Alo C. Basu, Ph.D.

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EDUCATION

1997 – 2005	Harvard University Ph.D., Neurobiology Advisor: Edward A. Kravitz, Ph.D. Harvard Medical School
1993 – 1997	Massachusetts Institute of Technology B.S., Brain and Cognitive Sciences B.S., Biology Humanities concentration in Women's and Gender Studies

ACADEMIC APPOINTMENTS

2017 – present 2011 – 2017	Associate Professor with tenure Assistant Professor Department of Psychology, College of the Holy Cross *Risk factors for neuropsychiatric illness, neuroplasticity related to environment*
8/2009 – 8/2011	Instructor in Psychiatry, Harvard Medical School Assistant Neuroscientist, Laboratory of Psychiatric and Molecular Neuroscience, McLean Hospital *Functional modulation of the NMDA receptor: role in stress-induced neuroplasticity*
2/2005 – 7/2009	Research Fellow, Department of Psychiatry, Harvard Medical School Laboratory of Psychiatric and Molecular Neuroscience, McLean Hospital Director: Joseph T. Coyle, M.D. *Functional modulation of the NMDA receptor: roles in neuropsychiatric and neurodegenerative disorders*
7/2006 – 8/2006	Visiting Scientist, National Center for Biological Sciences, Bangalore, India Laboratory of Sumantra Chattarji, Ph.D. *Neural correlates of stress-induced plasticity*

TEACHING

Fall 2011 – present	College of the Holy Cross CISS 199/110: Introduction to Neuroscience (F2016, F2017) CISS 399: Advanced Seminar in Neuroscience (S2019) HNRS 299: Evolution & Philosophy of Mind (with L. Cahoone, Dept. of Philosophy, S2015) HNRS 494/495: College Honors Thesis Research (AY2014-15, AY2017-18, 2 students) PSYC 200: Statistics (F2013, F2014, F2015, F2016, F2019) PSYC 221: Physiological Psychology (S2012, F2012, F2013, S2015, S2016, S2017, S2019) PSYC 299: Neuroethology (S2013) PSYC 321: Neuroanatomy & Behavior (F2014, F2015, S2017, F2017, F2019) PSYC 399/359: Stress and Neuroplasticity (S2013, S2016) PSYC 399: Behavioral Neuroscience Research (F2012) PSYC 450: Biological Psychology Concentration Seminar (AY2012-13, 2014-15, 2015-16, Uncredited) PSYC 470: Directed Readings in Psychology (1 credit, 1 student) PSYC 480: Research in Psychology (20 credits, 16 students)
Fall 2010	Instructor in Neuroscience Laboratory, Neuroscience Program, Wellesley College NEUR 100: Brain, Behavior, and Cognition: An Introduction to Neuroscience

2010 – 2011	Tutor (Main Instructor), Department of Molecular and Cellular Biology, Harvard University Neurobiology 95hfs: The Neurobiology of Stress
Spring 2010	Instructor
2002 – 2008	Teaching Assistant
Alternate Springs	Department of Neurobiology, Harvard Medical School Neurobiology 209/NB713.0: Neurobiology of Disease Course Director: Edward A. Kravitz, Ph.D.
1996, 1997	Teaching Assistant, Department of Brain and Cognitive Sciences, M.I.T.
Winter Term	9.97: Introduction to Neuroanatomy Course Director: Christopher I. Moore, Ph.D.
1994 – 1997	Tutor (Peer Instructor), Experimental Study Group (E.S.G.), M.I.T. 7.012: Introduction to Biology Director: Vernon M. Ingram, Ph.D., F.R.S.

OTHER EMPLOYMENT

2008 – 2011	Ad Hoc Consultant, LINK Medicine Corporation

HONORS AND AWARDS

2014, 2016	Faculty Marshal, Commencement Exercises, College of the Holy Cross (student-selected)
Spring 2011	Certificate of Distinction in Teaching, Harvard University for Neurobiology 95hfs: Neurobiology of Stress
2010 – 2012	NARSAD/SHINE Initiative Young Investigator Award, Brain & Behavior Research Foundation
2007 – 2008	Andrew P. Merrill Memorial Research Fellowship, McLean Hospital
2007	Travel Award, Wisconsin Symposium on Emotion
2005 – 2007	Postdoctoral Fellowship through Institutional National Research Service Award Neurodegeneration Training Program, Harvard Medical School National Institute on Aging (NIA), NIH
Summer 2005	Merit Scholarship, Cold Spring Harbor Workshop on Schizophrenia and Related Disorders
2001 – 2004	Individual Predoctoral National Research Service Award National Institute of Neurological Disorders and Stroke (NINDS), NIH
2000	Albert J. Ryan Foundation Fellowship, Harvard Medical School
1998 – 2001	Graduate Research Fellowship, National Science Foundation
1993	United States Presidential Scholar, Virginia

