Jonathan E. Ploski Ph.D.
Associate Professor
Department of Neural and Behavioral Science
Penn State College of Medicine
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Educational History:

B.S.	5/98	University at Buffalo	Buffalo, NY, Biological Sciences
Ph.D.	7/04	Mount Sinai School of Medicine	NY, NY, Biomedical Sciences

Dissertation: *The Nucleocytoplasmic Trafficking of Paired-type and Divergent Homeodomain Proteins,*
Thesis Advisor: Aurelian Radu Ph.D.

Employment History – principal positions since the Bachelor's degree:

Postdoctoral Fellow	7/04-8/06	Yale Medical School, New Haven, CT
Postdoctoral Fellow	9/06-3/09	Yale University, New Haven, CT
Associate Research Scientist	4/09-5/10	Yale University, New Haven, CT
Adjunct Assistant Professor	8/07-5/10	Quinnipiac University, Hamden, CT
Assistant Professor	6/10-8/17	University of Texas at Dallas, Richardson, TX
Associate Professor -**Tenured**	9/17-8/21	University of Texas at Dallas, Richardson, TX
Associate Professor -**Tenured**	9/21 -	Penn State College of Medicine, Hershey, PA

Professional Memberships:

Society for Neuroscience	2004 - present
Pavlov Society	2011 - present
Molecular and Cellular Cognition Society (MCCS)	2014 - present
American Society of Gene and Cell Therapy	2021 - present

Research Training History:

Associate Research Scientist 4/09-5/10
Postdoctoral Fellow 9/06-3/09
Yale University
Department of Psychology, New Haven CT
Advisor: Glenn E. Schafe, Ph.D.
Area of Study: Emotional Learning and Memory

- Examined the molecular and cellular basis of acquired fears focusing on the role of activity-dependent gene expression within the amygdala during fear memory consolidation. Utilized a variety of behavioral and molecular biological techniques to identify genes involved in fear memory formation.
- Discovered novel genes associated with long-term potentiation and Pavlovian fear conditioning
- Determined the proteins Arc/Arg3.1 and Npas4 are essential for fear memory consolidation within the amygdala
- Acquired skills in grant writing, and received an NRSA post-doctoral fellowship
- Supervised and mentored undergraduate and graduate students

Postdoctoral Fellow 7/04–8/06
Yale University School of Medicine
Department of Psychiatry, New Haven CT
Advisor: Ronald S. Duman, Ph.D.
Area of Study: Molecular Basis of Antidepressant Response

- Discovered antidepressant-induced gene expression changes in the rodent brain from discrete laser microdissected portions of the hippocampus utilizing DNA microarray technology.

Graduate Student 9/98 – 7/04
Mount Sinai School of Medicine of NYU
Department of Gene and Cell Medicine, New York NY
Advisor: Aurelian Radu, Ph.D.
Area of Study: Nucleocytoplasmic Transport of Macromolecules

- Discovered and characterized novel nucleocytoplasmic transport pathways for multiple karyopherins
- Discovered a novel nuclear localization sequence that specifically targets a particular family of homeodomain-containing proteins to the nucleus
- Investigated whether naturally occurring mutations located within a newly identified NLS disrupt nuclear import and contribute to the diseases with which these mutations are associated

Research Assistant 6/97 – 7/98
Roswell Park Cancer Institute
Department of Cancer Genetics, Buffalo NY
Advisor: Peter Aplan, M.D.
Area of Study: Molecular Genetics of Pediatric Leukemia

- Identified and characterized the DNA breakpoints that occur in the t(12;21)(p13;q22) translocation frequently associated with pre-B cell Acute Lymphoblastic Leukemia
- Characterized the DNA fragmentation events that occur following cytotoxic chemotherapy in leukemic cell lines

Peer-Reviewed Publications:

