, Duties involve the discussion of animal program functions and needs, and provide corrective measures.
- 2/2013 – 4/2014 **Design and Construction of New Animal Facilities, Committee Member**, Involved in planning and design of new vivarium to house rodents and reptiles.
- 4/2010 – present **Cellular and Molecular Biochemistry Ph.D. Program Planning Committee, Member**, Involved in planning, preparation and submission of the proposal for preliminary authority, submitted on Oct. 2010.
- 10/2009 – 9/2010 **Undergraduate Biochemistry Degree Planning Committee, Member**, the role of the committee was to develop a suitable degree plan for a Biochemistry concentration in the Department of Biological Sciences. This program is currently offered by the department.
- 1/2008 – 2/2013 **Teaching Assistantship Committee, Chair**, to assign teaching responsibilities to graduate students.
- 5/2008 – 9/2013 **Neuroscience and Metabolic Disorders Search Committee, Member**, the committee was in charge of hiring three new neuroscientists within the neuroscience unit of the BBRC.
- 5/2010 – 9/2013 **Departmental seminar series, Chair**, schedule and organize the departmental seminars during fall and spring. As part of a seminar class, ensure attendance of students

## 9. Service activities

- 5/2012 – Present REU in Neuroscience program, organized activities and administered a workshop on synaptic transmission to REU students.
- 6/2012 Provided a tour to Mesita Elementary School students
- 5/2012 Attended COS pre-Commencement and the University Commencement
- 5/2012 Attended and participated at the MARC annual symposium, Chair of several sessions
- 4/2012 Hosted on-campus seminar speaker in the departmental seminar series
- 3/2012 Brain awareness day, site visit offered to Mesita Elementary School
- 3/2012 Attended the BBRC advisory committee meeting and presented Pilot project on drug screen
- 2/2012 Judge of Chemistry Posters for the Sun Conference of Science and Engineering Fair
- 12/201 Attended COS pre-Commencement
- 6/2011 – 8/2011 Student recruitment- COS new student orientation, introduced the new program in Cellular and molecular Biochemistry

3/2011 Hosted off-campus speaker, Dr. Lynette Daws, for the departmental seminar

2/2011 Judge of Biology/Chemistry Posters for the Sun Conference Science and Engineering Fair

1/2011 Guided tour of BBRC facilities to 9 students from St. Raphael Middle School

12/2010 Attended University Commencement

7/2010 Attended walk day for Alzheimer association, as part of UTEP team

5/2010 Attended University Commencement

3/2010 Attended the BBRC advisory committee meeting and presented laboratory project

2/2010 Hosted off-campus speaker, Dr. Curt R. Freed, for the departmental seminar

12/2009 Attended University Commencement

10/2009 Seminar offered to Magnet High School Students, at the Biological Sciences Department at UTEP

5/2009 Attended University Commencement

4/2009 Hosted off-campus speaker, Dr. Alexander Sorkin, for the departmental seminar

4/2009 Judge at the UTEP Student Research Expo 2009. Society for the Advancement of Chicanos and Native Americans in Science.

4/2009 Panel member at the Research Colloquium Texas Tech Health Sciences Center. Selection of presentations: Poster/Talk

2/2009 Judge of Posters for the Sun Conference Science and Engineering Fair

12/2008 Attended University Commencement

5/2008 Attended University Commencement

4/2008 Panel member at the Research Colloquium Texas Tech Health Sciences Center. Selection of presentations: Poster/Talk

4/2008 Judge at the UTEP Student Research Expo 2008. Society for the Advancement of Chicanos and Native Americans in Science.

