

STEVEN L. SMALL

Professor of Neurology, School of Medicine
Professor of Neurobiology and Behavior, School of Biological Sciences
Professor of Cognitive Sciences, School of Social Sciences
Chief Scientific Officer, Medical Innovation Institute
University of California, Irvine
Irvine, CA 92697

EDUCATION

Postdoctoral, University of Pittsburgh (Neurology)	1991
M.D., University of Rochester	1987
Ph.D. University of Maryland (Computer Science)	1980
A.B. Dartmouth College (Mathematics)	1976

PROFESSIONAL EXPERIENCE

University of California, Irvine

Chief Scientific Officer, Medical Innovation Institute	2017 – present
Chair, Department of Neurology	2010 – 2017
Professor of Neurology	2010 – present
Professor of Neurobiology and Behavior	2010 – present
Professor of Cognitive Sciences	2011 – present
Director, Neuroscience Imaging Center	2012 – 2016

The University of Chicago

Professor Emeritus	2010 – present
Vice Chair for Research, Department of Neurology	2008 – 2010
Senior Fellow, Computation Institute	2007 – 2010
Professor of Neurology and Psychology	2005 – 2010
Associate Professor with Tenure, Neurology and Psychology	1999 – 2005
Co – Founder / Co – Director, Brain Research Imaging Center	1999 – 2006
Member, Committee on Neurobiology	1999 – 2010
Member, Committee on Computational Neuroscience	1999 – 2010

University of Maryland

Associate Professor with Tenure, Neurology and Physiology	1996 – 1999
Founder, MRI Research Program	1996

University of Pittsburgh

Assistant Professor of Neurology and Intelligent Systems	1991 – 1996
--	-------------

Assistant Professor of Communication Sciences and Disorders	1992 – 1996
Assistant Professor of Psychology	1996
Member, Center for Neuroscience	1994 – 1996
Founding Member, Center for Neural Basis of Cognition	1994 – 1996
Adjunct Assistant Professor of Intelligent Systems	1987 – 1991

University of Rochester

Adjunct Assistant Professor of Computer Science	1983 – 1987
Assistant Professor of Computer Science and Psychology	1981 – 1983

Université de Paris VIII

Fulbright Lecturer in Computer Science	1980 – 1981
--	-------------

ADMINISTRATIVE RECORD

Key University Administrative Roles

Chief Scientific Officer, Medical Innovation Institute, UC Irvine 2017 – present

Responsible for founding and developing this major new initiative at UC Irvine, aiming to develop incubator laboratories, offices, and workshops; to nurture relationships among clinicians, scientists, and engineers, including in academia and the private sector; to create new academic programs in innovation for trainees at all academic levels; and to work with university legal and technology transfer teams to bring medical innovation to production as rapidly as possible. Given the nature of the life sciences industry in Southern California, the initial focus of the Institute will be on medical devices, software, and imaging.

Professor and Chair of Neurology, University of California, Irvine 2010 – 2017

Took over a small department and expanded it to include a faculty of > 50 full time physicians and scientists, an equal number of postdoctoral trainees, and additional research and administrative staff of almost 100. Doubled the annual budget to more than \$20 million, and eliminated an annual deficit of ~\$2 million, maintaining a balanced budget every year. Increased faculty size by 100% (> 35 new faculty hires), with many new programs in research, education, and service. Both undergraduate and graduate medical education grew significantly. Program development benefited by close collaboration with departments throughout the medical school and campus more broadly, especially neurosurgery, anatomy, neurobiology, and biomedical engineering. Productivity doubled, measured by work units, charges, and collections, with a compound annual growth rate (CAGR) of > 15%. Research growth included increases in Federal grant support by 25%, including major grants from NIH, NSF, and DOD, at a time when overall extramural support at UC Irvine decreased by about 25%. A consolidated applied research unit, funded by private industry, now garners more revenue than any other similar program at the UC Irvine School of Medicine (including our NCI funded Cancer Center). Including these revenues, overall extramural support in the Department increased by more than 50% to more than \$10M. An invigorated fundraising effort

led to a doubling of philanthropic donations to the Department, a trajectory expected to continue well into the future.

Director, Neuroscience Imaging Center, University of California, Irvine 2012 – 2016

Took over management of this Positron Emission Tomography Center during a time of crisis, merged it with the Magnetic Resonance Imaging Research Center, and transformed the combined entity by merging operations, increasing transparency, building operational efficiency, improving staff morale, and dramatically improving its reputation within the University and local community.

International Collaborative Agreements 2010 – present

Negotiated and signed agreements for bilateral international exchanges of scholars with the State Key Laboratory for Cognitive Neuroscience at Beijing Normal University in Beijing and the Dipartimento di Neuroscienze e Imaging of the Università degli Studi 'G. d'Annunzio' Chieti e Pescara. Other negotiations are in progress.

Founder, Society for the Neurobiology of Language 2009

Organized the first international meeting on the Neurobiology of Language with over 200 participants, and then made the Neurobiology of Language Conference an annual event. Founded the Society for the Neurobiology of Language (SNL) subsequently as a 501(c)(3) non-profit charitable corporation in the State of Illinois. The annual meeting of the Society now attracts over 600 participants from many countries in the world, and is widely perceived as the very best venue for research in this area, and the field of neurobiology of language is now considered the scientific field of inquiry for a large number of young and established scholars.

Editor-in-Chief, Brain and Language 2005 – present

Redirected the editorial policies of the journal to focus on the neurobiological mechanisms underlying human language, and tripled its impact factor. The field of “brain and language” had been subsumed under the guise of “Cognitive Neuroscience” or “Aphasiology” or subfields of psycholinguistics, general linguistics, neuropsychology, or experimental psychology. Since this effort, scholars around the world have identified the “neurobiology of language” as their primary discipline for scientific inquiry and education.

Director, Brain Research Imaging Center, The University of Chicago 2000 – 2005

Founded this Magnetic Resonance Imaging Research Center with about \$5 million in philanthropic funds in conjunction with David Levin, M.D., Ph.D., and co-directed it with him until 2005, when it was absorbed into the other imaging programs of the Department of Radiology. Designed the space, hired staff, and developed all operational procedures, including all policies and procedures, safety courses, and individual grant and faculty startup programs. Worked with the multiple department chairs to increase MRI-based research, and with the Deans of Biological Sciences and Social Sciences to recruit new imaging faculty.

Selected Other Administrative Experience

University of California, Irvine

Founder and Co-Chair, All Chairs Committee, School of Medicine	2016 – 2017
Ophthalmology Chair Search Committee	2016 – 2017
Chair, Psychiatry Chair Search Committee	2013 – 2016
Research Strategy Lead, Strategic Plan Execution Committee	2016 – present
Dean's and Vice Chancellor's Leadership Councils, School of Medicine	2011 – 2017
Dean's Research Council, School of Medicine	2011 – present
Co-Chair, Vice Chancellor's Task Force on the Future of Imaging	2012
Neurosurgery Chair Search Committee	2010 – 2011

University of California, Irvine Medical Center

Medical Executive Committee	2010 – 2017
Board of Directors, University Physicians and Surgeons	2010 – 2017
Clinical Enterprise Executive Leadership Board Finance Subcommittee	2014 – 2016
Portfolio Analysis Steering Committee	2013 – 2015
Search Committee, Director of Critical Care Services	2011 – 2013

The University of Chicago

Research Advisory Committee, Subcommittee on Biomedical Informatics	2010
Pediatric Neurology Chief Search Committee	2009 – 2010
Executive Committee	
Center for Integrative Neuroscience and Neuroengineering	2005 – 2009
Awards Committee	2005 – 2009
Committee on Appointments and Promotions (<i>ad hoc</i>)	2008
Neuroscience Task Force	2005 – 2006
Chair, Curriculum Committee, Committee on Computational Neuroscience	2004
Steering Committee, Clinical Research Career Development Program	2004 – 2005
Medicine Chair Search Committee	2003 – 2004
Executive Committee, Center for Cognitive and Social Neuroscience	2000 – 2009
Radiology Chair Search Committee	2000 – 2001

University of Maryland

Steering Committee, M.D./Ph.D. Program	1997 – 1999
--	-------------

University of Pittsburgh

Committee on Graduate Medical Education	1992-1996
Committee on Research Integrity	1992-1996
Dean's Task force on Curriculum Goals and Integration	1990

Organizations

Association for University Professors of Neurology

Counselor	2014 – present
Secretary/Treasurer	2015 – present

Society for Neurobiology of Language

Founder, Society for the Neurobiology of Language	2010
Founder, Neurobiology of Language Conference	2009
Chair, Program Committee	2009 – 2010

Society for Human Brain Mapping

Member, Local Arrangements Committee	2010
Representative, Accreditation Council for Graduate Medical Education	2008

American Academy of Neurology

Chair, Section on Neurorehabilitation and Neural Repair	2012 – 2014
Lobbyist, "Neurology on the Hill"	2012
Fellow	2010
Counselor, Section of Behavioral Neurology	2005 – 2010

American Neurological Association

Fellow	2012
--------	------

Academy of Aphasia

Treasurer	2005 – 2009
Co-Chair, Local Arrangements Committee	2005
Chair, Program Committee	2001

National Aphasia Association

Executive Board	2007 – 2011
-----------------	-------------

Society for Neuroscience

Vice President, Pittsburgh Chapter	1994 – 1996
------------------------------------	-------------

Government and Foundations

National Institutes of Health

Nursing and Related Clinical Sciences Study Section (NRCS)	2017
Special Emphasis Panel, "Resident Training (R25)" (NINDS)	2009
Cognition and Perception Study Section (CSR)	2007
Board of Scientific Counselors (NIDCD)	2006
Special Emphasis Panel R03 Review (NIDCD)	2006
Language and Communication Study Section (CSR)	2005

Chair, Steering Committee, Traumatic Brain Injury Clinical Trials Network	2002 – 2004
Chair, Special Study Section, Multicenter TBI Clinical Trials Network	2002
Communication Disorders Review Committee (NIDCD)	2001
Behavioral and Biobehavioral Processes IRG (CSR)	2000
Study Section on K Awards and Training Programs (NINDS)	1998
Study Section on Neurological Clinical Trials (CSR)	1998
Special Emphasis Panel on Speech and Language (CSR)	1998
Panel Member, NIH Consensus Conference	1997 – 1998
Rehabilitation of Persons With Traumatic Brain Injury (TBI)	
Subcommittee Chair: "Functional recovery mechanisms"	
Special Study Section for Behavioral and Neural Sciences (DRG)	1996
Study Sections for Sensory Disorders and Language (DRG)	1995 – 1997
Special Study Sections (NIDCD)	1994
Special Study Sections in Biotechnology Resources	1983 – 1985

National Science Foundation

Visit Team, "Center for Visual Language and Visual Learning (VL2)", Gallaudet University	2009
---	------

German Federal Ministry of Education and Research (BMBF)

Member, Special Review Panel, "Research Collaborations on Cognitive Performance and Relevant Disorders in Humans"	2005 – 2007
--	-------------

ACADEMIC RECORD

Academic Fields of Specialization

Topic areas: Neurobiology of Language, Computational Neuroscience, Brain Connectivity,
Brain Recovery and Repair after Stroke
Methods: functional Magnetic Resonance Imaging (fMRI), Diffusion Tensor Imaging,
Cognitive Testing, Cognitive and Neural Network Computer Modeling, Human
Neurophysiology

Honors and Awards

John and Toni Balatincz Endowed Lecture, Rotman Research Institute	2015
Theodore von Kármán Fellow, RWTH Aachen University	2014
Fellow, American Neurological Association	2012
Stanley van den Noort Endowed Chair	2012
Fellow, American Academy of Neurology	2009
Charles van Riper Lecturer, Western Michigan University	2005
Mary Law Lecturer, Speakability Foundation (United Kingdom)	2000
Clinical Investigator Development Award, NIDCD, NIH	1991
George H. Whipple Award of the Rochester Academy of Medicine	1985

Fulbright Scholar (Lecturer in Artificial Intelligence), Université de Paris VIII 1980
 Magna Cum Laude with Distinction in Mathematics, Dartmouth College 1976

Visiting Positions

Murdoch University, Department of Psychology, Perth, Australia
 Adjunct Distinguished Professor 2013 – present

Editorial Responsibilities

Editor

Brain and Cognition
 Action Editor 2003 – 2005
Brain and Language
 Associate Editor 1998 – 2003
 Co-Editor 2003 – 2004
 Editor-in-Chief 2005 – present
Proceedings of the National Academy of Sciences of the United States of America
 Direct Submission Editor (ad hoc): On behalf of Peter Strick 2/2017
 Direct Submission Editor (ad hoc): On behalf of Michael Gazzaniga 5/2017

Editorial Consultation

Annals of Neurology
Archives of Neurology
Behavioral and Brain Sciences
Brain
Brain and Cognition
Brain and Language
Brain Research
Cerebral Cortex
Cognitive Science
Computational Intelligence
European Journal of Neurology
IEEE Transactions on Pattern Analysis and Machine Intelligence
Journal of the Acoustical Society of America
Journal of Cognitive Neuroscience
Journal of Nervous and Mental Diseases
Journal of Neurophysiology
Journal of Neuroscience
Journal of Neurosurgery
Journal of Speech and Hearing Research
Lancet Neurology

Nature Medicine
NeuroCase
Neuroimage
Neurology
Neuropsychology
Neurorehabilitation and Neural Repair
NeuroRx
Neuroscience Letters
New England Journal of Medicine
Proceedings of the National Academy of Sciences of the United States of America
Stroke
Social, Cognitive, and Affective Neuroscience
Social Neuroscience
Trends in Cognitive Science

Publications

Journals

1. Asaridou, S. S., Demir-Lira, O. E., Goldin-Meadow, S., & Small, S. L. (2017). The pace of vocabulary growth during preschool predicts cortical structure at school age. *Neuropsychologia*, 98, 13-23.
2. Duncan, E. S., & Small, S. L. (2017). Imitation-based aphasia therapy increases narrative content: a case series. *Clinical rehabilitation*, in press.
3. Hong, D., Stradling, D., Dastur, C. K., Akbari, Y., Groysman, L., Al-Khoury, L., Chen, J., Small, S. L., & Yu, W. (2017). Resistant Hypertension after Hypertensive Intracerebral Hemorrhage Is Associated with More Medical Interventions and Longer Hospital Stays without Affecting Outcome. *Frontiers in Neurology*, 8, 184.
4. Wu, J., Srinivasan, R., Burke Quinlan, E., Solodkin, A., Small, S. L., & Cramer, S. C. (2016). Utility of EEG measures of brain function in patients with acute stroke. *Journal of Neurophysiology*, 115(5), 2399-2405.
5. Tune, S., Schlesewsky, M., Nagels, A., Small, S. L., & Bornkessel-Schlesewsky, I. (2016). Sentence understanding depends on contextual use of semantic and real world knowledge. *Neuroimage*, 136, 10-25.
6. Duncan, E. S., Tune, S., & Small, S. L. (2016). The neurobiology of language: Relevance to linguistics. *Yearbook of the Poznan Linguistic Meeting*, 2(1), 49-66.
7. Duncan, E. S., & Small, S. L. (2016). Increased Modularity of Resting State Networks Supports Improved Narrative Production in Aphasia Recovery. *Brain Connectivity*, 6(7), 524-529.
8. Duncan, E. S., Schmah, T., & Small, S. L. (2016). Performance Variability as a Predictor of Response to Aphasia Treatment. *Neurorehabilitation and Neural Repair*, 30(9), 876-

882.