1. Goel K, **Ploski JE.** RISC-y Business: Limitations of Short Hairpin RNA-Mediated Gene Silencing in the Brain and a Discussion of CRISPR/Cas-Based Alternatives. Front Mol Neurosci. 2022 Jul 26;15:914430. doi: 10.3389/fnmol.2022.914430. eCollection 2022. PMID: 35959108
    - *Invited review*
2. Langreck C, Wauson E, Nerland D, Lamb B, Folkerts T, Winter L, Lu E, Tague S, McCarson KE, **Ploski JE**, Banasr M, Duman RS, Roland MM, Babich V, Di Sole F, Duric V. Hippocampal mitogen-activated protein kinase phosphatase-1 regulates behavioral and systemic effects of chronic corticosterone administration. Biochem Pharmacol. 2021 Aug;190:114617. doi: 10.1016/j.bcp.2021.114617. Epub 2021 May 21.PMID: 34023293
3. **Ploski JE**, & Vaidya V. The Neurocircuitry of PTSD and Major Depression: Insights into Overlapping and Distinct Circuit Dysfunction - A Tribute to Ron Duman. Biol Psychiatry. 2021 Jul 15;90(2):109-117. doi: 10.1016/j.biopsych.2021.04.009. Epub 2021 Apr 24.PMID: 34052037
    - *Invited review*
4. Elahi H, Hong V, **Ploski JE**. Electroconvulsive Shock Does Not Impair the Reconsolidation of Cued and Contextual Pavlovian Threat Memory. Int J Mol Sci. 2020 Sep 25;21(19). doi: 10.3390/ijms21197072. PubMed PMID: 32992904; PubMed Central PMCID: PMC7582782
    - *Invited submission to be part of a Special Issue on Reconsolidation*
5. Shukla T, de la Peña JB, Perish JM, **Ploski JE**, Stumpf CR, Webster KR, Thorn CA, Campbell ZT. A Highly Selective MNK Inhibitor Rescues Deficits Associated with Fragile X Syndrome in Mice. Neurotherapeutics. 2020 Oct 1;. doi: 10.1007/s13311-020-00932-4. [Epub ahead of print] PubMed PMID: 33006091
6. Xiong H, Li X, Kang P, Perish J, Neuhaus F, **Ploski JE**, Kroener S, Ogunyankin MO, Shin JE, Zasadzinski JA, Wang H, Slesinger PA, Zumbuehl A, Qin Z. Near-infrared Light Triggered-release in Deep Brain Regions Using Ultra-photosensitive Nanovesicles. Angew Chem Int Ed Engl. 2020 Mar 2. doi: 0.1002/anie.201915296. PMID: 32124529
    - Angewandte Chemie is a journal of the German Chemical Society (GDCh). It is one of the prime chemistry journals in the world. Impact Factor 12.25
7. Sandoval A Jr, Elahi H, **Ploski JE**. Genetically Engineering the Nervous System with CRISPR-Cas. eNeuro. 2020 Feb 24. pii: ENEURO.0419-19.2020. doi: 10.1523/ENEURO.0419-19.2020. PMID: 32098761
    - Featured Article
    - Most Read Article
8. Kumar N, Stanford W, de Solis C, Aradhana, Abraham ND, Dao T-MJ, Thaseen S, Sairavi A, Gonzalez CU and **Ploski JE** (2018). The Development of an AAV-Based CRISPR SaCas9 Genome Editing System That Can Be Delivered to Neurons in vivo and Regulated via Doxycycline and Cre-Recombinase. *Front. Mol. Neurosci*. 11:413. doi: 10.3389/fnmol.2018.00413
    - Plasmids available on **Addgene**
9. Marek R, Jin J, Goode TD, Giustino TF, Wang Q, Acca GM, Holehonnur R, **Ploski JE**, Fitzgerald PJ, Lynagh T, Lynch JW, Maren S, Sah P. Hippocampus-driven feed-forward inhibition of the prefrontal cortex mediates relapse of extinguished fear. Nat Neurosci. 2018 Feb 5. doi: 10.1038/s41593-018-0073-9
10. de Solis CA, Morales AA, Hosek MP, Partin AC and **Ploski JE** (2017) Is Arc mRNA Unique: A Search for mRNAs That Localize to the Distal Dendrites of Dentate Gyrus Granule Cells Following Neural Activity. Front. Mol. Neurosci. 10:314. doi: 10.3389/fnmol.2017.00314
11. de Solis CA, Hosek MP, Holehonnur R, Ho A, Banerjee A, Luong JA, Jones LE, Chaturvedi D, **Ploski JE.** Adeno-associated viral serotypes differentially transduce inhibitory neurons within the rat amygdala. Brain Res. 2017 Oct 1;1672:148-162. doi: 10.1016/j.brainres.2017.07.023. Epub 2017 Jul 29.
12. Holehonnur R, Phensy A, Kim LJ, Milivojevic M, Vuong D, Daison DK, Alex S, Tiner M, Jones LE, Kroener S, **Ploski JE.** Increasing the GluN2A/GluN2B ratio in neurons of the mouse basal and lateral amygdala inhibits the modification of an existing fear memory trace. J Neurosci. 2016 Sep 7;36(36):9490-504. doi: 10.1523/JNEUROSCI.1743-16.2016.
    - Included in **JNS Highlights**
    - **Recommended by Faculty Opinions**
    - **TRE3g-GFP-GluN2A mice available**

