

# CURRICULUM VITAE

## Simon Jacob Fischer-Baum

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Updated 12/13/2018

### EMPLOYMENT

2013-present	Assistant Professor, Psychology, Rice University, Houston, TX Director, Cognitive Science Program Spring 2015, 2018-present
2010-2012	Beckman Institute Post-Doctoral Fellow, Beckman Institute, University of Illinois, Urbana-Champaign, IL

### EDUCATION

2005-2010	Ph.D., Cognitive Science, Johns Hopkins University
2005-2008	M.A., Cognitive Science, Johns Hopkins University
1999-2003	B.A. with Honors, Neuroscience and Behavior, Columbia University

### PEER-REVIEWED JOURNAL ARTICLES

### \* MENTEEES

### UNDERGRADS

In press (34)	<b>Fischer-Baum, S.</b> (In press). A common representation of serial position language and memory. In K. Fedemeier and D. Watson (eds). <i>Psychology of Learning and Motivation vol. 68</i> . Academic Press.
In press (33)	<b>Fischer-Baum, S.</b> , Dial, H & Mis, R.*. (In press). Word deafness with preserved number word perception. <i>Cognitive Neuropsychology</i>
In press (32)	<b>Fischer-Baum, S.</b> & Tian, Y.* (In press). The case for single case studies in memory research. In S. MacPhearson and S. Della Salla (eds). <i>Single Case &amp; Memory Handbook</i> . Taylor & Francis.
In press (31)	Miozzo, M., Shuster, V. & <b>Fischer-Baum, S.</b> (In press). How modality-specific is morphology? <i>Cognitive Neuropsychology</i> .
In press (30)	Zhai, M.*. & <b>Fischer-Baum, S.</b> (in press). Exploring the effect of knowledge of writing on reading Chinese characters in skilled readers <i>Journal of Experimental Psychology: Learning, Memory and Cognition</i> .
2018 (29)	<b>Fischer-Baum, S.</b> , Kook, J.H, <u>Lee, Y.</u> , Ramos-Nuñez, A.*, Vannucci, M. (2018). Sight or sound? Individual differences in the neural and cognitive mechanisms of single word reading. <i>Frontiers in Human Neuroscience</i> , 12, 271.
2017 (28)	<b>Fischer-Baum, S.</b> & Campana, G.E.* (2017). Neuroplasticity and the logic of Cognitive Neuropsychology. <i>Cognitive Neuropsychology</i> , 34, 403-411.
2017 (27)	Medina, O.J. & <b>Fischer-Baum, S.</b> (2017). Single-case cognitive neuropsychology in the age of big data. <i>Cognitive Neuropsychology</i> , 34, 440-448.

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- 2017  
(26) Ramos-Nuñez, A.\*, **Fischer-Baum, S.**, Martin, R., Yue, Q., Ye, F & Deem, M. (2017). Static and dynamic measures of human brain connectivity predict complementary aspects of human cognitive performance. *Frontiers in Human Neuroscience*, 11.
- 2017  
(25) Yue, Q., Martin, R., **Fischer-Baum, S.**, Ramos-Nuñez, A.\*, Ye, F & Deem, M. (2017). Brain modularity mediates the relation of cognitive performance to task complexity. *Journal of Cognitive Neuroscience*, 29, 1532-1546.
- 2017  
(24) **Fischer-Baum, S.** (2017). The independence of letter identity and letter doubling in reading. *Psychonomic Bulletin & Review*, 24, 873-878.
- 2017  
(23) **Fischer-Baum, S.**, Bruggemann, D., Gallego, I.F., Li, D.S.P.\* & Tamez, E.R. (2017). Decoding levels of representation in reading: A representational similarity approach. *Cortex*, 18, 88-102.
- 2017  
(22) **Fischer-Baum, S.**, Jang, A., & Kajander, D.\*. (2017). Functional neuroplasticity of reading recovery following chronic stroke: A representational similarity approach. *Neural Plasticity*, vol. 2017, Article ID 2761913, 16 pages. doi:10.1155/2017/2761913.
- 2016  
(21) **Fischer-Baum, S.**, Miozzo, M., Laiacona, M. & Capitani, E. (2016). Perseveration during verbal fluency in traumatic brain injury reflects impairments in working memory. *Neuropsychology*, 30, 791-799.
- 2016  
(20) Miozzo, M., Petrova, A., **Fischer-Baum, S.** & Peressotti, F. (2016). Serial position encoding of signs. *Cognition*, 154, 69-80.
- 2016  
(19) **Fischer-Baum, S.** & Englebreton, R.. (2016). Orthographic units in the absence of visual processing: Evidence from sublexical structure in braille. *Cognition*, 153, 161-174.
- 2015  
(18) Rapp, B., **Fischer-Baum, S.** & Miozzo, M. (2015). Modality and morphology: What we write may not be what we say. *Psychological Science*, 26, 892-902.
- 2015  
(17) **Fischer-Baum, S.** & McCloskey, M. (2015). Representation of item position in verbal short-term memory: Evidence from intrusion errors. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 41, 1426-1446.
- 2015  
(16) **Fischer-Baum, S.** (2015). How much better?: The challenge of interpreting interactions in intervention studies. *Aphasiology*, 29, 609-614.
- 2015  
(15) Rapp, B. & **Fischer-Baum, S.** (2015). Uncovering the cognitive architecture of spelling. In A. Hillis (ed). *Handbook of Adult Language Disorders*. Hove: Psychology Press.
- 2014  
(14) **Fischer-Baum, S.**, Dickson, D. S. & Federemeier, K.D. (2014). Frequency and regularity effects are task dependent: Evidence from ERPs. *Language, Cognition and Neuroscience*, 29, 1342-1355.
- 2014  
(13) **Fischer-Baum, S.** & Benjamin, A.S. (2014). Time, Space and Memory for Order. *Psychonomic Bulletin & Review*, 21, 1263-1271.
- 2014  
(12) **Fischer-Baum, S.** & Rapp, B. (2014). The analysis of perseverations in acquired dysgraphia reveals the internal structure of orthographic representations. *Cognitive Neuropsychology*, 31, 237-265.
- 2014  
(11) Rapp, B. & **Fischer-Baum, S.** (2014). Representation of orthographic knowledge. In V. Ferreria, M. Goldrick & M. Miozzo (eds.) *Oxford Handbook of Language Production*. New York: Oxford University Press