PROFESSIONAL SOCIETY MEMBERSHIPS

2019 – present	American Association of University Professors
2014 – present	Faculty for Undergraduate Neuroscience
1997 – present	Society for Neuroscience
2004 – 2006	International Society for Neuroethology

PROFESSIONAL DEVELOPMENT GRANTS (College of the Holy Cross)

Summer 2019	Hewlett-Mellon Funding for Faculty Workshop *Collaborative 100-level STEM Concept Mapping and Exploration of STEM for the Passport Program* (Passport is a year-long bridge program for incoming first year students.)
Fall 2018	Collaborative and Creative Pedagogies Grant *Integrative Project-Based 200-level Core Course in Neuroscience* (with T. Narita, Dept. of Physics)
Summer 2018	Hewlett-Mellon Funding for Curriculum Development *Development of Integrative Science Learning Modules through the Neuroscience Curriculum*
Summer 2016	Hewlett Mellon Funding for Curriculum Development *Flipping the Classroom to Address STEM Concepts in an Introductory Neuroscience Course*
Spring 2016	Research & Publication Award *Effects of Environmental Enrichment on Stress Hormones and Neuronal Complexity*
Spring 2014	Faculty Development Grant, Center for Teaching *Exploration of the Functional Anatomy of the Nervous System*
Spring 2014	Robert L. Ardizzone ('63) Fund for Junior Faculty Excellence
Summer 2013	Faculty Development Grant, Center for Teaching *Cortisol Data Collection Module* (with S. Chaudoir, Dept. of Psychology)
Fall 2012	Research & Publication Award *The Role of D-serine in Fear Learning*
Fall 2012	Faculty Development Grant, Center for Teaching *Brain Model*

SCIENTIFIC MANUSCRIPT UNDER REVIEW (*Undergraduate co-authors, #equal contributions)

#**Basu, A. C.,** #Stock, S. R., *Cavanaugh, G.W., *Yu, M., Borba, C.P.C., and D. C. Henderson. (2019) Personalized clinical decision-making for metabolic outcomes in schizophrenia: A classification tree analysis with genetic, clinical, and demographic covariates.

PEER-REVIEWED SCIENTIFIC ARTICLES (*Undergraduate co-authors)

Basu, A.C., Puhl, M.D., and J.T. Coyle. (2016) Endogenous co-agonists of the NMDA receptor modulate contextual fear conditioning. *Neurobiology of Learning and Memory*. 136:244-250.

*Hendershott, T.R., *Cronin, M.E., *Langella, S., *McGuinness, P.S., and **A.C. Basu**. (2016) Effects of environmental enrichment on anxiety-like behavior, sociability, sensory gating, and spatial learning in male and female C57BL/6J mice. *Behavioural Brain Research.* 314:215-225.

Balu, D.T., Li, Y., Puhl, M.D., Benneyworth, M.A., **Basu, A.C.**, Takagi, S., Bolshakov, V.Y., and J.T. Coyle. (2013) Multiple risk pathways for schizophrenia converge in serine racemase knockout mice, a mouse model of NMDA receptor hypofunction. *Proceedings of the National Academy of Sciences U.S.A.* 110(26):E2400-9.

Konopaske, G.T., Bolo, N.R., **Basu, A.C.**, Renshaw, P.F., and J.T. Coyle. (2013) Time-dependent effects of haloperidol on glutamine and GABA homeostasis and astrocyte activity in the rat brain. *Psychopharmacology (Berlin).* 230(1):57-67.

Li, Y., Sacchi, S., Pollegioni, L., **Basu, A.C.**, Coyle, J.T., and V.Y. Bolshakov. (2013) Identity of endogenous NMDAR glycine site agonist in amygdala is determined by synaptic activity level. *Nature Communications.* 4:1760.

Benneyworth, M.A., Li, Y., **Basu, A.C.**, Bolshakov, V.Y., and J.T. Coyle. (2012) Cell selective conditional null mutations of serine racemase demonstrate a predominate localization in cortical glutamatergic neurons. *Cellular and Molecular Neurobiology*. 32(4):613-24.

Balu, D.T., **Basu, A.C.**, Corradi, J.P., Cacace, A.M., and J.T. Coyle. (2012) The NMDA receptor co-agonists, D-serine and glycine, regulate neuronal dendritic architecture in the somatosensory cortex. *Neurobiology of Disease*. 45(2):671-82.

