

Arielle Tambini, Ph.D.

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EDUCATION AND TRAINING

- University of California, Berkeley** 11/2013 - present
Postdoctoral Research Fellow
Advisors: *Mark D'Esposito, Matthew Walker*
- New York University** 9/2007 - 10/2013
Ph.D. in Neural Science
Advisor: *Lila Davachi*
- Massachusetts Institute of Technology** 2003 - 2007
B.S. in Brain and Cognitive Sciences, minor in Biomedical Engineering

PUBLICATIONS

- Tambini A, D'Esposito M** (In preparation). Causal manipulation of functional connectivity during post-encoding rest impairs associative memory retention.
- Tambini A, Rimmele U, Phelps EA, Davachi L** (In preparation). Distinct memory systems support neutral and emotional memory during post-encoding rest.
- Tambini A, Gallen CL, Gorgolewski KJ, Sheltraw D, Inglis B, Poline JB, D'Esposito M** (In preparation). Not all motion is created equally: influence of temporal properties of head displacement on functional connectivity.
- Inhoff MC, Heusser AC, **Tambini A**, Martin C, O'Neil E, Köhler S, Meager M, Blackmon K, Vazquez B, Devinsky O, Davachi L (In Revision). Understanding perirhinal contributions to perception and memory: evidence through the lens of selective perirhinal damage.
- Tambini A, Nee DE, D'Esposito M** (In Press). Hippocampal-targeted theta-burst stimulation enhances associative memory formation. *Journal of Cognitive Neuroscience*. doi.org/10.1162/jocn_a_01300
- Kucyi A, **Tambini A**, Sadaghiani S, Keilholz S, Cohen JR. (In Press). Spontaneous cognitive processes and the behavioral validation of time-varying brain connectivity. *Network Neuroscience*. doi.org/10.1162/NETN_a_00037
- Tambini A, Berners-Lee A, Davachi L** (2017). Brief targeted memory reactivation during the awake state enhances memory stability and benefits the weakest memories. *Scientific Reports*. 7(1):15325. doi: 10.1038/s41598-017-15608-x.
- Tambini A, Rimmele U, Phelps EA, Davachi L** (2017). Emotional brain states carry over and enhance future memory formation. *Nature Neuroscience* 20(2): 271-8.

*Featured in *Nature Reviews Neuroscience*, doi:10.1038/nrn.2017.12

Hermans EJ, Kanen JW, **Tambini A**, Fernandez G, Davachi L, Phelps EA (2016). Persistence of amygdala-hippocampal connectivity and multi-voxel correlation structures during awake rest after fear learning predicts long-term expression of fear. *Cerebral Cortex*. doi: 10.1093/cercor/bhw145

Rimmele U, **Tambini A** (2015). Sleep, sleep alterations, stress—combined effects on memory? *Sleep* 38(12): 1835-6.

Tambini A (2013). Neural signatures of human episodic memory consolidation during awake rest. *Doctoral Thesis, New York University*.

Tambini A, Davachi L (2013). Persistence of hippocampal multi-voxel patterns into post-encoding rest is related to memory. *Proceedings of the National Academy of Sciences* 110(48): 19591-6.

Tambini A, Ketz N, Davachi L (2010). Enhanced brain correlations during rest are related to memory for recent experiences. *Neuron* 65(2): 280-290.

*Featured in *Nature Reviews Neuroscience*, doi:10.1038/nrn2821

Butler PD, Abeles IY, Weiskopf NG, **Tambini A**, Jalbrzikowski M, Legatt ME, Zemon V, Loughhead J, Gur RC, Javitt DC (2009). Sensory contributions to impaired emotion processing in schizophrenia. *Schizophrenia Bulletin* 35(6):1095-107.

Yovel G, **Tambini A**, Brandman T (2008). The asymmetry of the fusiform face area is a stable individual characteristic that underlies the left-visual-field superiority for faces. *Neuropsychologia* 46(13): 3061-8.

Butler PD, **Tambini A**, Yovel G, Jalbrzikowski M, Ziwich R, Silipo G, Kanwisher N, Javitt DC (2008). What's in a face? Effects of stimulus duration and inversion on face processing deficits in schizophrenia. *Schizophrenia Research* 103(1-3): 283-92.

