

CURRICULUM VITAE

Norberto M. Grzywacz

Table of Contents

GENERAL INFORMATION.....	2
PROFESSIONAL CAREER: LEADERSHIP POSITIONS	2
PROFESSIONAL CAREER: FACULTY POSITIONS	2
PROFESSIONAL CAREER: RESEARCH POSITIONS.....	2
EDUCATION.....	3
RESEARCH INTERESTS.....	3
SABBATICALS.....	3
LANGUAGES.....	4
LEADERSHIP WORK.....	4
EDUCATIONAL WORK.....	6
LARGE ACADEMIC UNITS SPEARHEADED AND DEVELOPED	6
GRADUATE PROGRAMS SPEARHEADED AND DEVELOPED	6
CURRICULUM DEVELOPED.....	6
COURSES.....	7
GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS SUPERVISED	9
ORALS AND DISSERTATION COMMITTEES.....	10
SCIENTIFIC WORK.....	11
PUBLICATIONS IN PEER-REVIEWED SCIENTIFIC JOURNALS	11
PAPERS SUBMITTED FOR PUBLICATION OR IN PREPARATION.....	19
PAPERS PRESENTED AT SCIENTIFIC MEETINGS	20
HONORS.....	27
PARTICIPATION IN GRANT REVIEWING COMMITTEES.....	29
CHAIRING AND ORGANIZATION OF SECTIONS AND WORKSHOPS IN SCIENTIFIC MEETINGS.....	30
SCIENTIFIC MEETING REFEREEING	31
JOURNAL REFEREEING	31
AFFILIATION IN SCIENTIFIC SOCIETIES.....	32
SELECTED LIST OF INVITED LECTURES.....	32
ADDITIONAL SERVICE.....	37
EXTRA-INSTITUTIONAL WORK	37
INSTITUTIONAL WORK	37

General Information

Professional Career: Leadership Positions

- 2020-2021 Provost and Chief Academic Officer, Loyola University Chicago (LUC)
- 2015-2020 Dean of the Graduate School of Arts and Sciences, Georgetown University (GU)
- 2010-2014 Dwight C. and Hildagarde E. Baum Chair of the Department of Biomedical Engineering (BME), Viterbi School of Engineering (VSoE) at the University of Southern California (USC)
- 2005-2010 Director of the Neuroscience Graduate Program (NGP), USC
- 2002-2014 Founding Director of the USC Center for Vision Science and Technology (CVST)
- 2011-2013 Secretary of the Council of Chairs of BME Departments

Professional Career: Faculty Positions

- 2020- Professor, Department of Molecular Pharmacology and Neuroscience, Stritch School of Medicine, LUC
- 2020- Professor, Department of Psychology, College of Arts and Sciences, LUC
- 2015-2020 Professor, Department of Neuroscience, GU Medical Center
- 2015-2020 Professor, Department of Physics, Georgetown College, GU
- 2015-2020 Professor, Interdisciplinary Program in Neuroscience, GU
- 2001-2014 Professor, BME Department, VSoE, USC
- 2008-2014 Professor, Department of Electrical Engineering, VSoE, USC
- 2002-2014 Professor, Neuroscience Graduate Program, USC
- 2012-2014 Professor, Longevity Institute, USC
- 2003-2004 Fellow of the USC Center for Interdisciplinary Research

Professional Career: Research Positions

- 1994-2001 Senior Scientist at the Smith-Kettlewell Eye Research Institute (SKERI)
- 1993-1994 Scientist at SKERI
- 1991-1993 Associate Scientist at SKERI
- 1987-1990 Research Professor at the Center for Biological Information Processing of the Massachusetts Institute of Technology (MIT)
- 1985-1986 Postdoctoral fellow in Professor Tomaso Poggio's group at MIT

Education

- 1980-1984 Ph.D. in Neurobiology at the Hebrew University of Jerusalem: Thesis in biophysics of photoreceptors under the supervision of Professor Peter Hillman. The work was part of a program reserved to the 10% top undergraduate students of the university.
- 1975-1979 Bachelor of Science in Physics and Mathematics at the Hebrew University of Jerusalem (double major); received degree with honors.

Research Interests

- Reinforcement Learning of Aesthetic Values
- Social Contributions to the Learning of Aesthetic Values
- Cognitive Neuroscience of Aesthetic Emotions
- Neuroaesthetics of Art
- Encoding and Decoding of Visual Information in Retinal Ganglion Cells
- Cell-molecular Re-engineering of Retinas in Retinitis Pigmentosa
- Displays for Low Vision and Applications to Age-related Macular Degeneration
- Medical Imaging for Retinal Diseases and Applications to Diabetic Retinopathy
- Plasticity of Retinal Receptive Fields
- Optimal Processing Principles for Retinal Function
- Optimal Processing Principles in Visual Perception
- Computation and Psychophysics of Motion Perception
- Perceptual Learning

Sabbaticals

- 2022 Tentatively Planned Sabbatical: Département D'Études Cognitives, École Normale Supérieure, Université Paris Sciences et Lettres, Paris, France
- 2007-2008 Facoltà di Ingegneria, Università degli Studi di Roma "La Sapienza," Rome, Italy
- 1994-1995 Departamento de Biotecnología, Universidad de Alicante, Alicante, Spain

Languages

- English (speak, read, and write fluently)
- Spanish (speak, read, and write fluently)
- Portuguese (speak, read, and write fluently)
- Italian (speak, read, and write fluently)
- Hebrew (speak, read, and write fluently)
- French (speak and read fluently, and write moderately)

Leadership Work

- 2021 Unified the libraries into a single system, LUC.
- 2021 Launched the Office for Black Student Success, LUC.
- 2021 Conducted a Racial Examen across LUC.
- 2020-2021 Led the first highly diverse faculty recruitment in the history of LUC. Loyola had 917 faculty members during the 2020-2021 Academic Year, of which only 83 (9%) were Black or Hispanic. In the recruitment season in Fiscal Year 2020/2021, of the 39 new faculty members hired, 31 were people of color (79%). More impressively, 20 were either Black or Hispanic faculty (51%).
- 2020 Strengthened the Office of Enrollment Management with units for market research, marketing, and prospective-student outreach, LUC.
- 2020 Established the Office for Graduate Education, LUC.
- 2020 Established the Office for Global and Community Engagement, LUC.
- 2020 Established the Office for Research, LUC.
- 2020 Launched the Office of Student Success, LUC.
- 2020 Launched the Center for Faculty Excellence, LUC.
- 2020 Launched the Anti-racism Initiative, LUC.
- 2019-2020 Member of the Leadership negotiating the Graduate Student Union at GU.
- 2018 Represented GU at the Universia Meeting in Salamanca, Spain (<https://www.universiasalamanca2018.com/>).
- 2017-2020 Member of the Leadership Team Developing the Next GU Capital Campaign.
- 2017-2020 Ex-Officio Senator, Faculty Senate, GU.
- 2017-2020 Established the Patrick Healy Graduate Fellowship. The purpose of this fellowship, named in honor of the 28th President of GU, the first African-American to earn a doctorate degree and the first to be president of GU, is to increase diversity in GU Ph.D. programs. We began awarding such twenty-five fellowships in the fall of 2017.