Coyle, J.T., **Basu, A.**, Benneyworth, M., Balu, D., Konopaske, G. (2012) Glutamatergic synaptic dysregulation in schizophrenia: therapeutic implications. *Handbook of Experimental Pharmacology.* (213):267-95. **Invited Review.**

Benneyworth, M.A., **Basu, A.C.**, and J.T. Coyle. (2011b) Discordant behavioral effects of psychotomimetic drugs in mice with altered NMDA receptor function. *Psychopharmacology (Berlin)*. 213(1):143-53.

Benneyworth, M.A., Roseman, A.S., **Basu, A.C.**, and J.T. Coyle. (2011a) Failure of NMDA receptor hypofunction to induce a pathological reduction in PV-positive GABAergic cell markers. *Neuroscience Letters.* 488(3):267-71.

DeVito, L.M., Balu, D.T., *Kanter, B.R., Lykken, C., **Basu, A.C.**, Coyle, J.T., and H. Eichenbaum. (2011) Serine racemase deletion disrupts memory for order and alters cortical dendritic morphology. *Genes Brain and Behavior*. 10(2):210-22.

Coyle, J.T., Balu, D.T., Benneyworth, M.A., **Basu, A.C.**, and A.S. Roseman. (2010) Beyond the dopamine receptor: novel therapeutic targets for treating schizophrenia. *Dialogues in Clinical Neuroscience*. 12(3):359-82. **Invited Review.**

Han, L., Picker, J.D., Schaevitz, L.R., Tsai, G., Feng, J., Jiang, Z., *Chu, H.C., **Basu, A.C.**, Berger-Sweeney J., and J.T. Coyle. (2009) Phenotypic characterization of mice heterozygous for a null mutation of glutamate carboxypeptidase II. *Synapse* 63(8):625-35.

Basu, A.C., Tsai, G.E., Ma, C.-L., Ehmsen, J.T, Mustafa, A.K, Han, L., Jiang, Z.I., Benneyworth, M.A., Froimowitz; M.P., Lange, N., Snyder, S.H, Bergeron, R., and J.T. Coyle. (2009) Targeted disruption of serine racemase affects glutamatergic neurotransmission and behavior. *Molecular Psychiatry*. 14(7):719-27.

Lawson-Yuen, A., *Liu, D., Han, L., Jiang, Z.I., Tsai, G.E., **Basu, A.C.**, Picker, J., Feng, J., and J.T. Coyle. (2007) Ube3a mRNA and protein expression are not decreased in Mecp2R168X mutant mice. *Brain Research.* 1180:1-6.

*Yurkovic A., *Wang O., **Basu, A.C.**, and E.A. Kravitz. (2006) Learning and memory associated with aggression in *Drosophila melanogaster*. *Proceedings of the National Academy of Sciences USA.* 103(46):17519-24.

Hernandez-Falcon, J., **Basu, A.C.,** Govindasamy, S., and E.A. Kravitz. (2005) Changes in heart rate associated with contest outcome in agonistic encounters in lobsters. *Cellular and Molecular Neurobiology.* 25(2):329-343.

*Rutishauser, R.L., **Basu, A.C.**, Cromarty, S.I., and E.A. Kravitz. (2004) Long-term consequences of agonistic interactions between socially naïve juvenile American lobsters *(Homarus americanus). Biological Bulletin.* 207(3):183-7.

Basu, A.C. and E.A. Kravitz. (2003) Morphology and monoaminergic modulation of Crustacean Hyperglycemic Hormone-like immunoreactive neurons in the lobster nervous system. *Journal of Neurocytology.* 32(3):593-603.

BOOK CHAPTER

Coyle, J.T., **Basu, A.** and M. Benneyworth (2012) Glutamatergic synaptic dysregulation in schizophrenia. In J.S. Albert and M.W. Wood, (Eds.) *Targets and emerging therapies for schizophrenia.* John Wiley & Sons, Inc.

PEER-REVIEWED PEDAGOGICAL ARTICLE

Basu, A.C., Mondoux, M.A., Whitt, J.L., Isaacs, A.K., and T. Narita. (2017) An Integrative Approach to STEM Concepts in an Introductory Neuroscience Course: Gains in Interdisciplinary Awareness. *Journal of Undergraduate Neuroscience Education* 16(1):A102-A111.

DOCTORAL THESIS

Basu, A.C., Characterization of an amine-modulated stress neuropeptide system in *Homarus americanus* [dissertation]. Cambridge (MA): Harvard University; 2004.

