#### Ulises M. Ricoy, Ph.D. Associate Research Scientist Faculty Director of the Undergraduate Neuroscience and Cognitive Sciences Program The University of Arizona, Tucson Department of Neuroscience <u>The Grass Foundation Director of Outreach Initiatives</u> Email: ricoy@arizona.edu

# **EDUCATION & TRAINING**

June 19	Neural Systems and Behavior Course Faculty <u>Marine Biological Laboratory</u> Course Directors: Rob Froemke and Stephanie White Woods Hole, MA
May 16-Aug 16	Visiting Faculty Los Alamos National Laboratory Center for Integrated Nanotechnologies (Polymer Nanocomposites for Non-targeted Drug Delivery) Laboratory of Dr. Gabriel Montaño
May-15-Aug 15	NIH IMSD Visiting Faculty <u>University of Massachusetts at Amherst</u> Department of Neuroscience and Behavior (Synaptic transmission; neural signal encoding and decoding) Laboratory of Dr. Genglin LI
May 14-Aug 14	Faculty Fellow / DOE Los Alamos National Laboratory Center for Integrated Nanotechnologies (Amphiphilic pH modulated photonic micelle nanocomposites) Laboratory of Dr. Gabriel Montaño
May-13-Aug 13	NSF (ROA) Research Opportunity Award <u>University of Pittsburgh</u> Department of Neuroscience (Presynaptic mechanisms in the Frog Neuromuscular Junction) Laboratory of Dr. Stephen Meriney
May 12-Aug 12	Visiting Faculty Program (VFP) / DOE Argonne National Laboratory Center for Nanoscale Materials (Physical Characterization Amphiphile) Laboratory of Dr. H. Christopher Fry
May 11-Aug 11	Faculty and Student Teams (FaST) Fellow (DOE-NSF) Argonne National Laboratory Center for Nanoscale Materials (Self-Assembly Amphiphile) Laboratory of Dr. H. Christopher Fry
Jan 08-Aug 10	Post-Doctoral Trainee

	<u>Oregon Health Sciences University</u> School of Medicine / Department of Behavioral Neuroscience Laboratory of Synaptic Biophysics (Advisor: Matthew Frerking)
2003-2007	<b>Ph.D. in Neurobiology</b> <u>The University of Texas at San Antonio</u> Department of Biology Dissertation: <i>"Hippocampal Substrates of Methamphetamine</i> <i>Reinforcement"</i> (Advisor: Joe L. Martinez Jr.,)
2006	<b>Neurobiology Course Student</b> (June-August) <u>Marine Biological Laboratory</u> Woods Hole, Massachusetts (Edwin McKleskey, Rae Nishi Course Directors)
2005	Summer Program in Neuroscience, Ethics and Survival Course Student (June-August) Marine Biological Laboratory Woods Hole, Massachusetts
2003	Addiction Studies Diplomado <u>Universidad Ibero Americana</u> Department of Psychology Mexico City, Mexico
1998-2000	Masters of Arts Candidate (degree not awarded) San Francisco State University Department of Biology Abandoned due to Health Reasons Major: Marine Biology San Francisco, California
1994-1998	Bachelor of Science (B. S.) <u>The University of Texas at San Antonio</u> Department of Biology <i>Cum Laude</i> Graduation (GPA 3.51) San Antonio, Texas
<u>EMPLOYMENT</u>	
August 2020-pres	Director of Outreach Initiatives The Grass Foundation
August 2019-pres	Associate Scientist Director of the Undergraduate Neuroscience & Cognitive Sciences (NSCS) Program / Associate Department of Neuroscience Head The University of Arizona, Tucson
June 2019	Neural Systems and Behavior Course Faculty Marine Biological Laboratory

Aug 19-present	Research Professor <u>Northern New Mexico College</u>
Feb 17-Aug 19	Dean of Arts and Sciences Northern New Mexico College
July 16-Jan 17	Interim Dean of Arts and Sciences <u>Northern New Mexico College</u>
Aug 2014-2019	Associate Professor of Biology (earned Tenure) <u>Northern New Mexico College</u> Department of Biology and Chemistry and Environmental Science
Aug 12- Dec 16	Chair of Biology, Chemistry and Environmental Science Northern New Mexico College Department of Biology and Chemistry and Environmental Science
Aug 2011-2012	Director of Biology and Chemistry Program Northern New Mexico College
Aug 2010-2014	Assistant Professor of Biology (early Tenure) Northern New Mexico College Department of Biology and Chemistry and Environmental Science
May 16-Aug 16	<b>Visiting Faculty</b> <u>Los Alamos National Laboratory</u> Center for Integrated Nanotechnologies Laboratory of Dr. Gabriel Montaño
May-15-Aug 15	NIH IMSD Visiting Faculty <u>University of Massachusetts at Amherst</u> Department of Neuroscience and Behavior (Synaptic transmission; neural signal encoding and decoding) Laboratory of Dr. Genglin LI
May 14-Aug 14	Visiting Faculty Program Los Alamos National Laboratory
May-13-Aug 13	NSF (ROA) Research Opportunity Award <u>University of Pittsburgh</u> Department of Neuroscience
May 12-Aug 12	Visiting Faculty Program Argonne National Laboratory
May 11-Aug 11	Faculty and Student Teams (FaST) Fellow Argonne National Laboratory
Jan 08-Aug 10	<b>Post-Doctoral Trainee</b> <u>Oregon Health Sciences University</u> Department of Behavioral Neuroscience

Summer 2004	Course Coordinator <u>Marine Biological Laboratory</u> SPINES 2004 Summer Course Under the supervision of: Dr. Joe L. Martinez, Jr.
2003-2007	Doctoral Fellow University of Texas at San Antonio Department of Biology
2001-2003	Drug Abuse Counselor Specialized Center in Solutions for Alcoholism and Drug Dependence Mexico City, Mexico
2001-2003	<b>Biology Lecturer</b> <u>Instituto Tecnológico de Monterrey</u> Campus México City Under the supervision of: M.Sc Jessica Vicencio
1998-2000	Research Assistant / Graduate Student San Francisco State University Food Web Biology Lab Under the supervision of: Dr. Neo D. Martinez
Summer 1998	Medical Research Assistant Jos University Teaching Hospital (JUTH), West Africa Jos, Nigeria Under the supervision of: Dr. Obadofin and Dr. Glew
Summer 1997	Research Assistant / Undergraduate Student <u>The University of California at San Diego</u> Scripps Institute of Oceanography Under the supervision of: Dr. David Checkley Jr.
Summer 1996	Research Assistant / Undergraduate Student <u>Fisheries, Aquaculture and Mariculture Labs (FAML)</u> <u>The University of Texas at Austin Marine Science Institute</u> Under the supervision of Dr. Joan Holt
1996-1998	Research Assistant / Undergraduate Student <u>The University of Texas at San Antonio</u> Department of Biology Neurobiology of Learning and Memory Under the supervision of Dr. Edwin J. Barea-Rodriguez