- 2016 Led the Entire Tenure-line Faculty of GU in the Writing and Approval of a New Constitution of the GU Graduate School of Arts and Sciences.
- 2016-2017 Led the Twenty-two GU Ph.D. Programs in the Development of New Mechanism for the Allocation of GU Ph.D. Fellowships.
- 2016-2017 Member of Search Committee for the New Dean of the Georgetown College, GU
- 2016-2019 Founding Director of the Georgetown-Santander Partnership on Social Economy funded by Bank Santander, Spain
- 2015 Reorganized the GU Graduate School of Arts and Sciences.
- 2015-2020 Dean of the Graduate School of Arts and Sciences, GU. In this role, I was responsible for the management of the affairs of more than 7,000 graduate students in 22 Ph.D., 65 Master's, 42 Dual and Joint, and 20 Accelerated Programs. For this purpose, I led about 800 tenure-line faculty members. I was also responsible for the management of the budget of the school, which was over \$ 36-million.
- 2013-2014 Member of the Engineering Leadership Team of the USC \$ 6.6-billion Capital Campaign. I helped secure a \$ 20-million naming gift for the BME Department and a \$ 50-million gift for the USC Michelson Center for Convergent Bioscience.
- 2013-2014 USC Stem Cell Executive Committee
- 2012-2014 Led the Engineering Team for the Program "Recruitment of Transformative Faculty to USC."
- 2011-2014 Leadership of the Center for Engineering Diversity Faculty Advisory Board, USC. The goal of the Center was to increase the number of under-represented minority students in engineering.
- 2011, 2012 Led two VSoE Delegations to Brazil. Helped to develop an agreement with the Universidade de São Paulo, São Paulo, Brazil.
- 2011-2014 Member of the Ph.D. Council, VSoE
- 2010-2014 Increased of Gender Diversity of the BME Department, USC. Part of this work involved working with the USC Women in Science and Engineering program. When I began as Chair, we only had one female faculty member in the Department. Now, it has five. One of them is an African American woman, the first such hire in the history of the USC School of Engineering.
- 2010-2014 Dwight C. and Hildagarde E. Baum Chair of the BME Department, USC
- 2009-2014 Director of Education & Outreach, USC Engineering Research Center from the National Science Foundation "An Engineering Research Center for Biomimetic MicroElectronic Systems"

2008-2010	Chair of the Deans and Provost Neuroscience Advisory Group, USC
2005-2010	Director of NGP, USC
2003-2014	Director of the CVST, USC
2002-2010	Executive Committee, NGP, USC
2002-2005	Chair of the Curriculum Committee, NGP, USC
1992-1995	Chair of the Colloquia Committee of SKERI
1992-1993	Chair of the Central-Computer Committee of SKERI
1991-2001	Chair of the Library Committee of SKERI

Educational Work

Large Academic Units Spearheaded and Developed

2021	Institute for Advanced Pedagogy, LUC
2021	One-Loyola Network for Transdisciplinary Human-centered Elucidation of Complex and Urgent Social Problems, LUC
2020	Rule of Law Institute, School of Law, LUC
2020	Institute for Racial Justice, LUC
2020	School of Environmental Sustainability, LUC

Graduate Programs Spearheaded and Developed

2019	Ph.D. in Applied Mathematics, GU
2019	Master of Arts in Public and Engaged Humanities, GU
2018	Master of Science in Infectious Diseases, GU
2017	Master of Science in Epidemiology (with a Concentration in Health Disparities), GU
2017	Master of Science in Health and the Public Interest, GU
2017	Master of Science in Data Science for Public Policy, GU
2017	Master of Science in Aging and Health, GU
2017	Master of Science in Environmental Metrology and Policy, GU
2016	Master of Arts in Educational Transformation, GU
2016	Master of Arts in Learning, Design and Technology, GU
2016	Ph.D. in Biostatistics, GU
2015	Ph.D. Concentration in Cognitive Science, GU
2015	Master of Science in Data Science and Analytics, GU
2012	Co-developer of Neuroengineering Track of the Master of Science in BME, USC

Curriculum Developed

2020-2021	Developed the new LUC Core Curriculum
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2006 New curriculum of the USC Neuroscience Graduate Program including the following courses:

- Advanced Overview of Neuroscience
- Systems and Behavioral Neurobiology
- Molecular and Cellular Neurobiology
- Brain and Artificial Intelligence
- Cognitive Neuroscience
- Computational Neuroengineering
- Neurobiology of Disease
- Hearing and Communication Neuroscience
- Neuroscience Ethics and Professionalization
- Seminar in Neurobiology

Courses

- 2017-2019 Developer and Lecturer at the undergraduate course “The Brain and the Experience of Beauty in Art,” Villa Le Balze, Florence, GU.
- 2016-2019 Lecturer at the graduate course “Cognitive Science Research Seminar,” ICOS 710, GU.
- 2011-2014 Principal Lecturer at the undergraduate course “Introduction to Biomaterials and Tissue Engineering,” BME 410, at the BME Department, USC.
- 2008-2010 Developer and Coordinator of the graduate course “Systems and Behavioral Neurobiology,” NEUR 532, at the NGP, USC
- 2006 Developer and Lecturer at the graduate course "Neuroscience Ethics and Professionalization" at the NGP, USC
- 2006-2011 Lecturer at the graduate course "Advanced Overview of Neuroscience" at the NGP, USC
- 2006-2014 Developer and Lecturer at the graduate course "Computational Neuroengineering," BME 575, at the BME Department, USC.
- 2006 Lecturer at the graduate course "Advanced Neurosciences II" at the NGP, USC
- 2005-2010 Developer and Lecturer at the graduate course “Visual Plasticity” at the University of Alicante, Alicante, Spain
- 2004 Guest Lecturer at the course "Perceptual Learning" organized by Dr. Zhong-Lin Lu, of the USC Department of Psychology
- 2004 Guest Lecturer at the course on "Visions of Medieval Saints" organized by Dr. Lisa Bitel of the USC Department of History
- 2004-2014 Developer and Coordinator of “Late Visual Processes” at the BME Department, USC
- 2004-2014 Developer and Coordinator of the graduate course “Early Visual Processes” at the BME Department, USC