INVITED RESEARCH SEMINARS

4/15/2019	"Neuron Complexity and Hippocampus-Dependent Cognition" Biology Department Seminar Series, Amherst College
3/5/2019	"The Trouble with Bathroom Bills: Natural Variation in the Biology of Sex" Institute for Ethics and Public Affairs Department of Philosophy & Religious Studies, Old Dominion University
11/12/2018	"Investigations in the Neurobiology of Learning & Memory" Psychology Department Colloquium Series, Connecticut College
	"False Memories – Fake News? Evaluating Claims in the Neurobiology of Fear and Stress"
8/7/2018	Science Seminar Series, School of Liberal Studies, Azim Premji University, Bengaluru, India
7/18/2018	Summer Science Seminar Series, College of the Holy Cross
	"D-serine and Cognition"
4/2/2015	Department of Biology Seminar Series, University of New England
6/11/2014	Summer Science Seminar Series, College of the Holy Cross
10/4/2010	"The Role of D-serine in Synaptic Plasticity, Learning, and Memory" Department of Biological and Physical Sciences Seminar Series, Assumption College

INVITED LECTURES AND WORKSHOPS

1/16/2019	"Animal Studies in Neuroscience: D-serine and Cognition" Brain and Behavior Course, Department of Biology School of Liberal Studies, Azim Premji University, Bengaluru, India
4/18/2018	"Animal Models and Experimental Systems in the Study of Human Disease" Advanced Human Genetics Course, Harvard Medical School Genetics Training Program
3/8/2018	"Careers Focused on Teaching and Mentorship" Careers in Neuroscience Course, Harvard Medical School Program in Neuroscience
7/29/2017	"Flipping the Classroom to Address Basic STEM Concepts in an Undergraduate Neuroscience Class" Teaching Demo, Faculty for Undergraduate Neuroscience Workshop, Dominican University
12/8/2005, 4/27/2005	"Studying Schizophrenia Using Genetically Modified Mice" Lecture in Psych 260: Behavioral Neuroscience; University of Massachusetts, Boston, MA
12/8/2005	"Social Conflict: Comparative Perspective" Invited discussant in Psych 490a: Primate Behavior; University of Massachusetts, Boston, MA

SELECTED ARCHIVED SCIENTIFIC CONFERENCE ABSTRACTS (*Undergraduate co-authors)

*DeBono, M., *Parentela, N., Bitran, D., and **A.C. Basu.** Investigation of the temporal dimension of prepulse inhibition of the acoustic startle response. Program No. 519.09. *Neuroscience Meeting Planner*. Chicago, IL: Society for Neuroscience, 2019. Online. Poster.

Basu, A.C., Stock, S.R., *Cavanaugh, G.W., *Yu, M., and D.C. Henderson. Exploratory use of machine learning to model metabolic outcomes based on genetic risk factors in patients with schizophrenia. Program No. 609.09. *Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2018. Online. Poster.

*Cronin, M.E., *Presti, K.T., and **A.C. Basu.** Behavioral effects of maternal immune activation in mice. Program No. 695.09. *Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2017. Online. Poster.

*Hendershott T.R., *Langella S., *McGuinness P.S., and **A.C. Basu**. Effects of environmental enrichment on anxiety, sensory gating, sociability, and spatial learning in mice. Program No. 631.24. *Neuroscience Meeting Planner*. Chicago, IL: Society for Neuroscience, 2015. Online. Poster.

*Flynn, C.R, *Moriarty, K.T., and **A.C. Basu**. Mouse behavior in a spatial navigation task: Exploration, alternation, and perseveration. Program No. 360.02. *Neuroscience Meeting Planner.* Washington, DC: Society for Neuroscience, 2014. Online. Poster.

Basu, A.C., Puhl, M.D., and J.T. Coyle. Endogenous co-agonists of the NMDA receptor modulate contextual fear conditioning. Program No. 106.09. *Neuroscience Meeting Planner.* New Orleans, LA: Society for Neuroscience, 2012. Online. Poster.

Basu, A.C., Roseman, A.S., and J.T. Coyle. Effects of postnatal maternal separation in serine racemase knockout mice, a model of early life stress interaction with NMDA receptor hypofunction. Program No. 363.13. *Neuroscience Meeting Planner.* San Diego, CA: Society for Neuroscience, 2010. Online. Poster.

Konopaske, G.T., **Basu, A.**, and J.T. Coyle. Effects of ketamine on glutamate homeostasis assessed by 13C magnetic resonance microscopy. Program No. 880.11. *Neuroscience Meeting Planner.* San Diego, CA: Society for Neuroscience, 2010. Online. Poster.

Balu, D.T., **Basu, A.C.**, and J.T. Coyle. Altered cortical dendritic morphology in serine racemase knockout mice, a genetic model of NMDA receptor hypofunction. Program No. 443.16. *Neuroscience Meeting Planner.* Chicago, IL: Society for Neuroscience, 2009. Online. Poster.

Basu, A.C. and J.T. Coyle. Anxiety-related behaviors in serine racemase knockout mice. Program No. 443.21. *Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2009. Online. Poster.

