Zafir Buraei, PhD

Pace University, Department of Biology
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WORK EXPERIENCE

Assistant Professor 2012-present	Pace University, Department of Biology, Dyson College of Arts and Sciences Ion channels in health and disease
Associate Research Scientist 2009-2012	Columbia University, Department of Biological Sciences Biochemical, molecular, and electrophysiological studies of neuronal and cardiac calcium channels. Supervisor: Dr. Jian Yang
Postdoctoral Research Scientist 2006-2009	Columbia University, Department of Biological Sciences Mechanosensitivity of Polycystic Kidney Disease channels Trp channel structure and function Supervisor: Dr. Jian Yang
Adjunct Lecturer Fall 2013	Columbia University, Department of Biological Sciences Course Instructor for Cellular and Molecular Neuroscience
Co-instructor Fall 2010, 2011	Columbia University, Department of Biological Sciences Cellular and Molecular Neuroscience

EDUCATION

Ph.D.	Tulane University Medical Center, Department of Physiology Chancellor's Awardee from 2003-2005 Neuronal calcium channels: Permeation and channel agonists	2006
B.Sc.	Belgrade University, Faculty for Natural and Mathematical Sciences Department of Biology Major: Molecular Biology and Physiology	2000
	Honor's thesis (official equivalent of M.Sc.) Institute for Molecular Genetics and Genetic Engineering, Serbia Chromosome Painting in Clinical Diagnostics. Supervisor: Dr. Milena Stefanovic	2000

PEER REVIEWED PUBLICATIONS

Since joining Pace University

(Stars ***** indicate Pace students)

Sukhjinder Kaur*, Chia-Chang Zuleen*, Hanson Paris*, Yorke Laura* and **Zafir Buraei** "TrpC5 channels are inhibited by Wild Type Presenilin1, but not the Familial Alzheimer's Disease Presenilin 1 mutant M146V." *Journal of Signal Transduction.* Research Article number 5160410. In revision following peer review.

Peteroy-Kelly M.A., Marcello M.R., Crispo E., **Buraei Z**., Strahs D., Isaacson M., Jaworski L., Lopatto D., and Zuzga D. "Participation in a Year-Long CURE Embedded into Major Core Genetics and Cellular and Molecular Biology Laboratory Courses Results in Gains in Foundational Biological Concepts and Experimental Design Skills by Novice Undergraduate Researchers." *Journal of Microbiology and Biology Education;* May 2017. Peer reviewed STEM education research article.

Buraei Z and Jian Yang. "Inhibition of Voltage-Gated Calcium Channels by RGK proteins." *Current Molecular Pharmacology* – Peer reviewed literature review. Refereed and published in an issue commemorating the 50th anniversary of voltage-gated calcium channel discovery, and alongside reviews by four members of the National Academy of Sciences. Dec 2015.

Buraei Z, Lumen E*, Kaur S.* and Yang J. "RGK Regulation of Voltage-Gated Calcium Channels." *Science China - Life Sciences;* Jan 2015. Peer reviewed literature review.

Buraei Z, Lee HK, and Elmslie KS. **"**Single channel measurements demonstrate the voltage dependence of permeation through N-type and L-type CaV channels." *Channels;* Jan 2015. Peer reviewed research article.

Buraei Z, Liang H, Elmslie KS. "Voltage control of Ca^{2+} permeation through N-type calcium (CaV2.2) channels." *Journal of General Physiology;* Sep 2014. Peer reviewed research article.

Nagarajan A, Ning Y, Reisner K, **Buraei Z**, Larsen JP, Hobert O, Doitsidou M. "Progressive degeneration of dopaminergic neurons through TRP channel-induced cell death." *Journal of Neuroscience;* Apr 2014. Peer reviewed research article.

Buraei Z & Yang J. "Not very funny: how a single mutation causes heritable bradycardia." *Structure;* Dec 2012. Peer reviewed 'News and Views' commentary.