- 2003, 2005 Lecturer at the graduate course "Advanced Studies of the Nervous System" at the BME Department, USC
- 2003 Lecturer at the undergraduate course "Control and Communication in the Nervous System" at the BME Department, USC
- 2002-2003 Coordinator of the Neurolunch, a graduate seminar of the NGP at USC
- 2002-2005 Developer and Lecturer at the graduate course "Computational Vision" at the BME Department, USC
- 1999-2001 Lecturer at the doctorate course "Neurobiology and Neurotechnology" at the University of Alicante, Alicante, Spain
- 1999-2001 Lecturer at the doctorate course "The Neurobiology of Vision" at the University of Alicante, Alicante, Spain
- 1999 Lecturer at the course "Visual Neuroscience" at the Gulbenkian Institute, Oeiras, Portugal
- 1998 Principal Lecturer at the winter course "The Physics of Light and the Evolution of the Eye" at the University of Alicante, Alicante, Spain
- 1997 Principal Lecturer at the summer course "The Physics of Light and the Evolution of the Eye" at the University of Alicante, Alicante, Spain
- 1996 Invited Lecturer at the "Seminar of Introduction to Neurotecnology," Universidad de Murcia, Cartagena, Spain
- 1995-1996 Principal Lecturer at the summer course "Vision in Brains and Computers" at the University of Alicante, Alicante, Spain
- 1994-1995 Principal Lecturer at the summer course "Models of Retinal Function" at the University of Alicante, Alicante, Spain
- 1992-2001 Organizer of the "Wet" Neuroscience Journal Club at SKERI
- 1990 Invited lecturer in the summer course "Methods in Computational Neuroscience" at the Marine Biological Laboratories in Woods Hole
- 1989 Invited lecturer in the Cold Spring Harbor Summer Course in Computational Neuroscience at the Cold Spring Harbor Biological Laboratories
- 1989 Coordinator of the activity "The Electric Head: From Proteins to EEG" of the Independent Activities Period of MIT
- 1987-1990 Developer and Lecturer in the course "Vision in Brains and Computers" of the Harvard University Extension School
- 1987-1990 Organizer of the weekly seminar of MIT's Center for Biological Information Processing
- 1985-1986 Invited lecturer in the Neurobiology course of the Harvard University Extension School
- 1980-1984 Instructor at the following courses of The Hebrew University of Jerusalem:
- Electronics for biologists

- Statistics for biologists
- General Physiology
- Sensory Physiology

Graduate Students and Postdoctoral Fellows Supervised

2021-	Dr. Hassan Aleem, postdoctoral fellow at LUC
2015-2021	Dr. Hassan Aleem, Ph.D. Student at GU
2015-2019	Dr. Iván Correa, postdoctoral fellow at GU
2016-2018	Dr. Scott Miles, Ph.D. at GU
2010-2014	Dr. Wan-Qing Yu, Ph.D. at USC
2009-2014	Dr. Yerina Ji, Ph.D. at USC
2009-2014	Dr. Arvind Iyer, Ph.D. at USC
2008-2014	Dr. Nadav Ivzan, Ph.D. at USC
2007-2010	Dr. Valentina Russo, Ph.D. at the University of Rome, “La Sapienza,” Italy
2007	Ms. Daniela Giannini, Master’s at the University of Rome, “La Sapienza,” Italy
2006	Dr. Murat Surucu, Co-chair of Doctorate Committee at USC
2005-2012	Dr. Junkwan Lee, Ph.D. at USC
2005-2009	Dr. Xiwu Cao, Ph.D. student at USC
2004-2006	Dr. Yolanda Segovia Huertas, Ph.D. at the University of Alicante, Spain
2004-2005	Dr. Adam Jacobs, postdoctoral fellow at USC and UCLA
2004-2006	Dr. Eun-Jin Lee, postdoctoral fellow
2004-2008	Dr. Susmita Chatterjee, Ph.D. student at USC
2004-2005	Mr. Manoj Raghuraman, Master’s student at USC
2003-2007	Dr. Mónica Padilla, postdoctoral fellow at USC
2003-2008	Dr. Jeff Wurfel, Ph.D. student at USC
2003-2010	Dr. Joaquín Rapela, Ph.D. student at USC
2001-2007	Dr. David Merwine, postdoctoral fellow at SKERI and Research Assistant Professor at USC
2003-2004	Mr. Jeff Wurfel, Master’s student at USC
2002-2003	Dr. José Barraza, postdoctoral fellow
2000-2003	Dr. Rosario Balboa, postdoctoral fellow
1997-2001	Dr. Lynette Nguyen, postdoctoral fellow
1996-2000	Dr. David Ascher, postdoctoral fellow
1997-2000	Dr. Preeti Verghese, postdoctoral fellow
1996-1997	Dr. Mark Pettet, postdoctoral fellow
1995-1997	Dr. Rosario Balboa, Ph.D. at the University of Alicante, Spain
1995-1997	Dr. José Vicente Guardiola, Ph.D. at the University of Alicante, Spain
1994-1998	Dr. Julie Harris, postdoctoral fellow
1992-1995	Dr. Pierre-Yves Burgi, postdoctoral fellow
1992-1994	Dr. Evelyne Sernagor, postdoctoral fellow

1991-1995 Mr. Jim Smith, Ph.D. student at MIT
 1989-1995 Dr. Lyle Borg-Graham, Ph.D. at MIT

Orals and Dissertation Committees

2015 Bassima Boughlala, Chair of Doctorate Committee at the University of Alicante, Spain
 2015 Noemí Martínez Ruiz, Chair of Doctorate Committee at the University of Alicante, Spain
 2014- Nan Wang, Doctorate Committee at USC
 2014 Vandana Suresh, Doctorate Committee at USC
 2014 Viviane Ghaderi, Doctorate Committee at USC
 2014 Roman Sandler, Doctorate Committee at USC
 2014 Xiaoyang Yao, Doctorate Committee at USC
 2014 Steffen Eikenberry, Doctorate Committee at USC
 2014 David Herman, Doctorate Committee at USC
 2012 Daniel Parks, Doctorate Committee at USC
 2012 Sungshin Kim, Doctorate Committee at USC
 2012 Amarpreet Bains, Doctorate Committee at USC
 2011 Yukai Zhao, Doctorate Committee at USC
 2011 Jae Yong Suk, Doctorate Committee at USC
 2010-2012 Przemyslaw Nowak, Doctorate Committee at the University of Alabama at Birmingham
 2010 Anustup Choudhury, Doctorate Committee at USC
 2010 Jin Ho Oh, Doctorate Committee at USC
 2010 Jonathan Joshi, Doctorate Committee at USC
 2010 Pinglei Bao, Doctorate Committee at USC
 2010 Rishabh Jain, Doctorate Committee at USC
 2010 Arthi Srinivasan, Doctorate Committee at USC
 2010- Dan Parks, Doctorate Committee at USC
 2010- Chao Huang, Doctorate Committee at USC
 2010- Jiye Kim, Doctorate Committee at USC
 2010- Vishal Vaigankar, Doctorate Committee at USC
 2009-2010 Vivek Pradeep, Doctorate Committee at USC
 2009- Christian Gutierrez, Doctorate Committee at USC
 2009-2010 Anirvan Nandy, Doctorate Committee at USC
 2009- Jiajuan Liu, Doctorate Committee at USC
 2009-2010 Monika Jadi, Doctorate Committee at USC
 2008- Benjamin Files, Doctorate Committee at USC
 2008 Jennifer Lee, Master's Committee at USC
 2008- Farhan Baluch, Doctorate Committee at USC
 2008- Bardia Behabadi, Doctorate Committee at USC
 2007- Yichun Wei, Doctorate Committee at USC
 2007-2009 Leanne Chan, Doctorate Committee at USC
 2007 Ronalee Lo, Doctorate Committee at USC
 2006-2010 Cyrus Arman, Doctorate Committee at USC