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- 2013  
(10) **Fischer-Baum, S.** (2013). Making sense of deviance: Identifying dissociating cases in the case series approach. *Cognitive Neuropsychology*, 30, 597-617.
- 2013  
(9) McCloskey, M., **Fischer-Baum, S.** & Schubert, T. (2013). Representation of letter position in single-word reading: Evidence from acquired dyslexia. *Cognitive Neuropsychology*, 30, 396-438.
- 2013  
(8) Miozzo, M., **Fischer-Baum, S.** & Caccappolo-van Vliet, E. (2013). Perseverations in Alzheimer's Disease: Memory slips? *Cortex*. 49, 2028-2039.
- 2013  
(7) **Fischer-Baum, S.** & Gonsalves, B. (2013). Stuck in the past: Neural events that predict prior list intrusions. *Psychological Science*, 24, 742-750.
- 2012  
(6) **Fischer-Baum, S.** & Rapp, B. (2012). Underlying cause(s) of letter perseveration errors. *Neuropsychologia*. 50, 305-318.
- 2011  
(5) Costa, V., **Fischer-Baum, S.**, Capasso, R., Miceli, G. & Rapp, B. (2011). Temporal stability and representational distinctiveness: Key functions of orthographic working memory. *Cognitive Neuropsychology*, 28, 338-362.
- 2011  
(4) **Fischer-Baum, S.**, Charny, J. & McCloskey, M. (2011). Both-edges representation of letter position in reading. *Psychonomic Bulletin & Review*, 18, 1083-1089.
- 2010  
(3) Miozzo, M., **Fischer-Baum, S.** & Postman, J. (2010). The dissociability of morphological processing and lexical access, *Neuropsychologia*, 48, 2427-2436.
- 2010  
(2) **Fischer-Baum, S.**, McCloskey, M. & Rapp, B. (2010). The representation of grapheme position: Evidence from acquired dysgraphia, *Cognition*, 115, 466-490.
- 2008  
(1) Miozzo, M., **Fischer-Baum, S.** & Postman, J. (2008). Knowing where but not what: Impaired thematic roles and spatial language. *Cognitive Neuropsychology*, 25, 853-73.

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#### PAPERS CURRENTLY UNDER REVIEW

**Fischer-Baum, S.**, Warker, J.A & Holloway, C. (revise and resubmit). Learning Phonotactic-like Regularities in Immediate Serial Recall. *Journal of Experimental Psychology: Learning, Memory and Cognition*

Miozzo, M., Shuster, V. & **Fischer-Baum, S.** (Resubmitted). Does it matter for spelling that corn is in corner? *Cognition*.

Tian, Y.\*, Beier, M. & **Fischer-Baum, S.** (under review). The domain-specificity of serial order working memory.

Noe, C.\* & **Fischer-Baum, S.** (under review). Early lexical influences on sublexical processing in speech perception: Evidence from electrophysiology.

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#### CONFERENCE PROCEEDINGS

- 2017 Irons, S.\*, Oppenheim, G.M. & **Fischer-Baum, S.** (2017). Breaking the *Dark Side*: A computational neuropsychology approach. *Frontiers in Psychology*.
- 2017 Shuster, V., Miozzo, M. & **Fischer-Baum, S.** (2017). Morphological processing in spelling. *Frontiers in Psychology*
- 2017 **Fischer-Baum, S.** & Toscano, J. (2017). Dissociation between lexical and indexical processing during speech perception. *Frontiers in Psychology*.

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- 2017 Tian, Y.\* & **Fischer-Baum, S.** (2017). Separate Serial Order Short-term Memory Systems: A Case Series Approach. *Frontiers in Psychology*.
- 2016 Mis, R.\* & **Fischer-Baum, S.** (2016). Word deafness with preserved number comprehension. *Frontiers in Psychology*.
- 2016 **Fischer-Baum, S.** & Jang, A.\* (2016). The cognitive neuroplasticity of reading recovery in chronic aphasia: A representational similarity approach. *Frontiers in Psychology*.
- 2015 Chang, C. B., & **Fischer-Baum, S.** (2015). The effect of semantic predictability on vowel production with pure word deafness. In The Scottish Consortium for ICPHS 2015 (Ed.), *Proceedings of the 18th International Congress of Phonetic Sciences*. Glasgow, UK: The University of Glasgow.
- 2014 **Fischer-Baum, S.** & Kajander, D.\* (2014). Can words be read without abstract letter identities? *Frontiers in Psychology*.
- 2013 **Fischer-Baum, S.** (2013). General principles of serial order. *Procedia – Social and Behavioral Sciences*, 94, 216-217.
- 2013 Ries, S. & **Fischer-Baum, S.** (2013). Cross-domain approaches to the language puzzle. *Procedia – Social and Behavioral Sciences*, 94, 211.
- 2012 **Fischer-Baum, S.** (2012). Making sense of deviance: Outliers in the case series approach. *Procedia – Social and Behavioral Sciences*, 61, 12-13.
- 2012 **Fischer-Baum, S.** & Goldrick, M. (2012). Case series: Opportunities and challenges. *Procedia – Social and Behavioral Sciences*, 61, 6-7.
- 2011 **Fischer-Baum, S.**, McCloskey, M., Mathis, D. & Wilson, C. (2011). Orthotactics influences on spelling errors in dysgraphia. *Procedia – Social and Behavioral Sciences*, 23, 240-241.
- 2011 McCloskey, M., **Fischer-Baum, S.** & Alkhunaizi, F. (2011). Letter position representation in reading: Evidence from acquired dyslexia. *Procedia – Social and Behavioral Sciences*, 23, 241-242.
- 2007 **Fischer-Baum, S.**, Rapp, B. & McCloskey, M. (2007). The Representation of letter position: Evidence from dysgraphia. *Brain and Language*, 103, 101-102.
- 2007 Rapp, B., **Fischer-Baum, S.**, & Pastor, T. (2007). Perseveration and Graphemic Representations: Double Letters and Digraphs. *Brain and Language*, 103, 105-106.
- 2006 **Fischer-Baum, S.**, Postman, J. & Miozzo, M. (2006). The dissociability of morphological processing and lexical access. *Brain and Language*, 99, 101-102.