Prior to joining Pace University

Fan M, Zhang WK, **Buraei Z**, & Yang J. "Molecular Determinant of Gem Inhibition of P/Q-Type Ca^{2+} Channels." *Journal of Biological Chemistry; Jun 2012.*

Buraei Z. & Yang J. Structure and function of the β subunit of voltage-gated Ca^{2+} channels. *Biochimica et Biophysica Acta*, 2013. 3.54, 11/127 rank = 8.7%

Fan M[#], **Buraei Z[#]**, Luo HR, Levenson-Palmer R* & Yang J. (# Equal contribution**).** Direct inhibition of P/Q-type voltage-gated Ca^{2+} channels by Gem does not require a direct Gem/Ca_vβ interaction. *Proc Natl Acad Sci U S A; Aug 2010.*

Buraei Z & Yang J, The β subunit of voltage-gated Ca^{2+} channels. *Physiological Reviews; October 2010.* Literature Review.

Yu Y, Ulbrich MH, Li M, **Buraei Z**, Chen X-Z, Ong AC M, Tong L, Isacoff EY& Yang J. Structural and molecular basis of the assembly of the TRPP2/PKD1 complex*. Proc Natl Acad Sci U S A; Jul 2009.*

Buraei Z. & Elmslie K.S. The separation of antagonist from agonist effects of trisubstituted purines on $Ca_V2.2$ (N-type) Ca^{2+} Channels. *Journal of Neurochemistry; May 2008.*

Buraei Z., Schofield G. & Elmslie K.S. Roscovitine Differentially Affects CaV2 and Kv Channels by Binding to the Open State *Neuropharmacology; Mar 2007.*

Buraei Z., Anghelescu M. & Elmslie K.S. Slowed N-type Calcium Channel (Ca_V 2.2) Deactivation by the Cyclin-Dependent Kinase Inhibitor Roscovitine*. Biophysical Journal; Sep 2005.* **Featured in Faculty 1000.**

Papers in preparation

Zuleen Chia Chang*, Emily Hirowski*, Sukhjinder Kaur*, **Zafir Buraei**. Studies of a PQ type Calcium Channel Truncation Mutant Associated with Epilepsy. Presented at the NEURON Conference. (Stars indicate Pace students here and throughout).

Cernuda B.*, Chia Chang Z.*, Suppa G.*, Athanasopoulos D., **Buraei Z.** "Structural determinants of *R*-roscovitine-hERG K^+ channel binding: electrophysiological and modeling studies." Presented at NEURON and at the Biophysical Society meeting 2017.

Kaur S.*, Hanson P*., Allam S.*, Yorke L., Aya E.*, Lumen E.*, **Buraei Z**. "A molecular mechanism for Alzheimer's disease: the effects of WT and mutant Presenilin1 on TrpC5 channel function". Presented at NEURON and at the Biophysical Society Meeting.

Allam, S.*, Suppa, G.*, Hanson, P.*, Yorke, L.*, and **Buraei, Z**. Functional Characterization of two Calcium Channel Mutations Associated with Epilepsy. Presented at the Biophysical Society Meeting, and the NEURON conference.

CONFERENCE PRESENTATIONS

As common in the sciences, conference proceedings and abstracts are not peer reviewed, but talk proposals and awarded abstracts are.

Since joining Pace University

(Stars ***** indicate Pace students)

2017 P. Hanson*, S. Kaur*, S. Allam*, L. Yorke*, E. Lumen*, **Z. Buraei**. A molecular mechanism for Alzheimer's disease: the effects of WT and mutant Presenilin1 on TrpC5 channel function. 71st Annual Eastern Colleges Science Conference (ECSC) at Wilkes University. (* Stars indicate Pace students here and throughout).

2017 Sukhjinder Kaur*, Zuleen Chia-Chang*, Paris Hanson,* Laura Yorke*, and **Zafir Buraei** TrpC5 Channels are Inhibited by WT Presenilin1 but not the Alzehimer's Disease Mutant M146V. Biophysical Society Meeting, New Orleans, LA.