13. de Solis CA, Ho A, Holehonnur R and **Ploski JE** (2016) The Development of a Viral Mediated CRISPR/Cas9 System with Doxycycline Dependent gRNA Expression for Inducible In vitro and In vivo Genome Editing. *Front. Mol. Neurosci*. 9:70. doi: 10.3389/fnmol.2016.00070
    - Press coverage: **GenomeWeb**
    - **Recommended by Faculty Opinions**
    - Plasmids available on **Addgene**
14. Banerjee J, Luong JA, Ho A, Saib AO and **Ploski JE**. Overexpression of Homer1a in the basal and lateral amygdala impairs fear conditioning and induces an autism-like social impairment. Mol Autism. 2016 Feb 29;7:16. doi: 10.1186/s13229-016-0077-9. eCollection 2016
15. de Solis CA, Holehonnur R, Banerjee A, Luong JA, Lella SK, Ho A, Pahlavan B, **Ploski JE** Viral delivery of shRNA to amygdala neurons leads to neurotoxicity and deficits in Pavlovian fear conditioning. Neurobiol Learn Mem. 2015 Oct;124:34-47. doi: 10.1016/j.nlm.2015.07.005. Epub 2015 Jul 13**.**
    - **Selected to be in the MCCS special issue**
16. Holehonnur R, Lella SK, Ho A, Luong JA, **Ploski JE**. The production of viral vectors designed to express large and difficult to express transgenes within neurons. Mol Brain. 2015 Feb 24;8:12. doi: 10.1186/s13041-015-0100-7.
17. **Ploski JE**, McIntyre CK. Emotional modulation of synapses, circuits and memory. Front Behav Neurosci. 2015 Feb 19;9:35. doi: 10.3389/fnbeh.2015.00035. eCollection 2015.
18. Banerjee A, Engineer CT, Sauls BL, Morales AA, Kilgard MP and **Ploski JE** (2014) Abnormal emotional learning in a rat model of autism exposed to valproic acid in utero. *Front. Behav. Neurosci*. 8:387. doi: 10.3389/fnbeh.2014.00387
19. Holehonnur R, Luong JA, Chaturvedi D, Ho A, Lella SK, Hosek MP, **Ploski JE**. "Adeno-Associated Viral Serotypes Produce Differing Titers and Differentially Transduce Neurons within the Rat Basal and Lateral Amygdala." BMC Neurosci. 2014 Feb 18;15(1):28. doi: 10.1186/1471-2202-15-28. (***Highly Accessed***)
20. Partin AC, Hosek MP, Luong JA, Lella SK, Sharma SA, **Ploski** JE. 2013. "Amygdala nuclei critical for emotional learning exhibit unique gene expression patterns." *Neurobiol Learn Mem.* 2013 Sep;104:110-21. doi: 10.1016/j.nlm.2013.06.015. Epub 2013 Jul 2.