## INVITED TALKS

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- 2018 "A common representation of serial position language and memory." University of California, San Diego
- 2018 "Bridging cognitive and neural theories of reading and its recovery with representational similarity analysis " San Diego State University
- 2018 "Bridging cognitive and neural theories of reading and its recovery with representational similarity analysis " Royal Holloway University, London
- 2018 "Bridging cognitive and neural theories of reading with representational similarity analysis" Basque Center for Brain and Language
- 2018 "Cognitive network neuroscience and individual differences in working memory" Omega Psi Conference, Johns Hopkins University
- 2018 "Towards a cognitive architecture of braille reading and writing" Interdisciplinary Research Perspectives on Braille Reading and Writing, Rice University
- 2017 "Bridging cognitive and neural theories of reading with representational similarity analysis" Department of Psychology, University of Maryland
- 2017 "Bridging cognitive and neural theories of reading with representational similarity analysis" Department of Neurology, Georgetown University
- 2017 "Neural Plasticity and the Recovery of Language Function Following Stroke," MissionConnect, Houston, TX
- 2016 "Neuroplasticity and the logic of Cognitive Neuropsychology," Invited plenary lecture at the 34<sup>th</sup> European Workshop on Cognitive Neuropsychology, Bressanone, Italy
- 2016 "Representing order in spoken and written language," IDEALab Winter School, Rovereto, Italy
- 2014 "The structure of written language," Department Colloquium, Linguistics, Rice University, Houston
- 2014 "General principles of serial order," International Workshop on Language Production 2014, Geneva, Switzerland
- 2013 "Homogeneity," Scientia, Rice University, Houston
- 2012 "Stuck on the Past: What perseverations can teach us about cognition," Beckman Director's Seminar, University of Illinois, Urbana-Champaign
- 2012 "Order representation in written and spoken language," Phonetics Seminar, Linguistics Department, Northwestern University, Evanston, IL
- 2012 "The representation of segment position in spoken production: Evidence from perseveration errors," Invited plenary lecture at the 30<sup>th</sup> European Workshop on Cognitive Neuropsychology, Bressanone, Italy
- 2012 "General principles of serial order," Department of Psychology, Rice University, Houston, TX
- 2009 "The Representation of Position," Language and Cognition Seminar, School of Psychology, University of Birmingham, Birmingham, UK

#### CONFERENCE TALKS AND PRESENTATIONS

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- 2018 Noe, C.\* & **Fischer-Baum, S.** *Electrophysiological evidence of early lexical influences on sublexical processing: Evidence from the Ganong Paradigm.* Psychonomics, New Orleans
- Irons, S.\* & **Fischer-Baum, S.** *Phonetic correlates of sublexical contributions to reading aloud familiar words.* Psychonomics, New Orleans
- Schubert, T. , Cohen, T., & **Fischer-Baum, S** *Learning relationships between alphanumeric symbols through statistical properties.* Psychonomics, New Orleans
- Warker, J., **Fischer-Baum, S.**, Holloway, C., Poirier, R. & Fasano, R. *Phonetic correlates of sublexical contributions to reading aloud familiar words.* Psychonomics, New Orleans
- Noe, C.\* & **Fischer-Baum, S.** *The electrophysiological correlates of sublexical speech perception: A combined electrophysiological/cognitive neuropsychology approach.* Academy of Aphasia, Montreal
- Fischer-Baum, S**, Baca, E\*, Rapp, B. & Martin, R. *A selective orthographic working memory deficit following cerebellar stroke.* Academy of Aphasia, Montreal
- Noe, C.\* & **Fischer-Baum, S.** *Using the N100 to Measure Top-Down Influence Onto Phonetic Feature Representations.* ARMADILLO, Houston, TX.
- Tian, Y.\*, Dial, H. **Fischer-Baum, S.** *The Domain-Specific Capacity for Serial Order Working Memory: A single case study.* ARMADILLO, Houston, TX.
- Irons, S.\* & **Fischer-Baum, S.** *Phonetic correlates of sublexical contributions to reading aloud familiar words.* ARMADILLO, Houston, TX.
- Fischer-Baum, S.** *Reading by touch.* ARMADILLO, Houston, TX.
- Noe, C.\* & **Fischer-Baum, S.** *Electrophysiological evidence of early lexical influences on sublexical processing: Evidence from the Ganong Paradigm.* Society for the Neurobiology of Language, Quebec City.
- Fischer-Baum, S**, Irons, S.\* & Oppenheim, G.M. *Breaking the Dark Side: A computational neuropsychology approach.* IWLP, Nijmegen, Netherlands
- Irons, S.\* & **Fischer-Baum, S.** *Phonetic correlates of sublexical contributions to reading aloud familiar words.* IWLP, Nijmegen, Netherlands
- Fischer-Baum, S.** *Mapping the neural correlates of reading with representational similarity analysis.* SSSR, Brighton, UK
- Zhai, M.\* & **Fischer-Baum, S.** *Exploring the effects of writing on reading in Chinese skilled readers.* SSSR, Brighton, UK.
- Yue, Q., Martin, R., **Fischer-Baum, S.**, & Deem, M. *Language-specific and domain-general regions jointly predict individual differences in sentence comprehension: Evidence from a network approach.* Cognitive Neuroscience Society, Boston.
- Poirier, R. C., Fasano, R. M., Warker, J. A., & **Fisher-Baum, S.** *Speech errors reveal learning bias for syllable positional constraints.* Eastern Psychological Association, Philadelphia, PA.

