CURRICULUM VITAE

Theresa M. Szabo-Maas

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POSITIONS AND EDUCATION

2010 – present	Assistant Professor, Delaware State University
2008 – 2010	Research Associate, Dept. of Neuroscience, Brandeis University **Advisor: Eve Marder**
2007	Grass Fellow, Marine Biological Laboratories, Woods Hole, MA
2002-2006	Research Associate, Dept. of Neuroscience, Albert Einstein COM **Advisor: Donald Faber**
1996-2001	Ph.D. in Zoology, Texas A&M University **Advisor: Mark Zoran** Dissertation: *Regulatory mechanisms governing electrical synaptogenesis during regeneration of neural networks in the pond snail, Helisoma trivolvis.*
1992-1995	Masters Program, Zoology, Texas A&M University **Advisor: Mark Zoran** Dissertation: *Tissue culture methods for the nerve cord of the earthworm, Lumbricus terrestris.*
1986-1990	B.A. in Biology, Oberlin College

PUBLICATIONS

White JE, Adebanjo T, **Szabo-Maas TM** (*In preparation*) Goldfish and zebrafish brains display plaque-like structures which express beta-amyloid and are peripherally associated with estrogen receptor alpha.

Adebanjo T, White JE, **Szabo-Maas TM** (*In preparation*) Connexin 35, the teleost neuronal connexin, is highly expressed in visual circuits during optic nerve regeneration.

Adebanjo T, White JE, DeBroux B, **Szabo-Maas TM** (*In preparation*) Estrogen receptor alpha (ERα) isoforms in goldfish and zebrafish: characterization of a novel 25 kDa isoform.

Adebanjo T, White JE, **Szabo-Maas TM** (*In preparation*) Comparative distribution of the G protein-coupled estrogen receptor (GPER) in the peripheral and central nervous system of goldfish, *Carassius auratus*, and zebrafish, *Danio rerio* during optic nerve regeneration.

Richardson JK, **Szabo-Maas TM**, Zoran MJ (2014) Neuron-specific modulation of electrical synapse formation by dopamine. *Resubmitted*.

Turner MB, **Szabo-Maas TM**, Poyer JC, Zoran MJ (2011) Regulation and restoration of motoneuronal synaptic transmission during neuromuscular regeneration in the pulmonate snail, *Helisoma trivolvis*. *Biol Bull*, 221(1):110-125.

Szabo TM, Chen R, Goeritz ML, Maloney R, Tang LS, Li L, Marder E (2011). Distribution and physiological effects of B-type allatostatins (myoinhibitory peptides, MIPs) in the stomatogastric nervous system of the crab, *Cancer borealis*. *J Comp Neurol*, 519(13):2658-2676.

Grove CL, **Szabo TM**, McIntosh JM, Do S, Waldeck RF and Faber DS (2011) Fast synaptic transmission in the goldfish CNS mediated by multiple nicotinic receptors. *J Physiol*, 589(Pt 3):575-595.

Szabo TM, Caplan JS, Zoran MJ (2010) Serotonin regulates electrical coupling via modulation of extrajunctional conductance: H-current. *Br Res*, 1349C:21-31.

Ma M, **Szabo TM,** Jia C, Marder E, Li L (2009) Mass spectrometric characterization and physiological actions of the first crustacean C-type allatostatins. *Peptides*, 30:1660-1668.

Szabo TM, Brookings T, Preuss T, Faber DS (2008) Effects of temperature acclimation on a central neural circuit and its behavioral output. *J Neurophysiol* 100(6):2997-3008.

Neumeister H, **Szabo TM**, Preuss T (2008) Behavioral and physiological characterization of sensorimotor-gating in the goldfish startle response. *J Neurophysiol* 99(3):1493-502.

Szabo TM*, McCormick CA*, Faber DS (2007) Otolith endorgan input to the Mauthner neuron in the goldfish. *J Comp Neurol* 505(5):511-25. (*Co-first authors.)

Szabo TM, Zoran MJ (2007) Transient electrical coupling regulates formation of neuronal networks. *Br Res* 1129:63-71.

Szabo TM, Weiss S, Faber DS, Preuss T (2006) Representation of auditory signals in the M-cell: role of electrical synapses. *J Neurophysiol* 95(4):2617-29.