21. **Ploski JE,** Monsey MS, Nguyen T, Dileone RJ, Schafe GE. 2011. **"**The Neuronal PAS Domain Protein 4 (Npas4) Is Required for New and Reactivated Fear Memories." *PLoS One* 6(8):e23760. Epub 2011 Aug 22.
22. Overeem KA, Ota KT, Monsey MS, **Ploski JE**, Schafe GE. 2010. "A role for nitric oxide-driven retrograde signaling in the consolidation of a fear memory." *Front Behav Neurosci* 4:2.
23. **Ploski JE**, Park KW, Ping J, Monsey MS, Schafe GE. 2010. "Identification of plasticity-associated genes regulated by Pavlovian fear conditioning in the lateral amygdala." *J Neurochem* 112:636-650.
24. **Ploski JE**, Topisirovic I, Park KW, Borden KL, Radu A. 2009. "A mechanism of nucleocytoplasmic trafficking for the homeodomain protein" PRH. *Mol Cell Biochem* 332:173-181.
25. **Ploski JE**, Pierre VJ, Smucny J, Park K, Monsey MS, Overeem KA, Schafe GE. 2008. "The activity-regulated cytoskeletal-associated protein (Arc/Arg3.1) is required for memory consolidation of pavlovian fear conditioning in the lateral amygdala." *J Neurosci* 28:12383-12395.
26. Ota KT, Pierre VJ, **Ploski JE**, Queen K, Schafe GE. 2008. "The NO-cGMP-PKG signaling pathway regulates synaptic plasticity and fear memory consolidation in the lateral amygdala via activation of ERK/MAP kinase." *Learn Mem* 15:792-805.
27. Gourley SL, Wu FJ, Kiraly DD, **Ploski JE**, Kedves AT, Duman RS, Taylor JR. 2008. "Regionally specific regulation of ERK MAP kinase in a model of antidepressant-sensitive chronic depression." *Biol Psychiatry* 63:353-359.
28. **Ploski JE**, Newton SS, Duman RS. 2006. "Electroconvulsive seizure-induced gene expression profile of the hippocampus dentate gyrus granule cell layer." *J Neurochem* 99:1122-1132.
29. **Ploski JE**, Shamsher MK, Radu A. 2004. "Paired-type homeodomain transcription factors are imported into the nucleus by karyopherin 13." *Mol Cell Biol* 24:4824-4834.
30. Shamsher MK, **Ploski J**, Radu A. 2002. "Karyopherin beta 2B participates in mRNA export from the nucleus." *Proc Natl Acad Sci U S A* 99:14195-14199.
31. **Ploski JE**, Aplan PD. 2001. "Characterization of DNA fragmentation events caused by genotoxic and non-genotoxic agents." *Mutat Res* 473:169-180.
32. Thandla SP, **Ploski JE**, Raza-Egilmez SZ, Chhalliyil PP, Block AW, de Jong PJ, Aplan PD. 1999. "ETV6-AML1 translocation breakpoints cluster near a purine/pyrimidine repeat region in the ETV6 gene." *Blood* 93:293-299.