- 2017 Jenkins, G., Noe, C.\* & **Fischer-Baum, S.** *How to direct attention to favor memory formation.* Psychonomics, Vancouver.
- Zhai, M.\* & **Fischer-Baum, S.** *Exploring the effects of writing on reading in Chinese skilled readers.* Psychonomics, Vancouver.
- Tian, Y.\* & **Fischer-Baum, S** & Beier, M.. *The Domain-Specific Capacity for Serial Order Working Memory: An Individual Differences Approach.* Psychonomics, Vancouver.
- Yue, Q., Martin, R., **Fischer-Baum, S.**, & Deem, M. *Language and multiple demand regions jointly predict individual differences in sentence comprehension: Evidence from a network approach.* Society for the Neurobiology of Language, Baltimore.
- Fischer-Baum, S.**, Kook, J.H, Lee, Y., Ramos-Nuñez, A.\*, & Vannucci, M.. *Sight or sound? Individual differences in the neural and cognitive mechanisms of single word reading.* Society for the Neurobiology of Language, Baltimore.
- Irons, S.\*, Oppenheim, G.M. & **Fischer-Baum, S.** *Breaking the Dark Side: A computational neuropsychology approach.* Academy of Aphasia, Baltimore
- Shuster, V., Miozzo, M. & **Fischer-Baum, S.** *Morphological processing in spelling.* Academy of Aphasia, Baltimore
- Fischer-Baum, S.** & Toscano, J. *Dissociation between lexical and indexical processing during speech perception.* Academy of Aphasia, Baltimore.
- Tian, Y.\* & **Fischer-Baum, S.** *Separate Serial Order Short-term Memory Systems: A Case Series Approach.* Academy of Aphasia, Baltimore.
- Zhai, M.\* & **Fischer-Baum, S.** *Exploring the effects of knowledge of writing on reading Chinese characters in skilled readers.* ARMADILLO, College Station, TX.
- Tian, Y.\* & **Fischer-Baum, S.** *The Domain-Specific Capacity for Serial Order Working Memory.* ARMADILLO, College Station, TX.
- Fischer-Baum, S.** *Bridging cognitive and neural theories of reading using representational similarity analysis.* ARMADILLO, College Station, TX.
- Martin, R., Yue, Q., **Fischer-Baum, S.**, & Deem, M. *Brain modularity mediates the relation between sentence complexity and behavioral performance.* ARMADILLO, College Station, TX.
- Balatsou, E. **Fischer-Baum, S.** & Oppenheim, G. *The psychological reality of picture name agreement.* AMLaP, Lancaster, UK.
- Ramos-Nuñez, A.\*, **Fischer-Baum, S.**, Martin, R., Yue, Q., Ye, F & Deem, M. *Static/Dynamic measures of human brain connectivity predict complementary aspects of human cognition.* Human Brain Mapping, Vancouver
- Ye, F , Yue, Q., Martin, R., **Fischer-Baum, S.**, Ramos-Nuñez, A.\* & Deem, M. Brain modularity mediates the relation of cognitive performance to task complexity. *American Physical Society*, New Orleans
- Fischer-Baum, S.** *Edge-based representations of item position in language and memory.* International Convention of Psychology Science, Vienna
- Noe, C.\* & **Fischer-Baum, S.** *Separating Stimulus-Processing and Task-Specific Components of the ERP Dm Waveform.* Aging and Cognition, Dallas

- 2016 **Fischer-Baum, S.** & Englebreton, R. *Orthographic units in the absence of visual processing: Evidence from sublexical structure in braille*. Psychonomics, Boston
- Noe, C.\* & **Fischer-Baum, S.** *Separating Stimulus and Task Effects Influencing Encoding Success, a Subsequent Memory ERP Study*. Psychonomics, Boston
- Mis, R.\* & **Fischer-Baum, S.** *Word deafness with preserved number comprehension*. Academy of Aphasia, Bangor, Wales
- Fischer-Baum, S.** & Jang, A.\* *The cognitive neuroplasticity of reading recovery in chronic aphasia: A representational similarity approach*. Academy of Aphasia, Bangor, Wales
- Petrova, A., Miozzo, M., **Fischer-Baum, S.** & Peressotti, F. *Serial position encoding of signs*. International Meeting of the Psychonomic Society, Grenada, Spain
- Yue, Q., Martin, R., **Fischer-Baum, S.**, Ramos Nunez\*, A, Deem, M. & Ye, F. *The role of task complexity in mediating relations of whole brain modularity to task performance*. Society for the Neurobiology of Language, London, UK
- Petrova, A., Miozzo, M., **Fischer-Baum, S.** & Peressotti, F. *Why short term memory span for signs is lower than for speech*. Society for the Neurobiology of Language, London, UK
- Warker, J. & **Fischer-Baum, S.** *Testing First-Order and Second-Order Constraint Learning in Visual Sequences*. IWLP, San Diego
- Fischer-Baum, S.** *A common representation of serial order in working memory and language production*. International Conference on Memory, Budapest, Hungary
- Fischer-Baum, S.**, Holloway, C.\* & Warker, J. *Learning item-position associations in immediate serial recall*. International Conference on Memory, Budapest, Hungary
- Tian, Y.\* & **Fischer-Baum, S.** *Evidence for separable serial order STM systems: A case study approach*. International Conference on Memory, Budapest, Hungary
- Damato, A., Rodemann, A., Warker, J. & **Fischer-Baum, S.** *Limits on learning positional constraints in visual sequences*. Eastern Psychological Association, New York
- 2015 **Fischer-Baum, S.** Tamez, E.\* & Li, D.\* *Levels of representation during single word reading: Evidence from representation similarity analysis*. Society for the Neurobiology of Language, Chicago
- Warker, J, **Fischer-Baum, S.** Della Posta, D. & Rodemann, A.. *Errors Reveal First-Order Constraint Learning in Visual Sequences*. Psychonomics, Chicago
- Chang, C. B., & **Fischer-Baum, S.** *The effect of semantic predictability on vowel production with pure word deafness*. International Congress of Phonetic Sciences, Glasgow, Scotland
- 2014 **Fischer-Baum, S.** & Holloway, C.\*. *Learning phonotactic-like regularities in immediate serial recall*. Psychonomics, Long Beach
- Fischer-Baum, S.** & Kajander, D.\* *Can words be read without abstract letter identities?*. Academy of Aphasia, Miami
- Petrova, A., Miozzo, M., **Fischer-Baum, S.** & Peresotti, F. *Positional effects in short-term memory for the deaf*. From Sound to Gesture, Padua, Italy