Szabo TM, Faber DS and Zoran MJ (2004) Transient electrical coupling delays the onset of chemical neurotransmission at developing synapses. *J Neurosci* 24(1):112-20.

ABSTRACTS

White JE, Adebanjo T, **Szabo-Maas TM** (2014) Comparative expression of GPR30 in the brains of goldfish and zebrafish. Program No. 640.03. 2014 Abstract Viewer and Itinerary Planner. Washington, D.C.: Society for Neuroscience. Online.

Adebanjo T, White JE, **Szabo-Maas TM** (2014) Multiple distinct estrogen receptor alpha protein isoforms in the central nervous system of adult teleost. Program No. 640.04. 2014 Abstract Viewer and Itinerary Planner. Washington, D.C.: Society for Neuroscience. Online.

White JE, Adebanjo TT, **Szabo-Maas TM** (2014) Expression of GPR30 in the nervous system of the zebrafish, *Danio rerio*. NISBRE IDeA Symposium, University of Delaware.

Adebanjo T, White JE, **Szabo-Maas TM** (2014) Multiple distinct isoforms of estrogen receptor alpha (ERα) in the central nervous system of adult teleosts. NISBRE IDeA Symposium, University of Delaware.

Cinelli M, **Szabo-Maas T**, McIntosh D (2014) Effect of temperature on weakfish diagnosed with mycobacteriosis. Graduate Student Association Research Symposium, Delaware State University, Dover, Delaware.

White JE, Adebanjo TT, **Szabo-Maas TM** (2014) Expression of GPR30 in the nervous system of the zebrafish, *Danio rerio*. Graduate Student Association Research Symposium, Delaware State University, Dover, Delaware.

Adebanjo T, White JE, **Szabo-Maas TM** (2014) Multiple distinct isoforms of estrogen receptor alpha (ERα) in the central nervous system of adult teleosts. Graduate Student Association Research Symposium, Delaware State University, Dover, Delaware.

Szabo TM, White J (2013) Expression of the plasma-membrane associated G protein-coupled receptor, GPR30, in the brain of the goldfish, *Carassius auratus*. The 2nd Annual Delaware Neuroscience Retreat at Nemours Alfred I DuPont Hospital for Children in Newark, DE.

White J, Adebanjo T, McLean T, **Szabo-Maas T** (2012) Expression of the plasma membrane associated G protein-coupled receptor, GPR30, in the brain of the goldfish, *Carassius auratus*. The 5th Annual Delaware Chapter for the Society for Neuroscience Poster Session at Delaware Biotechnology Institute (DBI) Newark, DE.

Szabo TM, White J (2012) Expression of the plasma-membrane associated G protein-coupled receptor, GPR30, in the brain of the goldfish, *Carassius auratus*. Program No. 383.15. 2012 Abstract Viewer and Itinerary Planner. New Orleans, LA: Society for Neuroscience. Online.

White J, **Szabo-Maas T** (2012) Expression of the plasma-membrane associated G protein-coupled receptor, GPR30, in the brain of the goldfish, *Carassius auratus.* Graduate Student Association Research Symposium, Delaware State University, Dover, Delaware.

White J, **Szabo-Maas T** (2012) Expression of the plasma-membrane associated G protein-coupled receptor, GPR30, in the brain of the goldfish, *Carassius auratus.* Legislative Hall Showcase, Legislative Hall, Dover, Delaware.

White J, **Szabo-Maas T** (2011) Expression of the plasma-membrane associated G protein-coupled receptor, GPR30, in the goldfish, *Carassius auratus*, with special reference to the Mauthner cell. The 4th Annual Delaware Chapter for the Society for Neuroscience Poster Session, Delaware Biotechnology Institute (DBI) Newark, DE.

Adebanjo TT, **Szabo Maas T** (2011) Seasonal effects on regeneration in the optic nerve of the goldfish, *Carassius auratus*. Program No. 595.16. 2011 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience. Online.

Mitchell T, **Szabo T**, Dhillon H (2011) Studying the neural effect of a Gα mutation in lateralization and behavior. Program No. 35.21. 2011 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience. Online.

White J, **Szabo-Maas T** (2011) Expression of the plasma-membrane associated G-protein coupled receptor, GPR30 in the goldfish, *Carassius auratus*, with special reference to the Mauthner cell. Program No. 501.07. 2011 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience. Online.