This link provides my publications as listed in Pubmed:
https://www.ncbi.nlm.nih.gov/myncbi/jonathan.ploski.1/bibliography/public/

Selected (unrefereed) abstracts and/or oral presentations at professional meetings:

1. **Ploski JE** Enhancing the modifiability of strong reconsolidation-resistant fear memories. FENS Forum July 2020 Glasgow/virtual. *Invited Oral Presentation*
    - **Press Coverage**
    - **Press Coverage**
2. **Ploski JE** Enhancing the modifiability of strong reconsolidation-resistant fear memories. Stony Brook University, Department of Neurobiology and Behavior. Jan 2020 *Invited Oral Presentation*
3. **Ploski JE** The Molecular basis of Memory Modification. Albany Medical Center, Department of Neuroscience and Experimental Therapeutics. Nov 2019 *Invited Oral Presentation*
4. Perish J, Elahi H, de Solis C, Sandoval A, Samuel A, Gatica de las Fuentes S, Zhong H, Gonzalez G, **Ploski JE** Chemogenetic Manipulations of the Amygdala Facilitate Memory Modification, (FENS Forum July 2020 Glasgow/virtual)
5. Elahi H, Hong V, **Ploski JE** Electroconvulsive Stimulation Does Not Disrupt Pavlovian Fear Memory Reconsolidation. (FENS Forum July 2020 Glasgow/virtual)
6. de Solis CA, Perish J, Holehonnur R, Salinas CE, Galdamez MA, Kim LJ, **Ploski JE** Overexpression of GluN2B(E1479Q) within the basal and lateral amygdala enables the modification of a strong fear memory via reconsolidation (UC Irvine Learning & Memory Conference 2018)
7. Stanford WC, Kumar N, De Solis CA, Abraham ND, Dao TMJ, Thaseen S, Sairavi A, **Ploski JE**. The development of an SaCas9 based CRISPR/Cas9 genome editing system that can be delivered to neurons In vivo via Adeno-Associated-Virus(AAV) and regulated spatially via Cre-recombinase and temporally via Doxycycline (Society for Neuroscience Abstract, Washington DC 2017)
8. de Solis CA, Holehonnur R, Salinas CE, Galdamez MA, Kim LJ, **Ploski JE**. Overexpression of GluN2B or GluN2B(E1479Q) within neurons of the mouse basal and lateral amygdala alters amygdala dependent mnemonic processing. (Pavlov Society Meeting, Philadelphia, PA Oct 2017)
9. de Solis CA, Ho A, Holehonnur R and **Ploski JE** (2016) The Development of a Viral Mediated CRISPR/Cas9 System with Doxycycline Dependent gRNA Expression for Inducible In vitro and In vivo Genome Editing (Society for Neuroscience Abstract, San Diego 2016)
10. Holehonnur R, Phensy A, Kim LJ, Milivojevic M, Vuong D, Daison DK, Alex S, Tiner M, Jones LE, Kroener S, **Ploski JE**. Increasing the GluN2A/GluN2B ratio in neurons of the mouse basal and lateral amygdala inhibits the modification of an existing fear memory trace. (Society for Neuroscience Abstract, San Diego 2016)
11. de Solis CA, Ho A, Holehonnur R and **Ploski JE** (2016) The Development of a Viral Mediated CRISPR/Cas9 System with Doxycycline Dependent gRNA Expression for Inducible In vitro and In vivo Genome Editing (Pavlov Society Meeting, Jersey City, NJ Sept 2016)
12. de Solis CA, Ho A, Holehonnur R and **Ploski JE** (2016) The Development of a Viral Mediated CRISPR/Cas9 System with Doxycycline Dependent gRNA Expression for Inducible In vitro and In vivo Genome Editing (MCCS Nov 2016)
13. Goode TD, J. Jin J, Holehonnur R, **Ploski JE**, and Maren S. Combinatorial DREADD silencing of ventral hippocampal neurons projecting to infralimbic cortex prevents fear renewal, (Society for Neuroscience Abstract, Chicago 2015)
14. de Solis CA, Ho A, Morales AA, and **Ploski JE**. Identification of mRNAs that localize to the distal dendrites of the molecular layer of the dentate gyrus following high frequency stimulation of the perforant path, (Society for Neuroscience Abstract, Chicago 2015)
15. Holehonnur R, Phensy A, Milivojevic M, Kim LJ, Daison DK, Vuong DT, Tiner M, Jones LE, Kroener S and **Ploski JE**. Increasing the GluN2A/GluN2B ratio within neurons of the mouse basal and lateral amygdala inhibits the modification of an existing fear memory trace. MCCS Chicago, Oct 2015
16. de Solis CA, Holehonnur R, Banerjee A, Luong JA, Lella SK, Ho A, Pahlaven B, and **Ploski JE**. Viral delivery of RNAi to amygdala neurons leads to neurotoxicity and deficits in Pavlovian fear conditioning. Pavlov Society Meeting, Portland Oregon Sept 2015