Benneyworth, M.A., **Basu, A.C.**, and J.T. Coyle. Behavioral effects of psychotomimetic drugs in mouse genetic models of NMDA receptor hypofunction. Program No. 443.20. *Neuroscience Meeting Planner.* Chicago, IL: Society for Neuroscience, 2009. Online. Poster.

Benneyworth, M.A., **Basu, A.C.**, and J.T. Coyle. Relationship between NMDA receptor function and GABAergic neuropathology in serine racemase and glycine transporter I mutant mice. Program No. 254.3. *Neuroscience Meeting Planner.* Washington, DC: Society for Neuroscience, 2008. Online. Poster.

Han, L., Picker, J.D., Tsai, G., Feng, J., **Basu, A.C.**, Jiang, Z., Berger-Sweeney J., and J.T. Coyle. (2009) Phenotypic characterization of heterozygous mice lacking glutamate carboxypeptidase II. Program No. 657.13. *Neuroscience Meeting Planner.* Washington, DC: Society for Neuroscience, 2008. Online. Poster.

Basu, A.C., Tsai, G.E., Han, L., Jiang, Z.I., Benneyworth, M., Ehmsen, J.T., Mustafa, A.K., Dore, S., Snyder, S.H., and J.T. Coyle. Abnormal sensory gating, reversal of spatial memory, and anxiety-like behavior in serine racemase knockout mice. Program No. 576.7. *Neuroscience Meeting Planner.* San Diego, CA: Society for Neuroscience, 2007. Online. Poster.

Basu, A.C., Han, L., Jiang, Z., Tsai, G.E., and J.T. Coyle. Behavioral phenotype of serine racemase knock-out mouse. Program No. 763.6. *Neuroscience Meeting Planner*. Atlanta, GA: Society for Neuroscience, 2006. Online. Poster.

Basu, A.C., Kurek, J.A., Han, L., Jiang, Z.I., Tsai, G.E., and J.T. Coyle. Initial phenotypic characterization of serine racemase knock-out mice. Program No. 1021.18. *Neuroscience Meeting Planner.* Washington, DC: Society for Neuroscience, 2005. Online. Poster.

Yurkovic, A., **Basu, A.C.**, and E.A. Kravitz. Learning and memory associated with fighting behavior in Drosophila melanogaster. Program No. 710.5. *Neuroscience Meeting Planner.* Washington, DC: Society for Neuroscience, 2005. Online. Poster.

Basu, A.C., Haass, F.A., and E.A.Kravitz. Crustacean hyperglycemic hormone-like immunoreactive neurons in second thoracic nerve roots of the lobster are activated by stressful stimuli. Program No. 274.1. *Neuroscience Meeting Planner.* San Diego, CA: Society for Neuroscience, 2004. Online. Poster.

Basu, A.C. and E.A.Kravitz. Morphology and modulation by serotonin and octopamine of crustacean hyperglycemic hormone-like peptide-containing neurons in the lobster nervous system. Program No. 710.5. *Neuroscience Meeting Planner.* New Orleans, LA: Society for Neuroscience, 2003. Online. Poster.

Basu, A.C., Haass, F.A., and E.A.Kravitz. Biochemical, physiological, and behavioral effects of d-fenfluramine in the American lobster. Program No. 88.3. *Neuroscience Meeting Planner*. Orlando, FL: Society for Neuroscience, 2002. Online. Poster.

Basu, A.C., Haass, F.A., and E.A.Kravitz. Crustacean hyperglycemic hormone (CHH)-containing cells in second thoracic roots of the lobster: intrinsic properties and pharmacological characterization. Program No. 957.4. *Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2001. Online. Poster.

Dircksen, H., **Basu, A.C.**, Chang, E.S., Beltz, B.S., and E.A. Kravitz. Crustacean hyperglycemic hormone (CHH)-like peptides in lobsters: localization to peripheral neurosecretory cells along thoracic second roots. Program No. 437.15. *Neuroscience Meeting Planner*. New Orleans, LA: Society for Neuroscience, 2000. Online. Poster.

Moore, C.I., Sheth, B.R., ***Basu, A.**, Nelson, S., and M. Sur. What is the neural correlate of the optical imaging signal? Intracellular receptive field maps and optical imaging in rat barrel cortex. Program No. 420.10. *Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 1996. Poster.

ARCHIVED PEDAGOGICAL CONFERENCE ABSTRACTS

Rotolo, R.A., Tanner, G.R., Tottenham, N.L., Francone, V., Frye, C.A., **Basu, A.C.**, Trapani, J.G., Linden, M.L. Ahern, T.H., and A.J. Betz. The 32nd northeast undergraduate and graduate research organization for neuroscience (NEURON) conference held at Quinnipiac University's Frank H. Netter M.D. School of Medicine in North Haven, CT. Program No. 026.04SU. *Neuroscience Meeting Planner*. Chicago, IL: Society for Neuroscience, 2019. Online. Poster.