White J, **Szabo-Maas T** (2011) Expression of the plasma-membrane associated G protein-coupled receptor, GPR30, in the goldfish, *Carassius auratus*, with special reference to the Mauthner cell. Drexel University Discover Day, Drexel University, Philadelphia, PA.

Gould GG, Echevarria DJ, **Szabo TM**, Onaivi ES, Valenti TW, Brooks BW (2010) Maze tests and pharmacological manipulation of fear and reward-seeking behavior in zebrafish and other teleosts. Program No. 25.3. *2010 Abstract Viewer and Itinerary Planner*. San Diego, CA: Society for Neuroscience. Online.

Maloney RM, Goeritz ML, **Szabo TM**, Marder E (2010) Localization of allatostatin peptide in the stomatogastric nervous system. Program No. 287.9. *2010 Abstract Viewer and Itinerary Planner*. San Diego, CA: Society for Neuroscience. Online.

Richardson JK, **Szabo TM**, Zoran MJ (2010) Modulatory effects of dopamine on electrical coupling in the formation of identified neural networks. Program No. 42.10. *2010 Abstract Viewer and Itinerary Planner*. San Diego, CA: Society for Neuroscience. Online.

Szabo TM, Maloney R, Tang, LS and Marder E (2009) Physiological effects of allatostatins on the stomatogastric ganglion in the crab, *Cancer borealis*. Program No. 316.12. *2009 Abstract Viewer and Itinerary Planner*. Chicago, IL: Society for Neuroscience. Online.

Szabo TM, Brookings T, Faber DS, Preuss T (2008) Neurophysiological mechanisms underlying thermal acclimation in a neuron of the vertebrate central nervous system. Program No. 237.18. *2008 Abstract Viewer and Itinerary Planner*. Washington, DC: Society for Neuroscience. Online.

Szabo TM, McCormick CA, Faber DS. (2006) Otolith endorgan input to the Mauthner neuron in the goldfish. Program No. 543.16. *2006 Abstract Viewer and Itinerary Planner*. Atlanta, GA: Society for Neuroscience. Online.

Richardson JK, **Szabo TM**, Zoran MJ. (2006) Inhibition of transient electrical coupling during regeneration alters formation of neural networks. Program No. 227.16. *2006 Abstract Viewer and Itinerary Planner*. Atlanta, GA: Society for Neuroscience. Online.

Weiss SA, **Szabo TM**, Preuss T, Faber DS (2006) Sound-evoked inhibition of the Mauthner cell. Program No. 817.2. *2006 Abstract Viewer and Itinerary Planner*. Atlanta, GA: Society for Neuroscience. Online.

Weiss SA, **Szabo TM**, Faber DS, Preuss T. (2005) A spectral analysis of sound evoked potentials in the Mauthner cell. Program No. 77.4. *2005 Abstract Viewer and Itinerary Planner*. Washington, DC: Society for Neuroscience. Online.

Szabo TM, Preuss T, Faber DS. (2004). Pharmacological analysis of sound-evoked potentials in the Mauthner cell. Program No. 508.10. *2004 Abstract Viewer and Itinerary Planner*. San Diego, CA: Society for Neuroscience. Online.

Sarkar S, **Szabo TM**, Faber DS (2002) LTD of the electrical component at mixed synapses lacking an NMDAR-mediated response. Program No. 146.19. *2002 Abstract Viewer and Itinerary Planner*. Orlando, FL: Society for Neuroscience. Online.

Szabo TM, Zoran MJ (2001) Synaptogenesis in triplet neural networks is influenced by previous synaptic experience. Program No. 252.19. *2001 Abstract Viewer and Itinerary Planner*. San Diego, CA: Society for Neuroscience. Online.

Szabo TM, Zoran MJ (2000) Synapse-specific modulation of developing electrical connections by trophic factors and neurotransmitters. Program No. 510.2. *2000 Abstract Viewer and Itinerary Planner*. New Orleans, LA: Society for Neuroscience. Online.

Szabo TM, Zoran MJ (1999) Chemical and electrical communication during early stages of synaptic development are inversely related. *Soc Neurosci Abst* 22:38.

Szabo TM, Zoran MJ (1998) Reduction of intracellular coupling affects chemical transmission at identified synapses in culture. *Soc Neurosci Abst* 21:804.

Szabo TM, Zoran MJ (1997) Cell-cell signaling mediates the formation and elimination of novel synaptic connections. *Soc Neurosci Abst* 23:1980.