- 2013 Dickson, D. S., **Fischer-Baum, S.** & Federemeier, K.D. *ERP Effects of Frequency and Regularity Are Modulated By Task Demands: Evidence from Categorization and Delayed Reading Aloud*. Neurobiology of Language, San Diego
- Fischer-Baum, S.** & Benjamin, A.S. *Time, space and memory for order*. Psychonomics, Toronto, Canada
- Fischer-Baum, S.** *General principles of serial order*. Academy of Aphasia, Lucerne, Switzerland
- Fischer-Baum, S.**, Dickson, D. S. & Federemeier, K.D. *Are frequency and regularity effects task dependent? Evidence from ERPs*. Cognitive Neuroscience, San Francisco
- 2012 **Fischer-Baum, S.** *Repetition schema in verbal short-term memory*. Psychonomics, Minneapolis.
- Fischer-Baum, S.** *Making sense of deviance: Outliers in the case series approach*. Academy of Aphasia, San Francisco
- Fischer-Baum, S.** & Rapp, B. *The domain-general nature of item doubling: Evidence from perseveration errors*. AMLaP, Riva del Garda, Italy
- Fischer-Baum, S.** & Dell, G. *Comparing types of perseveration in spoken production*. IWOLP, New York
- 2011 McCloskey, M., Wilson, C., **Fischer-Baum, S.**, Mathis, D., Glasser, A. & Ghondasara, S. *Form and functions of orthotactic knowledge*. Psychonomics, Seattle
- Fischer-Baum, S.** & McCloskey, M. *The representation of position verbal and non-verbal short-term memory*. Psychonomics, Seattle
- Fischer-Baum, S.**, Olson, A, McCloskey, M., Romani, C. & Rapp, B. *Beyond the syllable position effect*. Mid-Phon 15, Urbana
- Fischer-Baum, S.**, McCloskey, M., Mathis, D. & Wilson, C. *Influence of orthotactics on dysgraphic errors*. Academy of Aphasia, Montreal, Canada
- McCloskey, M., **Fischer-Baum, S.** & Alkhunaizi, F. *Letter position representation in reading: Evidence from acquired dyslexia*. Academy of Aphasia, Montreal, Canada
- Fischer-Baum, S.** & McCloskey, M. *Domain-general properties of position representation*. ESCOP, San Sebastian, Spain
- Fischer-Baum, S.** & Smolensky, P. *Positive-overlapping letter position representation in reading: An axiomatic analysis of transposition priming*. Mathematical Psychology, Boston
- 2009 **Fischer-Baum, S.**, Charny, J. & McCloskey, M. *The representation of letter position in reading*. Psychonomics, Boston
- Fischer-Baum, S.**, McCloskey, M, Jones, A., Folk, J. & Rapp, B. *Position representation in spelling and verbal working memory*. Academy of Aphasia
- 2008 **Fischer-Baum, S.** & McCloskey, M. *Serial order representation in immediate serial recall*. Psychonomics, Chicago
- Miozzo, M., **Fischer-Baum, S.** & Postman, J. *Knowing what but not where: Impaired thematic roles and spatial language*. Academy of Aphasia, Turku, Finland

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- Fischer-Baum, S.** & Rapp, B. *Underlying causes of letter perseveration errors in dysgraphia.* Academy of Aphasia, Turku, Finland
- Costa, V., **Fischer-Baum, S.**, Rapp, B. & Miceli, G. *The representation of orthographic consonants: Evidence from dysgraphia.* IWOLP, Annapolis
- Fischer-Baum, S.** & Rapp, B. *Perseveration Errors and the Temporal Dynamics of Cognitive Processing.* Cognitive Neuroscience, San Francisco
- 2007 Rapp, B. & **Fischer-Baum, S.** *Orthographic Morphology: Evidence from Acquired Dysgraphia.* Psychonomics, Long Beach
- Fischer-Baum, S.**, Rapp, B. & McCloskey, M. *Encoding of Letter Position in Orthographic Representation: Evidence from Dysgraphia.* Psychonomics, Long Beach
- Fischer-Baum, S.**, Rapp, B. and McCloskey, M. *The Representation of Letter Position: Evidence from Dysgraphia.* Academy of Aphasia, Washington
- Rapp, B., **Fischer-Baum, S.**, and Pastor, T. *Perseveration and Graphemic Representations: Double Letters and Digraphs.* Academy of Aphasia, Washington DC
- Fischer-Baum, S.**, Rapp, B. and McCloskey, M. *The Representation of Letter Position in Spelling: Evidence from Acquired Dysgraphia.* Cognitive Science, Nashville
- 2006 **Fischer-Baum, S.**, Postman, J. and Miozzo, M. *The dissociability of morphological processing and lexical access.* Academy of Aphasia, Victoria, Canada
- Rapp, B., Barriere, I. and **Fischer-Baum, S.** *Morpho-orthography: Evidence of modality specific morphological processes.* Mental Lexicon, Montreal, Canada