9. Blumenfeld, R. S., Winsell, J. C., Hicks, J. W., & Small, S. L. (2016). The epidemiology of sports-related head injury and concussion in water polo. *Frontiers in Neurology, 7*, 98.
10. Andric, M., Goldin-Meadow, S., Small, S. L., & Hasson, U. (2016). Repeated movie viewings produce similar local activity patterns but different network configurations. *Neuroimage, 142*, 613-627.
11. Roehrich-Gascon, D., Small, S. L., & Tremblay, P. (2015). Structural correlates of spoken language abilities: A surface-based region-of interest morphometry study. *Brain Lang, 149*, 46-54.
12. Bornkessel-Schlesewsky, I., Schlewsky, M., Small, S. L., & Rauschecker, J. P. (2015). Response to Skeide and Friederici: the myth of the uniquely human 'direct' dorsal pathway. *Trends in Cognitive Science, 19*(9), 484-485.
13. Bornkessel-Schlesewsky, I., Schlewsky, M., Small, S. L., & Rauschecker, J. P. (2015). Neurobiological roots of language in primate audition: common computational properties. *Trends in Cognitive Science, 19*(3), 142-150.
14. Adhikari, M. H., Raja Beharelle, A., Griffa, A., Hagmann, P., Solodkin, A., McIntosh, A. R., Small, S. L., & Deco, G. (2015). Computational modeling of resting-state activity demonstrates markers of normalcy in children with prenatal or perinatal stroke. *The Journal of Neuroscience, 35*(23), 8914-8924.
15. Tune, S., Schlewsky, M., Small, S. L., Sanford, A. J., Bohan, J., Sassenhagen, J., & Bornkessel-Schlesewsky, I. (2014). Cross-linguistic variation in the neurophysiological response to semantic processing: evidence from anomalies at the borderline of awareness. *Neuropsychologia, 56*, 147-166.
16. Sarasso, S., Maatta, S., Ferrarelli, F., Poryazova, R., Tononi, G., & Small, S. L. (2014). Plastic Changes Following Imitation-Based Speech and Language Therapy for Aphasia: A High-Density Sleep EEG Study. *Neurorehabilitation and Neural Repair, 28*(2), 129-138.
17. Mikami, K., Jorge, R. E., Moser, D. J., Arndt, S., Jang, M., Solodkin, A., Small, S. L., Fonzetti, P., Hegel, M. T., & Robinson, R. G. (2014). Prevention of post-stroke generalized anxiety disorder, using escitalopram or problem-solving therapy. *Journal of Neuropsychiatry and Clinical Neurosciences, 26*(4), 323-328.
18. Goldin-Meadow, S., Levine, S. C., Hedges, L. V., Huttenlocher, J., Raudenbush, S. W., & Small, S. L. (2014). New evidence about language and cognitive development based on a longitudinal study: hypotheses for intervention. *American Psychologist, 69*(6), 588-599.
19. Dick, A. S., Mok, E. H., Raja Beharelle, A., Goldin-Meadow, S., & Small, S. L. (2014). Frontal and temporal contributions to understanding the iconic co-speech gestures that accompany speech. *Hum Brain Mapp, 35*(3), 900-917.
20. Bornkessel-Schlesewsky, I., Schlewsky, M., & Small, S. L. (2014). Implementation is

- crucial but must be neurobiologically grounded. Comment on "Toward a computational framework for cognitive biology: unifying approaches from cognitive neuroscience and comparative cognition" by W. Tecumseh Fitch. *Physics of Life Reviews*, 11(3), 365-366.
21. Tremblay, P., Dick, A. S., & Small, S. L. (2013). Functional and structural aging of the speech sensorimotor neural system: functional magnetic resonance imaging evidence. *Neurobiology of Aging*, 34(8), 1935-1951.
 22. Small, S. L., Buccino, G., & Solodkin, A. (2013). Brain repair after stroke--a novel neurological model. *Nature Reviews Neurology*, 9(12), 698-707.
 23. Mikami, K., Jorge, R. E., Moser, D. J., Arndt, S., Jang, M., Solodkin, A., Small, S. L., Fonzeiti, P., Hegel, M. T., & Robinson, R. G. (2013). Prevention of poststroke apathy using escitalopram or problem-solving therapy. *American Journal of Geriatric Psychiatry*, 21(9), 855-862.
 24. Dick, A. S., Raja Beharelle, A., Solodkin, A., & Small, S. L. (2013). Interhemispheric functional connectivity following prenatal or perinatal brain injury predicts receptive language outcome. *Journal of Neuroscience*, 33(13), 5612-5625.
 25. Argyropoulos, G. P., Tremblay, P., & Small, S. L. (2013). The neostriatum and response selection in overt sentence production: an fMRI study. *Neuroimage*, 82, 53-60.
 26. Andric, M., Solodkin, A., Buccino, G., Goldin-Meadow, S., Rizzolatti, G., & Small, S. L. (2013). Brain function overlaps when people observe emblems, speech, and grasping. *Neuropsychologia*, 51(8), 1619-1629.
 27. Tremblay, P., Sato, M., & Small, S. L. (2012). TMS-induced modulation of action sentence priming in the ventral premotor cortex. *Neuropsychologia*, 50(2), 319-326.
 28. Small, S. L., Buccino, G., & Solodkin, A. (2012). The mirror neuron system and treatment of stroke. *Developmental Psychobiology*, 54(3), 293-310.
 29. Mashal, N., Solodkin, A., Dick, A. S., Chen, E. E., & Small, S. L. (2012). A network model of observation and imitation of speech. *Frontiers in Psychology*, 3, 84.
 30. Dick, A. S., Goldin-Meadow, S., Solodkin, A., & Small, S. L. (2012). Gesture in the developing brain. *Developmental Science*, 15(2), 165-180.
 31. Campbell, T. F., Dollaghan, C., Janosky, J., Rusiewicz, H. L., Small, S. L., Dick, F., Vick, J., & Adelson, P. D. (2012). Consonant Accuracy after Severe Pediatric Traumatic Brain Injury: A Prospective Cohort Study. *Journal of Speech, Language, and Hearing Research*, 56(3), 1023-1034.
 32. Baram, T. Z., Davis, E. P., Obenaus, A., Sandman, C. A., Small, S. L., Solodkin, A., & Stern, H. (2012). Fragmentation and unpredictability of early-life experience in mental disorders. *American Journal of Psychiatry*, 169(9), 907-915.
 33. Mashal, N., Solodkin, A., Dick, A. S., Chen, E. E., & Small, S. L. (2012). A network model of observation and imitation of speech. *Frontiers in Psychology*, 3, 84.

34. Andric, M., & Small, S. L. (2012). Gesture's Neural Language. *Frontiers in Psychology*, 3, 99.
35. Cherney, L. R., Harvey, R. L., Babbitt, E. M., Hurwitz, R., Kaye, R. C., Lee, J. B., & Small, S. L. (2012). Epidural cortical stimulation and aphasia therapy. *Aphasiology*, 26(9), 1192-1217.
36. Cooper, E. A., Hasson, U., & Small, S. L. (2011). Interpretation-mediated changes in neural activity during language comprehension. *NeuroImage*, 55(3), 1314-1323.
37. Tremblay, P., & Small, S. L. (2011). From language comprehension to action understanding and back again. *Cerebral Cortex*, 21(5), 1166-1177.
38. Mikami, K., Jorge, R. E., Moser, D. J., Arndt, S., Jang, M., Solodkin, A., Small, S. L., Fonzeppi, P., Hegel, M. T., & Robinson, R. G. (2011). Increased frequency of first-episode poststroke depression after discontinuation of escitalopram. *Stroke*, 42(11), 3281-3283.
39. Tremblay, P., & Small, S. L. (2011). The First Neurobiology of Language Conference: NLC 2009. *Brain and Language*, 117(3), 101-102.
40. Tremblay, P., & Small, S. L. (2011). On the context-dependent nature of the contribution of the ventral premotor cortex to speech perception. *Neuroimage*, 57(4), 1561-1571.
41. Small, S. L., Hickok, G., Nusbaum, H. C., Blumstein, S., Branch Coslett, H., Dell, G., Hagoort, P., Kutas, M., Marantz, A., Pyllkanen, L., Thompson-Schill, S., Watkins, K., & Wise, R. J. (2011). The neurobiology of language: Two years later. *Brain and Language*, 116(3), 103-104.
42. Tremblay, P., & Small, S. L. (2011). Motor response selection in overt sentence production: a functional MRI study. *Frontiers in Psychology*, 2, 253.
43. Yourganov, G., Chen, X., Lukic, A. S., Grady, C. L., Small, S. L., Wernick, M. N., & Strother, S. C. (2011). Dimensionality estimation for optimal detection of functional networks in BOLD fMRI data. *Neuroimage*, 56(2), 531-543.
44. Solodkin, A., Hasson, U., Siugzdaite, R., Schiel, M., Chen, E. E., Kotter, R., & Small, S. L. (2010). Virtual brain transplantation (VBT): a method for accurate image registration and parcellation in large cortical stroke. *Archives Italiennes de Biologie*, 148(3), 219-241.
45. Gee, T., Kenny, S., Price, C. J., Seghier, M. L., Small, S. L., Leff, A. P., Pacurar, A., & Strother, S. C. (2010). Data warehousing methods and processing infrastructure for brain recovery research. *Archives Italiennes de Biologie*, 148(3), 207-217.
46. Yourganov, G., Schmah, T., Small, S. L., Rasmussen, P. M., & Strother, S. C. (2010). Functional connectivity metrics during stroke recovery. *Archives Italiennes de Biologie*, 148(3), 259-270.
47. Sarasso, S., Santhanam, P., Maatta, S., Poryazova, R., Ferrarelli, F., Tononi, G., & Small, S. L. (2010). Non-fluent aphasia and neural reorganization after speech therapy: insights

- from human sleep electrophysiology and functional magnetic resonance imaging. *Archives Italiennes de Biologie*, 148(3), 271-278.
48. Price, C. J., Crinion, J. T., Leff, A. P., Richardson, F. M., Schofield, T. M., Prejawa, S., Ramsden, S., Gazarian, K., Lawrence, M., Ambridge, L., Andric, M., Small, S. L., & Seghier, M. L. (2010). Lesion sites that predict the ability to gesture how an object is used. *Archives Italiennes de Biologie*, 148(3), 243-258.
 49. Cherney, L. R., Erickson, R. K., & Small, S. L. (2010). Epidural cortical stimulation as adjunctive treatment for non-fluent aphasia: preliminary findings. *Journal of Neurology, Neurosurgery and Psychiatry*, 81(9), 1014-1021.
 50. Schmah, T., Yourganov, G., Zemel, R. S., Hinton, G. E., Small, S. L., & Strother, S. C. (2010). Comparing classification methods for longitudinal fMRI studies. *Neural Computation*, 22(11), 2729-2762.
 51. Raja Beharelle, A., Dick, A. S., Josse, G., Solodkin, A., Huttenlocher, P. R., Levine, S. C., & Small, S. L. (2010). Left hemisphere regions are critical for language in the face of early left focal brain injury. *Brain*, 133(Pt 6), 1707-1716.
 52. Lyons, I. M., Mattarella-Micke, A., Cieslak, M., Nusbaum, H. C., Small, S. L., & Beilock, S. L. (2010). The role of personal experience in the neural processing of action-related language. *Brain and Language*, 112(3), 214-222.
 53. Lee, J., Fowler, R., Rodney, D., Cherney, L., & Small, S. L. (2010). IMITATE: An intensive computer-based treatment for aphasia based on action observation and imitation. *Aphasiology*, 24(4), 449-465.
 54. Andric, M., & Small, S. L. (2010). Functional imaging of putative human mirror neuron systems in neurological disease. *Experimental Neurology*, 221(1), 5-9.
 55. Dick, A. S., Solodkin, A., & Small, S. L. (2010). Neural development of networks for audiovisual speech comprehension. *Brain and Language*, 114(2), 101-114.
 56. Hasson, U., Nusbaum, H. C., & Small, S. L. (2009). Task-dependent organization of brain regions active during rest. *Proceedings of the National Academy of Sciences of the United States of America*, 106(26), 10841-10846.
 57. Small, S. L., & Llano, D. A. (2009). Biological approaches to aphasia treatment. *Current Neurology and Neuroscience Reports*, 9(6), 443-450.
 58. Skipper, J. I., Goldin-Meadow, S., Nusbaum, H. C., & Small, S. L. (2009). Gestures orchestrate brain networks for language understanding. *Current Biology*, 19(8), 661-667.
 59. Kenny, S., Andric, M., Boker, S. M., Neale, M. C., Wilde, M., & Small, S. L. (2009). Parallel workflows for data-driven structural equation modeling in functional neuroimaging. *Frontiers in Neuroinformatics*, 3, 34.
 60. Small, S. L., Wilde, M., Kenny, S., Andric, M., & Hasson, U. (2009). Database-managed grid-enabled analysis of neuroimaging data: the CNARI framework. *International*

Journal of Psychophysiology, 73(1), 62-72.

61. Dick, A. S., Goldin-Meadow, S., Hasson, U., Skipper, J. I., & Small, S. L. (2009). Co-speech gestures influence neural activity in brain regions associated with processing semantic information. *Human Brain Mapping*, 30(11), 3509-3526.
62. Small, S. L. (2009). A Biological Basis for Aphasia Treatment: Mirror Neurons and Observation – Execution Matching. *Poznań Studies in Contemporary Linguistics*, 45(2), 313 – 326.
63. Walsh, R. R., Small, S. L., Chen, E. E., & Solodkin, A. (2008). Network activation during bimanual movements in humans. *NeuroImage*, 43(3), 540-553.
64. Small, S. L. (2008). The neuroscience of language. *Brain and Language*, 106(1), 1-3.
65. Robinson, R. G., Jorge, R. E., Moser, D. J., Acion, L., Solodkin, A., Small, S. L., Fonzetti, P., Hegel, M., & Arndt, S. (2008). Escitalopram and problem-solving therapy for prevention of poststroke depression: a randomized controlled trial. *Journal of the American Medical Association*, 299(20), 2391-2400.
66. Patton, J., Small, S. L., & Rymer, W. Z. (2008). Functional restoration for the stroke survivor: informing the efforts of engineers. *Topics in Stroke Rehabilitation*, 15(6), 521-541.
67. Milton, J., Small, S. L., & Solodkin, A. (2008). Imaging motor imagery: methodological issues related to expertise. *Methods*, 45(4), 336-341.
68. Hasson, U., Skipper, J. I., Wilde, M. J., Nusbaum, H. C., & Small, S. L. (2008). Improving the analysis, storage and sharing of neuroimaging data using relational databases and distributed computing. *NeuroImage*, 39(2), 693-706.
69. Beilock, S. L., Lyons, I. M., Mattarella-Micke, A., Nusbaum, H. C., & Small, S. L. (2008). Sports experience changes the neural processing of action language. *Proceedings of the National Academy of Sciences of the United States of America*, 105(36), 13269-13273.
70. Hasson, U., Skipper, J. I., Nusbaum, H. C., & Small, S. L. (2007). Abstract coding of audiovisual speech: beyond sensory representation. *Neuron*, 56(6), 1116-1126.
71. Skipper, J. I., van Wassenhove, V., Nusbaum, H. C., & Small, S. L. (2007). Hearing lips and seeing voices: how cortical areas supporting speech production mediate audiovisual speech perception. *Cerebral Cortex*, 17(10), 2387-2399.
72. Stef-Praun, T., Clifford, B., Foster, I., Hasson, U., Hategan, M., Small, S. L., Wilde, M., & Zhao, Y. (2007). Accelerating Medical Research using the Swift Workflow System. *Studies in Health Technology and Informatics*, 126, 207-216.
73. Skipper, J. I., Goldin-Meadow, S., Nusbaum, H. C., & Small, S. L. (2007). Speech-associated gestures, Broca's area, and the human mirror system. *Brain and Language*, 101(3), 260-277.
74. Hasson, U., Nusbaum, H. C., & Small, S. L. (2007). Brain networks subserving the