# COURSES TAUGHT

- Brain and Behavior
- Human Biology
  Drugs of Abuse
  Ecology

- Principles of Biology BIOL 110 (NNMC / Fall 10)
- Cell and Molecular Biology BIOL 201(NNMC / Fall 10)
- Ecology and Evolution BIOL 203 (NNMC / Fall 10)
- (Written Intensive) Neurobiology BIOL 426 (NNMC / Spring 11)
- Plant Animal Form and Function BIOL 204 (NNMC / Spring 11)
- Principles of Biology BIOL 110 (NNMC / Spring 11)
- Drugs and their Actions BIOL 431 (NNMC / Fall 11)
- (Linked Course) Principles of Biology BIOL 110-ENG 111 (NNMC / Fall 11)
- (Written Intensive) Biopsychology PSY 301 and BIOL 399 (NNMC / Spring 12)
- (Linked Course) "The Rhetoric of Nature" BIOL 110-ENG 111 (NNMC / Spring 12)
- Neurobiology BIOL 426 (NNMC / Fall 12)
- Drugs and their Actions BIOL 431 (NNMC / Spring 13)
- Biopsychology 301 (NNMC / Fall 13-present)
- Biology Seminar 472 (NNMC / Fall 11-present)
- Neurobiology BIOL 426 (NNMC / Fall 13-present)
- Drugs and their Actions BIOL 431 (NNMC / Spring 15)
- Invertebrate Neurobiology (NNMC / Summer 16-present)
- Undergraduate Research Experiences (NNMC / 2011-present)

# LANGUAGES

English and Spanish (Written, Verbal, Reading, Scientific 100%)

# SPECIAL COURSES

#### Neurobiology

Marine Biology Laboratory (Woods Hole, MA) summer 2006

Specialized Program in Neuroscience, Ethics and Survival (SPINES) *Marine Biological Laboratory* (Woods Hole, MA) summer 2005

### Neurociencia Course

Universidad Autónoma México, (Campus Iztapalapa) 2001

United Nations Addictive Drugs Fiscalization Course *Mexico City*, 2002

### Crawdad Invertebrate Neurophysiology Course (2015).

<u>Cornell University</u> Department of Neurobiology and Behavior. Instructors: Ron Hoy, Bruce Johnson, Wes Colgan (AD Instruments)

### Crawfly Invertebrate Neurophysiology Course (2016).

<u>Cornell University</u> Department of Neurobiology and Behavior. Instructors: Ron Hoy, Bruce Johnson, Wes Colgan (AD Instruments)

#### Neuro Workshop: Hardware and Software Experiments to teach Neuroscience (2017). <u>University of Missouri</u> Department of Electrical and Computer Engineering. Instructor: Satish Nair

# **TECHNICAL PREPARATION**

- Certified by Animal Care and Use Committee for the use of animals in research.
- Fully trained in stereotaxic surgery procedures (microdialysis placement), histology, and in vivo infusion-dialysis.
- Trained in Electrophysiology for in vitro extracellular recordings
- Basic Training in Immunolabeling (Fluorescence Nano Gold) (Light, Confocal, Electron Microscopy) (Katie Commons)
- Basic Training in Cell Cultures (Matt Dalva)
- Training in various rodent behavioral paradigms, such as: Conditioned Place Preference, Self-Administration, Taste Aversion and Morris Water Maze
- Trained in fly behavioral paradigms (courtship and fighting aggression) (Ed Kravitz, Kathy Siwicki)
- Brain Matrix Dissection: Nucleus Accumbens, Hippocampus, Insular Cortex
- Stereotaxic surgeries (cannula / electrode placement)
- Affymetrix Oligonucleotide Microarray and Spotted Arrays
- Brain Tissue Homogenization
- RNA Isolation
- cDNA synthesis
- In vitroTranscription (IVT)
- Gel Electrophoresis; Agarose
- Bongo Net / Planktonic sampling
- In Situ Optical Counter Deployment
- Research Vessel R/V "David Starr Jordan" CalCOFI Cruise JD9707
- HPLC
- Circular Dichroic Spectroscopy
- UV-Visible Spectroscopy
- Rotavaporation
- Liophyiliser

# **GRADUATE COURSEWORK**

- The Addictive Personality
- Life Experience Workshop: Addiction: the Illness of paradox
- Rehabilitation in Addiction
- Psychoanalysis of Self (Addiction)
- Psychopharmacology of Addictive drugs
- Addiction: Family Affair
- Neuroanatomy (Instructor: Dr. Brenda Claiborne)
- Neurochemistry (Instructor: Dr. Brian Derrick)
- Neurophysiology (Instructor: Dr. David Jaffe)
- Research Ethics and Responsible Conduct (Instructor: Dr. Clyde Phelix)
- Neurobiology of Learning and Memory (Instructor: Dr. Joe Martinez)
- Sensory Physiology (Instructor: Dr. Matt Wayner)
- Computational Neuroscience (Instructor: Dr. Charles Wilson)
- Bioinformatics and Computational Biology
- Biophysics of Ion Channels (Instructor: Dr. David Jaffe)
- Biometry

- Biological Oceanography (Instructor: Dr. Stephen Bollens)
- Food Web Theory (Instructor: Dr. Neo Martinez)
- Fisheries Biology (Instructor: Dr. Ralph Larson)
- Marine Invertebrate Zoology (Instructor: Dr. Tom Niesen)
- Population Ecology of Pelagic Fish (Instructor: Dr. Stephen Bollens)
- Plankton Ecology (Instructor: Dr. Stephen Bollens)
- STEM Mentoring (Instructor: Dr. Maggie Werner-Washbourne)

# PROFESSIONAL ORGANIZATIONS

- Society for Neuroscience (SFN) (2004-present)
- Society for the Advancement of Chicano and Native American Scientists (SACNAS) (1996-present)
- National Hispanic Science Network on Drug Abuse (NHSN) (2004-present)
- American Physiological Society (2016-present)
- Alamo Chapter of Society for Neuroscience (2004-2007)
- UTSA Bioscience Ph. D Students Organization (BiPS) / Doctoral Studies Committee Student Representative (2004-2007)
- San Antonio Neuroscience Alliance (2005-2007)

# **GRANT HISTORY**

- NSF S-STEM (P.I. Ulises Ricoy) NSF-DUE Award Number 0806469 (ended in December 31, 2013) \$600,000
- NSF-ROA 2014 (Parent Grant: P.I. Stephen Meriney Award Number EAGER IOS 1249546) Summer 2013 \$ 25,000
- NSF-STeP (Parent Grant: Highlands University; 2013-2017) \$ 60,000 / year
- NSF-ROA 13 (Parent Grant: P.I. Stephen Meriney Award Number EAGER IOS 1249546) 2014 \$ 25,000
- DOE-VFP LANL 2014 (P.I. Ulises Ricoy and Gabriel Montaño) \$25,000
- DOE-FaST LANL 2012 (P.I. H. Chris Fry) **\$25,000**
- LANL-Chemistry **\$200,000**
- UTEP-BUILD \$ 22.6 million  $\rightarrow$  1 % approximately to Northern **\$ 226,000**
- Grass Foundation 2015 **\$ 10,000**
- NIH BUILD SEED (P.I. Ulises Ricoy) Collaboration with Dr. David Torres for Computational Biology course 2015. \$ 20,000
- NIH INBRE Pilot Award (P.I. Ulises Ricoy) Sensory Processing in a Model System. 2015. **\$20,000**
- NIH BUILD SEED (P.I. Ulises Ricoy) Collaboration with Dr. David Torres for Low Cost Approaches in Neuroscience 2017. **\$ 20,000**
- NSF INCLUDES (former Co-P.I. Ulises Ricoy) NSF-ICER Award Number 1649296 September 12, 2016 \$299,776
- NIH INBRE Pilot Award (Co-P.I. Ulises Ricoy) Analyzing Gene Sets in Cancer. 2016 \$20,000
- NSF MRI (P.I. Ulises Ricoy) January 13, 2017 \$ 650,000 (ranked highly, not recommended;)
- NSF REU (Co P.I. Ulises Ricoy with UMass Amherst) *August 27, 2018* **\$ 600,000** (ranked highly, not recommended)