AWARDS AND HONORS

2015 - 2018	Ruth L. Kirschstein NRSA Postdoctoral Fellowship (F32 MH106280)
2010 - 2013	Ruth L. Kirschstein NRSA Predoctoral Fellowship (F31 MH092055)
2011	Marine Biological Laboratory Neuroinformatics Summer Course scholarship
2009, 10, 11	NYU Dean's Student Travel Grant (received max. of 3 times)
2007	Hans-Lukas Teuber Award for Outstanding Academics, Department of Brain and Cognitive Sciences, MIT
2005	Summer Scholars Program in Biomedical Optics, Harvard/MIT Division of Health Sciences and Technology
2003	Davidson Fellowship (\$10,000 award for original research)

TALKS

- Department of Experimental Psychology, University of Groningen, Groningen, Netherlands, 2018. *Reactivation during awake rest: An opportunity for memory consolidation.*
- Department of Psychological and Brain Sciences, University of Iowa, Iowa City, IA, 2018. *Reactivation during awake rest: An opportunity for memory consolidation.*
- Brain and Mind Institute, University of Western Ontario, London, Canada, 2018. *Reactivation during awake rest: An opportunity for memory consolidation.*
- Department of Psychology, University of Oregon, Eugene, OR, 2017. *Reactivation during awake rest: An opportunity for memory consolidation.*
- Department of Psychology, Stanford University, Palo Alto, CA, 2017. *Reactivation during awake rest: An opportunity for memory consolidation.*
- Bay Area Memory Meeting, San Francisco, CA, 2017. *Hippocampal-targeted theta-burst TMS stimulation enhances associative memory.*
- UC Davis Memory Group Meeting, Davis, CA, 2016. *Awake rest and memory consolidation.*
- CodeNeuro, San Francisco, CA, 2016. *Manipulating human memory consolidation.*
- Organization for Human Brain Mapping, Geneva, Switzerland, 2016. *Dynamic changes in functional connectivity supporting memory formation and consolidation.*
- UC Berkeley Brain Imaging Center, Berkeley, CA, 2016. *Assessing head movement corrections with SimPACE acquisitions for functional connectivity.*
- UC Berkeley Brain Imaging Center Analysis Clinic, Berkeley, CA, 2015. *Advanced normalization tools for MRI co-registration.*
- Manhattan Area Memory Meeting, New York, NY, 2013. *Relating category selective response profiles to resting state correlations.*
- Center for Sleep and Cognition, Harvard Medical School, Boston, MA, 2013. *Modulation of resting brain activity by recent experiences.*
- NYU Center for Brain Imaging, New York, NY, 2012. *Nuisance regression techniques in resting state and task-based fMRI.*
- Dynamical Neuroscience Satellite Symposium, San Diego, CA, 2010. *Rest: A Chance to Reactivate and Consolidate.*
- Society for Neuroscience, San Diego, CA, 2010. *Persistence of patterns of activity across hippocampal voxels during post-encoding awake rest* ***Selected by Faculty of 1000**
- NYU Uptown Downtown Meeting, New York, NY, 2010. *Human brain activity during rest and memory for recent experiences.*
- Society for Neuroscience, Chicago, IL, 2009. *Brain activity during rest changes with and predicts memory for recent experiences.*
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PROFESSIONAL ACTIVITIES

Ad Hoc Reviewer: *PNAS, eLife, Current Biology, Journal of Neuroscience, Cerebral Cortex, Journal of Experimental Psychology: General, Journal of Cognitive Neuroscience, NeuroImage, Frontiers in Systems Neuroscience, Neurobiology of Aging, Cognitive, Affective, & Behavioral Neuroscience, Scientific Reports, eNeuro, PLOS ONE, Human Brain Mapping*

Professional membership in the Society for Neuroscience, Cognitive Neuroscience Society (2007 – present), Organization for Human Brain Mapping (2016 – present)

SELECTED CONFERENCE PRESENTATIONS

Tambini A, Lurie DJ, Lapate RC, D'Esposito M. Large-scale network connectivity changes underlying successful memory formation. Society for Neuroscience, 2017.

Tambini A, Gallen CL, Gorgolewski KJ, Poline JB, D'Esposito M. Not all motion is created equally: Temporal smoothness of head displacement impacts connectivity. Organization for Human Brain Mapping, 2017.

Tambini A, Nee DE, D'Esposito M. Hippocampal-targeted theta-burst TMS stimulation modulates hippocampal connectivity and enhances associative memory. Brain Stimulation and Imaging Meeting, 2017.