- extraction of sentence information and its encoding to memory. *Cerebral Cortex*, 17(12), 2899-2913.
75. Chen, E. E., & Small, S. L. (2007). Test-retest reliability in fMRI of language: group and task effects. *Brain and Language*, 102(2), 176-185.
 76. Milton, J., Solodkin, A., Hlustik, P., & Small, S. L. (2007). The mind of expert motor performance is cool and focused. *Neuroimage*, 35(2), 804-13.
 77. Ertelt, D., Small, S., Solodkin, A., Dettmers, C., McNamara, A., Binkofski, F., & Buccino, G. (2007). Action observation has a positive impact on rehabilitation of motor deficits after stroke. *Neuroimage*, 36 Suppl 2, T164-73.
 78. Solodkin, A., Buccino, G., & Small, S. L. (2006). The neurobiology of hand motor recovery after stroke. *Cognitive and Behavioral Neurology*, 19(4), 175-176.
 79. Hasson, U., Nusbaum, H. C., & Small, S. L. (2006). Repetition suppression for spoken sentences and the effect of task demands. *Journal of Cognitive Neuroscience*, 18(12), 2013-2029.
 80. Cherney, L. R., & Small, S. L. (2006). Task-dependent changes in brain activation following therapy for nonfluent aphasia: Discussion of two individual cases. *Journal of the International Neuropsychology Society*, 12(6), 828-842.
 81. Goldman, M. B., Heidinger, L., Kulkarni, K., Zhu, D. C., Chien, A., McLaren, D. G., Shah, J., Coffey, C. E., Jr., Sharif, S., Chen, E., Uftring, S. J., Small, S. L., Solodkin, A., & Pilla, R. S. (2006). Changes in the amplitude and timing of the hemodynamic response associated with prepulse inhibition of acoustic startle. *Neuroimage*, 32(3), 1375-1384.
 82. Burton, M. W., & Small, S. L. (2006). Functional neuroanatomy of segmenting speech and nonspeech. *Cortex*, 42(4), 644-651.
 83. Bhimani, A. A., Hlustik, P., Small, S. L., & Solodkin, A. (2006). Complex motor function in humans: validating and extending the postulates of Alexandr R. Luria. *Cognitive and Behavioral Neurology*, 19(1), 11-20.
 84. Buccino, G., Solodkin, A., & Small, S. L. (2006). Functions of the mirror neuron system: implications for neurorehabilitation. *Cognitive and Behavioral Neurology*, 19(1), 55-63.
 85. Skipper, J. I., Nusbaum, H. C., & Small, S. L. (2005). Listening to talking faces: motor cortical activation during speech perception. *Neuroimage*, 25(1), 76-89.
 86. Wong, P. C., Nusbaum, H. C., & Small, S. L. (2004). Neural bases of talker normalization. *Journal of Cognitive Neuroscience*, 16(7), 1173-1184.
 87. Solodkin, A., Hlustik, P., Chen, E. E., & Small, S. L. (2004). Fine Modulation in Network Activation during Motor Execution and Motor Imagery. *Cerebral Cortex*, 14(11), 1246-1255.
 88. Hlustik, P., Solodkin, A., Noll, D. C., & Small, S. L. (2004). Cortical Plasticity During Three-Week Motor Skill Learning. *Journal of Clinical Neurophysiology*, 21(3), 180-191.
 89. Baron, J. C., Black, S. E., Butler, A. J., Carey, J., Chollet, F., Cohen, L. G., Corbetta, M.,

- Cramer, S. C., Dobkin, B. H., Frackowiak, R., Heiss, W. D., Johnsen-Berg, H., Krakauer, J. W., Lazar, R. M., Lennihan, L. L., Loubinoux, I., Marshall, R. S., Matthews, P., Mohr, J. P., Nelles, G., Pascual-Leone, A., Pomeroy, V., Rijntjes, M., Rossine, P. M., Rothwell, J. C., Seitz, R. J., Small, S. L., Sunderland, A., Ward, N. S., Weiller, C., & Wise, R. J. S. (2004). Neuroimaging in stroke recovery: A position paper from the First International Workshop on Neuroimaging and Stroke Recovery. *Cerebrovascular Diseases*, 18(3), 260-267.
90. Norris, C. J., Chen, E. E., Zhu, D. C., Small, S. L., & Cacioppo, J. T. (2004). The interaction of social and emotional processes in the brain. *Journal of Cognitive Neuroscience*, 16(10), 1818-1829.
 91. Milton, J. G., Small, S., & Solodkin, A. (2004). On the road to automatic: dynamic aspects in the development of expertise. *Journal Clinical Neurophysiology*, 21(3), 134-143.
 92. Small, S. L. (2004). Therapeutics in cognitive and behavioral neurology. *Annals of Neurology*, 56(1), 5-7.
 93. Small, S. L. (2004). A Biological Model of Aphasia Rehabilitation: Pharmacological Perspectives. *Aphasiology*, 18(5/6/7), 473-492.
 94. Small, S. L., & Nusbaum, H. C. (2004). On the neurobiological investigation of language understanding in context. *Brain and Language*, 89(2), 300-311.
 95. Small, S. L., & Solodkin, A. (2003). Long-Term Effects of Stroke (Book Review). *Brain*, 126(5), 1242-1243.
 96. Small, S. L., Hlustik, P., Genovese, C., Noll, D. C., & Solodkin, A. (2002). Cerebellar Hemispheric Activation Ipsilateral to the Paretic Hand Correlates with Functional Recovery after Stroke. *Brain*, 125(7): 1544-1557.
 97. Nusbaum, H. C., Skipper, J., & Small, S. L. (2002). A Sensory-Attentional Account of Speech Perception. (Commentary on O'Regan, J.K. & Noë, A., A sensorimotor account of vision and visual consciousness), *Brain and Behavioral Sciences* 24: 995-996.
 98. Hlustik, P., Solodkin, A., Gullapalli, R. P., Noll, D. C., & Small, S. L. (2002). Functional Lateralization of the Human Premotor Cortex during Sequential Movements. *Brain and Cognition* 49, 54-62.
 99. Solodkin, A., Hlustik, P., Noll, D.C., and Small, S.L. (2001). Whole Brain fMRI Activation of the Normal Motor System in Left and Right Handers, *European Journal of Neurology* 8(5), 425-34.
 100. Hlustik, P., Solodkin, A., Gullapalli, R. P., Noll, D. C., & Small, S. L. (2001). Somatotopy in human primary motor and somatosensory hand areas revisited. *Cerebral Cortex*, 11(4), 312-321.
 101. Burton, M. W., Noll, D. C., & Small, S. L. (2001). The Anatomy of the Auditory Word Processing: Individual Variability. *Brain and Language*, 77(1), 119-31.
 102. Burton, M. W., Small, S. L., & Blumstein, S. E. (2000). The Role of Segmentation in

- Phonological Processing: An fMRI Investigation. *Journal of Cognitive Neuroscience*, 12(4), 679-690.
103. Harris, A. E., Ermentrout, G. B., & Small, S. L. (2000). A model of ocular dominance column development by competition for trophic factor: effects of excess trophic factor with monocular deprivation and effects of antagonist of trophic factor. *Journal of Computational Neuroscience*, 8(3), 227-50.
 104. Cummings, D. M., Emge, D. K., Small, S. L., & Margolis, F. L. (2000). Pattern of olfactory bulb innervation returns after recovery from reversible peripheral deafferentation. *Journal of Comparative Neurology*, 421(3), 362-373.
 105. Joannette, Y., & Small, S. (2000). Brain and language in the millennium. *Brain and Language*, 71(1), 1-3.
 106. Bergey, G. K., Small, S. L., & Eisenberg, H. M. (2000). Functional magnetic resonance imaging localization of motor function. *Archives of Neurology*, 57(5), 749-749.
 107. Small, S. L. (2000). The Future of Aphasia Treatment. *Brain and Language*, 71(1), 227-232.
 108. Ragnarsson, K.T., Moses, L.G., Clarke, W.R., Daling, J.R., Garber, S.L., Gustafson, C.F., Holland, A.L., Jordan, B.D., Parker, J.C., Riddle, M.A., Roth, E.J., Seltzer, M.M., Small, S.L., Therrien, B., Wexler, B.E., Yawn, B.P. (1999). Rehabilitation of persons with traumatic brain injury. *JAMA-Journal of the American Medical Association*, 282(10), 974-983.
 109. Burton, M. W., & Small, S. L. (1999). An Introduction to functional Magnetic Resonance Imaging. *The Neurologist*, 5(3), 145-158.
 110. Small, S. L., Flores, D., & Noll, D. C. (1998). Different Neural Circuits Subserve Reading before and after Therapy for Acquired Dyslexia. *Brain and Language*, 62, 298-308.
 111. Hlustik, P., Noll, D. C., & Small, S. L. (1998). Suppression of Vascular Artifacts in Functional Magnetic Resonance Images Using MR Angiograms. *NeuroImage*, 7, 224-231.
 112. McNeil, M. R., Doyle, P. J., Spencer, K. A., Goda, A. J., Flores, D., & Small, S. L. (1998). Effects of Training Multiple Form Classes on Acquisition, Generalization, and Maintenance of Word Retrieval in a Single Subject. *Aphasiology*, 12(7-8), 575-586.
 113. Small, S. L., & Solodkin, A., Neurobiology of Stroke Rehabilitation. *Neuroscientist*, 4(6), 428-434, 1998.
 114. Kendall, D. L., McNeil, M. R., & Small, S. L. (1998). Rule-Based Treatment for Acquired Phonological Dyslexia. *Aphasiology*, 12(7-8), 587-600.
 115. Harris, A. E., Ermentrout, G. B., & Small, S. L., A Model of Ocular Dominance Column Development by Competition for Trophic Factor. *Proceedings of National Academy of Sciences of the U S A*, 94(18), 9944-9, 1997.
 116. Craver, C. F., & Small, S. L., Subcortical Aphasia and the Attribution of Functional Responsibility to Parts of Distributed Brain Processes. *Brain and Language*, 58(3), 427-

- 435, 1997.
117. McNeil, M. R., Doyle, P. J., Spencer, K. A., Goda, A., Flores, D., & Small, S. L., A Double-Blind, Placebo-Controlled Study of Pharmacological and Behavioural Treatment of Lexical-Semantic Deficits in Aphasia. *Aphasiology*, 11(415), 385-400, 1997.
 118. Small, S. L., Semantic Category Imprecision: A Connectionist Study of the Boundaries of Word Meanings. *Brain and Language*, 57(2), 181-194, 1997.
 119. Small, S. L., Part 2: Computer Models of Sentence and Discourse Processing. *Brain and Language*, 59(2), 203-5, 1997.
 120. Small, S. L., Part 1: Connectionist Models of Lexical Processing. *Brain and Language*, 59(1), 5-6, 1997.
 121. Small, S. L., Overview: Computer Models of Language Disorders. *Brain and Language*, 59(1), 1-3, 1997
 122. Small, S. L., & Eidelman, B. H. (1997). Could a herpesvirus mimic tacrolimus-induced leukoencephalopathy? Reply. *Annals of Neurology*, 42(2), 270-270.
 123. Witt, T. C., Konziolka, D., Baumann, S., Noll, D. C., Small, S. L., & Lunsford, L. D., Pre-Operative Cortical Localization with Functional MRI for Use in Stereotactic Radiosurgery. *Stereotactic and Functional Neurosurgery*, 66, 24-29, 1996.
 124. Alper, G., & Small, S. L., Cerebrospinal Fluid after Organ Transplantation. *Transplantation Proceedings*, 28(5), 2948-2951, 1996.
 125. Small, S. L., Fukui, M. B., Bramblett, G. T., & Eidelman, B. H., Immunosuppression Induced Leukoencephalopathy from Tacrolimus (FK-506). *Annals of Neurology*, 40(4), 560~568, 1996.
 126. Small, S. L., Noll, D.C., Perfetti, C. A., Hlustik, P., Wellington, R., & Schneider, W, I-Localizing the Lexicon for Reading Aloud: Replication of a PET Study using fMRI. *NeuroReport*, 7(4), 961-965, 1996.
 127. McNeil, M. R., Small, S. L., Masterson, R. J., & Fossett, T. (1995), Behavioral and Pharmacological Treatment of Lexical-Semantic Deficits in Case of Primary Progressive Aphasia, *American Journal of Speech and Language Pathology*, 4(4), 76-87.
 128. Small, S. L., Hart, J., Jr., Nguyen, T., & Gordon, B. (1995), "Distributed Representations of Semantic Knowledge in the Brain". *Brain*, 118,441453.
 129. Small, S. L., Holland, A. L., Hart, J., Jr., Forbes, M. M., & Gordon, B. (1995), "Response Variability in Picture Naming: A Computational Study", *Clinical Aphasiology* 23, 25-38.
 130. Small, S. L., & Hoffman, G. E. (1994), "Neuroanatomical Lateralization of Language: Sexual Dimorphism and the Ethology of Neural Computation". *Brain and Cognition*, 26, 300-311.
 131. Small, S. L. (1994), "Connectionist Networks and Language Disorders". *Journal of Communication Disorders*, 27, 305-323.

132. Small, S. L., Fukui, M. B., & Reinmuth, O. M. (1994), "What is a "Normal Anatomical Variant"? Transient Left Lateral Medullary 'Ischemia in a Patient with a Fenestrated Left Vertebral Artery", *Neurology*, 44(7): 1358-1359.
133. Small, S. L. (1994), "Pharmacotherapy of Aphasia: A Critical Review", *Stroke*, 25(6): 1282-1289.
134. Small, S. L. (1994), "Metaphors and Models in the Neuropsychiatry of Language", *Journal of Nervous and Mental Disease*, 182(4): 216-219.
135. Small, S. L. (1994), "The Real Functional Architecture is Gray, Wet, and Slippery", Commentary on "Neuropsychological Inference with an Interactive Brain: A Critique of the Locality Assumption" by M. J. Farah, *Behavioral and Brain Sciences*, 17(l):81-82.
136. Small, S. L. (1994), Book Review of *The Neurology of Thinking* by D. Frank Benson. *Annals of Neurology*, 36(5), 808.
137. Small, S. L. (1991), But How Does the Brain Think? (Or Wasn't that the Question?), Commentary on "Cognitive Theory" by J. Anderson. *Behavioral and Brain Sciences*, 14(3), 504-505.
138. Small, S. L. and E. K. Muechler (1989), "Heuristic Determination of Relevant Diagnostic Procedures in a Medical Expert System for Gynecology", *American Journal of Obstetrics and Gynecology*, 161:17-24.
139. Small, S. L. (1983), The Story in Mind and Matter, Commentary on "Story Grammars versus Story Points" by R. Wilensky, *Behavioral and Brain Sciences*, 6(4): 609-610.
140. Cottrell, G. C. and S. L. Small (1983), "A Connectionist Scheme for Modelling Word Sense Disambiguation", *Cognition and Brain Theory*, 6(1):89-120.
141. Small, S. L. and M. Lucas (1983), "A Computer Model of Sentence Comprehension", *Ricerche di Psicologia*, 25:89-157.
142. Rieger, C. J., & Small, S. L. (1981). Toward a Theory of Distributed Word Expert Natural Language Parsing. *IEEE Transactions on Systems, Man, and Cybernetics*, 11(1), 43-51.

Book Chapters and Conference Proceedings

143. Small, S. L., & Hickok, G. (2016). The Neurobiology of Language. In G. Hickok & S. L. Small (Eds.), *Neurobiology of Language* (pp. 3-8). San Diego, California: Academic Press
144. Llano, D., & Small, S. L. (2016). Pharmacotherapy of Aphasia. In G. Hickok & S. L. Small (Eds.), *Neurobiology of Language* (pp. 1067-1078). San Diego, California: Academic Press
145. Levine, S. C., Beharelle, A. R., & Small, S. L. (2016). Perinatal Stroke. In G. Hickok & S. L. Small (Eds.), *Neurobiology of Language* (pp. 969-979). San Diego, California: Academic Press.
146. Duncan, E. S., & Small, S. L. (2016). Imitation-Based Aphasia Therapy. In G. Hickok & S. L.