**TEACHING**

Semester	Number	Title		Enrollment	Effectiveness
Spr 13	PSYC 308	Memory	Sole	41	1.84
Spr 13	PSYC 485	UG Supervised Research	Sole	3	2.00
Fall 13	PSYC 485	UG Supervised Research	Sole	1	-
Fall 13	PSYC 529	Cognitive Research Seminar	Sole	13	1.71
Spr 14	PSYC 308	Memory	Sole	45	1.88
Spr 14	PSYC 485	UG Supervised Research	Sole	1	2.00
Spr 14	PSYC 529	Cognitive Research Seminar	Sole	12	1.75
Fall 14	PSYC 308	Memory	Sole	41	1.64
Fall 14	PSYC 485	UG Supervised Research	Sole	5	1.50
Fall 14	PSYC 529	Cognitive Research Seminar	Sole	11	1.44
Fall 14	PSYC 578	CogNeuro: Theories and Methods	Sole	10	1.25
Spr 15	PSYC/NEUR 362	Cognitive Neuroscience	Sole	113	1.56
Spr 15	CSCI 390	Supervised Research Cognitive Science	Sole	4	1.25
Spr 15	CSCI 390	Honors Project	Sole	2	1.00
Spr 15	PSYC 485	UG Supervised Research	Sole	4	1.33
Spr 15	PSYC 529	Cognitive Research Seminar	Sole	13	2.00
Fall 15	PSYC 485	UG Supervised Research	Sole	3	1.33
Spr 16	PSYC/NEUR 362	Cognitive Neuroscience	Sole	53	1.30
Spr 16	PSYC 485	UG Supervised Research	Sole	11	1.30
Spr 16	PSYC 524	Memory (Graduate Level)	Sole	5	1.00
Spr 16	PSYC 529	Cognitive Research Seminar	Sole	9	1.17
Spr 16	PSYC 561	Teaching in Psychology	Sole	1	1.00
Spr 16	PSYC 572	Second-Year Project	Sole	2	1.00
Spr 16	PSYC 700	Thesis Research	Sole	1	1.00
Fall 16	PSYC 308	Memory	Sole	44	1.35
Fall 16	PSYC 485	UG Supervised Research	Sole	5	1.25
Fall 16	PSYC 571	First Year-Project	Sole	2	1.00
Fall 16	PSYC 573	Non-Thesis Graduate Research	Sole	1	-
Fall 16	PSYC 638	Memory Research Seminar	Sole	1	1.00
Fall 16	PSYC 700	Thesis Research	Sole	1	-
Spr 17	PSYC 308	Memory	Sole	43	1.31
Spr 17	PSYC/NEUR 362	Cognitive Neuroscience	Sole	71	1.33
Spr 17	PSYC 485	UG Supervised Research	Sole	7	1.40
Spr 17	PSYC 561	Teaching in Psychology	Sole	1	1.00
Spr 17	PSYC 571	First Year-Project	Sole	2	1.00
Spr 17	PSYC 700	Thesis Research	Sole	1	1.00
Spr 17	PSYC 800	Dissertation Research	Sole	1	1.00
Fall 17	PSYC 485	UG Supervised Research	Sole	4	1.33
Fall 17	PSYC 572	Second Year-Project	Sole	2	1.00
Fall 17	PSYC 573	Non-Thesis Graduate Research	Sole	1	-
Fall 17	PSYC 700	Thesis Research	Sole	2	1.00
Spr 18	PSYC/NEUR 362	Cognitive Neuroscience	Sole	80	1.49
Spr 18	PSYC 485	UG Supervised Research	Sole	4	1.00
Spr 18	PSYC 572	Second Year-Project	Sole	2	1.00
Spr 18	PSYC 800	Dissertation Research	Sole	1	1.00
Spr 16	PSYC 561	Teaching in Psychology	Sole	1	1.00
Spr 18	PSYC 700	Thesis Research	Sole	1	1.00

## **GUEST LECTURES**

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Camp Neuro: "Neuroscience and the Media" (Summer 2017)  
Rice University: "Language Acquisition" (Spring 2017)  
UT-HSC: "Intermediate Cognitive Neuroscience" (Fall 2016, Spring 2018)  
Young Owls Leadership Program: "Cognitive Neuroscience" (Summer 2016)  
University of Houston: "Medical Speech-Language Pathology" (Summer 2014)  
Rice University: "Research on Braille" (Spring 2014)  
Rice University: "Rice Undergraduate Scholars Program" (Fall 2013)  
Rice University: "Professional Issues" (Fall 2013)  
Rice University: "Advanced Cognitive Neuroscience" (Fall 2013, 2017)  
Rice University: "Foundations of Cognitive Psychology" (Spring 2013, 2015, 2017)  
University of Illinois: "Language: A users guide" (Fall 2012)  
Johns Hopkins University: "Cognitive Development Seminar" (Spring, 2009)  
Johns Hopkins University: "The Literate Mind and Brain" (Spring 2007, 2009)

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## **MENTORING**

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### Primary Graduate Mentor:

Colin Noe, 2014-present, M.A. 2018  
Yingxue Tan, 2014-present, M.A. 2018, *Winner Kenneth Laughery award for best Master's Thesis in Psychology*  
Sarah Irons, 2016-present  
Mingjun Zhai, 2016-present

### Primary Postdoctoral Scholar Mentor

Aurora Ramos-Núñez, 2015-2017, Current, Assistant Professor, College of Coastal Georgia

### Visiting Scholars:

Donald Li, July 2014-August 2014, visiting from Tsinghua University, Beijing  
University, Current, Graduate Student, Johns Hopkins University  
Anna Petrova, Oct-Nov 2014, visiting from University of Padua, Italy  
Current, Post-Doc, University of Hong Kong  
Demet Özer, Jan 2015-March 2015, visiting from Koç University, Turkey  
Current, Graduate Student, Koç University, Turkey

### Undergraduate Research Mentor (years in lab):

Karen Hong (2013-2014), Current, Masters Student, Communication Sciences, NYU  
Lilia Ramos (2013), Current, Forensic Interviewer, Children's Advocacy Center  
Charli Holloway (2013-2015), Current, Human Resources, Keais Record Retrieval  
Emilio Tavez (2013-2014: *Winner: Excellence in Capstone Engineering Design*), Current, Analyst, Hilary for America  
Dorothy Bruggeman (2014-2015), Current, Caterer, Tangerine Food Company  
Ellenna Eccles (2014), Current, Project Coordinator, Daily Thermetrics  
Sherman Belton (2014-2015), Current, Facility Manager, Rice University  
Elizabeth Garcia (2014-2015), Current, Clinical Psychology Graduate Student, Xavier  
Ava Jang (2014-present), Current, Research Assistant, BCM  
Ivan Gallego (2014-2016), Current, Rice Senior  
Bailey Brashears (2015-present), Current, Rice Senior  
Luis Vasquez (2015-present), Current, Rice Junior  
Yoseph Lee (2016-present), Current, Rice Junior  
Kristina Johnson (2016-present), Current, Rice Junior  
Serena Brandler (2016-present), Current, Rice Junior  
Naomi Eigbe (2016-present), Current, Rice Junior  
Alicia McCormick (2016), Current, Rice Junior  
Allison Gregg (2016), Current, Rice Junior  
Julia Jung (2016), Current, Rice Junior  
Georgia Jenkins (2016-present), Current Rice Sophomore