2017 Allam, S.*, Suppa, G.*, Hanson, P.*, Yorke, L.*, and **Buraei, Z**. Functional Characterization of two Calcium Channel Mutations Associated with Epilepsy. NEURON conference, Quinnipiac University. This poster won the Second place for the **Suzannah Bliss Tieman Outstanding Poster Award**.

2017 Allam, S.*, Suppa, G.*, Hanson, P.*, Yorke, L.*, and **Buraei, Z**. Functional Characterization of two Calcium Channel Mutations Associated with Epilepsy. 71st Annual Eastern Colleges Science Conference (ECSC) at Wilkes University. This poster won the **Award of Excellence for an Outstanding Presentation in the Area of Genetics/Molecular Biology**.

2017 P. Hanson*, S. Kaur*, S. Allam*, L. Yorke*, E. Lumen*, **Z. Buraei**. A molecular mechanism for Alzheimer's disease: the effects of WT and mutant Presenilin1 on TrpC5 channel function. NEURON conference.

2016 Zuleen Chia Chang*, Sukhjinder Kaur*, **Zafir Buraei**. Studies of a PQ type Calcium Channel Truncation Mutant Associated with Epilepsy. 27th NEURON conference. This poster won the ***Cheryl Frye Pioneering Research Award*** **for 2016**.

2016 Cernuda B.*, Chia Chang Z.*, Suppa G.*, Athanasopoulos D., Buraei Z. Structural Determinants of R-roscovitine-HERG K+ Channel Binding: Electrophysiological and Modeling Studies. NEURON conference, Quinnipiac University, CT.

2015 K. Dubrovina*****, G. Suppa*****, K. Thomas*****, **Z. Buraei**. A P/Q channel Mutation Associated with Epilepsy Alters the Voltage Dependence of Channel Inactivation. 59th Biophysical Society Meeting, Baltimore MD.

2015 **Z. Buraei**, M. Marcello, D. Strahs, D. Zuzga, E. Crispo and M.P. Kelly. Development of a year-long, research-based laboratory integrated within core genetics and cellular & molecular biology courses. American Society for Microbiology Conference for Undergraduate Educators (ASMCUE), Austin, TX.

2014 K.Dubrovina*****, G. Suppa*****, K. Thomas*****, **Z. Buraei**. Molecular Mechanisms of Epilepsy. 2 5th NEURON Conference, Quinnipiac University, CT; February 28th.

2014 K.Dubrovina*****, G. Suppa*****, K. Thomas*****, **Z. Buraei**. Molecular Mechanisms of Epilepsy. Pace University, department of Biology. Poster won a **poster presentation award**.

Prior to joining Pace University

2012 **Zafir Buraei**, Rose-Levenson Palmer, Scott Dobbins, Jian Yang Gem stabilizes voltage-gated calcium channels in the inactivated state: implications for human disease. *56th Annual Biophysical Society Meeting, San Diego, CA.* This abstract was invited for a talk.

2011 **Z. Buraei**, R. Levenson-Palmer, and J. Yang Molecular Determinants of Voltage-gated Calcium Channel Inhibition by RGK. *55th Annual Biophysical Society Meeting, Baltimore, MD.* This abstract was invited for a talk.

2005 **Z. Buraei,** G. Schofield, K.S. Elmslie. Roscovitine Specifically Slows Deactivation of CaV2 (P/Q-, N- & R-type) Channels to Enhance Action Potential-Induced Ca^{+2} Influx. Program No. 265.3, *Society for Neuroscience Abstracts*. This abstract was invited for a talk.

2004 **Z. Buraei,** M. Anghelescu, K.S. Elmslie. Roscovitine: A Cdk5 Inhibitor that Slows Deactivation of N-type (CaV2.2) Calcium Channels. *Biophysical Journal 86 (1): 272a Jan.*

2000 Verbic V., **Buraei Z.**, Djurovic J., Stevanovic M. Chromosome Painting in Clinical Diagnostics. *4th Balkan Meeting on Human Genetics* 2000.