- Small (Eds.), *Neurobiology of Language* (pp. 1055-1065). San Diego, California: Academic Press.
147. Yang, J., & Small, S. L. (2015). Language Processing, Functional Magnetic Resonance Imaging of. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences (Second Edition)* (pp. 368-380). Oxford: Elsevier.
 148. Grosvald, M., Burton, M. W., & Small, S. L. (2015). Models of Speech Processing. In A. E. Hillis (Ed.), *Handbook of Language Disorders, Second Edition (Second ed.,* pp. 255-274). Philadelphia, Pennsylvania: Psychology Press.
 149. Dick, A. S., & Small, S. L. (2015). Structural and functional components of brain networks for language. In A. W. Toga, M. M. Mesulam, & S. Kastner (Eds.), *Brain Mapping: An Encyclopedic Reference* (pp. 653-659). Oxford, England: Elsevier.
 150. Andric, M., & Small, S. L. (2014). fMRI methods for studying the neurobiology of language under naturalistic conditions. In R. M. Willems (Ed.), *Towards a Cognitive Neuroscience of Natural Language Use*. Cambridge, England: Cambridge University Press.
 151. Mashal, N., Andric, M., & Small, S. L. (2012). Motor and non-motor language representations in the brain. In M. Faust (Ed.), *The Handbook of the Neuropsychology of Language (Vol. 1,* pp. 276-293). Oxford, England: Wiley-Blackwell Publishing.
 152. Small, S. L. (2010). Hidden forces in understanding others: Mirror neurons and neurobiological underpinnings. In *The Chicago Social Brain Network (Ed.), Invisible Forces and Powerful Beliefs: Gravity, Gods, and Minds* (pp. 95-108). Upper Saddle River, New Jersey: FT Press.
 153. Schmah, T., Hinton, G. E., Zemel, R. S., Small, S. L., & Strother, S. (2008). Competing RBM density models for classification of fMRI images In *Advances in Neural Information Processing Systems (Vol. 21)*. Cambridge, Massachusetts: MIT Press.
 154. Hasson, U., & Small, S. L. (2008). Neurobiology of Semantics. In Hogan, P. C. (Ed.), *The Cambridge Encyclopedia of the Language Sciences*. Cambridge, England: Cambridge University Press.
 155. Cherney, L. R., & Small, S. L. (2008). Aphasia, Apraxia of Speech, and Dysarthria. In Stein, J., Harvey, R., Macko, R., Winstein, C. & Zorowitz, R. (Eds.), *Stroke Rehabilitation and Recovery*. New York, NY: Demos Medical Publishing.
 156. Hasson, U., & Small, S. L. (2008). Functional magnetic resonance imaging (fMRI) research of language. In Stemmer, B. & Whitaker, H. A. (Eds.), *Handbook of the Neuroscience of Language*. Amsterdam, Netherlands: Elsevier.
 157. Milton, J., Solodkin, A., & Small, S. L. (2007). Why Did Casey Strike Out? The Neuroscience of Hitting. In Gordon, D. (Ed.), *Your Brain on Cubs: Inside the Heads of Players and Fans* (pp. 43-57). New York: Dana Press.
 158. Skipper, J. I., Nusbaum, H. C., & Small, S. L. (2006). Lending a helping hand to hearing: A motor theory of speech perception. In M. A. Arbib (Ed.), *Action To Language via the Mirror Neuron System* (pp. 250-286). Cambridge: Cambridge University Press.

159. Nusbaum, H. C., & Small, S. L. (2005). Investigating cortical mechanisms of language processing in social context. In J. T. Cacioppo, P. S. Visser & C. L. Pickett (Eds.), *Social Neuroscience: People Thinking about Thinking People*. Cambridge, Massachusetts: MIT Press.
160. Skipper, J. I., & Small, S. L. (2005). fMRI Studies of Language. In K. Brown (Ed.), *Encyclopedia of Language and Linguistics*. Amsterdam: Elsevier.
161. Dick, F., Dronkers, N., Pizzamiglio, L., Saygin, A. P., Small, S. L., & Wilson, S. (2004). Language and the Brain. In M. Tomasello & D. Slobin (Eds.), *Beyond Nature – Nurture; Essays in Honor of Elizabeth Bates*. New Jersey: Lawrence Erlbaum Associates.
162. Small, S. L. (2004). Pharmacological Approaches to the Treatment of Aphasia. In R. D. Kent (Ed.), *Encyclopedia of Speech and Language Disorders* (pp. 257-260). Cambridge, Massachusetts: MIT Press.
163. Small, S. L. (2002). Biological Approaches to the Treatment of Aphasia. *Handbook of Adult Language Disorders: Integrating Cognitive Neuropsychology, Neurology, and Rehabilitation*. A. Hillis. Philadelphia, Pennsylvania, Psychology Press: 397 - 411.
164. Burton, M. W. and S. L. Small (2002). Theory of Speech Perception. *Handbook of Adult Language Disorders: Integrating Cognitive Neuropsychology, Neurology, and Rehabilitation*. A. Hillis. Philadelphia, Pennsylvania, Psychology Press: 253 - 257.
165. Small, S. L., & Burton, M. W. (2001). Functional Neuroimaging of Language. In F. Boller & J. Grafman (Eds.), *Handbook of Neuropsychology*. Amsterdam, pp. 335-351.
166. Small, S. L., & Solodkin, A. (2001). What can neurobiology tell us about the rehabilitation of golfers with central nervous system disease?. In J. Milton (Ed.), *Golf Neurology Course Syllabus*. Philadelphia: American Academy of Neurology.
167. Small, S. L., & Burton, M. W. (2000). Functional Imaging of Normal and Impaired Language. In E. Ross (Eds.), *Behavioral Neurology Course Syllabus*. San Diego: American Academy of Neurology.
168. Harris, A. and S. L. Small (1997), *Computer Models in Neurolinguistics*, *Handbook of Neurolinguistics*, Academic Press, San Diego, California.
169. Small, S. L. (1997), *Aphasia Rehabilitation*, in R. Lazar (ed.), *Neurorehabilitation*, McGraw-Hill.
170. Small, S. L., Hart, J., Jr., Nguyen; T., & Gordon, B. (1997), "Distributed Representations of Semantic Knowledge in the Brain: Computational Experiments using Distributed Feature-Based Codes", *Neural Modelling of Brain and Cognitive Disorders*, World Scientific Publishing Company.
171. Harris, A., Simons, D., & Small, S. L. (1995), Hebbian Learning, Weight Normalization, and the Development of Segregates, in *Computational Neuroscience: Trends in Research 1995*, J. Bower (Ed.), San Diego, California: Academic Press.
172. Small, S. L. and T. Nguyen (1994), "Dependency Analysis: Assessing the Functional

- Relationships among Processing Units in Artificial Neural Networks", in Proceedings of the World Congress on Neural Networks, San Diego, California, IEEE Press, 506-511.
173. Small, S. L., & Fromm, G. H. (1992), Inhibition and Brain Computation, Proceedings of the Fourteenth Annual Meeting of the Cognitive Science Society, University of Indiana, Bloomington, Indiana: Lawrence Erlbaum Associates, 366-371.
 174. Small, S. L. (1991), Focal and Diffuse Lesions of Cognitive Models, Proceedings of the Thirteenth Annual Meeting of the Cognitive Science Society, The University of Chicago, Chicago, Illinois: Lawrence Erlbaum Associates, 479483.
 175. Webster, C. W., S. L. Small, J. T. Becker, and G. Banks (1990), "Computational Modelling of Depression and Dementia", Proceedings of the Fourteenth Annual Symposium on Computer Applications in Medical Care, Washington, D. C., 1990.
 176. Small, S. L. (1990), "Learning Lexical Knowledge in Context: Experiments with Recurrent Feed Forward Networks", Proceedings of the Twelfth Annual Meeting of the Cognitive Science Society, Massachusetts Institute of Technology, Cambridge, Massachusetts: Lawrence Erlbaum Associates, Hillsdale, New Jersey, 479483, 1990.
 177. Banks, G., D. Coffey, and S. L. Small (1989), "A Connectionist Visual Field Analyzer", Proceedings of the Thirteenth Annual Symposium on Computer Applications in Medical Care, Washington, D.C.
 178. Adriaens, G. and S. L. Small (1988), "Word Expert Parsing Revisited from a Cognitive Science Perspective", in Small et al (eds.), Lexical Ambiguity Resolution: Perspectives from PsychoLinguistics, Neuropsychology, and Artificial Intelligence, Morgan Kaufmann Publishers, Los Altos, California.
 179. Small, S. L. (1987), "Parsing, Word Expert", in S. Shapiro (ed.), Encyclopedia of Artificial Intelligence. John Wiley and Sons.
 180. Small, S. L. (1987), "A Word-Based Approach to Parsing", in L. Bolc (ed.), Parsing Natural Language, Springer Verlag Publishers.
 181. Small, S. L. and E. K. Muechler (1985), "Representing Mutually Exclusive Knowledge in a Property Hierarchy for a Reasoning System in Clinical Gynecology", Proceedings of the Ninth Annual Symposium on Computer Applications in Medical Care, Baltimore, Maryland, 1985.
 182. Small, S. L. and E. K. Muechler (1985), "The Formalization of Diagnostic Reasoning in Gynecology", Proceedings of the Thirty-Eighth Annual Conference on Engineering in Medicine and Biology, Chicago, Illinois, 1985.
 183. Cottrell, G. C. and S. L. Small (1984), "Viewing Parsing as Word Sense Discrimination: A Connectionist Approach", in G. Guida and B. Bara (eds.), Natural Language Processing, North Holland Publishing Co.
 184. Small, S. L. (1983), "Parsing as Cooperative Distributed Inference: Understanding through Memory Interactions", in M. King (ed.), Parsing Natural Language, Academic Press.

185. Small, S. L. and C. J. Rieger (1982). "Parsing and Comprehending with Word Experts (A Theory and its Realization)", in Lehnert and Ringle (eds.), *Strategies for Natural Language Processing*, Lawrence Erlbaum Associates.
186. Small, S. L. (1982), "Exploded Connections: Unchunking Schematic Knowledge", *Proceedings of the Fourth Annual Meeting of the Cognitive Science Society*, Ann Arbor, Michigan.
187. Small, S. L., G. Cottrell, and L. Shastri (1982), "Toward Connectionist Parsing", *Proceedings of the National Conference of the American Association for Artificial Intelligence*, Pittsburgh, Pennsylvania.
188. Small, S. L. (1981), "Viewing Word Expert Parsing as Linguistic Theory", *Proceedings of the Seventh International Joint Conference on Artificial Intelligence*, Vancouver, British Columbia.
189. Small, S. L. (1981), "Demon Timeouts: Limiting the Life Spans of Spontaneous Computations in Cognitive Models," *Proceedings of the Third Annual Meeting of the Cognitive Science Society*, Berkeley, California.
190. Small, S. L. (1979), "Parsing with Word Experts", *Proceedings of the Seventh Annual Meeting of the Association for Computational Linguistics*.
191. Rieger, C. J and S. L. Small (1979), "Word Expert Parsing", *Proceedings of the Sixth International Joint Conference on Artificial Intelligence*, Tokyo, Japan.

Technical Reports and Other Articles

192. Wineburgh, L. F., & Small, S. L. (2004, April 27). Aphasia treatment and the crossroads: A biological perspective. *The ASHA Leader*, pp. 6-7, 18.
193. Small, S. L. (1986, January 30), "Malpractice: The Limitations in Diagnosis", *City Newspaper*, Rochester, New York, vol.15, no.19.
194. Feldman, J. A., D. H. Ballard, C. M. Brown, and S. L. Small (1984), "Rochester Connectionist Papers: 1979-1984", Technical Report #124 (revised), Computer Science Department, University of Rochester.
195. Small, S. L. and M. Lucas (1983), "A Computer Model of Sentence Comprehension", Technical Report #1, Cognitive Science Program, University of Rochester.
196. Small, S. L., L. Shastri, M. L. Brucks, S. G. Kaufman, G. W. Cottrell, and S. Addanki (1983), "ISCON: A Network Construction Aid and Simulator for Connectionist Models", Technical Report #109, Computer Science Department, University of Rochester.
197. Allen, J. F. and S. L. Small (1982), "Discourse Understanding at the University of Rochester", Report on Distributed Artificial Intelligence Workshop, SIGART Newsletter 80, April 1982.
198. Allen, J. F. and S. L. Small (1982, January), "The Rochester Discourse Comprehension Project", *Survey of Natural Language Research*, SIGART Newsletter 79.

199. Small, S. L. (1981), "Viewing Word Expert Parsing as Linguistic Theory", Technical Report #93, Computer Science Department, University of Rochester.
200. Small, S. L. (1980), "Word Expert Parsing: A Theory of Distributed Word-Based Natural Language Understanding", Ph. D. Dissertation, Department of Computer Science, University of Maryland.
201. Rieger, C. J. and S. L. Small (1979), "Word Expert Parsing", Technical Report #734, Department of Computer Science, University of Maryland.
202. Small, S. L. (1978), "Conceptual Language Analysis for Story Comprehension", Technical Report #663, Department of Computer Science, University of Maryland.
203. Small, S. L. (1975), "Programme de Calcul du pH de Solutions d'Acide Borique et de Lithium Differentes Temperatures", Technical Report TEIMC-75-896, Societe Franco-Americaine de Constructions Atomiques (Framatome), Paris, France.

Edited Books

- Hickok, G., & Small, S. L. (Eds.). (2016). *Neurobiology of Language* (1st Edition ed.). San Diego, California: Academic Press
- The Chicago Social Brain Network (2010). *Invisible Forces and Powerful Beliefs: Gravity, Gods, and Minds*. Upper Saddle River, New Jersey: FT Press. (All authors participated in editing).
- Small, S. L., G. C. Cottrell, and M. K. Tanenhaus (eds.) (1988), *Lexical Ambiguity Resolution: Perspectives from Psycholinguistics, Neuropsychology, and Artificial Intelligence*, Morgan Kaufmann Publishers, Los Altos, California.

Edited Special Journal Issues

- Small, S. L. (ed.), *Computer Models of Language Disorders* (1997), special (double) issue of the journal *Brain and Language*.

Abstracts

Over 250 abstracts presented at national and international meetings.