- 2006-2010 Joshua Miyagishima, Doctorate Committee at USC
 2006 Alan Horsager, Doctorate Committee at USC
 2005 Seong-Taek Jeon, Doctorate Committee at USC
 2005 Witaya Sungkarat, Doctorate Committee at USC
 2005 Carlos Cabrera; Doctorate Committee at USC
 2004 Justin Aronoff; Doctorate Committee at USC
 2003 Dong Song; Doctorate Committee at USC
 2003 Ran Carmi; Doctorate Committee at USC
 2003 Mircea Nicolescu; Doctorate Committee at USC
 2003 Echo Wei; Doctorate Committee at USC
 2002 Eric Ortega; Doctorate Committee at USC
 2002 Chunhong Zhou; Doctorate Committee at USC
 1998 Davis Barch; Orals at University of California at Berkeley
 1998 Dr. José Vicente Guardiola; Chair of Doctorate Committee at the University of Alicante, Spain
 1997 Dr. David Ascher; Doctorate Committee at Brown University at Providence, Rhode Island
 1997 Dr. Rosario Balboa; Chair of Doctorate Committee at the University of Alicante, Spain
 1994 Dr. Magdalena Garcia; Doctorate Committee at the University of Alicante, Spain
 1993 Julie Scott; Orals at University of California at Berkeley

Scientific Work

Publications in Peer-reviewed Scientific Journals

- Miles, S.A., D.S. Rosen, and N.M. Grzywacz (2021) Behavioral Evidence of a Harmonic Surprise Effect on Preference in Popular Music. *Music and Science*. **In Press**.
- Pombo, M, H. Aleem, and N.M. Grzywacz (2021) Multiple Axes of Visual Symmetry: Detection and Aesthetic Preference. *Journal of Experimental Psychology: Human Perception and Performance*. **In Press**.
- Ivzan, N, and N.M. Grzywacz (2021) A Probabilistic Model for the Responses of Retinal Ganglion Cells to Natural Images. *Journal of Vision*. **In Press**.
- Miles, S.A., D.S. Rosen, S. Barry, D. Grunberg, and N. Grzywacz (2021) What to Expect When the Unexpected Becomes Expected: Harmonic Surprise and Preference Over Time in Popular Music. *Frontiers in Human Neuroscience*. **15**, 201-210.
- Grzywacz, N.M. (2021) Stochasticity, Nonlinear Value Functions, and Update Rules in Learning Aesthetic Biases. *Frontiers in Human Neuroscience*. **15**, 210-236.
- Aleem, H., I. Correa-Herran, and N.M. Grzywacz (2020) A Theoretical Framework for How We Learn Aesthetic Values. *Frontiers in Human Neuroscience*. **14**, 345-362.
- Correa-Herran, I., H. Aleem, and N.M. Grzywacz (2020) Evolution of Neuroaesthetic Variables in Portraits Paintings throughout the Renaissance. *Entropy*. **22**, 146-167.

- Miles, S.A., D.S. Rosen, and N.M. Grzywacz (2017) A Statistical Analysis of the Relationship Between Harmonic Surprise and Preference in Popular Music. *Frontiers in Human Neuroscience*. **11**, 263-276.
- Aleem, H., I. Correa-Herran, and N.M. Grzywacz (2017) Inferring Master Painters' Esthetic Biases from the Statistics of Portraits. *Frontiers in Human Neuroscience*. **11**, 94-112.
- Yu, W.Q., N.M. Grzywacz, E.-J. Lee, and G.D. Field (2017) Cell-type Specific Changes in Retinal Ganglion Cell Function Induced by Rod Death and Cone Reorganization in Rats. *Journal of Neurophysiology*. **118**, 434-454.
- Yu, W.Q., Y.S. Eom, J.A. Shin, D. Nair, S.X.Z. Grzywacz, N.M. Grzywacz, C.M. Craft, and E.-J. Lee (2016) Reshaping the Cone -Mosaic in a Rat Model of Retinitis Pigmentosa: Modulatory Role of ZO-1 Expression in DL-Alpha-Aminoacidic Acid Reshaping. *PLOS ONE*, **11**(3).
- Shin, J.-A., Y.-S. Eom, C.M. Craft; W.Q. Yu, N.M. Grzywacz, C.M. Craft, and E.-J. Lee (2015) TIMP-1 Affects the Spatial Distribution of Dendritic Processes of Second-order Neurons in a Rat Model of Retinitis Pigmentosa. *Experimental Eye Research*. **140**, 41-52.
- Ji, Y., W.Q. Yu, Y.-S. Eom, F. Bruce, C.M. Craft, N.M. Grzywacz, and E.-J. Lee (2014) The Effect of TIMP-1 on the Cone Mosaic in the Retina of the Rat Model of Retinitis Pigmentosa. *Investigative Ophthalmology and Vision Science*. **56**, 352-364.
- Zhu, C.L., Y., Ji, E.-J. Lee, and N.M. Grzywacz (2013) Spatiotemporal Pattern of Rod Degeneration in the S334ter-line-3-Rat Model of Retinitis Pigmentosa. *Cell and Tissue Research*. **351**, 29-40.
- Segovia, Y., R.M. Perez, N.M. Grzywacz, and J. de Juan (2012) Does Müller Cell Differentiation Occur Prior to the Emergence of Synapses in Embryonic Turtle Retina? *Journal Life Sciences*. **6**, 1200-1205.
- Grzywacz, N.M. (2012) Complex Biomedical Systems. *IEEE Pulse*. **3**, 22-26.
- Hombrebueno, J.R., E.J. Lee, N. Martínez-Ruiz, A. García-Alcázar, N.M. Grzywacz, J. de Juan (2012) Aquaporin-4 Immunoreactivity in Müller and Amacrine Cells of Marine Teleost Fish Retina. *Brain Research*. **1432**, 46-55.
- Ji, Y., C.L. Zhu, N.M. Grzywacz, and E.-J. Lee (2012) Rearrangement of the Cone Mosaic in the Retina of the Rat Model of Retinitis Pigmentosa. *Journal of Comparative Neurology*. **520**, 874-888.
- Cao, X., D.K. Merwine, and N.M. Grzywacz (2011) Dependence of the Retinal Ganglion Cell's Responses on Local Textures of Natural Scenes. *Journal of Vision*. **11**, 1-16.
- Nowak, P., A.C. Dobbins, T.J. Gawne, N.M. Grzywacz, and F. R. Amthor (2011) Separability of Stimulus Parameter Encoding by On-Off Directionally Selective Rabbit Retinal Ganglion Cells. *Journal of Neurophysiology*. **105**, 2083-2099.
- Bruni, C., J. de Juan, C. Ferrone, D. Giannini, N.M. Grzywacz, D. Huang, G. Koch, V. Russo, and O. Tan (2010) Statistical analysis of retinal tomographic pseudo images for diagnostic purpose. *Journal of Mathematical Modelling and Algorithms*, **9**, 257-273.
- Rapela, J., G. Felsen, J. Touryan, J.M. Mendel, and N.M. Grzywacz (2010) ePPR: A New Strategy for the Characterization of Sensory Cells from Input/Output Data. *Network*, **21**, 35-90.