#### **10. Invited presentations**

5/2012 Role of Dopamine Transporters in Methamphetamine Addiction," US-Mexico Border Drug Issues, El Paso- Tomas Rivera Conference Center, U.S. Border Initiative 4th Annual Meeting and 2012 VIDA conference

9/2011 "Role of glycine and dopamine transporters in human diseases. Health Sciences Center and Nursing, Departmental Seminar. University of Texas at El Paso, El Paso, TEXAS

- 3/2011 Regulation of the glycine and dopamine transporters by posttranslational modifications," University of Texas at Brownsville, Brownsville, TEXAS
- 4/2010 "Mechanism of endocytosis of the dopamine and glycine transporters," BBRC, Bioscience Building, University of Texas at El Paso, El Paso, TEXAS
- 3/2009 "Regulation of activity of the dopamine and glycine transporters by phosphorylation and ubiquitination. Behavior, Biology and Chemistry: translational research in addiction. University of Texas San Antonio Health Sciences Center, San Antonio, TX
- 11/2009 Membrane transport: from yeast to neurons. XVI Meeting of Bioenergetics and Biomembranes. Mexican Society of Biochemistry

#### **11. Selected Abstracts**

- 2012 **Gordon Research Conference on Membrane Transport Proteins**, Gordon Research Conference, Les Diableretz, Switzerland: Poster abstract: "Regulation of Glycine Transporters by Posttranslational Modifications".
- 2012 **Small Meeting on Yeast Transport and Energetics**, Salamanca, Spain: Poster abstract: "Role of membrane domain 6 in cation binding by the yeast H<sup>+</sup>-pump".
- 2012 **Behavior, Biology and Chemistry: translational research in addiction** annual meeting, San Antonio, Texas: Poster abstract: "Extended access to methamphetamine self-administration alters dopaminergic system in adult male rats".
- 2011 **Annual Meeting of the Society for Neuroscience**, Washington D.C, Poster presentation: "Insights into the functional role of the N-terminal domain of the glycine transporter 2".
- 2011 **Annual Meeting of the Society for Neuroscience**, Washington D.C: Poster presentation: "Mapping phosphorylation and ubiquitination sites on the glycine transporter 1".
- 2011 **Annual Meeting of the Society for Neuroscience**, Washington D.C, Poster presentation: "Glycine transporter-like immunoreactivities (GlyT1 and GlyT2) in the rat hypothalamus, with special reference to the magnocellular neurohypophysial system".



- 2011 **Society for the Advancement of Chicanos and Native Americans in Science**, San Jose, Ca. Poster presentation: "Effect of mutations at putative GlyT1 phosphorylation sites on activity and endocytosis".
- 2010 **American Society for cell Biology 50th Annual meeting**, Philadelphia, PA. Poster presentation: "Gb regulates neural outgrowth by modulating microtubules and actin filaments".
- 2010 **12th RCMI international symposium on health disparities**, Nashville, Tennessee. **Student platform presentation**: "G – protein cytoskeleton interaction and neuronal outgrowth".
- 2010 **Annual Meeting of the Society for Neuroscience**, San Diego, CA. Poster presentation: "The role of lysine residues on protein kinase C-mediated ubiquitination and internalization of the glycine transporter 1".
- 2010 **Gordon Research Conference on Membrane Transport Proteins**, University of New England, Biddeford, Maine. Poster presentation: "Phosphorylation of the glycine transporter 1 by protein kinase C".
- 2010 **Gordon Research Conference on Visual System Development**, Il Ciocco Hotel and resort in Lucca (Barga), Italy. Poster presentation: "Regulation of the glycine transporter 1 in Rat Amacrine Neurons".
- 2009 **Mexican Society of Biochemistry, Boca del Rio, XVI meeting of bioenergetics and biomembranes**. Veracruz, MX. **Platform student presentation**: "Fosforilacion del transportador de glicina tipo 1".
- 2009 **Gordon Research Conference on Mechanisms of Membrane Transport**, Colby College, Waterville, Maine. Poster presentation: "Regulation of the glycine transporter by PKC".
- 2009 **Behavior, Biology and Chemistry: translational research in addiction**, San Antonio, TX. **Platform presentation**: "Regulation of activity of the dopamine and glycine transporters by phosphorylation and ubiquitination".
- 2009 **Society for the Advancement of Chicanos and Native Americans in Science**, Texas chapter, UTEP. Poster presentation: "Endocytosis of the dopamine transporter and uptake".