Research Funding

(Institution refers to original applicant institution)

Active Grants

Silvio O. Conte Center for Basic or Translational Mental Health Research
"Fragmented early life environmental and emotional / cognitive vulnerabilities"

National Institutes of Health (P50)
National Institute of Mental Health (NIMH)

(Tallie Z. Baram, M.D., Ph.D., Program Principal Investigator)
Project IV Principal Investigators: S. L. Small, A. Solodkin
Imaging Core Principal Investigator: S. L. Small
Institution: University of California - Irvine
Duration: 2013-2018
Total Costs (Entire Program): \$2,000,000 per annum
Total Costs (Project IV): \$197,186 per annum
Total Costs (Imaging Core): \$355,564 per annum

"Environmental & Biological Variation and Language Growth"

Project III: "The Neurobiological Basis of Language Used for Higher Order Thinking "

National Institutes of Health (P01)
National Institute of Child Health and Human Development (NICHD)
(Susan Goldin-Meadow, Ph.D., Program Principal Investigator)
Project Principal Investigator: S. L. Small
Institution: The University of Chicago
Duration: 2013-2018
Total Direct Costs (Entire Program): \$986,928 per annum
Total Direct Costs (Project IV): \$170,940 per annum

"The Virtual Brain" (<http://www.thevirtualbrain.org>)

McDonnell Foundation
(Lead Institution: University of Toronto; Network Principal Investigator: A. R. McIntosh)
Institution: University of California, Irvine
Co-Principal Investigators: A. Solodkin and S. L. Small
Duration: 2011 – 2014 (no cost extension through 2017)
Total Direct Costs (Entire Network): ~\$1,500,000 per annum
Total Direct Costs (UC Irvine): ~\$150,000 per annum

"Neurobiology of Language Conference"

National Institutes of Health (R13)
National Institute of Deafness and other Communicative Disorders (NIDCD)
Institution: University of California, Irvine
Duration: 2011-2020
Total Direct Costs: \$45,000 per annum

Completed Grants

"Functional Neuroanatomy of Normal and Impaired Language"

National Institutes of Health (R01)
National Institute of Deafness and other Communicative Disorders (NIDCD)
Institution: The University of Chicago; Moved to: University of California - Irvine
Duration: 1996-2013 (No cost extension through 2015)
Total Direct Costs: \$391,277 per annum

"Environmental & Biological Variation and Language Growth"

Project IV: " Brain Organization Underlying Language Processing: The Effect of Environmental and Biological Variation "

National Institutes of Health (P01)
National Institute of Child Health and Human Development (NICHD)
(Susan Goldin-Meadow, Ph.D., Program Principal Investigator)
Project Principal Investigator: S. L. Small
Institution: The University of Chicago
Duration: 2007-2013
Total Direct Costs (Entire Program): ~\$1,000,000 per annum
Total Direct Costs (Project IV): ~\$150,000 per annum

"Bioinformatics Infrastructure for Large Scale Studies of Aphasia Recovery"

National Institutes of Health (R21/R33)
National Institute of Deafness and other Communicative Disorders (NIDCD)
Institution: The University of Chicago; Moved to: University of California - Irvine
Duration: 2006-2011 (No cost extension through 2013).
Total Direct Costs: ~ \$280,000 per annum

"Neurophysiological Measurement in Aphasia Treatment"

National Institutes of Health (R01)
National Institute of Deafness and other Communicative Disorders (NIDCD)
Institution: The University of Chicago
Duration: 2005-2010 (no cost extension through 2011)
Total Direct Costs: ~ \$300,000 per annum

"Preparing Trainees in Neurology and Neurosurgery for Academic Research Careers"

National Institutes of Health (R25)
National Institute of Neurological Disorders and Stroke (NINDS)
Institution: The University of Chicago; Relinquished 2011 after move.
Duration: 2009-2014
Total Direct Costs: ~\$70,000

"Brain Network Recovery Group"

McDonnell Foundation
(Lead Institution: University of Toronto; Network Principal Investigator: A. R. McIntosh)
Institution: The University of Chicago
Co-Principal Investigators: S. L. Small and A. Solodkin
Duration: 2005-2010
Total Direct Costs (Entire Network): ~\$1,000,000 per annum
Total Direct Costs (The University of Chicago): ~\$100,000 per annum

"Functional Neuroanatomy of Normal and Impaired Language"

National Institutes of Health
National Institute of Deafness and other Communicative Disorders (NIDCD)
Institution: The University of Chicago
Duration: 2002-2007 (no cost extension through 2008)
Total Direct Costs: 1,776,526

"Neurobiological Basis of Depression after Brain Damage"

National Institutes of Health
National Institute of Mental Health (NIMH)
Ana Solodkin, Principal Investigator
Steven Small, Mentor (K Award)
Institution: The University of Chicago
Duration: 1999-2005
Total Direct Costs: ~\$80,000 per annum

"Functional Neuroanatomy of Motor Recovery from Stroke"

National Institutes of Health
National Institute of Neurological Disorders and Stroke (NINDS)
Institution: University of Pittsburgh (moved to Maryland and Chicago)
Duration: 1997-2004
Total Direct Costs: \$1,194,343

"Cognitive Disorders Registry"

Center for the Neural Basis of Cognition
Carnegie Mellon University and University of Pittsburgh
Institution: University of Pittsburgh
Duration: 1994-1995
Total Direct Costs: \$23,000

"Connectionist Models in Cognitive Neurolinguistics"

National Institutes of Health
National Institute of Deafness and other Communicative Disorders
Institution: University of Pittsburgh
Duration: 1991-1996
Total Direct Costs: \$365,000

"Distributed Information Processing Models of Language Interpretation"

National Science Foundation
Division of Information Science and Technology
Institution: University of Rochester
Duration: 1981-1983
Total Direct Costs: \$113,606

"Process and Message Structures for Distributed Natural Language Comprehension"

National Science Foundation
Computer Science Division
Institution: University of Rochester
Duration: 1981-1983
Total Direct Costs: \$66,009

“Context, Experience, and Market Anomalies: Behavioral and Neural Evidence”

National Science Foundation
Ali Hortescu, Principal Investigator
Steven Small, Co-Principal Investigator
Institution: The University of Chicago
Duration: 2007-2010 (no cost extension through 2013)
Total Direct Costs: \$250,000 per annum

“Mirror Imitation Therapy for Motor Recovery After Stroke”

National Institutes of Health
National Institute of Neurological Disorders and Stroke (NINDS)
Ana Solodkin, Principal Investigator
Steven Small, Co-Investigator
Institution: The University of Chicago
Duration: 2007-2012 (No cost extension through 2013).
Total Direct Costs: \$250,000 per annum

“Computer Treatment for Aphasia: Evaluating Efficacy and Treatment Intensity”

United States Department of Education
National Institute on Disability and Rehabilitation Research
Leora Cherney, Principal Investigator
Steven Small, Co-Investigator (Subcontract)
Primary Institution: Rehabilitation Institute of Chicago
Subcontract Institution: The University of Chicago
Duration: 2004-2007
Total Direct Costs: 149,978 (entire grant)
Subcontract Total Direct Costs: ~\$20,000 per annum

“Language and Gestural Development in the Face of Environmental and Biological Variation”

Project IV: "Variation in the Time of Brain Injury: Effect on Language Functions and Cortical Organization"

National Institutes of Health
National Institute of Child Health and Human Development (NICHD)
(Susan Goldin-Meadow, Ph.D., Program Principal Investigator)
Project Principal Investigator: Peter Huttenlocher (2002-2005); S. L. Small (2005-2006)
Institution: The University of Chicago
Duration: 2002-2006

Total Direct Costs (Entire Program): ~\$1,000,000 per annum

Total Direct Costs (Project IV): ~\$150,000 per annum

“Prevention of Post-Stroke Depression: Treatment Strategy”

National Institutes of Health

National Institute of Mental Health

Robert G. Robinson, Principal Investigator

Ana Solodkin and Steven Small, Co-Investigators (Subcontract)

Primary Institution: University of Iowa

Subcontract Institution: The University of Chicago

Duration: 2003-2007

Total Direct Costs: ~550,000 per annum (Entire Grant)

Subcontract Total Direct Costs: ~\$75,000 per annum

“Bromocriptine Effects on Aphasia Recovery”

National Institutes of Health

National Institute of Deafness and Communication Disorders

Leora Cherney, Principal Investigator

Steven Small, Co-Investigator (Subcontract)

Primary Institution: Rehabilitation Institute of Chicago

Subcontract Institution: The University of Chicago

Duration: 2002-2004

Total Direct Costs: ~\$200,000 (entire grant)

Subcontract Total Direct Costs: ~\$10,000 per annum

"A High Density Brain Electrophysiological Recording Device" (Equipment)

National Science Foundation

Behavioral Science Division

Howard Nusbaum, Principal Investigator

Steven Small, Co-Principal Investigator

Institution: The University of Chicago

Duration: 2001-2004

Total Direct Costs: \$315,000

Neuropsychologic and Neurologic Sequelae of Human Exposure to Estuary Waters with Pfiesteria-like Toxins

National Institutes of Health

National Institute of Environmental Health and Safety (NIEHS)

Lynn Grattan, Project Principal Investigator (Project 5)

Steven L. Small, Project Co-Investigator (Project 5)

J. Glenn Morris, Program Principal Investigator

Institution: University of Maryland at Baltimore

Duration: 1998-2003 (participation ended 1999)

Total Direct Costs: \$279,176 per annum (Project 5)

"Modeling Phonotactic Constraints"

McDonnell Foundation and Pew Charitable Trust
McDonnell-Pew Program in Cognitive Neuroscience
David Touretzky, Principal Investigator
Steven L. Small, Co-Investigator
Institution: Carnegie Mellon University
Duration: 1992-1994
Total Costs: \$60,000

"Word Expert Parsing Studies"

National Aeronautics and Space Administration
Charles J. Rieger III, Principal Investigator
Steven L. Small, Co-Investigator (Subcontract)
Primary Institution: University of Maryland at College Park
Subcontract Institution: University of Rochester
Duration: 1980-1981
Total Direct Costs (Subcontract): \$30,000

Invited Lectures

- 2017 "Science in Crisis? Imaging In Crisis? Lies, Damned Lies, and Statistics", Invited Speaker, Laboratory for Cognitive Neuroscience, School of Psychology, Social Work and Social Policy, University of South Australia, Adelaide, Australia (3/9/2017).
"Typical and Atypical Development of Brain Circuits for Language ", Invited Speaker, Special Symposium on Language and the Brain, School of Psychology, Social Work and Social Policy, University of South Australia, Adelaide, Australia (3/9/2017).
- 2016 "An Ethological Approach to the Neurobiology of Language", Invited Speaker, Fall Seminar Series, Neuroscience Program, University of Illinois, Urbana-Champaign, Urbana, Illinois (9/27/2016).
"Brain Connectomics and Precision Neurology", Invited Speaker, New Era International Multidisciplinary Sharing (NEIMS) Stroke Conference, Cedars-Sinai Medical Center, Santa Monica, California (9/10/2016).
"From Computer Science to Medicine: A Personal Journey to Precision Neurology", Invited Speaker, Serendipity in Science Session, Translational Science 2016, Association for Clinical and Translational Science, Washington, D.C. (4/14/2016)
- 2015 "Translational Neurology of Language: An Evolutionary Network-Based Approach", John & Toni Balatinecz Lecture at the Rotman Research Institute, Baycrest Centre, University of Toronto (11/2/2015).
"What Constitutes the Neurobiology of Language and Why is it Relevant for Linguistics (and Linguistic Concepts in Particular)? ", Invited Speaker, 45th Poznań Linguistic Meeting (PLM2015), Adam Mickiewicz University in Poznań,

- Poznań, Poland (9/16/2015).
- "Brain Localization for Language: An Anachronism?", Invited Speaker, Program in Language, Society, Technology and Cognition, Adam Mickiewicz University in Poznań, Poznań, Poland (9/17/2015).
- "Imaging of Brain Networks for Precision (Individualized) Stroke Care", Invited Speaker, First Annual Meeting of the Chinese Stroke Association and Fifteenth Tiantan Stroke Conference, Beijing, China (6/27/2015).
- "Towards a New Neurobiology of Language", Invited Speaker, Allergan Symposium, Ayala School of Biological Sciences, University of California, Irvine (4/30/2015).
- "Brain Imaging for Human Neuroscience: A Succinct History", Invited Speaker, Allergan Symposium, Ayala School of Biological Sciences, University of California, Irvine (4/30/2015).
- "Towards a New Neurobiology of Language: Basic Science and Translation", Invited Speaker, Grand Rounds, Department of Neurology, University of Michigan, Ann Arbor, Michigan (3/4/2015).
- "Towards a New Neurobiology of Language: Basic Science and Translation", Invited Speaker, Grand Rounds, Department of Neurology, Albert Einstein College of Medicine, Montefiore Hospital, Bronx, New York (2/20/2015).
- 2014 "Functional Neuroimaging of Brain Plasticity after Cerebral Stroke", Invited Speaker, Medical Imaging Summit of 2014, Taipei, Taiwan (9/4/2014).
- "High Performance Computing and Imaging of Brain Networks", Invited Speaker, Medical Imaging Summit of 2014, Taipei, Taiwan (9/4/2014).
- "What is the Neurobiology of Language?", Invited Speaker, Annual Meeting, Society for the Neurobiology of Language, Amsterdam, Netherlands (8/28/2014).
- "Bioethics in Human Brain Research: Priorities In Clinical Research Now", Invited Speaker, Presidential Commission on Bioethics, Washington, D.C. (8/20/2014).
- "Brain Network Connectivity, High Performance Computing and Mirror Neurons", Invited Speaker, Behavioral Neurology Society, Annual Meeting, American Academy of Neurology, Philadelphia (5/1/2014).
- "Brain Network Connectivity, High Performance Computing and Mirror Neurons: A Translational Example from Neuroscience", Invited Speaker, Serendipity in Science Session, Translational Science 2014, Association for Clinical and Translational Science, Washington, D.C. (4/11/2014).
- "Some Thoughts on the Neurobiology of Language: Action and Language", Invited Speaker, Institut für Neurowissenschaften und Medizin, Forschungszentrum Jülich, Jülich, Germany (3/4/2014).
- "The University of California, Irvine: Neurology, Neuroscience, and Brain Circuits", Theodore von Kármán Fellowship, Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen University, Aachen, Germany (2/28/2014).
- "Action Perception and Language Comprehension in the Normal State and After Stroke", Theodore von Kármán Fellowship, Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen University, Aachen, Germany (2/28/2014).

- 2013 "A Neurobiological Approach to Language Therapy after Stroke", Invited Speaker, American Society for Neurological Rehabilitation, San Diego (11/7/2013).
- "Curing Stroke with Translational Neurology: From Neurobiology to Aphasia Therapy", Invited Speaker, New Era International Multidisciplinary Sharing (NEIMS) Stroke Conference, Beijing, China (9/21/2013).
- "Basic and Translational Human Neuroscience of Action Understanding and Language Comprehension", Grand Rounds, Department of Neurology, University of Western Australia, Perth, Australia (8/28/2013).
- "Development of Brain Circuits for Normal and Impaired Language, Invited Lecture, Child Development Group, Department of Psychology, Murdoch University, Perth, Australia (8/27/2013).
- "Perceiving Actions and Understanding Language: The Role (or Not) of Simulation, Invited Seminar, Department of Psychology, Murdoch University, Perth, Australia (8/26/2013).
- "Basic and Translational Human Neuroscience of Action Understanding and Language Comprehension", Grand Rounds, Department of Neurology, Mount Sinai School of Medicine, New York, New York (5/1/2013).
- "Actionability: Some Thoughts from a (Naturalized) Neuroscientist", Workshop on Actionability, University of California, Berkeley (4/20/2013).
- "Perceiving Actions and Understanding Language: The Role (or Not) of Simulation", Invited Seminar, Institute of Cognitive and Brain Sciences, University of California, Berkeley (4/19/2013).
- "Action Observation and Imitation in Language Comprehension and Aphasia Therapy", Invited Seminar, Department of Neuroscience and Imaging, Università degli Studi G. d'Annunzio Chieti Pescara, Chieti, Italy (3/26/2013).
- "Challenges for Chairs: A Few Cases for Discussion", Invited Speaker, Association of University Professors of Neurology, San Diego, California (3/17/2013)
- "Our Addiction to Brain Localization for Language: Time for Detox!", Invited Lecturer, Department of Cognitive Science, University of California, San Diego (3/8/2013).
- "Action Observation and Imitation in Language Comprehension and Aphasia Therapy", Invited Speaker, Brain Mapping Colloquium, University of California, Los Angeles (3/7/2013).
- "UC Irvine Neurology Department", Invited Presentation, Los Angeles Neurological Society, Omni Los Angeles Hotel at California Plaza, Los Angeles, California (1/16/2013).
- "A Physiological Approach to Aphasia Therapy: From Bench to Bedside", Grand Rounds, Department of Neurology, University of California, San Diego (1/11/2013).
- 2012 "Curing Stroke", Dean's Quarterly Lecture Series, School of Medicine, University of California, Irvine (1/25/2012).