- Grzywacz, N.M., J. de Juan, C. Ferrone, D. Giannini, D. Huang, G. Koch, V. Russo, O. Tan, and C. Bruni (2010) Statistics of Optical Coherence Tomography Data from Human Retina. *IEEE Trans. Med. Imag.* **29**, 1224-1237.
- Hombrebueno, J.R., M.M. Tsai, H-L. Kim, J. de Juan, N.M. Grzywacz, and E-J. Lee (2010) Morphological Changes of Short-wavelength Cones in the Developing S334ter-3 Transgenic Rat. *Brain Res.* **1321**, 60-66.
- Ray, A., G.J. Sun, L. Chan, N.M. Grzywacz, J. Weiland, and E-J. Lee (2010) Morphological Alterations in Retinal Neurons in the S334ter-line3 Transgenic Rat. *Cell and Tissue Res.* **339**, 481-491.
- Barraza, J.F., and N.M. Grzywacz (2008) Speed Adaptation as Kalman Filtering. *J. Vision*, **48**, 2485-2491.
- Lee, E-J., M. Padilla, D.K. Merwine, and N.M. Grzywacz (2008) Developmental regulation of the morphology of mouse retinal horizontal cells by visual experience. *European J. Neurosci.* **27**, 1423-1431.
- Chatterjee, S., D.K. Merwine, F.R. Amthor, and N.M. Grzywacz (2007) Properties of Stimulus-dependent Synchrony in Retinal Ganglion Cells. *Visual Neuroscience*, **24**, 827-843.
- Grzywacz, N.M., and F.R. Amthor (2007) Robust Directional Computation in On-Off Directionally Selective Ganglion Cells of Rabbit Retina. *Visual Neuroscience*. **24**, 647-661.
- Lee, E-J., D.K. Merwine, M. Padilla, F.A. Tobolowsky, and N.M. Grzywacz (2007) Choline Acetyltransferase Immunoreactive Neurons in the Retina of Normal and Dark-reared Turtle. *J. Comp. Neurol.* **503**, 768-778.
- Lee, E-J., T.L. Gibo, and N.M. Grzywacz (2006) Dark-rearing-induced Reduction of GABA and GAD and Prevention of the Effect by BDNF in the Mouse Retina. *European J. Neurosci.* **24**, 2118-2134.
- Grzywacz, N.M., and C.L. Zucker (2006) Modeling Starburst Cells' GABA_B Receptors and Their Putative Role in Motion Sensitivity. *Biophys. J.* **91**, 473-486.
- Rapela, J., J.M. Mendel, and N.M. Grzywacz (2006) Estimating Nonlinear Receptive Fields from Natural Images. *J. Vis.* **6**, 441-474.
- Liu, F., D.K. Merwine, and N.M. Grzywacz (2006) Statistically Robust Detection of Spontaneous, Non-Stereotypical Neural Signals. *J. Neurosci.Methods*, **153**, 299-311.
- Lee, E-J., L.B. Mann, D.W. Rickman, E-J. Lim, M-H. Chun, and N.M. Grzywacz (2006) AII Amacrine Cells in the Distal Inner Nuclear Layer of the Mouse Retina. *J. Comp. Neurol.* **494**, 651-662.
- Amthor, F.R., J.S. Tootle, and N.M. Grzywacz (2005) Stimulus-dependent Correlated Firing in Directionally Selective Retinal Ganglion Cells. *Vis. Neurosci.* **22**, 769-787.
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- Grzywacz, N.M. (2021) Nonlinear Non-Gaussian Bayesian Reinforcement Learning and Associated Rescorla-Wagner-Like Models. **Submitted for Publication.**
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Honors

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| 2020 | Inducted as an Honorary Member of the Alpha Sigma Nu Society. |
| 2013-2018 | Named to the Advisory Board of the BME Department, Florida International University. |
| 2013 | Northrup-Grumman Excellence in Teaching Award of the VSoE, USC. |
| 2011-2013 | Elected Secretary of the Council of Chairs of BME Departments |

- 2010 Faculty of the Year of the USC Neuroscience Graduate Program
- 2008 Elected to the College of Fellows of the American Institute for Medical and Biological Engineering.
- 1994 Kettlewell Chair of the Smith-Kettlewell Eye Research Institute
- 1988 Honorable Mention for the Marr Prize of the International Conference on Computer Vision

Awards and Grants Received

- 2016-2020 Principal Investigator of the “Rebuild Paraguay Higher Education Project” funded by the Ministries of Planning and Education of the Government of Paraguay. Total Direct Costs: \$850,000
- 2015-2020 Principal Investigator of the Georgetown-Santander Partnership on Social Economy funded by the Santander Group. Total Direct Costs: \$ 2,000,000
- 2014-2020 Graduate Research Fellowship Program, National Science Foundation
- 2011-2014 Principal Investigator of the Wallace H. Coulter Foundation Translational Research Partners Program. Total Direct Costs: \$ 5,200,000
- 2007-2014 Principal Investigator in a Bioengineering Research Partnership Grant from the National Eye Institute (R01 EY016093). Title: “Mid-level Vision Systems for Low Vision.” Total Direct Costs: \$ 5,816,040
- 2003-2014 Investigator in an Engineering Research Center from the National Science Foundation (EEC-0310723 Humayun, PI). Title: “An Engineering Research Center for Biomimetic MicroElectronic Systems”
- 2013 Northrup-Grumman Excellence in Teaching Award, VSoE, USC
- 2010 Faculty of the Year of the USC Neuroscience Graduate Program
- 2009 Elected Fellow of the American Institute for Medical and Biological Engineering (AIMBE).
- 1996-2008 Principal Investigator in a Grant from the National Eye Institute (R01 EY11170). Title: “Development of Complex Retinal Receptive Fields.” Total Direct Costs: \$ 1,026,167
- 1991-2008 Principal Investigator in a Grant from the National Eye Institute (R01 EY08921). Title from 1991 to 2001: “Facilitation and Inhibition in Directional Selectivity.” Title from 2001 to 2006: “Correlation Among Retinal Directionally Selective Cells.” Total Direct Costs: \$ 614,548 from 1991 to 1996, \$ 971,153 from 1996-2001, \$1,250,000 from 2001-2006