Basu, A.C. and T. Narita. Design of a project-based course that integrates neuroethology with physics of the natural world. Program No. 023.17SU. *Neuroscience Meeting Planner*. Chicago, IL: Society for Neuroscience, 2019. Online. Poster.

Basu, A.C., Royden, C.S., and J.R. Burdo. Use of circuit design challenges in an integrative introduction to neuroscience course. Program No. 023.11SA. *Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2018. Online. Poster.

Betz, A.J., Ahern, T., Francone, V., **Basu, A.C.**, Trapani, J.G., Frye, C.A., and J.D. Salomone. The 31st northeast under/graduate research organization for neuroscience (NEURON) conference held at Quinnipiac University in Hamden, CT. Program No. 026.18SU. *Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2018. Online. Poster.

Basu, A.C., Flipping the classroom to address STEM concepts in an introductory neuroscience course. Program No. 024.02SA. *Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2017. Online. Poster.

SERVICE TO PROFESSION

2019	Western Massachusetts Chapter of the Society for Neuroscience Meeting Organizing Committee
	Faculty for Undergraduate Neuroscience (FUN)
11/2018 – present	Councilor, Executive Committee 2020 FUN Workshop Planning Committee Faculty Awards Committee
2016	Student Travel Award Application Reader
8/4 – 8/5/2018	Participant, Azim Premji University Biology Program Curriculum Review, Bengaluru, India
2018 – 2019	Poster Judging Co-Coordinator, NEURON Conference, Quinnipiac University, North Haven, CT
2015 – 2017	Poster Judge, NEURON Conference, Quinnipiac University, North Haven, CT
	Grant Reviewer, National Institutes of Health (NIH)
2019	AREA/REAP (R15) proposal review (2 panels)
2018	AREA R15 proposal review (3 panels)
2017	AREA R15 proposal review (2 panels)

	Grant Reviewer, National Science Foundation (NSF), Directorate for Biological Sciences Integrative Organismal Systems, Neural Systems Cluster, Modulation Program
2016	Full/CAREER proposal review panel
2015	Pre-proposal review panel
2008 – present	Peer Reviewer of scientific manuscripts Reviewed manuscripts for the following scientific journals: Behavioural Brain Research, Developmental Psychobiology, Journal of Visualized Experiments (JoVE), Journal of Undergraduate Neuroscience Education (JUNE), PLoS ONE, Neuropsychopharmacology, Physiology & Behavior, Behavioural Brain Research, Learning & Memory; Reviewed a book chapter for Oxford University Press

SELECTED INSTITUTIONAL SERVICE (at College of the Holy Cross)

2019 – present	Member (Elected), Academic Governance Council AGC Representative, Finance and Planning Council
2015 – present	Neuroscience Advisor, Center for Interdisciplinary Studies
2018 – 2019	Member, Cultural Psychology Exploration Committee, Department of Psychology
2017	Chair, Neuroscience Faculty Search Committee, Department of Psychology Liaison with Biology Department for Joint Faculty Search
AY 2016-17	Member, Assessment Committee, Department of Psychology
Summer 2016, 2018-19	Summer Gateways Advising
AY 2016-17 AY 2015-16	Chair, Committee for Interdisciplinary Studies Member (Elected), Committee for Interdisciplinary Studies
AY 2019-20 AY 2016-17 AY 2015-16	Faculty Mentor, First-year Research Advancement Program (FRAP), 2 students per year
2012 – 2017	Member, Colloquium Committee, Department of Psychology
8/2012 – 5/2016	Co-Director, Biological Psychology Concentration
AY 2014-15	Faculty Mentor, ALANA and International Student Mentor Program, 6 students
10/2012 – 8/2013	Member (Appointed), Expert Committee on Student Preparedness

SELECTED INSTITUTIONAL SERVICE (Harvard Medical School and McLean Hospital)

8/2005 – 8/2011	Member, Institutional Animal Care and Use Committee, McLean Hospital 7/2007 – 8/2011 Subcommittee on Policy 6/2007 – 7/2008 Liaison to the Laboratory Safety Subcommittee
9/2004 – 7/2011	Staff, Seminars in Brain and Behavior, Harvard Medical School (Director: Edward A. Kravitz, Ph.D.)
6/2009 – 8/2009	Member (Appointed) Postdoctoral Association Steering Committee, McLean Hospital
3/2007 – 9/2010	Founder and Co-Coordinator, McLean Nocturnal Research Forum (MNRF), McLean Hospital
9/2001 – 5/2002	Member (Elected), Organizing Committee, Program in Neuroscience Spring Symposium Division of Medical Sciences, Harvard Medical School
9/2000 – 9/2002	Student Representative (Elected), Program in Neuroscience Steering Committee, Harvard Medical School