Szabo TM, Zoran MJ (1996) Synapse-specific electrical coupling between identified neurons reforms in cell culture. *Soc Neurosci Abst* 22:38.

Szabo TM, Zoran MJ (1995) Serotonin and dopamine modulate the formation of electrical connections at giant somatic synapses in cell culture. *Soc Neurosci Abst* 21:804.

PRESENTATIONS: Szabo-Maas

November 6, 2014	Contributed talk: Research Presentation, Journal Club, Biology Department, DSU. *"Estrogen receptors and amyloid plaques in teleost brain."*
January 14, 2014	Contributed talk: NIH COBRE Advisory Panel Presentation: "*Modulation of sensorimotor gating by estradiol."*
November 14, 2013	Contributed talk: Journal Club, Biology Department, DSU.
August 15, 2013	Contributed talk: "*Modulatory effects of estradiol on a teleost startle circuit."* NISBRE IDeA Symposium, University of Delaware.
January 25, 2013	Contributed talk: NIH COBRE Advisory Panel Presentation: "*Cellular actions of neuroendocrine disruptors in a model neural circuit."*
August, 2012	Invited talk, Science and Technology Academy for Residence Scholar (STARS), DSU, Dr. Mazen Shahin, Director. ***"****Fish, hormones and behavior."*
April 27, 2012	Contributed talk, Delaware Neuroscience Retreat, Buena Vista Conference Center, New Castle, DE. "*Expression of the plasma-membrane associated G-protein coupled receptor, GPR30, in the brain of the goldfish, Carassius auratus*."
August, 2011	Invited talk, Science and Technology Academy for Residence Scholar (STARS), DSU, Dr. Mazen Shahin, Director. ***"****How does the environment affect the behavior of fish?"*
March 16, 2011	Contributed talk, Q.E.D. Natural Science Symposia, DSU, Dr. Stephen Taylor, Director. *"Interactions between the nervous system and the environment: studying and modeling the escape behavior of the goldfish, Carassius auratus."*
January 24, 2011	Contributed talk, College of Math, Natural Science and Technology, DSU. Program Integration Committee Interdisciplinary Seminar: "*Modeling neuronal activity."*
April, 2010	Invited talk, Delaware State University, Dover DE.
April, 2010	Invited talk, DePaul University, Chicago IL.
March, 2010	Invited talk, Ohio University, Athens OH.
February, 2010	Invited talk, Bowdoin College, South Hadley ME.
January, 2010	Invited talk, University of Puerto Rico, Old San Juan PR.
May, 2009	Invited talk, Mount Holyoke College, South Hadley MA.
April, 2009	Contributed talk, East Coast Nerve Net, MBL, Woods Hole MA.
March, 2009	Invited talk, Brooklyn College, NYC.
February, 2009	Invited talk, Miami University, Oxford OH.
February, 2009	Invited talk, University of Texas Health Science Center, San Antonio TX.
December, 2008	Departmental Journal Club, Brandeis University, Waltham MA.
April, 2008	Invited talk, Cornell University Neuroethology Journal Club, Ithaca NY.
November, 2007	Invited talk, William Paterson University, Wayne NJ.
April, 2007	Invited talk, Brandeis University, Waltham MA.
October, 2005	Departmental Journal Club, Albert Einstein College of Medicine, NYC.
December, 2001	Invited talk, Albert Einstein College of Medicine, NYC.
November, 1999	Contributed talk, Society for Neuroscience Annual Meeting, Miami, Florida.
March, 1998	Contributed talk, Southwest Conference for Developmental Biology, Corpus Christi, Texas.

TEACHING

2010-present **Assistant Professor**, Delaware State University

Undergraduate courses
- Biol 103, Human Biology for non-majors, Lab
- Biol 105, Human Ecology for non-majors, Lab
- Biol 191, University Seminar I
- Biol 192, University Seminar II
- Biol 194, Introduction to Biology Professions
- Biol 311, Introduction to Neuroscience
- Biol 411, Pharmacology

Graduate courses
- Biol 503, Introduction to Neuroscience
- Biol 511, Pharmacology
- Biol 515, Molecular Basis of Behavior
- Biol 610, Functional Neuroanatomy
- Biol 622, Physiology of Excitable Cells

2009, summer **Instructor**, Anatomy and Physiology, Brandeis University.