- NIH AREA R15 SEED (P.I. Ulises Ricoy) Computational approaches in Neuroscience in rural Northern New Mexico course 2019. **\$ 20,000**
- NSF EPSCoR IWG (P.I. Ulises Ricoy) Indigenous approaches in Science April 1, 2017 \$7,500
- Grass Foundation (P.I. Ulises Ricoy) Neuroscience Educator Award 2016 \$ 10,000

# CURRENT SUPPORT

NSF S-STEM (P.I. Ulises Ricoy) NSF-DUE Award Number 1562008 August 31, 2016
 \$999,999

# PENDING SUPPORT

• Grass Foundation (P.I. Ulises Ricoy) Neuroscience Workshop at NNMC 2020 \$ 15,000

# HONORS & AWARDS RECEIVED

# Graduate School, Postdoc

- Minority Access to Research Careers (MARC, NIH 1996-1998)
- Research Experiences for Undergraduates (REU, NSF 1996)
- Scripps Undergraduate Research Fellowship (SURF, NSF 1997)
- Minority International Research Training (MIRT, NIH 1998)
- UTSA Cum Laude Graduate B.S. 1998
- Research Initiatives for Student Enhancement (RISE, NIH 1998-2000)
- ITESM Best Teacher in 2002-2003 (based on student's evaluations)
- Vanderbilt Travel Award "Frontiers in Addiction Biology" 2004
- NIDA Travel Award 2004 (NIDA Mini convention San Diego)
- Minority Biomedical Research Support (MBRS PhD, NIH Spring 2004)
- APA Diversity Program in Neuroscience Predoctoral Fellowship (T32- fall 2005-Spring 2007)
- APA Travel Award 2005 (SFN)
- NIDA Travel Award 2005 (NIDA Mini convention Washington)
- NHSN Travel Award 2005 (Miami)
- Alfred Sloan Foundation Scholar 2006
- NIDA Travel Award 2006 (NIDA Mini convention Atlanta)
- HHMI (Neurobiology course MBL 2006)
- American Cell Biology Society (Neurobiology course MBL 2006)
- William Townsend Porter Scholarship (Neurobiology Course MBL 2006)
- NHSN Travel Award 2006 (Arizona)
- Minority Biomedical Research Support (MBRS PhD, NIH Fall 2007)
- NRSA Post-doctoral Training grant (T32-NS045553 /January 2008-August 2010)

# Faculty, Director, Chair, Interim Dean, Dean

- SACNAS Travel Award 2010 (Anaheim, CA)
- DOE Faculty and Student Teams Award (Argonne National Laboratory) 2011
- NHSN Travel Award 2011 (Miami)
- DOE Visiting Faculty Program Award (Argonne National Laboratory) 2012
- NSF S-STEM (P.I. Ulises Ricoy) NSF-DUE Award Number 0806469 2010-2014

- NSF-ROA (Parent Grant: P.I. Stephen Meriney Award Number EAGER IOS 1249546) 2013
- DOE Visiting Faculty Program Award (Los Alamos National Laboratory) 2014
- Early Career Neuroscience Institute (Faculty Training Grant, University of Pittsburgh; 2014)
- Crawdad Invertebrate Neurophysiology Course Scholarship <u>Cornell University</u> Department of Neurobiology and Behavior, Cornell University, Ithaca, NY 14853, USA. Instructors: Ron Hoy, Bruce Johnson, Wes Colgan (AD Instruments)
- Grass Foundation Neuroscience Education Award 2015
- DOE-VFP LANL (P.I. Ulises Ricoy and Gabriel Montaño) 2015 (accepted but declined)
- NSF ROA Vanderbilt University 2015 (accepted but declined)
- MBL Neural Systems & Behavior 2015 (accepted but declined)
- NIH IMSD VFP U Massachusetts Neuroscience (P.I. Ulises Ricoy) 2015
- NIH BUILD UNM Neurosciences 2016 (accepted but declined)
- DOE-VFP LANL (P.I. Ulises Ricoy and Gabriel Montaño) 2016 (accepted)
- Linton-Poodry SACNAS SLI 2016
- Applied to SACNAS Board of Directors (2015-17)
- NIH BUILD 2017 Mentoring Award
- Alfred Sloan National Mentoring Board of Directors (2016-present)
- New Mexico Citizen Advisory Board (DOE) (2018-2019)

# STUDENT RESEARCH (2014-2018)

- Yuri Almeida, NNMC student intern (via Dr. Izaguirre-Sierra)
- Lisa Salazar, NNMC student intern (via Dr. Izaguirre-Sierra)
- Lorina Gallegos (Michigan State University 2014)
- Yuri Almeida (University of Pittsburgh 2014)
- Justin Salazar (Michigan State University 2014)
- Nicole Valdez (Iowa State University 2014)
- Samantha Drysdale (Michigan State University 2014)
- Alyssa Lucero (2014)
- Phil Duran (2014)
- Oliver Oviedo (2014)
- Alyssa Lucero (2015)
- Gabby Trujillo (2015, 2016)
- Susan Nsaba (2015)
- Bridget Ortiz (2015, 2016)
- Aspen Lowance (2015, 2016)
- Demetria Cliche (2015, 2016)
- Sam Bennett (2016-18)
- Alyssa Valdez (2016-17)
- Kathy Valdez (2016-17)
- Julianna Vigil (2016-17)
- Desiree Griego (2016-18)
- Andres Romero (2016-18)
- Maria Orozco (2016-18)

### VISITING SCIENTIST SEMINAR SERIES SPRING 2014

- Dr. Jesus Rivas / Highlands University Ecology and Evolutionary Biology
- Dr. Lino Gonzalez / Genentech Biochemistry
- Dr. Bill Atchison / Michigan State University / Neuroscience

- Dr. Bill Porch / Atmospheric Science Group LANL
- Dr. Ben Althouse / SFI
- Dr. Laura Bosc UNM Physiology
- Dr. Eric Libby / SFI Mathematical Microbial Evolution
- Dr. Samuel Scarpino / SFI Complex Systems
- Dr. Michelle Graham / USDA Iowa State University

#### VISITING SCIENTIST SEMINAR SERIES FALL 2014

- Dr. Travis Robbins / NNMU Biology
- Dr. Robert Trujillo / Forest Service
- Dr. Chavez / LANL
- Dr. David Torres / NNMU Math
- Dr. Anthony Sena / NNMU

#### VISITING SCIENTIST SEMINAR SERIES SPRING 2015

- Michael Gonzales / Soymap
- Dr. Heather Montoya / NNMU
- Dr. Joan Bennett / Rutgers University
- Dr. Anthony Sena / NNMU
- Dr. Bill Atchison / MSU
- Dr. Sara Sewell / Caldera Pharmaceuticals
- Dr. George Negrete / UTSA
- Dr. Terry Page / Vanderbilt University
- Dr. Anita Sundararajan / NCGR
- Dr. James Waters / Bluefield State College
- Dr. Joe L. Martinez Jr. / UIC

#### VISITING SCIENTIST SEMINAR SERIES FALL 2016

- Mr. Michael Gonzales / Soymap
- Dr. Taylor Hughlett / UT Arlington
- Mr. Michael Duran / LANL
- Dr. Shawn White / WNMU
- Mr. Logan Peterson / USDA
- Dr. Rebecca Cunningham / UNTHSC
- Dr. Carlos Bolanos / Texas A&M
- Dr. Megan Povelones / Penn State
- Dr. Michael Brandt / LANL