- 2009      **REU Annual Student Research Expo, UTEP-Biological Sciences** Department, UTEP. Poster presentation: “Ubiquitination and endocytosis of the dopamine transporter does not control transport activity”.
- 2008      **Gordon Research Conference, Membrane Transport Proteins.** Barga, Italy. Poster presentation: “Regulation of the glycine transporter 1 by ubiquitination”.
- 2008      **Annual Meeting of the Society for Neuroscience,** Washington, D.C. Poster presentation: “Insights into the endocytic mechanism of the glycine transporter 1”.
- 2008      **UTEP Student Research Expo 2008,** Society for the Advancement of Chicanos and Native Americans in Science, Texas chapter. Poster presentation: “Characterization of a potential ubiquitination motif KE(D) in the human dopamine transporter”.
- 2007      **Annual Meeting of the Society for Neuroscience,** San Diego, Ca. Poster presentation: “Effect of amphetamines on dopamine transporter ubiquitination and endocytosis”.

## **12. Ad Hoc Reviews**

- 2011      Reviewer, Journal Article, *Neurochemistry International*
- 2009      Reviewer, Journal Article, *International Journal of Immunopathology and pharmacology*
- 2009      Reviewer, Brooker Textbook, Ed. Elsevier. Revised and provided corrections of chapter 21, *Genomes, proteomes, and Bioinformatics. Textbook in Biology*
- 2007      Reviewer, Journal Article, *European Journal of Neuroscience*
- 2007      Reviewer, Journal Article, *Neurochemistry International*

## **13. PUBLICATIONS**

\*undegraduate student

\*\*graduate student

\*\*\*Post-Doctoral Fellow in my laboratory

### **Published**

- Sierra-Fonseca, J., Najera, O., Martinez-Jurado, J. Walker, E.M., Varela-Ramirez, A., Khan, A.M., **Miranda, M.**, Lamando, N.S. and Roychowdhury, S. (2015) Nerve Growth Factor induces neurite outgrowth of PC12 cells by promoting Gβ/γ microtubule interaction. *BMC Neuroscience*, *In press*

- Shpak, S., Giroto-Gentil, L. and **Miranda, M.** (2014) The origin and Evolution of Vertebrate Glycine Transporters. *J. Mol. Evol.* 78, 188-193.
- Robles-Martinez, L.\*\*; Pardo, P. J., **Miranda, M.**, Mendez, Tavis., Matus Ortega, G., Mendoza-Hernandez, G., Guerra-Sanchez, G. (2013). The basidiomycete *Ustilago maydis* has two plasma membrane H<sup>+</sup>-ATPases related to fungi and plants. *J. Bioenerg Biomembr.* 45, 477-90
- Parijat Kabiraj\*\* ; Rituraj Pal\*\* ; Armando Varela-Ramirez; **Manuel Miranda**, and Mahesh Narayan. (2012) Nitrosative stress mediated misfolded protein aggregation mitigated by Na-D-β hydroxybutyrate intervention. *Biochemical and Biophysical Research Communications.* 426, 438-444
- Vargas-Medrano, J.\*\* , Castrejon, V.\*\*\* , Ramirez, I. Y.\* , Plenge, F., **Miranda, M.** (2011). PKCβ dependent phosphorylation of the glycine transporter 1. *Neurochemistry International*, 59, 1123-32, PMC3226844
- Salmeron-Santiago, K. G.\*\* , Pardo, P. J., Flores-Herrera, O. E., Mendoza-Hernandez, G., **Miranda, M.**, Guerra, G. G. (2011). Response to osmotic stress and temperature of the fungus *Ustilago maydis*. *Archives of Microbiology*, 193, 701-709
- **Miranda, M.**, Pardo, J. P., Petrov, V. P. (2011). Structure-Function Relationships in Membrane Segment 6 of the Yeast Plasma-Membrane Pma1 H<sup>+</sup>-ATPase. *Biochimica et Biophysica Acta - Biomembranes*, 1808, 1781-9 PMC3079066
- Pal, R.\*\* , **Miranda, M.**, Narayan, M. (2011). Nitrosative stress-induced Parkinsonian Lewy-like aggregates prevented through polyphenolic phytochemical analog intervention. *Biochemical and Biophysical Research Communications*, 404, 324-329
- **Miranda, M.**, Bashi, E., Vylkova, E.\* , Edgerton, M., Slayman, C. L. (2009) Conservation and dispersion of sequence and function in fungal TRK potassium transporters: focus on *Candida albicans*.. *FEMS Yeast Res*, 9, 278-292
- **Miranda, M.**, Pardo, J. P., Petrov, V. P. (2009). Role of membrane segment M6 in the biogenesis and function of the Yeast Plasma-Membrane Pma1 H<sup>+</sup>-ATPase. *Journal of Biomolecular Structure and Dynamics*, 26, 886-868,
- Guerra, M.G., Petrov, V.P., Allen, K.E., **Miranda, M.**, Pardo, JP and Slayman C.W (2007) Role of transmembrane segment 8 in the biogenesis and function of the yeast plasma membrane H<sup>+</sup>-ATPase. *Biochem. Biophys. Acta.* 1768, 2383-92, PMC2267258