- “Speech Perception: Beyond the Auditory System”, Morning Workshop, 7th Annual Symposium of the Center for Hearing Research, University of California, Irvine (4/21/2012).
- “From Neurobiology to Aphasia Therapy: Translational Neurology”, Invited Lecture, Symposium: Dai Neuroni Specchio all’action Observation Treatment: Un Esempio di Ricerca Traslazionale, Istituto Neurologico Mediterraneo (NeuroMed), Pozzilli, Molise, Italy (5/10/2012).
- “Neural Repair as Changes in Network Connectivity: Using Computational Models of Brain Connectivity to Characterize Recovery from Injury and the Effects of Specific Interventions”, Morning Workshop, 18th Annual Meeting of the Organization for Human Brain Mapping, Beijing, China (6/13/2012).
- “What is the Role of the Parietal-Premotor Pathway in Language Comprehension? Is this Relevant for Language Recovery after Stroke?”, Invited Lecture, State Key Laboratory for Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China (6/15/2012).
- “Neurobiology of Language”, Keynote Lecture, Single Theme Educational Conference on Aphasia, Mahatma Gandhi Memorial Medical College, Indore, Madhya Pradesh, India (8/17/2012).
- “Classical Aphasia Syndromes are no longer Relevant”, Invited Lecture, Single Theme Educational Conference on Aphasia, Mahatma Gandhi Memorial Medical College, Indore, Madhya Pradesh, India (8/17/2012).
- “Neurobiology of Recovery and its Therapeutic Implications”, Invited Speaker, Single Theme Educational Conference on Aphasia, Mahatma Gandhi Memorial Medical College, Indore, Madhya Pradesh, India (8/18/2012).
- “Neurobiological Approaches to Therapy are Necessary”, Invited Lecture, Single Theme Educational Conference on Aphasia, Mahatma Gandhi Memorial Medical College, Indore, Madhya Pradesh, India (8/18/2012).
- “Brain Repair after Stroke: Shooting for a Cure”, Invited Lecture, Orange County Stroke Rehabilitation Network, Chapman University, Orange, California (11/17/2012).
- 2011 “Perceiving Actions and Understanding Language”, Invited Seminar, Department of Neurobiology and Behavior, University of California, Irvine, Irvine, California (5/12/2011).
- “Action Observation and Aphasia Therapy”, Invited Speaker, European Stroke Conference, Hamburg, Germany (5/24/2011).
- “Designing and Analyzing Naturalistic Biological Studies of Human Language”, Invited Presentation, Conference on Action, Language, and Neuroinformatics, University of Southern California, Los Angeles, California (7/26/2011).
- “The Roles of Action Observation and Imitation in Language Comprehension and Aphasia Recovery”, Invited Symposium Presentation, American Neurological Association, San Diego, California (9/26/2011).

- “Processing along dorsal and ventral streams in the brain”, Invited Workshop Discussant, Freiburg Institute of Advanced Studies, Freiburg, Germany (10/13-10/14/2011).
- “Perceiving Actions and Understanding Language”, Invited Seminar, Center for Language Science, Center for Cognitive Neuroscience, and Department of Cognitive Sciences, University of California, Irvine, Irvine, California (10/19/2011).
- “What is the Role of Premotor Cortex in Language Comprehension? Action Perception, Sensory-Motor Representation, and Motor Simulation”, Invited Seminar, Department of Psychology and Center for Language Science, Pennsylvania State University, State College, Pennsylvania (12/1/2011).
- “fMRI of Cognition: Problems and Solutions”, Invited Graduate Seminar Presentation, Department of Psychology, Pennsylvania State University, State College, Pennsylvania (12/1/2011).
- “Systems Neurobiology of Stroke Recovery: Context, Connectivity, and Neural Repair”, Grand Rounds, Department of Neurology, Pennsylvania State University Medical Center, Hershey, Pennsylvania (12/2/2011).
- 2010 “A Putative Human Mirror Neuron System and Language Comprehension”, Invited Colloquium, Alzheimer’s Disease Research Center, Northwestern University (4/8/2010).
- “Cubs, Wolves, and a Tiger: Reflections on the Neurobiology of Sports”, Grand Rounds, Department of Neurology, The University of Chicago (4/22/2010).
- “A Putative Human Mirror Neuron System and Language Comprehension”, Invited Colloquium, Department of Psychology, The Ohio State University (5/5/2010).
- “Exploiting a Putative Human Mirror Neuron System for Stroke Rehabilitation”, Invited Grand Rounds, Department of Rehabilitation Medicine, Cornell University and Burke Rehabilitation Hospital, White Plains, New York (5/17/2010).
- “The Systems Biology of Neural Repair: Distributed Networks and Neural Context”, Invited Seminar, Section on Neurophysiology, Department of Neurology, Weill Cornell Medical College, New York, New York (5/18/2010).
- “Innovative Physiologic Treatments for Aphasia: Can Physiologic Treatment of Aphasia be Developed More Quickly?”, Invited Speaker, Aphasia Summit, Kessler Foundation, West Orange, NJ (6/21/2010).
- “Aphasia Therapy as Distributed Neural Repair: Biological Interventions”, Invited Speaker, Special Education Session, American Neurological Association, San Francisco, California (9/12/2010).
- “Context, Language, Action, and the Brain: Revisiting the Milieux Intérieur and Extérieur”, Invited Speaker, Tavola Rotunda: Il Linguaggio e la sua Evoluzione, BergamoScienza, Bergamo, Italy (10/17/2010).
- “Aphasia Therapy as Distributed Neural Repair: Biological Interventions”, Speaker, Neurology Grand Rounds, University of California, Irvine, Orange, California (12/15/2010).

- 2009 "Cubs, Wolves, and a Tiger: Reflections on the Neurobiology of Sports", Invited Grand Rounds, Department of Psychiatry, Northwestern University (1/28/2009).
- "Context, Language, Action, and the Brain: Revisiting the Milieux Intérieur and Extérieur", Invited Speaker, Washington University, Interdepartmental Seminar in Philosophy and Neuroscience, St Louis, Missouri (2/11/2009).
- "Language and Motor Functions of the Human Brain: Integrating Systems, Computational, and Translational Neuroscience", Invited Speaker, Rotman Research Institute, Toronto, Canada (2/26/2009).
- "Neuroanatomy and Neurophysiology of Language and Motor Systems: Relevance to Neurorehabilitation", Invited Speaker, Department of Physiology, Università Degli Studi di Ferrara (3/20/09).
- "Speech Perception: Biological Data on Audiovisual Integration", Invited Speaker, Toyota Technical Institute, Speech Day, Chicago, Illinois (5/5/09).
- "Action Observation and Language Comprehension", Invited Speaker, Seminar, Center for Learning and Memory, University of California at Irvine (5/26/09).
- "Language and Motor Functions of the Human Brain: Translating Systems and Computational Neuroscience for Neurology", Invited Speaker, Grand Rounds, Department of Neurology, University of California at Irvine (5/27/09).
- "Le Rôle de l'Observation des Actions dans le Traitement de l'Aphasie", Invited Speaker, Société de Neuropsychologie de Langue Française, Montréal, Canada (5/21/09).
- "Action Observation and Imitation in Neurological Rehabilitation", Invited Speaker, School of Psychology, University of the Witwatersrand, Johannesburg, South Africa (8/24/2009).
- "Some Perspectives on functional Magnetic Resonance Imaging (fMRI)", Invited Speaker, Neurology Society, Johannesburg, South Africa (8/25/2009).
- "Neuroanatomy and Neurophysiology of Language and Motor Systems Relevance to Neurorehabilitation", Keynote Speaker, Biennial Meeting of the South African Neurological Rehabilitation Association, Johannesburg, South Africa (8/26/2009).
- "Observation-Execution Matching: A Novel Physiological Model of Stroke Rehabilitation", Invited Speaker, Biennial Meeting of the South African Neurological Rehabilitation Association, Johannesburg, South Africa (8/27/2009).
- "Language and Motor Functions of the Human Brain: Bringing Systems, Computational, and Translational Neuroscience to Stroke Recovery", Invited Speaker, Department of Neurology, Sunnybrook Hospital, Toronto, Canada (9/8/2009).
- "Language and Motor Functions of the Human Brain: Bringing Systems, Computational, and Translational Neuroscience to Stroke Recovery", Invited Speaker, University of Ottawa, Ottawa, Canada (9/10/2009).
- "Motor Cortex and Human Language", Invited Speaker, Neuroscience Retreat, The University of Chicago, Chicago, Illinois (9/17/2009).

- “The Mirror Neuron System and Language Comprehension”, Keynote Speaker, International Conference on East Asian Languages (ICPEAL), Beijing Normal University, Beijing, China (10/8/2009).
- “Humor Humours: The Neurobiology of Laughter”, Keynote Speaker, Chicago Humanities Festival (10/19/2009).
- “The Mirror Neuron System and Language Comprehension”, Invited Speaker, Johannes Gutenberg-Universität Mainz, Mainz, Germany (11/12/2009).
- “Applying Systems, Computational, and Translational Neuroscience to the Investigation of Human Language and Motor Dysfunction”, Invited Speaker, University of Florida, Gainesville (11/18/2009).
- 2008 “Functional Neuroanatomy of Concurrent Multilevel Disambiguation in Language Comprehension”, Invited Colloquium, School of Behavioral and Brain Sciences, University of Texas Dallas (2/15/2008).
- “Language and Motor Functions of the Human Brain: Integrating Systems, Computational, and Translational Neuroscience”, Invited Grand Rounds, Department of Neurology, University of Rochester, Rochester, New York (3/14/2008).
- “Aphasia Treatment and the Mirror Neuron System”, Invited Lecture, Future of Neuroscience Conference: Neural Repair, American Academy of Neurology, 60th Annual Meeting, Chicago, Illinois (4/18/2008).
- “Biological Approaches to Aphasia Treatment”, Invited Lecture, Behavioral Neurology Course, American Academy of Neurology, 60th Annual Meeting, Chicago, Illinois (4/19/2008).
- “Le Rôle de l’Observation des Actions dans le Traitement de l’Aphasie », Invited Lecture, Journées de Neurologie de Langue Française (J.N.L.F.), Bordeaux, Aquitaine, France (4/24/2008).
- “The Future of fMRI in the Psychological Sciences: Behavioral and Neural Context”, Invited Symposium Speaker, Annual Meeting of the Association for Psychological Science, Chicago, Illinois (5/23/2008).
- “Why is the Premotor Cortex involved in Language Comprehension?”, Invited Colloquium Speaker, Neuroscience Center, West Virginia University, Morgantown, West Virginia (8/27/08).
- “fMRI in Neurological Rehabilitation: Ecology and Neural Context”, Invited Keynote Lecture, Conference on Engineering for Neurological Rehabilitation, Oak Brook (6/21/2008).
- “Action Understanding and Language Comprehension”, Invited Keynote Speaker, Poznań Linguistics Meeting, Poznań, Poland (9/11/08).
- “Mirror Neurons and Aphasia Therapy”, Invited Speaker, Clinical Linguistics Symposium, Poznań Linguistics Meeting, Poznań, Poland (9/11/08).
- “Premotor Cortex and Speech Perception: Basic Questions and Application to Aphasia”, Invited Speaker, Dipartimento di Neuroscienze, Università Vita-Salute San Raffaele, Milan, Italy (10/15/08).

- 2007 "Action Observation and Language Understanding", Invited Lecture, Center for Cognitive and Social Neuroscience, The University of Chicago. (2/6/2007).
- 2007 "Language and Motor Systems of the Human Brain: A Distributed Approach", Invited Lecture, Computation Institute, The University of Chicago and Argonne National Laboratories, Chicago and Argonne, Illinois (2/8/2007).
- "Action Observation and Language Understanding", Invited lecture, Joint Seminar in Cognition and Language, and Neuroscience, Columbia University, New York (2/22/2007).
- "System Neurobiological Differences in Perception of Real and Virtual Speakers", Invited Workshop Speaker, Université Victor Segalen, Bordeaux, France (5/2/2007).
- "Language and Motor Functions of the Human Brain: Integrating Systems, Computational, and Translational Neuroscience", Invited Speaker, Department of Neuroscience, Ohio State University, Columbus, Ohio (7/10/2008).
- "Human Neuroscience and the Study of Language", Invited Speaker, Opening ceremony for new MRI Center, Department of Biomedical Engineering, Purdue University, West Lafayette, Indiana (11/2/2008).
- "Motor Cortex and Language Comprehension", Invited Speaker, Centre for Research on Language, Mind and Brain, McGill University, Montréal, Quebec (12/7/2008).
- 2006 "Language and Motor Systems of the Human Brain: Interactions and Neurological Implications", Invited Lecture, Center for Cognitive Medicine, Department of Psychiatry, University of Illinois, Chicago. (1/20/2006).
- "Imaging Measures", Invited Commentary, State of the Science Workshop: Engineering and Stroke Rehabilitation, Sponsored by the Rehabilitation Institute of Chicago and the University of California at San Diego, La Jolla, California (3/8/2006).
- "Action Observation and Language Comprehension", Brain Awareness Day Lecture, Bowling Green University, Bowling Green, Ohio (3/16/2006).
- "The Cortical Motor System and Speech Understanding", Invited Presentation, Forum for Research in Brain and Language Symposium, Brain and Language: Theoretical and Clinical Perspectives, The Leslie and Susan Gonda (Goldschmied) Multidisciplinary Brain Research Center, Bar-Ilan University, Tel Aviv, Israel (3/21/06).
- "The Future of Aphasia Treatment: Beyond Palliation", Invited Presentation, Forum for Research in Brain and Language Symposium, Brain and Language: Theoretical and Clinical Perspectives, The Leslie and Susan Gonda (Goldschmied) Multidisciplinary Brain Research Center, Bar-Ilan University, Tel Aviv, Israel (3/21/06).
- "What do the Hands and Mouth have to do with Language Comprehension?", Invited Seminar, Department of Psychology, Tel Aviv University, Tel Aviv, Israel (3/23/06).

- "Language and Motor Systems of the Human Brain: Interactions and Neurological Implications", Brain Awareness Day Lecture, University of Iowa, Iowa City, Iowa (4/11/2006).
- "Basic and Applied Human Neuroscience of Language and Motor Function", Invited Seminar, Department of Neurology, University of Iowa, Iowa City, Iowa (5/23/2006).
- "Aphasia Neurorehabilitation in the 21st Century", Distinguished Lecturer, Grand Rounds, The Mary Free Bed Hospital, Grand Rapids, Michigan (7/6/2006).
- "Hand and Mouth Gestures in Language Comprehension", Invited Lecture, Workshop on Neurocognition of Gesture, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig (7/22/2006).
- "Observation-Execution Matching in Human Language Comprehension: A Role for a Putative Human Homologue of the Macaque Mirror Neuron System?", Grand Rounds, Department of Psychiatry, Northwestern University, Chicago, Illinois (9/20/06).
- "Bringing Basic Human Neuroscience to Clinical Neurology", Grand Rounds, Department of Neurology, Northwestern University, Chicago, Illinois (11/28/06).
- 2005 "Language Processing by the Brain: Context, Expectation, and Environment", Invited Lecture, Functional Imaging Center, Department of Neurology, Medical College of Wisconsin. (2/2/05).
- "Language Processing by the Brain: Context, Expectation, and Environment", Invited Seminar, Department of Speech and Hearing Sciences, Purdue University, West Lafayette, Indiana (2/22/2005).
- "Connectivity and Recovery: Provocative Statements", Invited Commentator, Second International Workshop on Neuroimaging and Stroke Recovery, University of Hamburg, Hamburg, Germany (5/22/2005).
- "Mirror Neurons: Important Neuroscience is at the Grasp of Cognitive Science: Commentary on Rizzolatti", Invited Commentary, Annual Meeting of the Cognitive Science Society, Stresa, Italy (7/23/2005).
- "The Cortical Motor System and Speech Understanding", Charles van Riper Lecture, Department of Speech Pathology and Audiology, Western Michigan University, Kalamazoo, Michigan (9/22/2005).
- "The Future of Aphasia Treatment: Beyond Palliation", Department of Speech Pathology and Audiology, Western Michigan University, Kalamazoo, Michigan (9/22/2005).
- "Language and Motor Systems of the Human Brain: Interactions and Neurological Implications", Invited Seminar, Temple University School of Medicine, Philadelphia, Pennsylvania (9/29/2005).
- "Neural Mechanisms of Action Observation and Language Comprehension", Invited Seminar, Department of Department of Speech-Language Pathology and Audiology, New York University, New York, New York (11/9/2005).