#### VISITING SCIENTIST SEMINAR SERIES SPRING 2017

- Dr. Cristina Velazquez / Instituto de Neurobiologia UPR
- Dr. Robin Cooper / University of Kentucky
- Dr. Sara Del Valle / LANL
- Dr. Cris Argueso / Colorado State University
- Dr. Nathalie Sumien / UNTHSC
- Dr. Michelle Juarez / CUNY
- Dr. Wes Colgan / AD Instruments
- Dr. Arbi Nazarian / Western University of Health Sciences

- Dr. Kristin Gosselink / UTEP
- Dr. Elba Serrano / NMSU
- Dr. Marino Resendiz / UC Denver

#### VISITING SCIENTIST SEMINAR SERIES FALL 2018

- Dr. Shelley Lusetti / NM INBRE NMSU
- Dr. Ulises Ricoy / URE projects
- Dr. Armand Dichosa / LANL
- Dr. Eric Yuckl / NMSU Chemistry
- Mr. Logan Peterson / USDA
- Dr. Robert Greene / UTSW
- Dr. James Orfila / UCHSC
- Dr. Bruce Johnson / Cornell University
- Dr. Kumkum Ganguly / LANL

#### VISITING SCIENTIST SEMINAR SERIES SPRING 2019

- Dr. Robert Beshara / NNMC Psychology
- Dr. Lourdes Echegoyen / UTEP BUILD
- Mr. Antonio Serrano / NNMC Student
- Dr. Arturo Zavala / CSULB
- Dr. Carlos Bolaños / Texas A&M
- Dr. Sergio Iñiguez / UTEP Psychology
- Dr. Wes Colgan / AD Instruments
- Dr. Benjamin Clark / UNM Psychology
- Dr. Jose Bañuelos / UTEP
- Dr. Elba Serrano / NMSU
- Dr. Cristina Villalobos / UTRG

#### **CONFERENCE PARTICIPATION 2013-2017**

- NNMC Student Research and Creativity Conference (May 2013)
- NNMC Student Research and Creativity Conference (May 2014)
- NNMC Student Research and Creativity Conference (May 2015)
- NNMC Student Research and Creativity Conference (May 2016)
- NNMC Student Research and Creativity Conference (May 2017)
- NNMC Student Research and Creativity Conference (May 2018)
- NNMC Student Research and Creativity Conference (May 2019)
- NNMC/LANL Student Research SACNAS Pre-conference (Sept 2013)
- NNMC/LANL Student Research SACNAS Pre-conference (Sept 2014)
- NNMC/LANL Student Research SACNAS Pre-conference (Sept 2015)
- SACNAS 40<sup>th</sup> Anniversary National Conference (Oct 2013)
- SACNAS 41<sup>th</sup> Anniversary National Conference (Oct 2014)
- SACNAS 42<sup>nd</sup> Anniversary National Conference (Oct 2015)
- NM Alliance for Minority Participation Conference (Oct 2013)
- NM Alliance for Minority Participation Conference (Oct 2014)
- NM Alliance for Minority Participation Conference (Oct 2018)
- SACNAS 43<sup>rd</sup> Anniversary National Conference (Oct 2016)
- SACNAS 44<sup>th</sup> Anniversary National Conference (Oct 2017)
- NM INBRE 2018

### EXTRAMURAL SERVICE (last four years)

2019 NSF DUE Reviewer
2019 Alfred Sloan Mentoring Network Reviewer
2018 NSF DUE Reviewer
2018 NIH BUILD Reviewer
2018 Alfred Sloan Mentoring Network Reviewer
2017 NSF DUE Reviewer
2016 NM INBRE Reviewer
2016 SACNAS Committee Member (Student Posters)
2016 NSF DUE Reviewer
2015 NSF IOS Reviewer
2015 NIH BUILD Reviewer

#### **COLLEGE SERVICE**

Mathematics Search Committee (March 2014) Chemistry Search Committee (2011) Brenda Porta-Linnell (hired in 2012) Biology Search Committee (2012) Seth Frietze (resigned 2013) Biology Search Committee (2013) Mario Izaguirre-Sierra (hired in 2013) Biology Search Committee (2013) lvette Guzman (resigned 2014) ES Search Committee (2014) Pedro Chavarria (hired in 2014) ES Search Committee (2014) Joaquin Gallegos (hired in 2014) Biology Search Committee (2014) Travis Robbins (hired in 2014) Dean of Arts & Sciences Search Chair (2015) Environmental Science Committee Chair (2014) Undergraduate Curriculum Committee Chair (2012-2014) Institutional Review Board Chair (2013-2015) SACNAS Faculty Advisor (2010-pres) Biology Faculty Advisor (2010-pres) Friday Academy Core Faculty (2010-present) SLAC (2010-2012) Tenure Co Chair (2015-2016) Bilingual Institute (2010-2012) 2013 Annual Research and Creativity Symposium Keynote speaker host (Dr. Eddie Castaneda) 2014 Annual Research and Creativity Symposium Keynote speaker host (Dr. Edwin Barea Rodriguez) 2015 Annual Research and Creativity Symposium Keynote speaker host (Dr. Joe L. Martinez Jr.) 2016 Grant Writer Search Committee 2016 President's Search Committee 2016 HR Director Search Committee Biology Search Committee Chair (2017) Biology Search Committee Chair (2017) Fine Arts Chair Search Committee (2016-2017) Fine Arts Administrative Assistant (2016) Grant Manager Search Committee (2017) Fine Arts Interim Search Committee (2019) Interim Chair HSS Search Committee (2019)

University of Arizona-Pima Community College (2020-2022) STEM Mentor

### ABSTRACTS AND WORKSHOPS

HSC 70 mRNA expression during the acquisition of a hippocampus-dependent spatial memory in rats. **U. M. Ricoy**, J. M. Pizarro, J. Fey, J. Bowlin, J. L. Martinez Jr., and E. J. Barea Rodriguez. Division of Life Sciences. The University of Texas at San Antonio, TX. (Presented at Society for the Advancement of Chicano and Native American Scientists, **SACNAS**, **1998**).

GAP 43 mRNA expression during the acquisition of a hippocampus-dependent spatial memory in rats. J. M. Pizarro, **U. M. Ricoy**, J. Fey, J. Bowlin, J. L. Martinez Jr., and E. J. Barea Rodriguez. Division of Life Sciences. The University of Texas at San Antonio, TX. (Presented at **SACNAS, 1998**).

Factors of Mortality among Larval Red Drum. **U. M. Ricoy**. The University of Texas at Austin. Marine Science Institute. Fisheries, Aquaculture, and Mariculture Laboratories, Port Aransas, TX. (Submitted and accepted at National Minority Research Symposium, **NMRS**, **1997**).

Analysis of Optical Plankton Counter / Bongo Net Data during CalCOFI Cruise JD9707. **U. M. Ricoy** and David Checkley Jr. The University of California, San Diego. Scripps Institution of Oceanography. Marine Life Research Group, La Jolla CA. (Presented at **NMRS, 1998**).

Anatomical Distribution of GAP 43 and HSC 70 mRNA in the Rat Brain During Training in the Morris Water Maze Task. J. M. Pizarro, M. R. Gonzáles, H. Kim, **U. M. Ricoy**, J. Fey, D. Villareal, A. E. Martínez, J. L. Martínez Jr., and E. J. Barea Rodríguez. Division of Life Sciences. The University of Texas at San Antonio, TX.

(Presented at Society for Neuroscience, 1999).