- **Miranda, M.**, Kalen, D. R., Sorkina, T., and Sorkin, A. (2007) Ubiquitin conjugation sites in the amino-terminus are essential for Protein Kinase C-dependent endocytosis of the dopamine transporter. *Mol. Bio. Cell.* **18**, 313-323, PMC1751334
- Sorkina, T., **Miranda, M.**, Kalen, D. R., Hoover, B.R., Zahniser, N.R., and Sorkin, A. (2006). RNA interference screen reveals an essential role of NEDD4-2 in dopamine transporter ubiquitination and endocytosis. *J. Neurosci.* **26**, 8195-8205
- **Miranda, M.**, Wu, C., Sorkina, T., Kortjens, D.R., and Sorkin, A. (2005) Enhanced ubiquitylation and accelerated degradation of the dopamine transporter mediated by protein kinase C. *J. Biol. Chem.* **280**, 35617-35624
- **Miranda, M.**, Sorkina, T., Grammatopoulos, T., Zawada, M., and Sorkin, A. (2004) Multiple molecular signals in the carboxyl-terminus control dopamine transporter export from the endoplasmic reticulum. *J. Biol. Chem.* **279**, 30760-3077
- **Miranda, M.**, Pardo, J.P., Allen, K.E., and Slayman C.W. (2002) Stalk segment 5 of the yeast plasma membrane H<sup>+</sup>-ATPase: labeling with a fluorescent maleimide reveals a conformational change during glucose activation. *J. Biol. Chem.* **277**, 40981-40988
- **Miranda, M.**, Saldana, C., Ramirez, J., Codiz-Huerta, G., Bunner, A., Coria, R., and Peña, A. (2002) The KTRk1 gene encodes a low affinity transporter of the K<sup>+</sup> uptake system in the budding yeast *Kluyveromyces lactis*. *Yeast.* **19**, 601-609
- **Miranda, M.**, Allen, K.E., Pardo, J.P., and Slayman C.W. (2001) Stalk segment 5 of the yeast H<sup>+</sup>-ATPase. Mutational evidence for a role in glucose regulation. *J. Biol. Chem.* **276**, 22485-22490
- Ambesi, A., **Miranda, M.**, Allen, K.E., and C.W. Slayman (2000) Stalk segment 4 of the yeast plasma membrane H<sup>+</sup>-ATPase. Mutational evidence for a role in the E1-E2 conformational change. *J. Biol. Chem.* **275**, 20545-20550
- Ambesi, A., **Miranda, M.**, Petrov, V., and C.W. Slayman (2000) Biogenesis and function of the yeast plasma-membrane H<sup>+</sup>-ATPase. *J. Exp. Biol.* **203**, 155-160
- **Miranda, M.**, Ramirez, J., Peña, A., and R. Coria (1995) Molecular cloning of the plasma membrane H<sup>+</sup> ATPase from *Kluyveromyces lactis*: a single nucleotide substitution in the gene confers ethidium bromide resistance and deficiency in K<sup>+</sup> uptake. *J. Bacteriol.* **177**, 2360-2367, PMC176892