Invited talks since joining Pace University

2017 St. John's University
"Voltage-gated calcium channel regulation in health and disease"

2017 Nyack College, co-presenter with Dr. Marcy Kelly;
"Engaging students in a collaborative metacognitive process that evaluates learning approaches before and during learning tasks to enhance academic success"

2015 Pace University, Best Practices Conference on 'Why we teach'

GRANTS and AWARDS

Since joining Pace University

2017 **NIH, NIGMS** (**National Institute of General Medical Sciences)**
New R15 AREA grant
Sole PI; $300,000 requested. Funded in full.

Project Title: "Ca^{2+} channel modulation by RGK proteins".

Public Statement: Calcium channels regulate many aspects of brain, heart, and muscle function, and their mutations can cause neurological and cardiovascular disease. We investigate here a new way by which RGK proteins control calcium channels and we expose aberrant regulation of mutant calcium channels that cause disease.

2016 **NIH, NINDS (National Institute of Neurological Disorders and Stroke)**
Revised and Resubmitted R15 AREA grant from 2015
Sole PI; $300,000 requested. Not funded.

Project Title: "RGK proteins turn Ca^{2+} channels into bimodal on-off switches and exacerbate channelopathies".

2015 **NIH, NINDS (National Institute of Neurological Disorders and Stroke)**
New R15 AREA grant
Sole PI; $300,000 requested. Not funded.

Project Title: "RGK proteins turn Ca^{2+} channels into bimodal on-off switches and exacerbate channelopathies".

2016 **NIH, NIAID (National Institute of Allergy and Infectious Diseases)**
Co-PI with Dr. Nigel Yarlett as PI; $2,220,000 requested. Not funded.

Project Title: "Investigation of polyamine transport and metabolism in *Cryptosporidium parvum*".

2013 **NSF, TUES grant (Transforming Undergraduate Education in Science)**
Co-PI with Dr. Marcy Kelly as PI; $180,272 requested. Funded.

Project Title: "Development of a year-long, research-based laboratory integrated within core genetics and cellular & molecular biology courses."

2013 **Genome Consortium for Active Teaching** (GCAT), an HHMI and NSF funded program.
Pace University PI in this Pace-La Salle University joint application (La Salle PI was Dr. David Zuzga)
~$6,000 value. Funded.*

"CAMELS: Constructing an Adaptable Modular Experiential Learning Sequence in Biology: Microarray vs. Next Generation Sequencing"

*Four day use of laboratory facilities, consumables, expert personnel, and supercomputers. Since housing and meals were also funded, only an estimate for the value of the grant was given.

2012-present **Internal Pace University Grants and Awards**

2017 Dyson College Summer Undergraduate Student-Faculty Research Program; $2000 for student and $500 for supplies were awarded

2016 Dyson Summer Research Award; $1,000 awarded

2016 Provost's 2016-2017 student-faculty research program; $750 awarded

2015 Provost's Summer Student-Faculty Research program; $750 awarded

2014 Scholarly Research Award, $2528 awarded

2014 Dyson College Summer Student-Faculty Research Award; $1250 awarded

2014 Dyson College Faculty Summer Research Grant Program; $1000 awarded

2014 Kenan Travel Award for presenting at the Biophysical Society; $630 awarded

2013 Thinkfinity Grant. "Polymerase chain reaction: from studies of human disease to characterizing fish populations"; PI, $8,500 awarded.

Prior to joining Pace University

2005 **Tulane University** Graduate Student Association Travel Award

2003 **American Heart Association**
Pre-doctoral fellowship.
Modeling Neuronal N-type Channels.
$18,000/year for 3 years requested. *Not funded.*

2003 **Tulane University Health and Sciences Fellowship**

TEACHING and MENTORSHIP

Since joining pace, I taught 15 different courses (including research-based courses) and had an average teaching load of 11.2 credits per semester.