2008, fall **Instructor**, Neurobiology of Autism Colloquium, Brandeis University.

2003, summer **Teaching Assistant**, Neurobiology Summer Course, MBL, Woods Hole, MA.

1996-2000 **Laboratory Coordinator and Teaching Asst**, Texas A&M University.
- Zool 388: Principles of Animal Physiology.
- Zool 219, 220: Human Anatomy and Physiology I, II.

1992-1995 **Teaching Assistant**, Texas A&M University.
- Zool 219, 220: Human Anatomy and Physiology I, II.
- Biol 124: Introduction to Biology II.

SERVICE

Committees – Delaware State University

2013, fall – present	IACUC
2012, fall – present	Biology Department Representative, Graduate Council (1 of 2)
2012, spring – pres.	Biology Department Representative, Faculty Senate (1 of 3)

Committees – College of Math, Natural Science and Technology (CMNST)

2010 – present	Member, Program Integration Committee
2012 – 2013	Member, Graduate Program Committee

Committees – Department of Biology

2010-present	Member, Graduate Program Committee
2011, fall - present	Member, Research Committee
2012-2013	Chair, Graduate Program Committee

Search Committees

2013, spring	Member, Search Committee: Assistant Professor, 2 positions (Chair: M. Harrington)
2012, spring	Chair, Search Committee: Lab Technician / Aquaculture Specialist
2012, spring	Member, Search Committee: Laboratory Technician (Chair: H. Dhillon)
2012, spring	Member, Search Committee: Coordinator, COBRE Grant (Chair: M. Harrington)
2012, spring	Member, Search Committee: Assistant Professor, 3 positions (Chair: M. Harrington)
2012, spring	Member, Search Committee: Department Secretary (Chair: L. Davis)
2012, spring	Member, Search Committee: Department Lab Assistant (Chair: L. Davis)

Other

2012, fall	Participant, McKean High School tour of Biology Department (11/8/12)
2012, summer	Lecturer, STARS program at DSU, Mazen Shahin Director
2012, spring	Chair, Anatomy and Physiology Event, Delaware Science Olympiad • High school (Saturday March 3, 2012) • Middle school (Saturday March 24, 2012)
2012, summer	Instructor, SMILE Summer Training Camp, DSU (August 15-21)
2011, summer	Lecturer, STARS program at DSU, Mazen Shahin Director
2011, spring	Chair, Anatomy and Physiology Event, Delaware Science Olympiad • High school (Saturday March 26, 2011) • Middle school (Saturday March 5, 2011)
2011, fall	Participant, DSU Open House
2011, summer	Instructor, SMILE Summer Training Camp, DSU (August 18-23)
2011, spring	Participant, DSU Open House

MENTORSHIP

Graduate Student Advisor – current students

2011-present **Tolani Adebanjo** (Ph.D. candidate): *Synaptogenesis during optic nerve Regeneration in the the goldfish, Carassius auratus, and zebrafish, Danio rerio.*

2011-present **Jaime White** (Ph.D. candidate): *Estrogen receptor expression and acute effects of estradiol on a teleost startle circuit.*

2012-present **Tory McLean** (M.S. student): *Effects of temperature on the expression of Sub-synaptic proteins at auditory nerve-Mauthner cell synapses in the zebrafish, Danio rerio.*

Graduate Student Advisor – past students

2012-2013 **Bianca DeBroux**, M.S. in Cellular and Molecular Neuroscience
Expression of estrogen receptor alpha in auditory and visual brain areas in the goldfish, Carassius auratus.

2011-12 **Jaime White,** M.S. in Cellular and Molecular Neuroscience
Expression of the plasma-membrane associated G protein-coupled receptor, GPR30 in the goldfish, Carassius auratus, with special reference to the Mauthner cell.

2011-12 **Tarik Mitchell**, M.S. in Biology (Co-advisor): *Effect of a Gα mutation on Nervous system lateralization and behavior in C. elegans.*

Undergraduate Student Advisor – current students

2014-present **Kelly Demby**
Capstone Project: *"Effects of estradiol on anxiety in zebrafish."*

2013-present **Bianca Corbitt**
Capstone Project: *"Acute effects of estradiol on an auditory startle response in the zebrafish, Danio rerio."*

Undergraduate Student Advisor – past students

2011, summer **Victoria Fitchett,** B.S. Biology, degree conferred May 2014
EPSCoR Summer Project: *"Exposure to air enhances embryonic development in the inter-tidal fish, the mummichog, Fundulus heteroclitus."*

2011, summer **Travis Worrell**, B.S. Biology, degree conferred May 2014
Capstone Project, McNair Scholar
"The effect of ethanol on the Mauthner cell in the weakfish."