Tambini A, Nee DE, D'Esposito M. Hippocampal-targeted theta-burst TMS stimulation enhances associative memory. Society for Neuroscience, 2016.

Lurie DJ, **Tambini A**, Gratton C, Poline JB, D'Esposito M. Effects of continuous theta-burst transcranial magnetic stimulation on hemodynamic lag measured by BOLD fMRI. Society for Neuroscience, 2016.

Tambini A, Gallen CL, Hwang K, Sheltraw D, Inglis B, D'Esposito M, Poline JB. Evaluating nuisance correction approaches on motion-related artifacts in resting state using SimPACE. Organization for Human Brain Mapping, 2016.

Tambini A, D'Esposito M. Post-encoding theta-burst TMS to lateral occipital cortex impairs associative memory retention. Society for Neuroscience, 2015.

Tambini A, Berners-Lee A, Davachi L. Cued reactivation during the awake state enhances next-day memory and is related to individual differences in learning. Cognitive Neuroscience Society, 2015.

Tambini A, Rimmele U, Bar-David E, Phelps EA, Davachi L. Modulation of resting correlations following encoding of neutral and emotional complex scenes. Cognitive Neuroscience Society, 2013.

Tambini A, Davachi L. Category selectivity of occipito-temporal voxels is related to resting state connectivity. Society for Neuroscience, 2013.

Tambini A, Thesen T, Carlson C, Doyle W, Devinsky O, Davachi L. Modulation of post-encoding resting activity using intracranial EEG. Society for Neuroscience, 2012.

Tambini A, Thesen T, Carlson C, Doyle W, Devinsky O, Davachi L. Investigation of episodic encoding and post-encoding rest activity using intracranial EEG. Cognitive Neuroscience Society, 2012.

Tambini A, Rimmele U, Bar-David E, Phelps EA, Davachi L. Modulation of resting correlations following encoding of neutral and emotional complex scenes. Society for Neuroscience, 2011.

Tambini A, Hargreaves EL, Suzuki WA. Modulation of correlated activity in primate entorhinal cortex cell pairs for well-learned associations compared to new associations. Society for Neuroscience, 2008.

Yovel G & **Tambini A**. Are Faces and Bodies Processed by Distinct Mechanisms? Evidence from the Inversion Effect and Individual Differences. Cognitive Neuroscience Society, 2007.

TEACHING EXPERIENCE

Co-organized and taught workshop on resting state connectivity analyses, UC Berkeley Sleep and Neuroimaging Laboratory 2017

Guest Lecturer, New York University, Masters course in Affective Neuroscience 2013

Laboratory Instructor, New York University, Honors Behavioral and Integrative Neuroscience Laboratory class 2012, 2013

Teaching Assistant, New York University, Development and Dysfunction of the of the Nervous System 2010

Teaching Assistant and Laboratory Instructor, New York University, Brain and Behavior 2009

Instructor, MIT Educational Studies Program, Designed and taught numerous neuroscience classes for high school students 2004 - 06

MENTORING AND OUTREACH

Volunteer Judge, Madera Elementary Science Fair (2014), New York City Science and Engineering Fair (2012, 2013)

MIT Undergraduate Research Journal, Head Reports Section Editor, Editorial Board Member (2004 – 2006)

Students Mentored:

Nikitha Reddy	Lilian Duong	Chelsea Chen	Sam Mohammed	Ham Huang	Lily Akrapong,
Arianna Moss					Current UC Berkeley Undergraduates
Matthew Fain	2016 – 2017				Supervised Honors Thesis at UC Berkeley
Nima Hejazi	2014 – 2015				Current PhD student, UC Berkeley
Alice Berners-Lee	2011 – 2013				Current PhD student, Johns Hopkins Univ.
					Supervised Honors Thesis at NYU
					Best Undergrad. Poster Presentation Award

Niccolo Reggente	2011 – 2012	Current PhD student, UCLA NSF Graduate Research Fellow
Emily Sievers	2010	Completed PhD, UC Davis
David Winer	2009	Current PhD student, NC State University
Colleen Sullivan	2009	Current RN, Hospital of UPenn
Rebecca Koransky	2008	Completed MD at UMDNJ
Erik Hoel	2008	Completed PhD, Univ. of Wisconsin-Madison Current Post-doctoral fellow, Columbia U.