Teaching at Pace University		h/week
Spring 2017	Bio 335, Molecular and Cellular Biology Lecture (1 section)	3
	Bio 335, Molecular and Cellular Biology Lab (1 section). Course coordinator.	3
	Bio 124, Introduction to Neuroscience Lecture (1 section)	2
	Bio 124, Introduction to Neuroscience Lab (1 section). Course coordinator, and new course originator.	2
	Bio 480, Research in Biology	1
Fall 2016	Bio 101, Introduction to Biology, Laboratory	3
	Bio 231, Genetics, Laboratory	3
	Bio 325, Neurobiology	3
	Bio 480, Research in Biology	1
Spring 2016	Bio 335, Molecular and Cellular Biology Lecture (1 section)	3
	Bio 335, Molecular and Cellular Biology Lab (1 section). Course coordinator.	3
	INT 299S, Systems Behavioral Neuroscience Co-Instructor and new course originator.	2
	BMB 711, Graduate Course, Masters in Biochemistry and Molecular Biology Research Course	1.25
Fall 2015	Bio 101, Introduction to Biology, Laboratory	3
	Bio 231, Genetics, Laboratory	3
	Bio 325, Neurobiology	3
	UNV 101	1
Spring 2015	Bio 102, Introduction to Biology II Lab	3
	Bio 335, Molecular and Cellular Biology Lecture (1 section)	3
	Bio 335, Molecular and Cellular Biology Lab (1 section). Course coordinator.	3
	Bio 480, Research in Biology	1

Fall 2014	Bio 101, Introduction to Biology, Laboratory	3
	Bio 325, Neurobiology	3
	Bio 490, Research Practicum in Biology	3
	UNV 101	1
Spring 2014	Bio 335, Molecular and Cellular Biology Lecture (1 section)	3
	Bio 335, Molecular and Cellular Biology Lab (2 sections). Course coordinator.	6
	Bio 480, Research in Biology	1
Fall 2013	Bio 101, Introduction to Biology, Laboratory	3
	Bio 231, Genetics, Laboratory	3
	Bio 490, Research Practicum in Biology	3
	UNV 101	1
Spring 2013	Bio 101, Introduction to Biology, Laboratory	3
	Bio 335, Molecular and Cellular Biology Lecture (1 section)	3
	Bio 335, Molecular and Cellular Biology Lab (2 sections) .	3
Fall 2012	Bio 101, Introduction to Biology, Laboratory	3
	Bio 231, Genetics, Laboratory	3
	Bio 490, Research Practicum in Biology	3

Teaching outside of Pace University

Fall 2013	W3003/3004 Molecular and Cellular Neuroscience Mixed Graduate and Undergraduate course, Columbia University. Instructor
Fall 2010 & Fall 2011	W3003/3004 Molecular and Cellular Neuroscience Mixed Graduate and Undergraduate course, Columbia University. Co-Instructor

Other teaching activities

2008	Columbia University Athletics Department Tutor for Contemporary Biology I&II.
2006	Rockefeller University, Membrane Biophysics course; lab setup and facilitation.

2002-2003	Tulane University Medical School, Human Physiology course, PBL case study leader and facilitator.
2000-2002	Tulane University, teaching Assistant and substitute instructor for Genetics, Tulane University

Undergraduate Student Mentorship at Pace University

2017	Hana Malik, Bio 492, Internship in Biology "Smart Beginning Project" at New York University Medical Center, Bellevue Hospital.
2016-present	Melanie Franco, Bio 292, CHE 480 "The Role of ER Signaling in the Pathophysiology of Alzheimer's Presenilin Mutants"
2016	Chelsi Napoli, Honors Credit 'The Current Outlook on Prefrontal Cortex Damage on Working Memory: A Review'
2016	Eric Dorfman, Bio 491, 'Basal and Squamous Cell Carcinoma: a Review'
2015-2017	Paris Hanson, Bio 292, Bio 480, and Honors Thesis. Topic: "A molecular mechanism for Alzheimer's disease: the effects of Presenilin WT and mutant M146V on TrpC5 channel function".
2015-2017	Salma Allam honors credit in Neurobiology. Project Title: "Role of Voltage Gated Calcium Channels in Autism Spectrum Disorders" Honors Thesis: "Functional Characterization of two Calcium Channel Mutations Associated with Epilepsy". Second place for the **Suzannah Bliss Tieman Outstanding Poster Award** at the NEURON conference. **Award of Excellence for an Outstanding Presentation in the Area of Genetics/Molecular Biology** at the ECSC.
2016	Chelsea White, Bio 395 Library-based research project "The Role of THC in Chronic Pain Treatment: Spotlighting N-type Calcium Channels". **Department of Biology poster award**.
2016	Zuleen Chia Chang, 292, 480, Honors Thesis "The Function of a human PQ-type Calcium Channel Truncation Mutant found in Epilepsy patients". Zuleen won the ***Cheryl Frye Pioneering Research Award* for 2016** for her work.