Microarray Analysis of Altered Gene Expression Associated with D-Amphetamine Self-Administered into the nucleus Accumbens in Fisher 344 Rats. J. S. Rodriguez, **U. M. Ricoy**, S. Y. Boctor, C. F. Phelix and J.L. Martinez Jr. Cajal Neuroscience Institute and Department of Biology. The University of Texas at San Antonio, TX. (Presented at **Society for Neuroscience, 2004**).

Methamphetamine or Morphine Induced Conditioned Place Preference: Possible Role of the Hippocampus. **U. M. Ricoy** and J. L. Martinez Jr. Cajal Neuroscience Institute and Department of Biology. The University of Texas at San Antonio, TX. (Presented at **Society for Neuroscience, 2005**).

Unilateral Intra-Hippocampal Methamphetamine Induced Place Conditioning via reverse Microdialysis. **U. M. Ricoy**, Cesar Bañuelos and J. L. Martínez Jr. Cajal Neuroscience Institute and Department of Biology. The University of Texas at San Antonio, TX. (**Society for Neuroscience 2006**).

Roundtable Breakout on Long-Term Recovery. Nelson J. Tiburcio, W, Azul La Luz B and **Ulises M. Ricoy**. National Development and Research Institutes, Inc. / MHRA 71 West 23rd Street, 8th Floor. New York, New York, The University of New Mexico, Department of Sociology, Albuquerque, NM and the Cajal Neuroscience Institute, San Antonio, TX "Research Teams of the Future: Drug Use and HIV/AIDS". National Hispanic Science Network on Drug Abuse 6<sup>th</sup> Annual Conference. September 13-16 in Scottsdale, **Arizona 2006**.

NHSN Conference Town Hall Meeting "*Meet the NIDA Director: Dr. Nora Volkow*". Graduate Student Leader: **Ulises M. Ricoy**. National Hispanic Science Network on Drug Abuse 6<sup>th</sup> Annual Conference. September 13-16 in Scottsdale, **Arizona 2006**.

Hippocampal Dopamine Receptor involvement in Intra-Hippocampal Methamphetamine Induced Place Conditioning and Self Administration via reverse Microdialysis. **U. M. Ricoy** and J. L. Martinez Jr. Department of Biology. The University of Texas at San Antonio, TX. (Presented at **Society for Neuroscience 2007**).

D1/D5 Receptor Involvement in Intra-Hippocampal Methamphetamine Place Conditioning and Self-Administration. **U. M. Ricoy**<sup>1</sup> and J. L. Martinez Jr<sup>2</sup>. <sup>1</sup>Oregon Health Science University and <sup>2</sup>The Cajal Neuroscience Institute and Department of Biology. The University of Texas at San Antonio. (Presented at **SACNAS 08**).

Stages of Graduate School: *Survival Kit for your Success*. Session Speakers: Greg Villareal, PhD (Galanea Corporation) and **Ulises M. Ricoy**, Ph.D. (OHSU Postdoc). SACNAS National Conference **2008** at Salt Lake City, Utah.

A transgenic mouse model for Alzheimer's disease has impaired synaptic gain but normal synaptic dynamics. <u>Ulises M Ricoy</u>, Peizhong Mao, Maria Manczak, P Hemachandra Reddy, and Matthew E Frerking. Oregon Health Science University. Department of Behavioral Neuroscience. (Presented at **SACNAS 2010**).

Distinct Roles for Cav2.1-2.3 in activity-dependent synaptic dynamics. **Ulises M Ricoy** and Matthew Frerking. Oregon Health Science University. Department of Behavioral Neuroscience. (Presented at **SFN 10**).

Advancing Biomedical Research Workforce Diversity: NIGMS Workshop for Post-docs Transitioning to Independent Positions. Bethesda, Maryland (March 11-12, **2010**).

3<sup>rd</sup> Annual New Mexico Experimental Program to Stimulate Competitive Research (EPSCoR) Junior Faculty Leadership Workshop. January 4-7, **2011.** Jemez Springs, New Mexico.

Methamphetamine Induced Behavioral Sensitization via Hippocampal Dialysis. Joshua De Aguero\* and **Ulises M. Ricoy**. Northern New Mexico College, Department of Biology and The University of Texas at San Antonio, Department of Biology. (Presented at Northern New Mexico College Spring 2011 Poster Session).

Self-Assembly of Highly Ordered Peptide Amphiphile Porphyrin Arrays. Jamie M. Garcia\*, Matthew J. Medina\*, **Ulises M. Ricoy** Ph.D. (Northern New Mexico College. Española, New Mexico 87532) and H. Chris Fry Ph.D. (Argonne National Laboratory, Argonne, IL 60439) *Faculty and Student Teams* 2011.

Hippocampal Synaptic Plasticity: Behavioral Relevance and Implications for Addiction. **Ulises M. Ricoy**. Northern New Mexico College, Department of Biology. Presented at National Hispanic Science Network "New Investigators in Drug Abuse Research" Friday August 26, 2011, Miami.

The Cockroach Genome Project: de novo mapping of the *Periplaneta Americana* and *Blattella germanica* genomes. Justin Salazar\*, Shanae Roybal\*, Richard Plunkett, **Ulises M. Ricoy** and

Seth Frietze. Northern New Mexico College, Department of Biology and Highlands University. (Alliance for Minority Participation, 2012).

Nature Inspired Light-Charge Transfer Molecules. **Ulises M. Ricoy**. Northern New Mexico College, Department of Math and Science, Program in Biology and Chemistry. Spring 2012 Seminar Series. Host: Dr. Anthony Sena.

Utilizing the Cockroach and Grasshopper as model systems in Neurobiology as tools to recruit and retain STEM students in Northern New Mexico. **Ulises M. Ricoy**. Highlands University, Las Vegas, New Mexico. Spring 2012 Host: Dr. Richard Plunkett.

Qualia and the Cockroach. Ulises M. Ricoy. NNMC. Spring 2012.

Soxhlet extraction techniques. Theresa Garcia\*, Viviana Balzaretti, Harrison Rommel PhD, and **Ulises M. Ricoy** PhD Northern New Mexico College Department of Math and Physical Sciences. Northern Creativity Symposia 2013. Espanola, NM.

The cockroach transcriptome project: Identification of a methyltransferase in *Periplaneta Americana*. Aspen Lowance\*, Shanae Roybal\*, Richard Plunkett, PhD, **Ulises M. Ricoy** PhD, Seth Frietze, PhD. Northern New Mexico College, Department of Biology, The National Center for Research Resources & The National Institute of General Medical Sciences. 2013.

Neuroscience teaching at a minority undergraduate institution. <u>Ulises M. Ricoy</u>. Northern New Mexico College. Department of Biology. (SACNAS 2012).

UTEP NIH BUILD workshop (Pipeline Partner). Dr. **Ulises M. Ricoy** and Dr. Anthony Sena. Northern New Mexico College. El Paso, Texas 2014.

Antimicrobial Properties of Medicinal Plants of the Southwest. Theresa Garcia\*, BS in progress1, Harrison Rommel, PhD2, Viviana Balzaretti, MA1, Cathy Pacheco, BS1 and **Ulises M. Ricoy**, PhD3, (1) Biology, Northern New Mexico College, Espanola, NM, (2) Math and Science, Northern New Mexico College, Espanola, NM, (3) Biology, Northern New Mexico College, Española, NM (SACNAS 2014).