- **Miranda, M.**, Ramirez, J., Guevara, S., Ongay-Larios, L., Peña, A. and R. Coria (1995) Nucleotide sequence and chromosomal localization of the gene encoding the old yellow enzyme from *Kluyveromyces lactis*. *Yeast* **11**, 459-465

#### 14. Review Articles

- **Miranda, M** and Sorkin, A. (2007) Regulation of receptors and transporters by ubiquitination: new insights into surprisingly similar mechanisms. *Mol. Interv.* **7**, 157-165
- Slayman C.W., **Miranda, M.**, Pardo, J.P., and Allen, K.E. (2003) Use of a fluorescent maleimide to probe structure-function relationships in stalk segments 4 and 5 of the yeast plasma-membrane H<sup>+</sup>-ATPase. *Ann. N. Y. Acad. Sci.* **986**, 168-174

#### 15. Manuscripts Submitted

- Barrera, S.P., Castrejon, V., Trinidad, M. and **Miranda, M.** (2014) Redundancy in the mechanism of Glycine Transporter Ubiquitination: role of lysine residues in endocytosis. *PlosOne*. Under review.

#### 16. Contracts, Grants and Sponsored projects

**Project title:** Insights into the regulation of the glycine transporter 1

**Grant type:** Support of Competitive Research (SCORE) Full Project Award (SC1)

**Granting Institution:** National Institute of Health/NIMH

**Role:** Principle Investigator

**Status:** depleted

**Supported Period:** 7/1/08 – 7/30/12

**Amount:** \$1,011,000 (200,000 - 150,000 in direct cost per year)

**Project title:** Identification of compounds that enhance glycine transporter endocytosis and induce apoptosis by tandem screening of chemical libraries

**Grant type:** BBRC Pilot Grant

**Granting Institution:** UTEP BBRC

**Role:** Principle investigator, with Dr. Renato Aguilera

**Status:** Depleted

**Supported Period:** 9/1/2011 – 5/30/2012

**Amount:** \$ 25,000

**Project title:** Modification of genes and behavior by stress; enhanced vulnerability to addiction

**Grant type:** BBRC Pilot Grant

**Granting Institution:** UTEP/BBRC

**Role:**Co-I, submitted in conjunction with Kristin Gosselink (PI) and Laura O'Dell (Co-I)

**Status:** Depleted

**Supported Period:** 10/1/2010 – 6/30/2011

**Amount:** \$25,000

**Project title:** Mechanisms of nicotine reward in diabetic rats: Implications for diabetic smokers

**Grant type:** BBRC Pilot Grant

**Granting Institution:** UTEP/BBRC

**Role:** Co-PI, submitted in conjunction with Laura O'Dell (PI)

**Status:** Current

**Supported Period:** 9/1/2011 – 8/30/2012

**Amount:** \$25,000

**Project title:** SMART-MINDS: Summer mentoring and Research Training: Methodologies in neuroscience and drug-Addiction studies.

**Grant type:** R25

**Granting Institution:** National Institute of Health/NIDA

**Role:**PI submitted in conjunction with Laura O'Dell (PD) and Lourdes Echegoyen (PI)

**Status:** Current

**Supported Period:** 5/1/2012 – 4/30/2017

**Amount:** \$ 504,155

**Project title:** UTEP DIDARP: Vulnerability Issues in Drug Abuse (VIDA)

**Grant type:** R24

**Granting Institution:** National Institute of Health/NIDA

**Role:**Co-PI in primary project, in conjunction with Laura O'Dell (Co-PI) and Kristin Gosselink (PI) and Dr. Eddie Castaneda (PD)

**Status:** Current

**Supported Period:** 3/15/2011 – 2/29/2016

**Amount:** \$1,962,693

**Project title:** Effect of amphetamines on stability of the human dopamine transporter.

**Grant type:** Intramural University Research Institute grant

**Granting Institution:** University of Texas at El Paso

**Role:**Pinciple Investigator

**Status:**Depleted

**Supported Period:** 1/1/2008 – 8/31/2008

**Amount:** \$6,100