2015	Agnieszka Mazurek, Honors Credit, “Chronic caffeine consumption lowers depression risk by enhancing the A1 receptor-mediated adenosine signaling”.
2014-2015	Aniqah Montague, Bio 492 (internship in biology) project, "Treating Antiphospholipid Syndrome with Hydroxychloroquine " **Department of Biology Award** for best internship presentation.
2014-2015	Sukhjinder Kaur, Bio 480 (Research in Biology), Honor’s Thesis project, and summer research. "A Molecular Mechanism of Alzheimer's Disease: the effects of WT and mutant Presenilin1 on Trp channel function". Won the science **award for Dyson College of Arts and Sciences Society of Fellows presentation**, 2015.
2013-2015	Ksenia Dubrovina, now Ellie Aya, B90 292, Bio 480, and summer research. Writing Award for writing enhanced course “Preventing Free Radical Damage with a Low Methionine Diet and Mitochondrial Gene Therapy to Slow Aging” Department of Biology **award for best poster**: “Effect of Epilepsy-Associated Mutations on the Function of Calcium Channels.” Accepted into Columbia University’s SPUR program, currently working on aging research at a startup in California (Clinilabs).
2013-2015	Keith Thomas, B90 292, Bio 480, and summer research. Topic: “Biophysical Changes in L-Type Voltage-Gated Calcium Channels Caused by Mutations in β3 Subunit”
2013-2015	Gabriella Suppa, B90 292, Bio 480, and summer research. Topic: “Analysis of Mutations in T-type Ca2+ Channels that result in Epilepsy”
2013-2014	Miriam Kay, Bio 491, New York State Psychiatric Institute “Fetal Sleep State and Heart Rate Variability during sleep” Bio 490, won a **writing award** from this WEC course; “Rate of infection of epithelial cells by non-enveloped respiratory syncytial virus (RSV) involving glycoprotein association with nucleocapsid”
2014	Noreen Hussain, Bio 395, "Plants and Viruses: A constant struggle to suppress the other".
2013	Dardan Pula, Bio 490, won a **writing award** from this WEC course.

"Enhancement of Tumor Therapy Using Gold Nanoparticles to Deliver Arsenic Trioxide to triple Negative Breast Cancer Cells".

Graduate Student Mentorship at Pace University

2016-2017	Gabriella Suppa, Masters in Biochemistry and Molecular Biology: "Functional analyses of Voltage-Gated Ca2+ Channel Mutations associated with Epileptic disorders". Defense pending.
2015-present	Bryan Cernuda, Masters in Biochemistry and Molecular Biology; "Structural determinants of R-roscovitine-hERG K+ channel binding: electrophysiological and modeling studies." Defense pending.
2016-present	Anahit Stepnayan; Masters in Biochemistry and Molecular Biology.

Mentorship prior to joining Pace University

2010-2012	Rose-Levenson Palmer. Currently MD-PhD student at NYU.
2011	Scott Dobbins. Currently PhD students at Princeton.
2010	Masood Manouchehri. Currently Clinical Research Coordinator at Columbia University Medical Center.

COURSE and CURRICULUM DEVELOPMENT

New Courses at Pace University

2016	Developed Bio 124, Introduction to Neuroscience, as a gateway course for non-science majors into the Neuroscience Minor.
2015	Developed the capstone course for the Neuroscience Minor: INT 299S, Systems Behavioral Neuroscience.