- 1994-2010 Travel Grants from the Generalitat Valenciana, Community of Valencia, Spain
- 2006-2007 Co-principal Investigator in a Grant from the Office of Naval Research (N00014-06-1-0746). Title: "Next-Generation Image and Sound Processing Strategies: Exploiting the Biological Model." Total Direct Costs: \$ 900,000
- 2005 Grant from the Provost to conduct research on the biological and cultural mechanisms of religious visions (with Lisa Bitel from the Department of History), USC, \$ 50,000
- 2005 Grant from the Provost Advisory Neuroscience Graduate Committee, for the CVST, USC, \$ 70,000
- 2004 Grant from the Provost Advisory Neuroscience Graduate Committee, for the CVST, USC, \$ 75,000
- 2003 Faculty Fellowship from the Interdisciplinary Research Center, USC, \$ 50,000
- 1994 The Kettlewell Chair, SKERI, \$ 50,000
- 1992-1998 Co-Principal Investigator in a Grant from the Air Force Office of Scientific Research (F49620-95-1-0265). Title: "Visual Processing of Object Velocity and Acceleration." Total Direct Costs: \$ 301,818 from 1992-1995 and \$ 339,504 from 1995-1998
- 1990-1993 Sub-Contractor in a Grant from the Office of Naval Research (N00014-91-J-1280). Title: "Theoretical and Experimental Determination of the Robust Biological Mechanism of Retinal Directional Selectivity." Total Direct Costs: \$ 116,451
- 1988-1990 Principal Investigator in a Grant from the National Science Foundation (BNS-8809528). Title: "The Computation of Direction Selectivity in the Retina." Total Direct Costs: \$ 97,900
- 1987-1988 Fairchild Fellowship
- 1987-1989 Co-Principal Investigator in a Grant from the Sloan Foundation (87-1-19). Title: "Computation of Motion and Stereo: From Theory to Biophysics." Total Direct Costs: \$ 121,996
- 1986-1988 Co-Principal Investigator in an Equipment Grant from the Office of Naval Research (N00014-86-G-0152). Title: "Computation of Stereo, Motion, and Color." Total Direct Costs: \$ 205,576
- 1985-1986 Bantrell Postdoctoral Fellowship

Participation in Grant Reviewing Committees

- 2012 Reviewer for the Special Emphasis Panel/Scientific Review Group on Neurotechnology, National Institutes of Health
- 2011-2012 VA RR&D Sensory Systems/Communication Panel
- 2011 VA RR&D Career Development Program Panel

- 2011 Reviewer for the Special Emphasis Panel/Scientific Review Group 2011/08 ZRG1 BST-J (50) of the National Institutes of Health to Evaluate Technologies for Low Vision
- 2010 Reviewer for the Review Panel for the Research Centers in Minority Institutions and for the Centers of Biomedical Research Excellence, National Institutes of Health
- 2009-2012 Reviewer for the American Institute of Biological Sciences, Department of Defense Vision Research Program Review Panel
- 2005 Chair and External Reviewer for an External Panel of the Central Visual Processing Study Section, National Institutes of Health
- 2005 Ad Hoc Reviewer for the National Eye Institute, Central Visual Processing Study Section, National Institutes of Health
- 2004 Chair and External Reviewer for an External Panel of the Sensorimotor Integration Study Section, National Institutes of Health
- 2000-2004 Regular Reviewer for the National Eye Institute, Central Visual Processing Study Section, National Institutes of Health
- 1999 Ad Hoc Reviewer for the National Eye Institute, Visual Sciences B Study Section, National Institutes of Health
- 1996-1999 External Reviewer for the National Eye Institute, Visual Sciences B Study Section, National Institutes of Health
- 1993 External Reviewer for the National Institute of Mental Health, National Institutes of Health
- 1991 External Reviewer for the Basic Research Foundation of The Israel Academy of Sciences and Humanities
- 1990 Advisory Consultant to the National Institute of Neurological and Communicative Disorders and Stroke, National Institutes of Health
- 1989 External Reviewer for the National Science Foundation Program in Sensory Physiology and Perception

Chairing and Organization of Sections and Workshops in Scientific Meetings

- 2011-2014 Organizer of the Annual Grodins Graduate Student Symposium of BME, USC
- 2007 Member of Scientific Committee of the International Work-conference on the Interplay between Natural and Artificial Computation, Murcia, Spain
- 2006-2010 Co-Organizer of the Annual USC Neuroscience-student Symposium
- 2002-2014 Organizer of the Annual USC Vision Symposium

- 2002 Co-Organizer of the Fall Provost's Neuroscience Symposium "The Perceiving Organism: Interdisciplinary Vistas in Vision," USC
- 2000 Chairperson of the Directional Selectivity session at the FASEB meeting, Copper Mountain, Colorado
- 1998 Co-Organizer of the Workshop on Retinal Adaptation at SKERI
- 1997-1998 Co-Organizer of the Club HEBB, a discussion group for systems neurosciences co-sponsored by SKERI, Stanford University, and the University of California at San Francisco, Berkeley, and Davis
- 1997 Chairperson of the Cholinergic Amacrine Cells' session in the meeting of the Association for Research in Vision and Ophthalmology (ARVO)
- 1996 Chairperson of the Retinal Ganglion Cells' session in the meeting of the Association for Research in Vision and Ophthalmology (ARVO)
- 1996 Co-Organizer of the Workshop on Object Recognition at SKERI
- 1991 Organizer of the Workshop "Quantitative Models of Retinal Function" in the Third meeting of the International Brain Research Organization (IBRO)
- 1991 Chairperson of the Retinal Circuitry session in the meeting of the Association for Research in Vision and Ophthalmology (ARVO)

Scientific Meeting Refereeing

Neural Information Processing Systems: Natural and Synthetic

Journal Refereeing

Applied Optics
 Biological Cybernetics
 Computer
 European Journal of Neuroscience
 Experimental Brain Research
 Journal of Comparative Neurology
 Journal of European Neuroscience
 Journal of General Physiology
 Journal of Neurophysiology
 Journal of Neuroscience
 Journal of the Optical Society of America
 Journal of Physiology, London
 Journal of Vision

Journal of Visual Communication and Image Representation
 Nature
 Nature Neuroscience
 Neural Computation
 Network: Computation in Neural Systems
 Neuron
 Perception
 Perception and Psychophysics
 Proceedings of the National Academy USA
 Psychological Reviews
 Science
 Spatial Vision
 Synapse
 Visual Neuroscience
 Vision Research

Affiliation in Scientific Societies

American Institute for Medical and Biological Engineering
 The Israel Association for Eye Research
 The Association for Research in Vision and Ophthalmology
 The Society for Neuroscience
 Optical Society of America
 American Institute of Physics
 International Brain Research Organization
 Vision Science Society