The role of Octopamine in cockroach Locomotor behavior. Lorina Gallegos\*, Yvonne Vigil\*, and **Ulises M Ricoy**. Department of Biology and Chemistry. Northern New Mexico College. Espanola, NM 87532 (**SACNAS 2014**).

A Comparison of South American and North American cockroach Locomotor behavior. Yvonne Vigil\*, Lorina Gallegos\*, and **Ulises M Ricoy**. Department of Biology and Chemistry. Northern New Mexico College. Espanola, NM 87532 (**SACNAS 2014**).

**Crawdad Invertebrate Neurophysiology Course.** <u>Cornell University</u> / Department of Neurobiology and Behavior. Instructors: Ron Hoy, Bruce Johnson, Wes Colgan (AD Instruments). January 2015.

**CrawFly Invertebrate Neurophysiology Course.** <u>Cornell University</u> / Department of Neurobiology and Behavior. Instructors: Ron Hoy, Bruce Johnson, Wes Colgan (AD Instruments). August 2015.

Early Career Neuroscience Institute. University of Pittsburgh. Department of Neurobiology. Grant writing workshop. February 2015.

Developmental gene expression patterns in the American cockroach. Oliver Oviedo\*, Chien-Chi Lo, Seth Frietze Ph.D., **Ulises M. Ricoy** Ph.D. Department of Biology and Chemistry. Northern New Mexico College. Espanola, NM 87532 (**INBRE 2015**).

The role of Octopamine in Locomotor Behavior between North American (*Periplaneta americana*) and South American (*Blaptica dubia*) Cockroaches. Alyssa Lucero\*, Mario Izaguirre-Sierra Ph.D., **Ulises M. Ricoy** Ph.D. Department of Biology and Chemistry. Northern New Mexico College. Espanola, NM 87532 (**INBRE 2015**).

Shanae Roybal<sup>\*3</sup>, Edgar Ronquillo<sup>2</sup>, Ashis Nandy<sup>2</sup>, **Ulises M. Ricoy<sup>3</sup>**, David Torres<sup>1</sup> Northern New Mexico College. Department of Math and Physical Sciences<sup>1</sup> College of Engineering<sup>2</sup> Department of Biology, Chemistry, Environmental Sciences<sup>3</sup>. Espanola, NM 87532. (Annual Research and Creativity Symposium **2015**).

Modeling Honey Bee Populations. David Torres, <u>Ulises M. Ricoy</u> and Shanae Roybal\*. Department of Mathematics and Physical Sciences and Department of Biology, Chemistry, Environmental Sciences. Northern New Mexico College. (Annual Research and Creativity Symposium **2015**). Espanola, NM 87532.

Establishing New Colonies of *Periplaneta americana* and *Blaberus discoidalis* for use in Molecular Biology and Neuroscience Research. Aspen Lowance\*, Sam Bennett, Mario Izaguirre-Sierra Ph. D. **Ulises M. Ricoy** Ph. D. Northern New Mexico College, Espanola, NM, 87532. (**INBRE 2016**).

Statistical Analysis of Gene Sets. David Torres, Judy Cannon, **Ulises M. Ricoy**, Christopher Johnson. Department of Mathematics and Physical Sciences and Department of Biology, Chemistry, Environmental Sciences. Northern New Mexico College. Espanola, NM 87532. (**INBRE 2016**).

Locomotor Behavior in an Invertebrate Biomedical Model. Lisa Y. Salazar\*, Gabriella F. Trujillo, Bridget Ortiz, Mario Izaguirre-Sierra and Ulises M. Ricoy. Department of Biology, Chemistry, Environmental Sciences. Northern New Mexico College. Espanola, NM 87532. (**INBRE 2016**).

The Effect of Novelty and Stress on Insect Grooming Behavior. Bridget D. Ortiz\*, Gabriella F. Trujillo\*, Mario Izaguirre-Sierra, and **Ulises M. Ricoy.** Department of Biology, Chemistry, Environmental Sciences. Northern New Mexico College. Espanola, NM 87532. (**INBRE 2016**).

• equal contribution

A comparison of drug seeking behavior and preference in *Periplaneta americana* and *Blaberus discoidalis*. Bridget D. Ortiz\*, Gabriella F. Trujillo\*, and **Ulises M, Ricoy**<sup>1</sup>; <sup>1</sup>Biol., Northern New Mexico Col., Espanola, NM. (**ARCSS 2016**).

A comparison of speed, grooming and seeking behavior in North and South American cockroaches. Bridget D. Ortiz\*, Gabriella F. Trujillo\*, Juan F. Gomez-Molina<sup>2</sup>, Mauricio Corredor<sup>3</sup>, and **Ulises M, Ricoy**<sup>1</sup>; <sup>1</sup>Biol., Northern New Mexico Col., Espanola, NM; <sup>2</sup>Intl. Group of Neurosci. IGN · Intl. Group of Neurosci., Medellin, Colombia; <sup>3</sup>Inst. de Biologia, Univ. of Antioquia, Medellin, Colombia. (**Submitted to Society for Neuroscience 2016**).

Teaching about probability in simple ways: location probabilities, Bayesian methods and exotic probabilities in the context of conditioned place preference with cockroaches. Juan F. Gomez-Molina<sup>2</sup>, Mauricio Corredor<sup>3</sup>, and **Ulises M, Ricoy<sup>1</sup>**; <sup>1</sup>Biol., Northern New Mexico Col., Espanola, NM; <sup>2</sup>Intl. Group of Neurosci. IGN · Intl. Group of Neurosci., Medellin, Colombia; <sup>3</sup>Inst. de Biologia, Univ. of Antioquia, Medellin, Colombia. (**Submitted to Society for Neuroscience 2016**).

Analogy between bacteria's quórum sensing with nervous system. Mauricio Corredor<sup>3</sup>, Juan F. Gomez-Molina<sup>2</sup>, **Ulises M, Ricoy<sup>3</sup>**; <sup>3</sup>Biol., Northern New Mexico Col., Espanola, NM; <sup>2</sup>Intl. Group of Neurosci. IGN · Intl. Group of Neurosci., Medellin, Colombia; <sup>3</sup>Inst. de Biologia, Univ. of Antioquia, Medellin, Colombia. (**Submitted to Society for Neuroscience 2016**).

Left-Right preference and its orthogonal processes in insect navigation: teaching algorithms for recursive programs of general neural principles. \*Juan. F. Gomez-Molina<sup>1</sup>, **Ulises. M. Ricoy**<sup>2</sup>, Mauricio Corredor<sup>3</sup>, A. Restrepo-Velazquez<sup>4</sup>, Fabiola Lopera<sup>1</sup>; <sup>1</sup>Intl. Group of Neurosci. (IGN), Medellin, Colombia; <sup>2</sup>Biology, Chem. and Envrn. Sci., Northern New Mexico Col., Española, NM;<sup>3</sup>Biol. (GEBIOMIC and GRC research groups), Univ. of Antioquia, Medellin, Colombia; <sup>4</sup>Informatica y Sistemas, EAFIT Univ., Medellin, Colombia. (**Submitted to Society for Neuroscience 2016**).

Non-invasive brain stimulation for addiction: can we boost a hypothetical frontal ephaptic signaling of theta/gamma waves? Juan F. Gomez-Molina<sup>1</sup>, **Ulises M. Ricoy**<sup>3</sup>, Mauricio Corredor<sup>4</sup>, L. F. Botero-Posada<sup>5</sup>, J. Velez<sup>2</sup>; <sup>1</sup>Intl. Group of Neurosci. (IGN), Medellin, Colombia; <sup>2</sup>USA-member, Intl. Group of Neurosci. (IGN), New York, NY; <sup>3</sup>Biology, Chem. and Envrn. Sci., Northern New Mexico Col., Española, NM; <sup>4</sup>Biol. (GEBIOMICS, GRC research groups), Univ. of Antioquia, Medellin, Colombia; <sup>5</sup>Med. Sch., CES Univ., Medellin, Colombia. (**Submitted to Society for Neuroscience 2016**).