SELECTED INVITED SEMINARS AND WORKSHOPS (College of the Holy Cross)

2/5/2019	"Networks" discussion, College Honors Program Colloquium (with C. Royden, Dept. of Mathematics and Computer Science)
11/16/2018	ENGAGE Summit Session on "Natural Variation in the Biology of Sex and Sexuality" (with J. Axelson, Dept. of Psychology; R. Bellin, G. Findlay, J. Paxson, and J. Rymer, Dept. of Biology)
10/18/2017	"Concussion" to Deans' Advisory Group, College of the Holy Cross
7/26/2017	"Concussion" in Summer Science Seminar Series, College of the Holy Cross
1/26/2017	"Introduction to Neuroscience" at Technology in Teaching on Tap, College of the Holy Cross
7/18/2013	"Grant writing tips and funding mechanisms from NSF and NIH" at College of the Holy Cross
6/23/2013	"The Science of Knowing and the Science of Knowledge: A Discussion" Joint presentation with L. Cahoone (Dept. of Philosophy) Mellon Summer Research Program Workshop, College of the Holy Cross
3/15/2012	"Psychoneuroimmunology" to Neuronauts student group, College of the Holy Cross

SELECTED PROFESSIONAL DEVELOPMENT CONFERENCES AND WORKSHOPS ATTENDED

9/10/17	"Teaching Statistics Using R and Rstudio" Boston Chapter of the American Statistical Association Workshop Leader: Nicholas Horton, Ph.D., Amherst College
7/27 – 7/28/2017	"Pre-Workshop Intensive Laboratory Experience" Faculty for Undergraduate Neuroscience Pre-Workshop, Dominican University
7/28 – 7/30/2017	"Undergraduate Neuroscience Education: Activities, Laboratories and Best Practices for Developing, Assessing and Sustaining Inclusive Curricula" Faculty for Undergraduate Neuroscience Workshop, Dominican University
7/20-7/21/2015	"Workshop on Interdisciplinarity in the Sciences" Office of the Dean, College of the Holy Cross Director: Kenneth Mills, Ph.D., Dept. of Chemistry
1/15/2015	"What is 'Metacognition' and How to Use it to Improve Student Learning" Center for Teaching, College of the Holy Cross Featuring: Saundra McGuire, Ph.D., (Ret.) Assistant Vice Chancellor & Professor of Chemistry Director Emerita of the Center for Academic Success at the Louisiana State University
7/31 – 8/3/2014	"Undergraduate Neuroscience Education: Challenges and Solutions in Creating and Sustaining Programs" Faculty for Undergraduate Neuroscience Workshop, Ithaca College
1/16/2014	"Engaging and Optimizing Your Multicultural Classroom" Center for Teaching, College of the Holy Cross Featuring: The Bok Players
6/9 – 6/10/2014	Quantitative Reasoning Workshop Office of the Dean, College of the Holy Cross Director: David Damiano, Dept. of Mathematics and Computer Science
10/29/2013	Discussion of the Holy Cross Writing Rubric Center for Teaching, College of the Holy Cross
11/16/2012	"Staying the Course through College" NEFDC-COWC Conference, College of the Holy Cross

11/5/2012	Workshop on Numeracy in the Liberal Arts Center for Teaching, College of the Holy Cross Featuring: Eric Gaze, Ph.D., Bowdoin College; Corinne Taylor, Ph.D., Wellesley College

SELECTED VOLUNTEER COMMUNITY OUTREACH ACTIVITIES

	Women in Science Day, XCHROM Student Organization, College of the Holy Cross
2019	Neuroscience Demonstration Presenter (1h)
2017 – 2019	Table Presenter, Browsing Session (1h)
AY 2019-20 AY 2018-19	Music Teacher, Banitirtha Bengali Language and Culture Learning Center, Belmont, MA (2h/week)
Summer 2016	Mentored local public high school student in research laboratory (8h/wk)
Summer 2013	Mentored local public high school student in research laboratory (20h/wk)
2016, 2017	Judge, Massachusetts State Science and Engineering Fair (4h)
2016, 2017	Judge, Worcester Regional Science and Engineering Fair (4h)
2012, 2015, 2016	Judge, Worcester Public Schools Science and Engineering Fair (4h)
9/2006 – 12/2006	Citizen Teacher in the Apprenticeship component Eighth Grade Academy Program, Citizen Schools, Boston, MA (3h/month)
9/1999 – 10/2002	Tutor, Alternative High School Program Cardinal Cushing Center for the Spanish Speaking, Roxbury, MA Subjects: Algebra, Trigonometry, Pre-Calculus, GED Math, Reading (3h/wk)