- 2004 "Language Use: The Role of Context and Environment", Invited Lecture, Brain and Language Seminar, Department of Neurology, University of Pennsylvania. (1/21/03).
- "Issues in Experimental Design [for Imaging of Stroke Recovery]", Invited Commentator, First International Workshop on Neuroimaging and Stroke Recovery, Columbia University, New York (2/2/2004).
- "Neurobiological Perspectives on Aphasia Therapy", Invited Lecture, Annual Meeting of the Illinois Speech, Language, and Hearing Association, Arlington, Illinois. (2/21/04).
- "Language, Context, and the Environment", Seminar, Department of Psychology, Åbo Akademi, Turku, Finland. (5/4/04).
- "A Neurological Approach to Aphasia Therapy", Invited Speaker, Vårmöte Svenska Neurologföreningen (Annual Meeting of the Swedish Neurology Society), Malmö, Sweden. (5/6/04).
- "Language and the Brain: Some New Perspectives", Invited Speaker, Vårmöte Svenska Neurologföreningen (Annual Meeting of the Swedish Neurology Society), Malmö, Sweden. (5/7/04).
- "Language in Context: First Thoughts on the Social Neuroscience of Language", Invited Lecture, First Annual Workshop on Social Neuroscience, Chicago, Illinois. (5/14/04).
- "Language and Motor Systems of the Human Brain: Interactions and Neurological Implications", Invited Colloquium Speaker, Graduate Program in Neuroscience, Loyola University School of Medicine, Maywood, Illinois. (9/28/04).
- "Current Controversy: Functional Neuroimaging of Language", Invited Moderator, Special Symposium, 42nd Annual Meeting, Academy of Aphasia, Chicago, Illinois.
- "Introduction to functional Magnetic Resonance Imaging (fMRI)", Grand Rounds, Department of Surgery, Section of Otolaryngology, The University of Chicago, Chicago, Illinois. (11/4/04)
- "Brain and Language: Context, Expectation, and Environment", Joint Pro-Seminar, Department of Psychology and Department of Communicative Disorders, University of Wisconsin, Madison, Wisconsin. (11/12/04)
- 2003 "On the Role of Context in Shaping Neural Processing during Language Comprehension", Colloquium Series, Functional MRI Laboratory, University of Michigan, Ann Arbor, Michigan. (1/03)
- "Cerebellar Hemispheric Activation Ipsilateral to the Paretic Hand Correlates with Functional Recovery after Stroke", Seminar Series, Sensory/Motor Performance Program, Rehabilitation Institute of Chicago. (2/03)
- "Functional Recovery from Corticospinal Tract Stroke", Special Symposium on Brain Imaging, University of Illinois, Chicago, Illinois. (4/4/03)
- "functional MRI: Overview and Implications for Brain Injury", Invited Course Presentation, The Rehabilitation Institute of Chicago, Northwestern University, Chicago, Illinois. (5/2/03)

- "Aphasia Rehabilitation: Neuropharmacological Perspectives", Invited Lecture, Clinical Aphasiology Conference, Orcas Island, Washington. (5/03).
- "Recovery of Language and Motor Function After Brain Injury", Invited Lecture, Annual Meeting of the American Association of Physical Medicine and Rehabilitation, Chicago, Illinois. (5/03),
- "Functional MRI and the Recovery of Childhood and Adult Brain Injury", Keynote Speaker, Annual Meeting of the Brain Research Foundation, Chicago, Illinois. (10/23/03).
- "The Future of Aphasia Treatment A Biological Perspective", Invited Lecture, Annual Meeting of the American Speech, Language, and Hearing Association, Chicago, Illinois. (11/14/2003).
- 2002 "Brain Localization for Language (and other Anachronisms)", Brain and Language Research Series, Division of Cognitive Neurology, University of Pennsylvania, Philadelphia, Pennsylvania. (2/02)
- "Naturalistic Language Imaging using Hierarchical Event Analysis", Invited Colloquium Speaker, Center for Research in Cognitive Science, University of Pennsylvania, Philadelphia, Pennsylvania. (2/02)
- "Magnetic Resonance Imaging of Motor Function and Dysfunction", Workshop in Childhood Apraxia of Speech, Scottsdale, Arizona. (3/02)
- "The Role of Advanced Magnetic Resonance Imaging in Stroke Research", Invited Course Presentation, The Rehabilitation Institute of Chicago, Northwestern University, Chicago, Illinois. (4/02)
- "An Imaging Approach to Situated and Embodied Language", Workshop in Brain Imaging of Aphasia, National Institute of Deafness and other Communication Disorders, Bethesda, Maryland. (5/02)
- "Neural Activation Patterns during Functional Recovery from Stroke", Invited Presentation, Integrated Brain Imaging Center, Veterans General Hospital, Taipei, Taiwan. (8/02)
- "Language Comprehension in Context", Invited Presentation, Laboratory for Neuropsychology, National Yang-Ming University, Taipei, Taiwan. (8/02)
- "Into the 'Zone': Limbic Activation is Inversely Related to Motor Skill Level", Invited Speaker, Annual Neuroscience Day, The University of Chicago, Chicago, Illinois. (10/02)
- "Introduction to the Functional Brain Imaging of Language", Grand Rounds, Department of Neurology, The University of Chicago, Chicago, Illinois. (10/02)
- "Functional Magnetic Resonance Imaging: Why, When, Where, How, and Not", Grand Rounds, Department of Psychiatry, The University of Chicago, Chicago, Illinois. (11/02)
- "Functional Recovery from Stroke", Invited Presentation, Istituto di Scienza Cognitiva, Università degli Studi di Torino, Torino, Italy. (12/02)

- 2001 "What can Neurobiology Tell Us about the Rehabilitation of Golfers with Central Nervous System Disease?", Skills Workshop in Golf Neurology, American Academy of Neurology, Philadelphia, Pennsylvania. (5/01)
- "The Addiction of Brain Localization for Language: Time for Detox", Invited Symposium Presentation, Society for Philosophy and Psychology, University of Cincinnati, Cincinnati, Ohio. (6/01)
- "Brain Mechanisms of Naturalistic Language: Situating Cognition for Imaging", Neural Coding Workshop, Committee on Computational Neuroscience, The University of Chicago, Chicago, Illinois. (7/01)
- "How to Run an fMRI Study", Colloquium Series, Division of Neuropsychology, Department of Psychiatry, The University of Chicago, Chicago, Illinois. (9/01)
- "Brain Localization for Language: Is this still a good idea?", Grand Rounds, Department of Neurology, The University of Chicago, Chicago, Illinois. (9/01)
- "Stroke Rehabilitation: Neuropharmacological Perspectives", Grand Rounds, Department of Neurology, The University of Chicago, Chicago, Illinois. (10/01)
- "Functional MRI of the Changing Brain", Grand Rounds, Department of Radiology, University of Illinois Chicago, Chicago, Illinois. (11/01)
- "Brain Localization for Language: Is this still a good idea?", Grand Rounds, Department of Neurology, Northwestern University, Chicago, Illinois. (12/01)
- 2000 "Right Hemisphere Language: An Oxymoron?", Workshop Organizer and Presenter, Winter Conference on Brain Research, Breckenridge, Colorado. (1/00)
- "Longitudinal Study of Hand Motor Recovery From Stroke", Distinguished Speaker, Department of Cognitive Science, University of California, San Diego. (2/00)
- "An Introduction to functional MRI: How to Design and Run a Study", Grand Rounds, Department of Neurology, The University of Chicago, Chicago, Illinois. (3/00)
- "Listening to Sentences: It Takes Two Hemispheres", Grand Rounds, Department of Neurology, The University of Chicago, Chicago, Illinois. (3/00)
- "Structure / Function Relationships in Stroke Recovery", Invited Speaker, Symposium on Imaging of Cognitive Disorders, American Society of Neurorehabilitation, San Diego, California. (4/00)
- "Functional Brain Imaging of Normal and Impaired Language", Full Day Course in Behavioral Neurology, American Academy of Neurology, San Diego, California. (4/00)
- "The Neurobiology of Stroke Rehabilitation", Grand Rounds, Department of Physical Medicine and Rehabilitation, The Rehabilitation Institute of Chicago, Northwestern University, Chicago, Illinois. (9/00)
- "The Future of Aphasia Therapy", Mary Law Lecture Series, Speakability Foundation (Society for Dysphasic Adults), London and Manchester, England, and Stirling, Scotland, United Kingdom. (11/00)
- "Brain Imaging of Language", Seminar, Division of Informatics, University of Edinburgh, Edinburgh, Scotland, United Kingdom. (11/00)

- "The Future of Aphasia Therapy", Grand Rounds, Department of Neurology, The University of Chicago, Chicago, Illinois. (11/00)
- "Imaging the Changing Brain: Examples in Normal Cognition and Neurological Impairments, Conference on Brain, Language, and Body, National Yang-Ming University, Taipei, Taiwan. (12/00)
- 1999 "The Neuroanatomy of Hand Movements", Grand Rounds, Division of Rehabilitation, Kernan Hospital, University of Maryland, Baltimore, Maryland.
- "Cognitive Neuroscience Investigations: Choice of Technique", Workshop Presentation, Winter Conference on Brain Research, Snowmass, Colorado.
- "Stroke Recovery: The First 180 days and Beyond", Stroke Education Day, Pinnacle Health Corporation, Harrisburg, Pennsylvania.
- "Speaker/Hearer and Speaker/Perceiver: The Neurobiology of Sentence Comprehension", Brain and Language Research Series, Division of Cognitive Neurology, University of Pennsylvania, Philadelphia, Pennsylvania.
- "Neuroanatomy of Motor Stroke Recovery", Colloquium Series, INSERM Unit on Neuropsychology of Aging, Paris, France.
- "Longitudinal Study of Motor Stroke Recovery", Colloquium Series, Division of Neuropsychology, Department of Psychiatry, The University of Chicago, Chicago, Illinois.
- "fMRI of Motor Stroke Recovery", Seminar, Division of Physical Medicine and Rehabilitation, The Louis Weiss Memorial Hospital of the The University of Chicago, Chicago, Illinois.
- 1998 "Stroke Rehabilitation: A Little Neuroscience Goes a Long Way", Maryland Psychiatric Research Center, University of Maryland, Baltimore, Maryland
- "A Neurobiological Foundation for Stroke Rehabilitation", Grand Rounds, Department of Neurology, The University of Chicago, Chicago, Illinois.
- "Neurological Recovery and Rehabilitation: Insights from Functional MRI", Colloquium Series, Mental Retardation Research Center, Kennedy Krieger Institute, Johns Hopkins University, Baltimore, Maryland.
- "Primary and Secondary Motor Cortical Activation with Finger Movements in Humans", Colloquium Series, Department of Physiology, University of Maryland, Baltimore, Maryland.
- "What Does Broca's Area Really Do? Phonology?" Invited Symposium, 36th Annual Meeting, Academy of Aphasia, Santa Fe, New Mexico.
- 1997 "Language and the Damaged Brain: The Cognitive Neurobiology of Aphasia Treatment and Recovery", Seminar Speaker, Department of Psychology, The University of Chicago, Chicago, Illinois.
- "fMRI of Language: Some 'Hows' and 'How Nots'", Special Neuroscience Workshop, Department of Psychology, The University of Chicago, Chicago, Illinois.

- "fMRI of Stroke Recovery: Longitudinal Assessment and Treatment Effects", Course in Functional Neuroimaging, Institute for Mathematics and its Applications, University of Minnesota, Minneapolis, Minnesota
- "Stroke Rehabilitation: A Little Neuroscience Goes a Long Way", Society for Experimental Biology and Medicine, Washington, D.C. Chapter, Georgetown University.
- 1996 "The Distributed Functional Neuroanatomy of Normal and Impaired Sentence Processing: An fMRI Study", Grand Rounds, Departments of Neurology and Neurosurgery, University of Pittsburgh, Pittsburgh, PA.
- "The Distributed Functional Neuroanatomy of Normal and Impaired Sentence Processing: An fMRI Study", Seminar Speaker, Alzheimer's Disease Research Center, Department of Neurology, University of Rochester, Rochester, NY.
- "The Distributed Functional Neuroanatomy of Normal and Impaired Sentence Processing: An fMRI Study", Cognitive Psychology Seminar, Department of Psychology, University of Pittsburgh, Pittsburgh, PA.
- "The Distributed Functional Neuroanatomy of Normal and Impaired Sentence Processing: An fMRI Study"; Seminar Speaker, Division of Neuroradiology, Department of Radiology, University of Pittsburgh, Pittsburgh, PA.
- "The Distributed Functional Neuroanatomy of Normal and Impaired Sentence Processing: An fMRI Study", Seminar Speaker, Centro Scienza Cognitiva, Università degli Studi di Torino, Torino, Italy.
- "fMRI of Sentence Processing", World Federation of Neurology Research Section on Aphasia and Cognitive Disorders, Biannual Meeting, Squaw Valley, California
- "Neurological Recovery from Stroke: Preliminary Observations Using Functional MRI", Seminar Speaker, Department of Neurology, University of Rochester School of Medicine, Rochester, NY.
- "Neurological Recovery from Stroke: Preliminary Observations Using Functional MRI", Grand Rounds, Department of Neurology, University of Maryland School of Medicine, Baltimore, MD.
- "Functional MRI: Difficult Computational Issues", Seminar Speaker, Computer Vision Laboratory, Department of Computer Science, University of Maryland, College Park, MD.
- 1995 "Pharmacotherapy of Aphasia: Initial Considerations and Preliminary Results", Colloquium Series, School of Pharmacy, University of Pittsburgh, Pittsburgh, Pennsylvania.
- "Functional MRI of Language", FMRI Workshop, Satellite Workshop, Cognitive Neuroscience Society Annual Meeting, San Francisco.
- "Functional MRI", Seminar Series, Division of Neurophysiology, Department of Neurology, University of Pittsburgh.