Selected List of Invited Lectures

2021	Friday Morning Seminar, Center for Urban Research and Learning, LUC, Chicago, IL
2020	Neuroscience Seminar, LUC, Chicago, IL
2019	19 th International Graphonomics Conference (IGS2019 – Your Brain on Art): Graphonomics and Your Brain on Art, Creativity, and Innovation, Cancún, Mexico
2018	D.C. Art Science Rendezvous, National Academy of Sciences, Washington, DC
2017	Workshop “Science, Art and Cognition” at the International Centre of Science in Cuernavaca, Mexico
2017	International Conference on Mobile Brain-Body Imaging (MoBI) and the Neuroscience of Art, Innovation and Creativity, Valencia, Spain
2016	Talk at the Meeting “Future STEM Leaders” organized by the University of Maryland, Washington, DC

- 2016 International Conference on Mobile Brain-Body Imaging (MoBI) and the Neuroscience of Art, Innovation and Creativity, Cancún, Mexico
- 2015 Talk at a Joint Physics and Neuroscience Seminar, GU
- 2013 Talk at the Series “What Matters to Me and Why?,” organized by the Dean of Religious Life, USC
- 2013 Talk at the Philosophy Club, USC
- 2013 Talk at the Shenzhen Institute of Biomedical Sciences, Shenzhen, China
- 2013 Talk at the School of Materials Science and Engineering, Xi’an Jiaotong University, Xi’an, China
- 2013 Talk at the BME Department, Northwestern University, Chicago, Illinois
- 2013 Talk at the Department of Computer Science, Universidad Autónoma de Manizales, Manizales, Colombia
- 2013 Talk at the Fundación Universitaria del Área Andina, Pereira, Colombia
- 2013 Talk at the Department of Biology, Universidad de Caldas, Manizales, Colombia
- 2013 Talk at the BME Department, University of California, Riverside, Riverside, California
- 2012 Talk at the Consejo Nacional de Biología, Bogotá, Colombia
- 2012 Talk at the BME Department, University of California at Irvine, Irvine, California
- 2012 Talk at the Department of Computer Science, Stanford University, Palo Alto, California
- 2011 Talk at the Department of Psychology, University of São Paulo, São Paulo, Brazil
- 2011 Talk at the Philosophy Club, USC
- 2010 Talk at the Seminar of the Departamento de Biotecnología, Universidad de Alicante, Spain
- 2009 Talk at the Southern California Joint Symposium on Neural Computation, USC
- 2009 Talk at the Graduate and Professional Student Senate Poster Symposium, USC
- 2008 Talk at the Weekly Seminar Series on Engineering Neuroscience & Health, BME Department, USC
- 2008 Talk at the Meeting “Reencuentro Iberoamericano 2008,” of the Ibero-American Network for Information and Communication Technologies Applied to Education, Hermosillo, México
- 2008 Talk at the International Conference and Research Center for Computer Science, “Statistical and Geometrical Approaches to Visual Motion Analysis,” Schloss Dagstuhl, Wadern, Germany

- 2008 Keynote speaker at the training-courses session of CREATE (Colour Research for European Advanced Technology Employment), Rheims, France
- 2007 Seminar at the Dipartimento di Informatica e Sistemistica "A. Ruberti," Università degli Studi di Roma "La Sapienza," Roma, Italy
- 2007 Seminar at the Facoltà di Psicologia, Dipartimento di Neuroscienze, Università Vita-Salute San Raffaele, Milano, Italy
- 2006 Keck Seminars, UCLA, Los Angeles, California
- 2006 Panelist at "Visualizing Science," the third forum in the series "Technology enhanced Research and Learning at USC," USC, Los Angeles, California
- 2006 Seminar at the lecture series "Media Production in the Digital Age," Occidental College, Los Angeles, California
- 2005 Seminar at the NGP, USC, Los Angeles, California
- 2005 Commentator at the "Visualizing Science Meeting," Organized by the USC Literary, Visual, and Material Culture Initiative, USC, Los Angeles, California
- 2004- Lectures at the Doctorate Program in Biotechnology, Department of Biotechnology, University of Alicante, Spain
- 2004 Lecture at the Meeting "Mind and Brain: Past, Present, and Future," Summer University Rafael Altamira, University of Alicante, Spain
- 2004 Seminar at the NGP, USC, Los Angeles, California
- 2004 Invited talk at the 29th Annual Interdisciplinary Conference, Jackson Hole, Wyoming
- 2003 Lecture at the Centro de Estudios Interdisciplinarios of the Universidad Nacional, Bogotá, Colombia
- 2002 Lecture at the Workshop on Advanced Methods of Physiological System Modeling, Marina del Rey, CA
- 2002 Lecture at the Gordon Conference on Coding and Natural Scenes, Mount Holyoke College, MA
- 2001 Seminar at the Department of Ophthalmology, The Mount Sinai School of Medicine, New York, New York
- 2000 Seminar at the Division of Biology, California Institute of Technology, Pasadena, California
- 2000 Seminar at the Department of Bioengineering at the University of Pennsylvania, Philadelphia, Pennsylvania
- 2000 Seminar at the BME Department at the USC, Los Angeles, California
- 2000 Seminar at the Department of Anatomy & Neurobiology, Boston University School of Medicine, Boston, Massachusetts
- 2000 Vision Seminar of the Department of Neuroscience, University of California at Davis, Davis, California

- 1999 Invited talk at the RINVA'99 meeting on Biotechnology, University of Valladolid, Valladolid, Spain
- 1999 Invited talk at the Conference of the Spanish Society of Histology, Alicante, Spain
- 1998 Invited talk at the FASEB meeting's session on Retinal Development, Falls River, Vermont
- 1998 Seminar at the Department of Anatomy and Neurobiology, Medical School, Saint Louis University, Saint Louis, Missouri
- 1998 Invited talk at the RINVA'98 meeting on Biotechnology, University of Valladolid, Valladolid, Spain
- 1997 Two Invited Talks at the Workshop "Machine Vision Meets Machine Learning" at the Newton Institute of Cambridge University, Cambridge, United Kingdom
- 1997 Seminar at the Department of Psychology, Nottingham University, Nottingham, United Kingdom
- 1997 Seminar at the Department of Languages and Information Systems, University of Alicante, Alicante, Spain
- 1996 Colloquium of the Department of Information Technology and Computation, University of Alicante, Alicante, Spain
- 1996 Neuroscience-Group Seminar, University of Newcastle Upon Tyne, Newcastle Upon Tyne, United Kingdom
- 1996 Vision Seminar of the Department of Neuroscience, University of California at Davis, Davis, California
- 1996 Talk at the Retinal Neuroanatomy Group, University of Pennsylvania, Philadelphia, Pennsylvania
- 1996 Colloquium of the Institute for Research in Cognitive Science at the University of Pennsylvania, Philadelphia, Pennsylvania
- 1996 Invited talk at the FASEB meeting's workshop on Computational Approaches to Retinal Research, Falls River, Vermont
- 1996 Seminar of the Stanford Associated Perception Students, Stanford University, Stanford, California
- 1996 Craik Club Seminar, Cambridge University, Cambridge, United Kingdom
- 1996 Rank Mini-Symposium on Visual Motion Analysis, Lake District, United Kingdom
- 1996 Oxyopia, University of California at Berkeley, Berkeley, California
- 1996 Seminar of the Neurobiology Research Center, University of Alabama at Birmingham, Birmingham, Alabama
- 1995 Invited Talk at the Conference of the Spanish Association of Artificial Intelligence, Alicante, Spain
- 1995 Seminar at the Institute of Neuroscience, School of Medicine, University of Alicante, Alicante, Spain
- 1995 Friday Seminar, Department of Molecular and Cell Biology, University of California at Berkeley, Berkeley, California