17. Holehonnur R, Kim LJ, Jones LE, Daison DK, Vuong DT, Khakoo SF and **Ploski JE**. Overexpression of GluN2A or GluN2B within neurons of the mouse basal and lateral amygdala alters amygdala dependent mnemonic processing, (Society for Neuroscience Abstract, Chicago 2015)
18. de Solis CA, Holehonnur R, Banerjee A, Luong JA, Lella SK, Ho A, Pahlaven B, and **Ploski JE**. "Viral delivery of RNAi to amygdala neurons leads to neurotoxicity and deficits in Pavlovian fear conditioning" MCCS Washington DC, Nov 2014
19. Banerjee J, Luong JA, Ho A, Morales AA, Sauls BL, and **Ploski JE**. "The molecular basis of altered emotional learning in an environmentally induced animal model of Autism" MCCS Washington DC, Nov 2014
20. Holehonnur R, Ho A, Luong JA, Lella SK, and **Ploski JE**. "The development of viral vectors designed to express GluN2 subunits for the study of amygdala dependent mnemonic processing" MCCS Washington DC, Nov 2014
21. Hosek MP, Ho H, Luong JA, de Solís C, Banerjee A, Holehonnur R, Chaturvedi D, Pahlavan B, Jones LE, and **Ploski JE** "Adeno-Associated Viral Serotypes Differentially Transduce Neurons within the Rat Basolateral Amygdala and the Central Nucleus of the Amygdala, but not neuronal subtypes" MCCS Washington DC, Nov 2014
22. Banerjee A, Luong JA, Morales A, Ho A, Sauls BL, **Ploski JE**. "The molecular basis of altered emotional learning in an environmentally induced animal model of Autism." SFN Washington DC, Nov 2014.
23. Banerjee A , Luong JA, Lella SK, Sauls BL, Engineer C, Kilgard MP, **Ploski JE**. "Perturbations of emotional learning in an animal model of environmentally induced Autism" Pavlov Society Meeting, Austin TX Sept 2013
24. Hosek MP, Partin AC, Luong JA, Lella SK, Sharma SA, **Ploski** JE. 2013. "Amygdala nuclei critical for Pavlovian fear conditioning exhibit unique gene expression patterns." Pavlov Society Meeting, Austin TX Sept 2013
25. Holehonnur R, Luong JA, Chaturvedi D, Ho A, Lella SK, Hosek MP, **Ploski JE**. "Adeno-Associated Viral Serotypes Produce Differing Titers and Differentially Transduce Glutamatergic Excitatory Neurons within the Rat Basolateral Amygdala." Pavlov Society Meeting, Austin TX Sept 2013
26. Banerjee A, Luong JA, Lella SK, Sauls BL, Engineer C, Kilgard MP, **Ploski JE**. "Perturbations of emotional learning in an animal model of environmentally induced Autism" SFN San Diego CA, Nov 2013
27. Holehonnur R, Luong JA, Chaturvedi D, Ho A, Lella SK, Hosek MP, **Ploski JE**. "Adeno-Associated Viral Serotypes Produce Differing Titers and Differentially Transduce Glutamatergic Excitatory Neurons within the Rat Basolateral Amygdala." SFN San Diego CA, Nov 2013
28. **Ploski JE**, Nguyen T, Monsey MS, Dileone RJ, Schafe GE A role for Npas4 in amygdala dependent emotional learning. Program No. 608.1. 2010 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2010
29. **Ploski JE**, Park K, Schafe GE, Identification of genes induced by fear conditioning in the lateral amygdala. Program No. 294.7. Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2008
30. **Ploski JE**, Schafe GE, Gene expression analysis of long-term potentiation in the lateral amygdala. Program No. 91.8. Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2007
31. **Ploski JE**, Newton SS, Duman RS, Differential gene expression between amygdala subnuclei. Program No. 291.10. Atlanta, GA: Annual Meeting of the Society for Neuroscience, 2006
32. **Ploski JE**, Duman RS, Sathyanesan SN, Antidepressant-Induced gene expression changes in the hippocampal subfields – Feasibility of laser microdissection and RNA amplification. Program No. 915.4. Washington, DC: Annual Meeting of the Society for Neuroscience, 2005

Honors and Awards:

NIH F32 Ruth L. Kirschstein National Research Service Award (NRSA)	2007
Provost's Award for Faculty Excellence in Undergraduate Research Mentoring	2017
Federal **R**esearch **I**nnovation and **E**xpe**N**ditures **D**ynamo (FRIEND) of the Office of Research	2020

- This prestigious award recognizes UT Dallas researchers who have achieved a cumulative level of federal research expenditures exceeding $500,000 in the previous fiscal year.