OTHER INTERESTS

Languages: Proficient in Bengali (native), Hindi, French, and Spanish; familiar with German and Malay
Music: Student of North Indian classical music (vocal) since 1987

LIST OF FORMER RESEARCH STUDENTS

Student	Post-graduate Employment	Graduate Program
Allen Bailey '13 Psychology Major	Mental Health Specialist, Addiction McLean Hospital	Ph.D. Candidate in Clinical Science Dept. of Psychological and Brain Sciences Indiana University
Samantha Fregenti '13 Psychology Major	Jesuit Volunteer Corps	M.A. in Clinical Psychology, Teachers College Columbia University
Gregory Peters '13 Psychology Major Biological Psychology Conc. Fenwick Scholar	Research Assistant/Lab Manager Rose F. Kennedy Intellectual and Developmental Disabilities Research Center Albert Einstein School of Medicine	M.D. Candidate Harvard Medical School
Catherine Ward '13 Psychology Major Chemistry Minor	Research Assistant, Neural Plasticity Research Group Boston Children's Hospital	M.S. in Biochemical and Molecular Nutrition Friedman School of Nutrition Science and Policy Tufts University
Christopher Flynn '14 Psychology Major French Major	Research Assistant, New England Centenarian Study Boston University School of Medicine	M.D. Candidate University of Vermont Medical School
Ryan O'Keefe '14 Biology Major Biological Psychology Conc. College Honors Program	Research Assistant, Cancer Center Massachusetts General Hospital	M.D. Candidate University of Pennsylvania Medical School
Kendall Presti '14 Psychology Major Biological Psychology Conc.	Research Assistant Laboratory for Molecular and Psychiatric Neuroscience McLean Hospital	M.D. Candidate New York Medical College
Brenda Rosario '14 Psychology Major Education Minor	Research Assistant Center for the Study of Children at Risk Brown University	
Taylor Hendershott '15 Psychology Major Biological Psychology Conc.	Laboratory Manager Dept. of Neurology and Neurological Sciences Stanford University School of Medicine	Ph.D. Candidate in Psychological and Brain Sciences (Clinical Track) Washington University at St. Louis NSF Graduate Fellowship Hon. Mention 2017 **NSF Graduate Fellowship Awardee 2018**
Patrick McGuinness '15 Psychology Major	Research Assistant, Laboratory of Genetic Neuropharmacology McLean Hospital	
John Milner '15 Psychology Major Biological Psychology Conc.	Research Assistant, Cancer Center Massachusetts General Hospital College of the Holy Cross Board of Trustees	M.D. Candidate, Warren Alpert Medical School Brown University
Kevin Moriarty '15 Psychology Major	Research Assistant, Neurology and Pediatrics Icahn School of Medicine at Mount Sinai	R.N., Rutgers School of Nursing
Angelo DeNofrio '16 Psychology Major Global Health Studies Major		M.P.H., Boston University School of Public Health
Michael Keane '16 Chemistry Major Neuroscience Minor	Chemist Pharmasol Corporation, Easton, MA	
Stephanie Langella '16 Psychology Major Cognitive Neuroscience Conc. *(Washington U. in St. Louis)*		Ph.D. Candidate in Cognitive Psychology Dept. of Psychology and Neuroscience University of North Carolina at Chapel Hill
Nicole Parentela'16 Psychology Major Biological Psychology Conc.	Non-Clinical Research Administration Intern Baystate Medical Center	
Alejandra Santiago '16 Psychology Major		M.D. Candidate University of Puerto Rico
Catarina Teves'16 Psychology Major Biological Psychology Conc.	Research Assistant Genetics and Aging Research Unit Massachusetts General Hospital	
Marie Cronin'17 Biology Major Neuroscience Major	**Postbaccalaureate Intramural Research Training Award** **National Institutes of Health**	Ph.D. Candidate in Neurobiology Duke University **NSF Graduate Fellowship Awardee 2019**
Samantha Speroni'17 Psychology Major Neuroscience Minor	Clinical Research Coordinator, Pediatric Neurology Massachusetts General Hospital **Fulbright English Teaching Assistantship (Thailand)**	

Grace Cavanaugh'18 Chemistry Major Psychology Major College Honors Program	**Postbaccalaureate Intramural Research Training Award** **National Institutes of Health**	
Michelle Yu '18 Mathematics Major Statistics Minor Environmental Studies Minor		Ph.D. Candidate in Statistics University of California, Berkeley **NSF Graduate Fellowship Awardee 2019**
Jerison Castillo '19 Neuroscience Major	Administrative Assistant, Neurology Boston Children's Hospital	
Madeline DeBono '19 Biology Major Neuroscience Minor	Clinical Research Coordinator, Pediatric Neurology Massachusetts General Hospital	