Neuroscience Minor at Pace University

2014-present	Initiating and co-directing the Neuroscience Minor at Pace University, a joint Biology-Psychology program.
2014	Aligning Bio 335 with Nation-wide curricular changes based on the Vision and Change manifesto
2013-present	Aligning Bio 335 with the goals of the NSF grant in terms of learning outcomes; optimizing lab protocols to increase student success and satisfaction with the lab reducing grade disparity among lab sections,

WORKSHOPS and FACULTY DEVELOPMENT

2013	Applied for and was accepted to attend Faculty Resource Network at NYU: “Evidence-Based Biology Teaching: Just the Facts or Thinking Like Scientists?”
2013	Selected for a 5 day attendance at The Next Generation Sequencing, GCAT-SEEK, workshop at Juniata College, PA, together with a partner from La Salle University (Dr. David Zuzga).
2014	Teaching Portfolio Workshop; Pace University
2014	Instructional Resource Day Conference, Pace University
2014	Dyson Day Conference "Lifelong Learning for Digital Natives", Westchester, NY.
2013	Faculty Exchange on MOOCs "Can MOOCs Reduce Teaching Costs and Provide High Quality Undergraduate Education?"
2014	IRB workshop, Pace University
2015	Workshop "Course Design Using National Recommendations for STEM Education", Austin, TX, at the ASMCUE meeting.
2016	Accepted into The Faculty Resource Network weeklong seminar at NYU entitled: “Real work is better than homework: Strategies for promoting authentic science practices in student assignments”
2015	PULSE workshop at Pace University.

2015, 2017	NSF grantsmanship workshop, Pace University.
2016	Teaching Circle on student engagement by Jennifer Pankowski and Peter McDermott, Pace University.
2017	'Teaching Science Like we do Science" workshop at the Biophysical Society meeting in February 2017.

INSTITUTIONAL SERVICE

Service to the Department of Biology

2013- present	Department of Biology Curriculum Committee. Alignment of courses within Biology, and with the 'Vision and Change' AAAS manifesto.
Since 2013	Course coordinator for Moelcular and Cellular Biology (Bio325), including lab coordination and revision; NSF grant implementation.
Since 2013	Member of five successful search committees: three for Assistant Professors, one for Director of Laboratory Services, and one for Chair of Biology.
Since 2013	Peer reviewer for Dr. Deborah Gelman, Mattew Marcello, and Daniel Strahs.
Since 2013	Academic advisor for ~25 students/semester.
Since 2014	Judging annually at the departmental poster session.

Service to Dyson College of Arts and Sciences

2017-present	Associate Director of Haskins Laboratories.
2016	Member, Executive Board of the Society of Fellows of Dyson College.
2014	Inducted as member of the Society of Fellows.
2013-present	Participation with the Society of Fellows: Annual meetings in Warwick, NY, and follow-up meetings at Pace, NYC.

2013-2016	Served as second reader for students in the Sciences.

Service at the University level

2015-present	Chair, Scholarly Research Committee. Successfully worked with administration, staff, and colleagues to increase budget, transition to online forms, and clarify SRC policies and procedures to streamline applicant review.
2014-2015	Member, Scholarly Research Committee.
Since 2013	Participated in Commencement, pre-convocation ceremonies, Open House, and recruitment events.
2013	Served as the faculty representative at the New Faculty Orientation.
2014	Participated in Commencement. Attended pre-convocation ceremonies Attended Open House and recruitment events. First Year Student Orientation
2013-2015	Served as UNV101 instructor and student advisor.

SERVICE to the PROFESSION

2017	Judged posters at the NEURON conference at Quinnipiac University, CT
2016	Contributed to white paper entitled “14 Patterns of Biophilic Design: Improving Health & Well-Being in the Built Environment“; Terrapin, New York.
2015	Session facilitator at the ASMCUE meeting in Austin, TX
2014	Opened Bio 335 course for High School student observers
2013	Judged at the School for Democracy and Leadership’s 9th Annual Science Fair.

Ad Hoc reviewer for scientific journals:

Journal of Cell Biology, Journal of Neuroscience, Proceedings of the National Academy of Sciences of the USA, The Journal of Physiology, Brain Research, and others.