Teaching:

Doctoral advisement/direction:

1. **Name of Doctoral Student:** Anwesha Banarjee
   Date Degree Awarded: Spring 2015
   Title of Dissertation: The molecular basis of aberrant emotional learning in an animal model of autism
   Positions: Postdoctoral Fellow under the mentorship of Dr. Gary Bassell at Emory University
   Current Position: Research Scientist at Annexon

2. **Name of Doctoral Student:** Roopashri Holehonnur Sudarshanprasad
   Date Degree Awarded: Summer 2016
   Title of Dissertation: Examining the role of N-methyl-D-Aspartate receptor subunit composition in mnemonic processing
   Positions:
   - Postdoctoral Fellow under the mentorship of Dr. Craig Powell at University of Texas South Western Medical Center (UTSW) 9/16 – 5/18
   - Postdoctoral Fellow in the laboratory of Dr. Huda Zoghbi at Baylor College of Medicine.

   Current Position: Research Scientist in the laboratory of Dr. Laura A Lavery at Rice University

3. **Name of Doctoral Student:** Christopher de Solis
   Date Degree Awarded: Summer 2018
   Title of Dissertation: Viral Tool Development for Investigations of Learning and Memory
   Awards: Recipient of the **Best Dissertation Award for the School of BBS**
   Positions: HHMI Postdoctoral Fellow in the laboratory of Dr. Eric Kandel at Columbia University.
   Current Position: Rejuvenate Bio

Classroom Teaching:

Penn State College of Medicine, Hershey, PA

- Cellular and Molecular Neuroscience Neuro 520
  - GPCR and regulation of gene expression I 11/4/22
  - GPCR and regulation of gene expression II 11/7/22
- Neuroscience Bootcamp Neuro 524
  - Cellular and Molecular Techniques I 11/1/22
  - Cellular and Molecular Techniques II 11/3/22

University of Texas at Dallas, Behavioral and Brain Sciences, Richardson, TX

- Sem: Genes, Brain & Behavior HCS 7372 Spring 2021
- Molecular Neuroscience NSC 4362 Fall 2020
- Molecular Neuroscience NSC 4362 Spring 2020
- Sem: Genes, Brain & Behavior HCS 7372 Spring 2020
- Molecular Neuroscience NSC 4362 Fall 2019
- Molecular Neuroscience NSC 4362 Spring 2019
- Sem: Genes, Brain & Behavior HCS 7372 Spring 2019
- Molecular Neuroscience NSC 4362 Fall 2018

- Molecular Neuroscience NSC 4362 Spring 2018
- Sem: Genes, Brain & Behavior HCS 7372 Spring 2018
- Molecular Neuroscience NSC 4362 Fall 2017
- Molecular Neuroscience NSC 4362 Spring 2017
- Sem: Genes, Brain & Behavior HCS 7372 Spring 2017
- Neuroscience Lab Methods NSC 4353 Fall 2016
- Genetic Bioengineering HCS 7372.091 Sum 2016
- Molecular Neuroscience NSC 4362 Spring 2016
- Sem: Genes, Brain & Behavior HCS 7372 Spring 2016
- Neuroscience Lab Methods NSC 4353 Fall 2015
- Molecular Neuroscience NSC 4362 Spring 2015
- Sem: Genes, Brain & Behavior HCS 7372 Spring 2015
- Molecular Neuroscience NSC 4362 Fall 2014
- Molecular Neuroscience NSC 4362 Spring 2014
- Sem: Genes, Brain & Behavior HCS 7372 Spring 2014
- Neuroscience Lab Methods NSC 4353 Fall 2013
- Molecular Neuroscience NSC 4362 Spring 2013
- Neuroscience Lab Methods NSC 4353 Spring 2013
- Neuroscience Lab Methods NSC 4353 Fall 2012
- Molecular Neuroscience NSC 4V90 Spring 2012
- Neuroscience Lab Methods NSC 4353 Spring 2012
- Neuroscience Lab Methods NSC 4353 Fall 2011
- Seminar in Molecular Neuroscience HCS 7372 Spring 2011