Linton-Poodry SACNAS Summer Leadership Institute at the American Academy for the Advancement of Science in Washington D.C. (July 18-22, 2016). **Ulises M. Ricoy**.

Octopamine Receptor Expression in *Periplaneta americana* and *Blaberus*. Sam Bennett\*, Mario Izaguirre-Sierra Ph. D. Ulises M. Ricoy Ph. D. Northern New Mexico College, Espanola, NM, 87532. (INBRE 2017).

Can diffuse and small molecular electric signaling due to oxidative stress cause neurodegenerative diseases? Computer tools, neuromodulation (TMS, TES) and diagnosis (EEG, new MRIs). **U. M. Ricoy**, J. F. Gomez-Molina, C. Velez-Pardo, M. Jimenez Del Rio, M. Corredor, G. Perry; Intl. Group of Neurosci. (IGN), Medellin, Colombia; 2Inst. de Investigaciones Médicas, Biol. Inst., Univ. of Antioquia, Medellin, Colombia; Grupo de Neurociencias de Antioquia, Universirty of Antioquia, Medellin, Colombia; Col. of Sci., Univ. of Texas at San Antonio, San Antonio, TX. (**Submitted to Society for Neuroscience 2017**).

Locomotion in insects (cockroaches and ants): waves and discrete states of neural activity in modules for central pattern generation. J. F. Gomez-Molina, A. L. Gomez-Molina, **\*U. M. Ricoy**; Intl. Group of Neurosci. (IGN), Medellin, Colombia; Biol., Northern New Mexico Col., Espanola, NM. (Submitted to Society for Neuroscience 2017).

Teaching Python and MATLAB for insect behavior: a minimalist neural model with biologically realistic characteristics. **U. M. Ricoy**, J. F. Gomez-Molina, M. Corredor; Biol., Northern New

Mexico Col., Espanola, NM; Intl. Group of Neurosci. (IGN), Medellin, Colombia; Biol. Inst., Univ. of Antioquia, Medellin, Colombia. (Submitted to Society for Neuroscience 2017).

The effects of sugar on cockroach (*Blaberus discoidales*) locomotor behavior (speed and grooming). Desiree Griego, John Archuleta and **Ulises M. Ricoy**. Department of Biology, Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (**ARCSS 2018**)

Running behavior in *Blaberus discoidales, Blaptica dubia, Periplaneta americana*, and *Gromphadorhina portentosa*. Marissa Salazar, Desiree Griego, John Archuleta and Ulises M. Ricoy. Department of Biology, Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (ARCSS 2018)

Video Analyses of Running behavior in *Blaptica dubia, Periplaneta americana*, and *Gromphadorhina portentosa.* John Archuleta, Marissa Salazar, Desiree Griego, and Ulises M. Ricoy. Department of Biology, Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (ARCSS 2018)

Locomotor Behavior in an Invertebrate Biomedical Model. Lisa Y. Salazar\*, Gabriella F. Trujillo, Bridget Ortiz, Mario Izaguirre-Sierra and Ulises M. Ricoy. Department of Biology, Chemistry, Environmental Sciences. Northern New Mexico College. Espanola, NM 87532. (**INBRE 2018**).

Characterizing vibration frequency sensitivity and neural activity in escaping earthworms. A. Romero, W. Colgan and **U. M. Ricoy**, Northern New Mexico Col., Espanola, NM 87532 (Society for Neuroscience 2019).

Imaging the Caenorhabditis elegans Germline. Shae Madrid, Patrick Sanchez, Phil Duran, Catherine Davis-Sparks, **Ulises M. Ricoy**, and Sushmita Nandy. Department of Biology, Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (**Annual Research and Creativity Symposium, NNMC 2019**)

Impact of abnormal glycemic levels on feeding behavior of Caenorhabditis elegans. Phil Duran, Andres Romero, Patrick Sanchez, Catherine Davis-Sparks, Shae Madrid, **Ulises M. Ricoy** (Ph.D), and Sushmita Nandy (Ph.D). Department of Biology, Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (**Annual Research and Creativity Symposium, NNMC 2019**)

Modeling Drug Reward with Invertebrates. Y. Vigil and **U. M. Ricoy**, Department of Biology, Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (**Society for Neuroscience 2019**).

Invertebrate Model of Drug Seeking with Cockroaches. **U. M. Ricoy**, Department of Biology, Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (**NHSN 2019**).

Biological Models of Chronic Diseases. W. Atchison<sup>1</sup>, Alexandra Colon<sup>1</sup>, **Ulises M. Ricoy<sup>2</sup>**, and Perez-Bonilla<sup>1</sup>, P. <sup>1</sup>Michigan State University, Department of Neuroscience and <sup>2</sup>Northern New Mexico College. 921 North Paseo de Oñate, Española, NM 87532. (**SACNAS 2019**).

A simple oculomotor psychophysical experiment to teach interpretation of variance, p-values and non-parametric statistics. J. F. Gomez-Molina, A. L. Gomez-Molina, **\*U. M. Ricoy**; Intl.

Group of Neurosci. (IGN), Medellin, Colombia; Biol., Northern New Mexico Col., Espanola, NM. (Submitted to Society for Neuroscience 2019).

• Asterisk denotes presentations done by students

#### **PUBLICATIONS**

Local Hippocampal Methamphetamine-Induced Reinforcement. <u>Ricoy UM</u> and Martinez Jr. JL (2009) *Front. Behav. Neurosci.* doi:10.3389/neuro.08.047.2009

A transgenic mouse model for Alzheimer's disease has impaired synaptic gain but normal synaptic dynamics. <u>Ulises M Ricov</u>, Peizhong Mao, Maria Manczak, P Hemachandra Reddy, and Matthew E Frerking. *Neuroscience Letters*. 2011 June 29 PMID 21741

Self-Assembly of Highly Ordered Peptide Amphiphile Porphyrin Arrays. H. Christopher Fry, Jamie Garcia, Matthew Medina, <u>Ulises M. Ricoy</u>, David Gosztola, Maxim Nikifirov, Samuel I. Stupp. *J Am Chem Soc.* 2012 Sep 12;134(36):14646-9. doi: 10.1021/ja304674d. Epub 2012 Aug 28.

Distinct roles for Cav2.1-2.3 in activity-dependent synaptic dynamics. <u>Ulises M. Ricov</u>, Matthew E Frerking *Journal of Neurophysiology* Published 12 February 2014Vol. no. DOI: 10.1152/jn.00335.2013

Modeling Honey Bee Populations. David Torres, <u>Ulises M. Ricoy</u> and Shanae Roybal. Department of Mathematics and Physical Sciences and Department of Biology. Northern New Mexico College. **PLoS One**. 2015 Jul 6;10(7):e0130966. doi: 10.1371/journal.pone.0130966.