2011, fall **Tawny Reeger**

Capstone Project: *"Acute effects of estradiol on learning and memory in teleosts."*

2010-2011 **Roy James**, B.S. Biology, degree conferred May, 2011
Capstone Project: *"Effect of ethanol on cellular and neuronal activity in the goldfish, Carassius auratus."*

Graduate Student Committee, Member

2011-14 **Kimberly Milligan,** Ph. D. in Chemistry (PI: Winstead)
2012-13 **M. Kameron Brown,** M.S. in Biology (PI: Harrington)

RESEARCH SUPPORT

Ongoing

NSF 1229323 Rana (PI) 09/01/14 – present
MRI: Acquisition of a Scanning Electron Microscope (SEM) for Multidisciplinary Research and Education at Delaware State University.
Role: Co-PI.

P20 GM103446-14 Stanhope (PI) 08/01/14 – present
The goal of this third Delaware INBRE renewal proposal is to take another major step towards improving health care in the State by extending the ongoing work of the DE-INBRE in building a statewide biomedical research capability. The project will continue to strengthen the research expertise and infrastructure of the DE-INBRE academic and clinical partner institutions - the University of Delaware, Delaware State University, Delaware Technical Community College, Wesley College, Christiana Care Health System and Nemours/A.I. duPont Hospital for Children.
Role: PhD Advisor, Tolani Adebanjo.

P20 GM103653 Harrington (PI) 10/01/12 – present
COBRE: The Delaware Center for Neuroscience Research. The goal of this project is to support neuroscience research and build a community of neuroscientists in the state of Delaware. Pilot Project: To examine the influence of environmental and hormonal changes on mechanisms of motor learning.
Role: Pilot project.
Role: PhD Advisor, Jaime White.

Completed

USDE P031B100068 Thompson (PI) 06/01/12 – 08/31/14
Title III: Strengthening Historically Black Colleges and Universities Program – Student Aid and Fiscal Responsibility Act (SAFRA) Grant.
Role: PhD Advisor, Jaime White.

P20 GM103446-13 Stanhope (PI) 03/01/13 – 08/31/14
The goal of the Delaware INBRE renewal proposal is to take another major step towards improving health care in the State by extending the work of the current INBRE in building a statewide biomedical research capability. The project will continue to strengthen the research expertise and infrastructure of the lead and partner institutions. Three research themes will be pursued.
Role: PhD Advisor, Tolani Adebanjo.

R25 GM088043 Harrington (PI) 06/01/12 – 08/31/13
A Graduate Partnership to Expand Educational Opportunities at an HBCU. The goal of this project is to partner with Drexel University to increase opportunities for furthering graduate education.
Role: MS advisor, Tory McClean.

R25 GM089669 van Golen (PI) 01/15/12 – 08/31/13
A Linear Leadership Development Model for STEM Success. This grant supports a year-round undergraduate research program, for 12 – 15 students, stipends and tuition for 3 graduate students in

biomedical MS programs, and the introduction of the peer-led team learning teaching model into undergraduate biology classes.
Role: MS advisor, Bianca DeBroux.

P20 GM103446-12 Steiner (PI) 03/01/12 – 02/28/13
The goal of the Delaware INBRE renewal proposal is to take another major step towards improving health care in the State by extending the work of the current INBRE in building a statewide biomedical research capability. The project will continue to strengthen the research expertise and infrastructure of the lead and partner institutions. Three research themes will be pursued.
Role: PhD Advisor, Tolani Adebanjo.

R25 GM088043 Harrington (PI) 01/01/11 – 05/31/12
A Graduate Partnership to Expand Educational Opportunities at an HBCU. The goal of this project is to partner with Drexel University to increase opportunities for furthering graduate education.
Role: MS advisor, Jaime White.

P20 RR016472-11 Steiner (PI) 03/01/11 – 02/28/12
The goal of the Delaware INBRE renewal proposal is to take another major step towards improving health care in the State by extending the work of the current INBRE in building a statewide biomedical research capability. The project will continue to strengthen the research expertise and infrastructure of the lead and partner institutions.
Role: PhD Advisor, Tolani Adebanjo.