- 1995 Breakfast Seminar, Vision Group, School of Medicine, University of California at San Francisco, San Francisco, California
- 1994 Seminar to the Vision Group at the NASA-Ames Research Center, Moffett Field, California
- 1994 Seminar at the Department of Information Technology and Computation, University of Alicante, Alicante, Spain
- 1994 Seminar at the Institute of Neuroscience, School of Medicine, University of Alicante, Alicante, Spain
- 1993 Science Writer's Seminar for the 25th Anniversary of the National Eye Institute, Exploratorium, San Francisco, California
- 1993 Workshop on Dendritic Processing of Synaptic Information, Max-Planck-Institut für Biologische Kybernetik, Tübingen, Germany
- 1993 Seminar of the Department of Psychology, Stanford University, Stanford, California
- 1993 Seminar of the Neurobiology Research Center, University of Alabama at Birmingham, Birmingham, Alabama
- 1992 Seminar to the Vision Group at the NASA-Ames Research Center, Moffett Field, California
- 1991 Oxyopia, University of California at Berkeley, Berkeley, California
- 1991 Seminar of the BME Department, Boston University, Boston, Massachusetts
- 1990 Seminar at the Graduate Program of Neurobiology and Behavior, State University of New York at Stony Brook, Stony Brook, New York
- 1990 Seminar at the BME Department, Johns Hopkins University, Baltimore, Maryland
- 1990 Seminar at the Department of Psychology, University of California at San Diego, San Diego, California
- 1990 Seminar at the Department of Neuroscience, University of Pennsylvania, Philadelphia, Pennsylvania
- 1990 Thursday Colloquium, SKERI, San Francisco, California
- 1990 Friday Seminar, Biological Laboratories, Harvard University, Cambridge, Massachusetts
- 1990 Seminar of the Department of Biology, Brandeis University, Waltham, Massachusetts
- 1989 Cold Spring Harbor Workshop on Neural Computation, Co-Sponsored by ONR, Cold Spring Harbor, New York
- 1989 Neural Information Processing Seminar, Division of Applied Sciences, Harvard University, Cambridge, Massachusetts
- 1988 ONR Neural and Electronic Networks Workshop, Woods Hole, Massachusetts
- 1988 Thursday Colloquium, SKERI, San Francisco, California

- 1987 DARPA Neural Network Study, Bedford, Massachusetts
- 1987 Vision Seminar, Artificial Intelligence Laboratory, MIT, Cambridge, Massachusetts
- 1986 Meeting on Organization of Structure and Function in the Brain, Bad Homburg, Germany
- 1986 Friday Seminar, Biological Laboratories, Harvard University, Cambridge, Massachusetts
- 1986 Lunch Seminar, Whitaker College, MIT, Cambridge, Massachusetts
- 1985 Conference on Nonlinear Processes in Neurobiology, Weizmann Institute, Rehovot, Israel
- 1985 Lunch Seminar, Whitaker College, MIT, Cambridge, Massachusetts
- 1985 Workshop on Neurobiological Noise Analysis, The Neurosciences Institute, New York, New York
- 1984 ``Nervous" Seminar, Department of Neurobiology, The Hebrew University of Jerusalem, Jerusalem, Israel
- 1984 ``Nervous" Seminar, Department of Physiology, Tel Aviv University, Tel Aviv, Israel

Additional Service

Extra-institutional Work

- 2013-2018 Named to the Advisory Board of the BME Department, Florida International University.
- 2011 Fellow Election Process, Physiology and Engineering Subcommittee, AIMBE

Institutional Work

- 2012-2014 Member of Search Committee for a New Faculty Member in Systems Cellular-molecular Bioengineering, BME Department, VSoE, USC
- 2011-2014 Ad Hoc Faculty Promotion Evaluation Committee, (Regular Member), Department of Biological Sciences, USC
- 2009-2010 Member of the Provost Task Force on USC Neurosciences
- 2009-2010 Faculty Tenure and Promotion Evaluation Committee, (Regular Member), BME Department
- 2009-2011 Member of the Committee organizing the symposium on "Integrative Theoretical Neuroscience," College of Letters, Arts and Sciences, USC
- 2008-2010 Chair of Search Committee for a New Faculty Member, BME Department, USC

- 2008-2009 BME Liaison with the Provost's Office on the Issue of "Casting the Net Widely" in Faculty Searches, USC
- 2008 Junior Faculty Third-year Evaluation Committee, (Regular Member), Division of Biokinesiology and Physical Therapy, School of Dentistry, USC
- 2008 Faculty Tenure and Promotion Evaluation Committee, (Regular Member), BME Department
- 2008-2014 Member of Advisory Board in the Training Grant in Hearing & Communication Neuroscience, NGP, USC
- 2008 Chair of the Oral-presentations Evaluation Committee, Grodins Symposium, BME Department, USC
- 2008 Search Committee for a Director of the Zilkha Neurogenetic Institute, USC
- 2008 Dean's Committee for the Evaluation of Neuroscience at the College of Letters, Arts and Sciences, USC
- 2007 Panel Preparing the Academic Review Report of USC Neuroscience
- 2007 Faculty Promotion Evaluation Committees, (Two as Chair and One as Regular Member), BME Department
- 2006-2009 Committee on Faculty Recruitment and Retention, VSoE, USC
- 2006 Faculty Promotion Evaluation Committee, BME Department
- 2006 Oral-presentations Evaluation Committee, Grodins Symposium, BME Department, USC
- 2005 Chair of the Oral-presentations Evaluation Committee, Grodins Symposium, BME Department, USC
- 2005 USC Strategic-initiative Sub-committee for Matters of Interdisciplinary Research
- 2005 USC Strategic-initiative Sub-committee for Matters of Socially Relevant Research
- 2005 Junior-faculty Evaluation Committee, BME Department, USC
- 2005 Job-application Review Committee, BME Department, USC
- 2005 Reviewer of applications to the USC Center for Interdisciplinary Research
- 2004 Head of the Engineering Reviewing Panel for the Zumberge Awards, USC
- 2004-2008 University Research Committee, USC
- 2004 Chair of the Oral-presentations Evaluation Committee, Grodins Symposium, BME Department, USC
- 2003-2007 Chair of the Admissions Committee, BME Department, USC
- 2002 Research Committee, School of Engineering, USC