Statistical Analysis of Gene Sets. David Torres, Judy Cannon, **Ulises M. Ricoy**, Christopher Johnson. Department of Mathematics and Physical Sciences and Department of Biology, Chemistry, Environmental Sciences. Northern New Mexico College. Espanola, NM 87532. **PLoS One**. 2016 Oct 6;11(10):e0163918. doi: 10.1371/journal.pone.0163918

Gomez-Molina J.F., Corredor M., Restrepo-Velasquez A.A., Ricoy U.M. (2017) Computer models for ions under electric and magnetic fields: random walks and relocation of calcium in dendrites depends on timing and population type. In: Torres I., Bustamante J., Sierra D. (eds) VII Latin American Congress on Biomedical Engineering CLAIB 2016, Bucaramanga, Santander, Colombia, October 26th -28th, 2016. **IFMBE Proceedings, vol 60. Springer, Singapore**. doi: 10.1007/978-981-10-4086-3 175.

Early-life ketamine exposure attenuates the preference for ethanol in adolescent Sprague-Dawley rats. Franco D, Zamudio J, Blevins KM, Núñez-Larios EA, **Ricoy UM**, Iñiguez SD, Zavala AR. **Behav Brain Res**. 2020 Jul 1;389: 112626. doi: 10.1016/j.bbr.2020.112626. Epub 2020 Apr 30. PMID: 32361040

The role of presynaptic calcium channels on paired pulse facilitation and frequency facilitation of CA1 synaptic dynamics. <u>Ulises M. Ricoy</u> and Matthew Frerking. Department of Behavioral Neuroscience. Oregon Health Science University. *Submitted to Journal of Neurophysiology*.

Developmental gene expression patterns in the American cockroach. Oliver Oviedo\*, Chien-Chi Lo, **Ulises M. Ricoy Ph.D**, Seth Frietze Ph.D. *In preparation to be submitted to BMC Genomics.* 

The Hippocampus and reward: a review. <u>Ulises M. Ricoy</u> and Joe L. Martinez Jr. Department of Biology. The University of Texas at San Antonio. In preparation

Methamphetamine Induced Behavioral Sensitization via Hippocampal Dialysis. Joshua De Aguero, Arturo Zavala, Joe L. Martinez Jr. and <u>Ulises M. Ricov</u>. Northern New Mexico College, Department of Biology; The University of Texas at San Antonio, Department of Biology. In preparation

Neuroscience teaching at a minority undergraduate institution. <u>Ulises M. Ricoy</u>. Northern New Mexico College. Department of Biology. In preparation

Utilizing the grasshopper preparation to examine nicotine-induced epileptic seizure activity at a minority undergraduate institution. <u>Ulises M. Ricoy</u>. Northern New Mexico College. Department of Biology. In preparation

Low Cost Computational Approaches to analyze the electrophysiological response from *Blaptica dubia* obtained from SpikerBox. Andres Romero, David Torres, <u>Ulises M Ricoy</u>. Northern New Mexico College, Espanola, NM 87532. Department of Biology. Department of Mathematics. Submitted to Journal of Undergraduate Neuroscience Education.

A collision of two health epidemics: How diabetes mellitus can promote and sustain cancer development and growth. Sara J. Tuzel, B.S., **Ulises M. Ricoy**, Ph.D and 1Sushmita Nandy, Ph.D Department of Biology, Northern New Mexico College, Espanola Campus, New Mexico, USA. (*Manuscript in preparation*, NNMC 2019)

### INVITED TALKS

The Role of GABA B mediated presynaptic inhibition on CA 1 synaptic dynamics. The University of Texas at San Antonio. Center for Research and Training in Sciences. MBRS RISE/MARC Programs. Fall 2010 Seminar Series. Host: Dr. Barea-Rodriguez.

The role of presynaptic voltage gated calcium channels on Hippocampal CA1 synaptic transmission during realistic firing patterns. The University of New Mexico. School of Medicine. Department of Neurosciences. Spring 2011 Seminar Series. Host: Dr. Fernando Valenzuela.

Contribution of N, P/Q, and R type calcium channel mediated presynaptic inhibition on CA 1 synaptic dynamics. The University of North Texas Health Science Center, Department of Pharmacology and Neuroscience. Spring 2011 Seminar Series. Host: Dr. Eric Gonzales

Hippocampal Synaptic Plasticity: Behavioral Relevance and Implications for Addiction. National Hispanic Science Network on Drug Abuse. Miami, Florida. Fall 2011

Utilizing the Cockroach and Grasshopper as model systems in Neurobiology as tools to recruit and retain STEM students in Northern New Mexico. Highlands University, Las Vegas, New Mexico. Spring 2012 The effects of presynaptic inhibition on synaptic dynamics. SACNAS 2012 National Convention. Seattle, Washington. Oct 12, 2012

Hippocampal Synaptic Plasticity: Behavioral Relevance and Implications for Addiction. UTEP VIDA Colloquium. El Paso, Texas. Fall 2013

"The effects of environmental insult on homeostatic adaptations of synaptic transmission." Early Career Neuroscience Institute. University of Pittsburgh. Department of Neurobiology. Grant writing workshop. February 2015.

Hippocampal Synaptic Plasticity: Behavioral Relevance and Implications for Addiction. California State University, Long Beach, CA Spring 2015.

A Comparison of Locomotor Behavior between North American (*Periplaneta americana*) and South American (*Blaptica dubia*) Cockroaches. The University of New Mexico, Department of Neuroscience. Spring 2016. Host: Dr. Don Partridge.

Locomotor Behavior in an Invertebrate Biomedical Model. San Juan College. Department of Biology. Spring 2016. Host: Dr. Veronica Evans.

Keynote Seminar for RISE and MARC (NIH) students. The University of Texas at San Antonio, Department of Biology. Fall 2016. Host: Dr. Edwin Barea-Rodriguez.

Running Behavior of North American (*Periplaneta americana*) and South American (*Blaptica dubia*) Cockroaches. Ponce Health Science University. Spring 2017. Host: Dr. Kenira Thompson.

Locomotor Behavior in an Invertebrate Biomedical Model. University of Puerto Rico Ponce. Department of Biology. Spring 2017. Host: Dr. Edu Suarez.

Low Cost Approaches in Teaching/Research an Invertebrate Biomedical Model. Marine Biological Laboratory. Woods Hole, MA. Summer 2017. Host: Dr. Gina Poe (UCLA).

Behavior and Physiology using cockroaches in a rural small College. Southern Oregon College. Coos Bay, OR. 2018.

Accessible Active Learning in Neuroscience. The University of Arizona. Tucson, AZ. Spring 2019. Host: Dr. Lynne Oland.

Low Cost Approaches in Neuroscience (Computation, Physiology and Behavior). Grinnell College. Grinnell, IA. Spring 2019. Host: Dr. Clark Lindgren.

Modeling Natural and Drug Reward in Cockroaches. Texas A&M, College Station Texas. Spring 2020. Host: Dr. Carlos Bolanos.

Conditioned Drug Reward in Cockroaches. New Jersey Institute of Technology, NJ. Spring 2020. Host: Dr. Eric Fortune.

Life Journey - Drug Reward in Cockroaches. UTEP. Summer 2020. Host: Dr. Laura O'Dell.

Modeling Natural and Drug Reward in Cockroaches. CSULB. Summer 2020. Host: Dr. Arturo Zavala.

### JOURNAL REVIEWER

Journal of Neuroscience, Journal of Neurophysiology, Behavioral Neuroscience, PLOS

### <u>LINKS</u>

https://www.ncbi.nlm.nih.gov/myncbi/browse/collection/51589333/?sort=date&direction=ascending

https://www.linkedin.com/in/ulises-ricoy-ph-d-a20a1aa

https://www.researchgate.net/profile/Ulises\_Ricoy

https://scholar.google.ca/citations?user=6KmL2OwAAAAJ&hl=en

# **REFERENCES**

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