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Jacqueline Chamberlain (2016), Current Rice Sophomore  
Talía Liu  
Claire Ciampa  
Deepika Narayanan  
Jake Johnson  
Elizabeth Anderson  
Kathleen Bradbury  
Sriparna Sen  
Laney Brown  
Lauren Yeom, (*Winner: Social Sciences Award, RURS 2018*)

Dissertation Committees (not primary advisor):  
Denise Harvey (2014)  
Yingying Tan (2015)  
Jingyi Geng (2015)  
Tao Wei (2016)  
Heather Dial (2016)  
Hao Yan (2017)  
Qiu Hai Yue (in progress)  
Alda Rivas (2018)  
Penelope Howe (Outside member: Rice Linguistics, 2017)  
Bazille Laneau (Outside member: Rice Linguistics, 2017)  
Philipp Stempel (Outside member: Rice Linguistics, in progress)  
Ben Krause (Outside member: Shepard School, 2014)  
Kiefer Foresth (Outside member: UT-HSC, Neurosurgery, in progress)  
Eric Kook ( Outside member: Rice Statistics, in progress)  
Patrick O'Driscoll ( Outside member: Rice Applied Physics, 2018)

Master's Committees (primary advisor):  
Yingxue Tian (2018): *Winner Laughery Award for Best Master's Thesis*  
Colin Noe (2018)

Master's Committees (not primary advisor):  
Julie Hughes (2013)  
Alda Rivas (2015)  
Curtiss Chapman (2016)  
Vanessa Martin (University of Houston, Communication Sciences; 2014)

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**PROFESSIONAL AFFILIATIONS**

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The Academy of Aphasia (Membership Committee 2015-2017, Chair, 2016-2017; Program Committee 2018-present)  
Psychonomic Society, Fellow  
Cognitive Neuroscience Society  
Society for the Neurobiology of Language

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**COMMUNITY SERVICE**

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Member, Research Advisory Board, Houston Aphasia Recovery Center (2014-present)  
Conference Organizer, ARMADILLO 2018  
Community Talk: Chambana Science Café (2012)  
Community Talk: Center for Talented Youth Family Odyssey (2008)

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**UNIVERSITY SERVICE**

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Resident Associate, McMurtry College, 2014-2018  
Cognitive Science Program, Director, Spring 2015, 2018-present, Major Advisor, 2016-present  
NeuroX Steering Committee, 2016-present (Co-Organizer, NeuroX Mini-Symposium, 2016), Major/Minor Advisor, 2016-present  
Member, Cog/Affective Neuroscience Search Committee (2017-2018)  
Member, Phonology/Phonetics Lecturer Search Committee (2018)  
Faculty Organizer, Psyc 529: Cognitive Tea (2013-2016)  
Member, Task Force on Non-Tenure Track Faculty (2013-2014)  
Judge, UT-Rice-BCM Annual Neuroscience Poster Session (2013-present)

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**EXTERNAL SERVICE**

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Associate Editor: *Cognitive Neuropsychology*, 2016-present

Ad hoc reviewer, Journals: *Psychonomic Bulletin & Review*, *Cognition*, *Cognitive Psychology*, *Journal of Experimental Psychology: Language, Memory & Cognition*, *Acta Psychologica*, *Cognitive & Behavioral Neurology*, *Cognitive Science Society Conference*, *Neurocase*, *Language Learning and Development*, *NeuroImage: Clinical*, *Cortex*, *Journal of Cognitive Psychology*, *Cognitive, Affective and Behavioral Neuroscience*, *PLOS ONE*, *British Journal of Psychology*, *Psychological Review*, *Psychological Research*, *Scientific Reports*, *Journal of Neural Engineering*, *Frontiers in Human Neuroscience*, *American Journal of Speech-Language Pathology*, *Brain and Language*, *Cognitive Science*

Ad hoc reviewer, Grants: *Romanian National Counsel for Scientific Research*, *French National Research Agency ANR*, *Biotechnology and Biological Sciences Research Council UK*, *National Science Foundation*

## **HONORS, AWARDS AND FELLOWSHIPS**

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2018	Recognition by 32nd Scholar-Athlete Banquet, Rice University
2018-2023	NSF CAREER Awardee
2016	"Rising Star," Association for Psychological Science
2015	"Must take Psychology Professors in Houston" Careers in Psychology
2010-2013	Beckman Institute Post-doctoral Fellowship (\$25,000 research grant)
2009-2010	William Orr Dingwall Foundation Neurolinguistic Fellowship
2005-2009	National Science Foundation, IGERT Fellowship
2005-2006	Dean's Graduate Fellowship, Johns Hopkins University
2006	National Science Foundation Graduate Fellowship, Honorable Mention

## **CURRENT AND PENDING RESEARCH SUPPORT**

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### **External**

*NIH R21 DC016715: Functional reorganization of the reading system following stroke*  
9/26/17-8/31/20

*NIDCD Early Career Research (ECR) Award (Role: Sole PI)*  
Total Award: \$455,469 (Direct Costs: \$300,000)

*NSF BCS 1752751: CAREER: Mapping the neural locus of cognitive processes in word reading*  
4/1/18-3/31/23

*NSF CAREER Grant (Role: Sole PI)*  
Total Award: \$418,693 (Direct Costs: \$282,477)  
*REU Supplement Awarded (\$12,000) Dates: 6/1/18-8/31/18*

*NSF EEC 1840636: Planning Grant: Engineering Research Center for Auditory Bioengineering*  
9/15/18-8/31/19

*National Science Foundation (Role: Co-PI, Rob Raphael, PI)*  
Total Award: \$98,227

*Investigating the Networks of Temporal Context Memory in TBI and Healthy Controls*  
11/1/18-10/31/20