R25 GM089669 van Golen (PI) 08/1/11 – 07/30/12
A Linear Leadership Development Model for STEM Success. This grant supports a year-round undergraduate research program, for 12 – 15 students, stipends and tuition for 3 graduate students in biomedical MS programs, and the introduction of the peer-led team learning teaching model into undergraduate biology classes.
Role: MS advisor, Tory McLean.

Professional Development Award, DSU 01/15/12 – 05/31/12
The goal of this project is to examine seasonal and environmental effects on learning and memory in a teleost fish, *C. auratus*.
Role: PI.

NSF EPS0814251 Sparks (PI) 06/01/11 – 08/31/11
Delaware EPSCoR Research Improvement (RII-2) Proposal: Building Research and Education Infrastructure to Enhance Environmental Science and its Application in Delaware.
Role: Undergraduate research advisor, Victoria Fitchett.

NSF HRD0833148 Davis (PI) 08/01/10 – 05/30/11
An Inter-institutional Neuroscience PhD Program to Expand Graduate Education Opportunities for minority Students. This grant supports students and faculty development to support DSU's new Neuroscience PhD program.
Role: Faculty start-up funds.

Neuroscience Institute, MBL, Woods Hole, MA 09/01/07 – 12/15/07
The goal of this project is to determine the effect of temperature acclimation on an identified neural network in the central nervous system of a vertebrate.
Role: PI.

Grass Foundation, MBL, Woods Hole, MA 05/01/07 – 08/31/07
The goal of this project is to determine the effect of temperature acclimation on an identified neural network in the central nervous system of a vertebrate.
Role: PI.

Submitted, Not Funded

NSF Equipment Grant, Proposal ID 1229323 (PI: M. Rana) Submitted February 2013
MRI: Acquisition of a Scanning Electron Microscope (SEM) for Multidisciplinary Research and Education at Delaware State University. The goal of this project is to characterize the expression of non-nuclear, membrane-associated estrogen receptors in the Mauthner cell circuit of the goldfish, *Carassius auratus*.
Role: PI.

NSF Equipment Grant, Proposal ID 1229323 (PI: M. Rana) Submitted January 2012
MRI: Acquisition of a Scanning Electron Microscope (SEM) for Multidisciplinary Research and Education at Delaware State University. The goal of this project is to characterize the expression of non-nuclear, membrane-associated estrogen receptors in the Mauthner cell circuit of the goldfish, *Carassius auratus*.
Role: PI.

Whitehall Foundation, Inc. Submitted September 2010
Seasonal effects on learning and memory in a teleost neural circuit.
Role: PI.

Delaware INBRE Submitted September 2010
Temperature effects on neurons in the central nervous system of a vertebrate, *Carassius auratus*.
Role: PI.

PROFESSIONAL MEMBERSHIPS / AWARDS

1995-present	Society for Neuroscience.
2008-2012	Society for Integrative and Comparative Biology.
2009	Presentation Award, East Coast Nerve Net, Woods Hole, MA
2003-2007	Postdoctoral Assn. Representative, Albert Einstein College of Medicine, Dominick P. Purpura Department of Neuroscience.
2003-2005	Representative, Science Alliance Steering Committee, NY Academy of Science.
2002-2005	Trainee, NIH Departmental Training Grant to Michael Bennett.
1995-2000	Society for Neuroscience, Regional Chapter, Texas A&M University.
1994-2000	Dept of Biology Travel Minigrant, Texas A&M University
1995-1999	Faculty of Neuroscience Minigrant, Texas A&M University
1998	2nd place, Department of Biology Poster Competition, Texas A&M Univ.

ADDITIONAL RELATED EXPERIENCE

2001, summer	Coordinator, Neurobiology Course at the Marine Biological Laboratories, Woods Hole, MA. Laboratory prep and general organization.
1998	Zool 388: Principles of Animal Physiology, Texas A&M University Co-wrote the Teaching Assistant Laboratory Guide.
1996-1997	Zool 219, 220: Human Anatomy and Physiology I and II, Texas A&M Edited, rewrote and expanded upon existing manual for students.
1992	Southwestern Research Station, American Museum of Natural History, Portal, AZ. Assisted visiting professors with animal collection, banding and research.