Quinnipiac University, Departments of Psychology & Biological Sciences, Hamden, CT

- Physiological Psychology 252 Spring 2010
- Introduction to Psychology 101 Spring 2010
- Physiological Psychology 252 Fall 2009
- Physiological Psychology 252 Spring 2009
- Brain & Behavior 351 Fall 2008
- Biology Laboratory 101 (two sections) Fall 2008
- Abnormal Psychology 272 Spring 2008
- Biology Laboratory 105 (three sections) Fall 2007

Service:

1. Grant Proposal Reviewer:
    - NIH Scientific Review Group Study Section reviewer:
        - BRLE - Biobehavioral Regulation, Learning and Ethology Study Section, Bethesda, MD 2/6/2020
        - Special Emphasis Panel - ZRG1 F02C-A (20), Fellowships: Molecular, Cellular and Behavioral Neuroscience, 7/28/20
        - LAM – Learning and Memory Study Section, 10/29/20-10/30/20
        - Special Emphasis Panel - ZAG1 ZIJ-D (J2), 11/10/22

    - Gilbert Family Foundation's Gene Therapy Initiative Peer Review Panels
        - Spring/Summer 2021
            1. Letters of Intent Reviewed – March 26th 2021
            2. Full Proposals Reviewed – July 30th 2021
        - Fall 2021
            1. Full Proposals Reviewed – Oct 4th 2021

- Austrian Science Fund (FWF) Grant Proposal Review – August 31st 2022

2. Book Chapter Editor:
    - CRISPR/Cas9-based Genome and Epigenome Editing in Neuroscience Research", by Dr. Nereo Kalebic and Dr. Wieland B. Huttner, submitted for consideration in the book *CRISPR-/Cas9 Based Genome Editing for Treating Genetic Disorders and Diseases* to be published by CRC Press (Taylor and Francis Group), Spring 2021

3. Ad Hoc Reviewer:
    1. Journal of Neuroscience
    2. Neuropsychopharmacology
    3. Nature Communications
    4. Psychopharmacology
    5. eLife
    6. eNeuro
    7. Molecular Therapy
    8. PlosOne
    9. Journal of Neuroendocrinology
    10. Genomics
    11. Neural Plasticity
    12. Journal of Biological Chemistry
    13. Behavioral Brain Research
    14. Neurobiology of Learning & Memory
    15. Neuroscience Letters
    16. Stem Cell Research & Therapy
    17. Frontiers in Behavioral Neuroscience
    18. Progress in Neurobiology
    19. Learning & Memory
    20. Molecular Brain
    21. The International Journal of Neuropsychopharmacology
    22. Molecular Autism
    23. Neurobiology of Disease
    24. Brain Research
    25. International Journal of Developmental Neuroscience
    26. Autism Research
    27. Journal of Molecular Medicine
    28. BioTechniques
    29. Psychology & Neuroscience
    30. Molecular Therapy - Methods & Clinical Development
    31. Heliyon- Cell Press journal
    32. Communications Biology – Nature journal
    33. Frontiers in Genome Editing
    34. Physiology & Behavior
    35. BMC Biology
    36. Molecular Neurobiology
    37. JoVE
    38. Neurotherapeutics
    39. Clinical and Translational Medicine
    40. ACS Chemical Neuroscience
    41. Psychonomic Bulletin & Review
    42. Advanced Science

43. Genes Brain and Behavior

4. Journal Editor
    - Guest Associate Editor – Frontiers in Behavioral Neuroscience
        - Host of a Special Issue: "Emotional Modulation of the Synapse" (2013)
    - Associate Editor – Frontiers in Molecular Neuroscience; 3/1/21 –
        - Subsection: Methods and Model Organisms