*The Institute for Rehabilitation and Research Foundation (Role: PI)*  
Total Award: \$60,000

*Exploring the knowledge, skills, and strategies TVIs need to effectively teach braille reading and writing.*  
*Pending*

*IES-NSCER Grant (Role: PI)*  
Total Award: \$1,400,000

### **Internal**

*Neural bases of lexical access in epilepsy patients*  
*Social Science Research Institute (Role: Sole PI)*  
Total Award: \$10,000

*Modeling the Auditory System: From Graph Signal Processing to Speech and Music Perception*  
*Interdisciplinary Excellence Award (Role: Co-PI, Rob Raphael, PI)*  
Total Award: \$74,060

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*Spatialization Of Verbal Serial Order Working Memory and Its Neural Underpinning*  
Social Science Research Institute, Pre-Dissertation Award (Role: Mentor, Yingxue Tian, PI)  
Total Award: \$2,000

#### **COMPLETED RESEARCH SUPPORT**

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*Interdisciplinary Research Perspectives on Braille Reading and Writing: A Small Conference*  
Scientia Institute (Role: Co-PI, Robert Englebreton, PI), Total Award: \$35,000

*Recovery from Inhibition Deficits Enhanced by tDCS* 10/1/15-9/30/17  
The Institute for Rehabilitation and Research Foundation (Role: PI), Total Award: \$60,000

*Individual differences in the neural code for reading* 3/1/16 – 2/28/17  
Social Science Research Institute (Role: PI), Total Award: \$29,987

*Recovery from Inhibition Deficits Enhanced by tDCS* 1/8/14-6/1/16  
Social Science Research Institute (Role: Co-I, Randi Martin PI), Total Award: \$29,708

*Mapping Dimensions of Linguistic Information in Language Processing* 6/1/14-9/1/15  
Faculty Initiative Funds, Rice University (Role: PI), Total Award: \$32,725

*Postdoctoral Research Fellowship and Research Fund* 12/15/10-12/14/12  
Arnold and Mabel Beckman Foundation, Total Award: \$191,500

**Total Research Support (Current, Pending and Completed) : \$2,911,142**

#### **GRANT APPLICATIONS DENIED FUNDING**

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*Crucial Contributions of the Temporal Lobe to Language & Verbal Memory: Controlled Lesions in Humans*  
NIH R21 (Role: Co-I, Nitin Tandon, UTHealth, PI)  
Total Award: \$429,495 (Rice Subcontract; \$106,000, Direct Costs: \$74,000), Submitted, 2018

*Mapping the neural substrates of language and its recovery in pre- and post-operative epilepsy patients*  
John S. Dunn Foundation (Role: PI)  
Total Award: \$98,000, Submitted 2017

*Whole brain vs. task-relevant networks: Understanding individual differences in brain and behavior*  
InterDisciplinary Excellence Awards (IDEA) (Role: PI)  
Total Award: \$75,000: Submitted 2017

*Advances in Bayesian Modeling of fMRI Data*  
National Institutes of Health (Role: Co-I, Marina Vannucci, PI)  
Total Award: \$1,338,760: Submitted 2016, Resubmitted 2017

*NCS-FO: Individual variation in the cognitive and neural mechanisms of reading*  
National Science Foundation (Role: Lead PI)  
Total Award: \$997,729, Submitted 2017

*Collaborative Research: Understanding Cognitive Performance from Dynamical Analysis of Neural Activation of Content-Specific and Domain General Pathways*  
National Science Foundation (Role: PI, Randi Martin, Lead PI)  
Total Award: \$558,741, Submitted 2017

*Mathematics of individual differences in cognitive ability and plasticity of learning*  
Keck Foundation (Role: PI, Michael Deem, Lead PI)



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Total Award: \$1,000,000 Submitted 2016

*Detecting cognitive control impairments months after a sports related concussion using event-related potentials measured from electroencephalography*

*Simmons Foundation Mini Collaborative Grant* (Role: PI)

Total Award: \$20,000 Submitted 2016

*Cognitive and neural heterogeneity in single word reading in literate adults*

*National Science Foundation* (Role: PI)

Total Award: \$582,725, Submitted 2016

*Neuroplasticity to Enhance Cognitive Skill Learning in Healthy Adults by Peripheral Neurostimulation*

*DOD: Defense Advanced Research Projects Agency* (Role: PI, Michael Deem, Lead PI)

Total Award: \$6,506,877, Submitted 2016

*NCS-FO: Understanding Cognitive Performance from Dynamical Analysis of Neural Activation of Content-Specific and Domain General Pathways* (10/16-9/19)

*National Science Foundation* (Role: Co-PI, Randi Martin, PI)

Total Award: \$757,287, Submitted 2016

*BIGDATA: IA: Big Data Analysis of fMRI Neural Imaging Data to Predict Individual Cognitive Performance*

*National Science Foundation* (Role: Co-PI, Michael Deem, PI)

Total Award: \$2,000,000, Submitted 2016

*Information-mapping the neural correlates of reading and its recovery*

*National Institutes of Health* (Role: PI, Resubmission)

Total Award: \$1,934,131, Submitted 2016

*Recovery from Inhibition Deficits Enhanced by Transcranial Direct Current Stimulation (tDCS): Implications for Language Processing*

*McKnight Memory and Cognition Disorders Award* (Role: co-PI, R. Martin, PI)

Total Award: \$300,000, Submitted 2014

*Predicting response to writing treatment in individual with acquired dysgraphia*

*John S. Dunn Foundation Collaborative Research Award Program* (Role: PI)

Total Award: \$98,000, Submitted 2014

*Understanding trial-to-trial variability subsequent to stroke*

*Kinship Foundation – Searle Scholars Program* (Role: PI)

Total Award: \$300,000, Submitted 2013

*The neural signature of trial-to-trial variability subsequent to stroke*

*McKnight Memory and Cognition Disorders Award* (Role: PI)

Total Award: \$300,000, Submitted 2013

*Sloan Research Fellowship*

*Alfred P. Sloan Foundation Neuroscience Fellowships* (Role: PI)

Total Award: \$50,000, Submitted 2013