- "Distributed Computations of the Cerebral Cortex: Evidence from Functional Magnetic Resonance Imaging of Language Processing", Neuroscience Seminar Series, Institute for Cognitive and Computational Science, Georgetown University, Washington, D.C.
- "Pharmacotherapy of Aphasia", Invited Speaker, 25th Annual Clinical Aphasiology Conference, Sun River, Oregon.
- "Computational Studies of Semantic Categories and Semantic Memory in Neurological Disease", Conference on Neural Models of Brain and Cognitive Disorders, University of Maryland, College Park, Maryland.
- "fMRI of Normal and Impaired Sentence Processing: Implications for Longitudinal Studies of Recovery", Invited Speaker, Annual Retreat, Center for Neural Basis of Cognition, University of Pittsburgh and Carnegie Mellon University, Hidden Valley, Pennsylvania.
- "The Distributed Functional Neuroanatomy of Normal and Impaired Sentence Processing", Colloquium Series, Department of Neurology, University of Connecticut, Farmington, Connecticut.
- 1994 "Pharmacotherapy of Aphasia", Pro-Seminar Series, Division of Communication Disorders, Department of Communication, University of Pittsburgh, Pittsburgh, Pennsylvania
- "Distributed Representations of Semantic Knowledge in the Brain", Seminar Series, Center for Neuroscience, University of Pittsburgh, Pittsburgh, Pennsylvania.
- "Left Perisylvian Cortex", Grand Rounds, Departments of Neurology and Neurosurgery, University of Pittsburgh, Pittsburgh, Pennsylvania.
- "Connectionist Models and Language Disorders", Colloquium Series, Center for Neurogenic Language Disorders, University of Arizona, Tucson, Arizona.
- "Why Functional Magnetic Resonance Imaging Needs Cognitive Science", Annual Meeting of the Cognitive Science Society, Atlanta, Georgia (invited discussant).
- "Functional MRI of Language", Colloquium Series, Section of Neurophysiology, Department of Neurosurgery, University of Pittsburgh, Pittsburgh, Pennsylvania
- 1993 "Language and the Brain, Seminar Series, Neural Processes in Cognition Training Program, University of Pittsburgh, Pittsburgh, Pennsylvania.
- "Aphasia", Departmental Luncheon Speaker, Department of Linguistics, University of Pittsburgh, Pittsburgh, Pennsylvania.
- "Brain and Language", Tutorial Course, Annual Meeting of the Association for Computational Linguistics, Ohio State University, Columbus, Ohio.
- 1992 "Language Computations of the Brain: Models and Metaphors", Annual Colloquium Series, Department of Linguistics, University of Pittsburgh, Pittsburgh, Pennsylvania.
- "Computations of the Brain: Models and Metaphors", Neuropsychology Seminar, Division of Cognitive Neuroscience, Department of Neurology, Temple University School of Medicine, Philadelphia, Pennsylvania.

- "Artificial and Natural Networks for Language'. World Federation of Neurology, Research Section on Cognition and Language, London, Ontario.
- 1990 "Neurolinguistics: Questioning the Clinicopathological Correlation Paradigm", Seminar in Connectionist Models of Language, Departments of Philosophy and Computer Science, Carnegie-Mellon University, Pittsburgh, Pennsylvania.
- 1985 "Connectionist Parsing", Department of Psychology, Harvard University, Cambridge, Massachusetts (invited discussant).
 "A Connectionist Model of Aphasia", Symposium on Computer Applications in Medical Care, Panel on Artificial Intelligence Models of Language Disorders, Baltimore, Maryland.
 "Expert Systems", Symposium on Artificial Intelligence in Chemistry, American Chemical Society, Rochester Section, Rochester, New York (keynote speaker).
- 1982 "Connectionist Parsing", Department of Computer Science, State University of New York at Stony Brook, Stony Brook, New York.
- 1981 "Word Expert Parsing", Departmental Seminar, Department of Language and Linguistics, University of Essex, Colchester, England.
 "Artificial Intelligence and Language Comprehension", Invited Lecture, Institut de Recherche et Coordination Acoustique/Musique, Centre National d'Art et de Culture Georges Pompidou, Paris, France.
 "Word Expert Parsing", Cambridge-Essex/Sussex Artificial Intelligence Seminar, Cambridge University, Cambridge, England.
 "Artificial Intelligence", Invited Lecture, Département de Langues, Ecole Nationale Supérieure des Arts et Métiers, Angers, France.
 "Word Expert Parsing", Departmental Seminar, Department of Artificial Intelligence, University of Edinburgh, Edinburgh, Scotland.
 "Word Expert Parsing", Departmental Seminar, Istituto di Psicologia della Facoltà Medica, Università degli Studi di Milano, Milano, Italia
 "Word Expert Parsing", Seminar, Istituto di Psicologia del C.N.R., Roma, Italia.
 "Word Expert Parsing", Department of Psychology, Universiteit van Amsterdam, Amsterdam, Netherlands.
- 1980 "Word Expert Parsing", Departmental Seminar, Department of Computer Science, University of Utah, Salt Lake City, Utah.
 "Word Expert Parsing", Departmental Seminar. Department of Computer Science, University of Texas, Austin, Texas.
 "Word Expert Parsing", Departmental Seminar, Department of Computer Science, University of Minnesota, Minneapolis, Minnesota.
 "Word Expert Parsing", Departmental Seminar, Department of Computer Science, Rutgers University, New Brunswick, New Jersey.
 "Word Expert Parsing", Seminar, Bell Laboratories, Murray Hill, New Jersey.

Teaching Experience

Courses

(* = course director)

University of California, Irvine

Medical Neuroscience, School of Medicine
Kindness Curriculum, School of Medicine
Clinical Foundations II, School of Medicine
Neuroscience Proseminar, Interdepartmental Neuroscience Program
Professor Rounds*, Department of Neurology, School of Medicine

The University of Chicago

Computational Neuroscience: Language, Department of Psychology
Biological Basis of Psychiatry, Biological Sciences Collegiate Division
Psychology Pro-Seminar, Department of Psychology
Child Development, Department of Psychology
Neurobiology Pro-Seminar, Committee on Neurobiology
Brain Imaging Roundtable*, Committee on Neurobiology and Department of Psychology
fMRI Methods*, Committee on Neurobiology and Department of Psychology
Medical Neurobiology, Pritzker School of Medicine
Cognitive Neuroscience, Departments of Organismal Biology and Neurobiology
MIND, Department of Psychology
Systems Neuroscience, Biological Sciences Collegiate Division
Neurosurgical Resident Lecture Series, Department of Neurosurgery
Radiology Resident Lecture Series, Department of Radiology
Cognitive Linguistics, Department of Linguistics
Vertebrate Neuroanatomy, Department of Neurobiology
Neurobiology of Disease, Departments of Neurology and Neurobiology

University of Maryland

Neuroscience, School of Medicine
Cognitive Neuroscience, Program in Cognitive and Neural Science
Neuroscience of Cognition, Program in Cognitive and Neural Science
fMRI Roundtable*, Department of Neurology

University of Pittsburgh

Neuropathology, School of Medicine
Graduate Seminar in Intelligent Systems, Program in Intelligent Systems
Introduction to Medical Neuroscience, School of Medicine
Language and the Brain, Department of Psychology (with Carnegie-Mellon University)
Neuroscience: The Mind, School of Medicine
Neuropsychology, Program in Neural Basis of Cognition

Aphasia Center*, Department of Communication Sciences and Disorders
Biological Bases of Neuropsychiatric Disorders, Department of Neurobiology
Integrated Case Studies Course, School of Medicine
Advanced Pharmacy Practice, School of Pharmacy
Seminar in Neuroimaging, Department of Psychology
Integrated Life Sciences: Clinical Pharmacology, School of Medicine

University of Rochester

Artificial Intelligence*, Department of Computer Science
Non-Numerical Computing*, Department of Computer Science
Introduction to Artificial Intelligence Programming*, Department of Computer Science
Artificial Intelligence in Medicine*, Department of Computer Science

Université de Paris VIII

Introduction à l'Intelligence Artificielle*, Département d'Informatique
La Mécanique Cognitive*, Département d'Informatique
Recherche de l'Intelligence Artificielle*, Département d'Informatique

Course Participation Elsewhere

Parsing Natural Language, Institut Dalle Molle pour les Etudes Sémantiques et Cognitives
de l'Université de Genève, Lugano, Switzerland (one week advanced course)

Postdoctoral Supervision

In Progress

Salomi Asaridou (Ph.D., Cognitive Neuroscience, Max Planck Institute, Nimeigen)
Maria Inez Falcon (Ph.D., Neuroscience, University of California, Irvine)
Derek Monroe (Ph.D., Kinesiology, University of Georgia)

Completed

(with current or last known position)

University of California, Irvine

Jie Yang (Researcher, Macquarie University, Sydney)
Sarah Tune (Postdoctoral Fellow, Lübeck University)
Giorgos P. Argyropoulos (Post-Doctoral Fellow, Royal Holloway, University of London)
Michael Grosvald (Assistant Professor, Qatar University)
Anna Holt (Fellow, Kennedy School of Government, Harvard University)

The University of Chicago

Patrick Wong (Professor and Institute Director, The Chinese University of Hong Kong)
E Elinor Chen (Research Professional, University of California, Irvine)
Frederic Dick (Senior Lecturer, Birkbeck College, University of London)
Goulven Josse (Post-doctoral Fellow, Ecole Normale Supérieure)

Uri Hasson (Associate Professor, Università degli Studi di Trento)
Rositsa Poryazova (Post-doctoral Fellow, University of Zurich)
Nira Mashal (Senior Lecturer, Bar Ilan University, Tel Aviv)
Anthony Dick (Associate Professor, Florida International University, Miami)
Pascale Tremblay (Associate Professor, Université Laval, Quebec City)
Roma Siugzdaite (Researcher, Universiteit Gent)
Eva Mok (Software Engineer, San Francisco)
Leonardo Fernandino (Assistant Professor, Medical College of Wisconsin)
Priya Santhanam (Staff Scientist, Bethesda Naval Medical Center, Washington, DC)

University of Pittsburgh

Petr Hlustik (Professor, Palacky University, Olomouc, Czech Republic)
Robin Wellington (Associate Professor, St. Johns College, NY)

University of Maryland

Martha Burton (Assistant Professor of Neurology, University of Maryland; deceased)

Doctoral Student Supervision

Completed

Susan Duncan (Assistant Professor, Communication Sciences and Disorders, Louisiana State University)

“Action Observation and Language Therapy after Stroke”

Sarah Tune (Postdoctoral Scholar, University of Lübeck)

“The neurocognitive processing of plausibility and real-world knowledge: A cross-linguistic investigation” (co-directed with Ina Bornkessel, Philipps-Universität Marburg)

Anjali Raja (Postdoctoral Scholar, Universität Zürich)

“Development of Distributed Neural Systems for Reading in Healthy and Brain-Injured Children” (sic) (co-directed with A. R. McIntosh, University of Toronto)

Michael Andric (Postdoctoral Scholar, Università degli Studi di Trento)

“Neurobiology of Gesture Comprehension”

Jeremy Skipper (Senior Lecturer, University College London)

“Lending a Helping Hand to Hearing: Brain Mechanisms for Processing Speech Associated Movements”

Petr Hlustik (Professor, Palacky University, Olomouc, Czech Republic)

“Functional Anatomy and Plasticity of the Distal Arm Area of Human Motor and Somatosensory Cortices”

Anthony Harris (Neurosurgeon, Tacoma, Washington)

“A Model of Ocular Dominance Column Development by Competition for Trophic Factor”

Doctoral Committees

(* = participation at time of dissertation defense)

In Progress

Ellen Genevieve Wann, University of California, Irvine, Neurobiology & Behavior (R. Frostig, Advisor)

Vatché G. Baboyan, University of California, Irvine, Cognitive Sciences (G. Hickok)

Completed

Maria Inez Falcon*, University of California, Irvine, Anatomy & Neurobiology (A. Solodkin)

Derek Huffman, University of California, Irvine, Neurobiology & Behavior (C. Stark)

Aneeka Mikael Hancock*, University of California, Irvine, Neurobiology & Behavior (R. Frostig)

Michał Pikusa*, Adam Mickiewicz University in Poznań, Linguistics (K. Dziubalska-Kołaczyk)

David Keator*, University of California, Irvine, Computer Science (A. Ihler)

Johanna Vartiainen*, Brain Research Unit, Helsinki University of Technology (R. Salmelin)

Xavier de Boissezon*, Université Paul Sabatier - Toulouse III, Réadaptation (J. F. Démonet)

Sara Guediche*, University of Pittsburgh, Neuroscience (J. Fiez)

Sunday Francis*, The University of Chicago, Computational Neuroscience (N. Hatsopoulos)

Makoto Fukushima*, The University of Chicago, Psychology (D. Margoliash)

Tom Hummer, The University of Chicago, Computational Neuroscience (M. McClintock)

Arika Okrent*, The University of Chicago, Psychology and Linguistics (T. Regier)

Catherine Norris*, The University of Chicago, Psychology (J. Cacioppo)

Jennifer Feeney, University of Maryland, Neuroscience (R. Berndt)

Diane Kendall, University of Pittsburgh, Communication Sciences and Disorders (M. McNeil)

Carl Craver*, University of Pittsburgh, History and Philosophy of Science (P. Machamer)

Cynthia Gaulin, University of Pittsburgh, Communication Sciences and Disorders (T. Campbell)

Geert Adriaens*, Universiteit Leuven, Linguistics

Lokendra Shastri, University of Rochester, Computer Science (J. Feldman)

Garrison Cottrell, University of Rochester, Computer Science (J. Allen)

Susan Garnsey*, University of Rochester, Psychology (M. Tanenhaus)

Daniel Sabbah*, University of Rochester, Computer Science (J. Feldman)

Mentored Grant Awards

Ana Solodkin, K01 (Professor, University of California, Irvine)

Daniel Llano, K08 (Associate Professor, University of Illinois)

Catherine Ojekanjas, K01 (Assistant Professor, The University of Chicago)

K. Luan Phan, K23 (Professor, University of Illinois, Chicago)

Anthony Dick, F32 (Associate Professor, Florida International University)
 Pascale Tremblay, Fellow, CIHR (Associate Professor, Université Laval)

Student and Resident Projects

Residents

Bonnie Fine (The University of Chicago)	1999
Chao Gong (The University of Chicago)	2009
Jeffrey English (University of Maryland)	1998
Sinan Comu (University of Pittsburgh)	1993
George Creel (University of Pittsburgh)	1993
Gulay Alper (University of Pittsburgh)	1994

Medical Students

Tran Nguyen (University of Pittsburgh)	1992 – 1993
Dennis Faix (University of Pittsburgh)	1993 – 1994
Greg Bramblett (University of Pittsburgh; Best Student Research Award)	1994
Brian Ronson (University of Maryland)	1997
Claudia Ranniger (University of Maryland)	1998
Scott Fears (The University of Chicago)	2002
Ashish Bhimani (The University of Chicago; Best Student Paper, ANA, 2002)	2000 – 2002
Jasmine Dowell (The University of Chicago)	2008
Frank Merritt (The University of Chicago)	2008
Ryan Walsh (visitor from University of Cincinnati)	2004
Anna Podolanczuk (visitor from New York University)	2004

Visiting Graduate Students

Xi Yu (Fulbright Scholar, Hong Kong University)	2013
Sarah Tune (Philipps-Universität Marburg)	2012
Leonardo Cerliani (Università degli Studi di Torino)	2005
Debbie Platkin (Gallaudet College)	2002

Undergraduate Students

University of California, Irvine

Nikita Patel	2016 –
Ayesha Nadiadwala	2014 – 2016
Emily Young	2014 – 2015
Nusheen Goshtasbi	2014 – 2015
Emily Liu	2013 – 2014
Devika Nair	2012 – 2014

The University of Chicago

Julia Sheffield	2007 – 2010
Doug Godwin	2007 – 2009
Matthew Kearney	2008 – 2009
Katherine Leonard	2007 – 2008
Dave Wiegand	2006 – 2008
Christine Boylan	2006 – 2008
Emily Cooper	2005 – 2007
Tara McCrimmon	2005 – 2007
Peter Li	2005 – 2006
Sonja Swanson	Summer 2005
Helen Wier	2004 – 2005
Jeff Gauthier	2000 – 2002

University of Pittsburgh

Tracey Jo Lavonas, NSF Summer Program in Cognitive Neuroscience	1995
Maricken Verspoor, NSF Summer Program in Cognitive Neuroscience	1994

Visiting Students

Jessica Pottle, Scripps College	Summer 2008
Ragib Morshed, Pomona College	Summer 2008
Jacqueline Meadow, Yale University	Summer 2008
Nicholas Fasolt, Knox College	Summer 2007
Catherine Barber, Brown University	Summer 2004