

BRADLEY VOYTEK, Ph.D.

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EDUCATION

- 2010 May* Neuroscience (PhD), University of California, Berkeley
Advisor: Robert T. Knight
Dissertation: “Frontal and Basal Ganglia Contributions to Working Memory and Attention”
Committee: Richard B. Ivry, Michael Silver, Stephen Hinshaw
- 2002 May* Psychology (BA), University of Southern California

EMPLOYMENT

Academic:

- 2014 – current* Assistant Professor University of California, San Diego
Department of Cognitive Science
Neurosciences Graduate Program
Institute for Neural Computation
- 2011 – 2014* Post-doctoral Fellow (NIH/NIGMS fellowship)
PI: Adam Gazzaley, University of California, San Francisco
- 2010 – 2011* Post-doctoral Researcher
PI: Mark D’Esposito, University of California, Berkeley
- 2004 – 2010* Graduate Student Researcher
PI: Robert T. Knight, University of California, Berkeley
- 2002 – 2004* Staff Research Associate II
PI: Edythe D. London, University of California, Los Angeles
- 2000 – 2002* Undergraduate Research Assistant
PI: Adrian Raine, University of Southern California

- Professional:** *Beyond Academia* (Advisor), *Kyron* (Scientific Advisor), *The National Academy of Sciences - Science & Entertainment Exchange* (Consultant), *Science for Everyone Everywhere* (501(c)(3) non-profit education organization; dissolved): President & Co-founder

ACADEMIC MENTORING

Mentee Awards/Grants:

Graduate Students:

- Scott Cole, *NSF Graduate Research Fellowship*
- Richard Gao, *Frontiers of Innovation Scholars Program*
- Richard Gao, *Natural Sciences & Engineering Research Council of Canada Postgraduate Scholarship-Doctoral*
- Tam Tran, *Kavli Institute for Brain and Mind Innovative Research Grant*
- Tam Tran, *UCSD Achievement Rewards for College Scientists*

Undergraduates:

- Erin D. Cole, *UCSD Science and Engineering Undergraduate Research Scholarship*
- Liz Izhikevich, *UCSD Warren College Undergraduate Research Scholarship*
- Liz Izhikevich, *UCSD Ledell Endowed Research Scholarship for Science and Engineering*

Post-doctoral Fellows:

- 2014 – current Erik Peterson (*UC San Diego*)
2015 – current Roemer van der Meij (*UC San Diego*)

Ph.D. Students:

- 2014 – current Thomas Donoghue, Cognitive Science (*UC San Diego*)
2014 – current Richard Gao, Cognitive Science (*UC San Diego*)
2015 – current Robert Gougelet, Cognitive Science (*UC San Diego*)
2015 – current Scott Cole, Neuroscience (*UC San Diego*)
2015 – current Tammy Tran, Neuroscience (*UC San Diego*)

M.S. Students:

- 2015 Anwaya Aras, Computer Science (*UC San Diego*)
 - Thesis: Algorithmic mining of neural-genetic functional relationships
 - Current: Software engineer, Uber, Inc.

Laboratory Employees:

- 2014 – 2016 Torben Noto, Lab Manager
 - Current: Neurosciences PhD student, *Northwestern University*

Ph.D. Dissertation :

- 2014 – current Mary E. Smith (Prof. John Serences - *UC San Diego, Psychology*)
2015 – current Erik Kaestner (Prof. Eric Halgren - *UC San Diego, Neuroscience*)
2015 – current Akinyinka Omigbodun (Prof. Vikash Gilja - *UC San Diego, Electrical & Computer Engineering*)
2015 – current Xi Jiang (Prof. Eric Halgren - *UC San Diego, Neuroscience*)
2015 – current Marybel Gonzalez (Prof. Terry Jernigan - *UC San Diego, Cognitive Science*)
2015 – current Adriana de Pesters (Prof. Gerwin Schalk - *National Center for Adaptive Neurotechnologies Wadsworth Center*)
2015 – current Vladimir Jovanovic (Prof. Cory Miller - *UC San Diego, Cognitive Science*)

2016 – current Matthew Piper (Prof. Rick Grush - UC San Diego, Philosophy)

Ph.D. Rotation Students:

2015 Nicole Hoffner (UC San Diego)
2015 Eric Leonardis (UC San Diego)
2016 Burke Rosen (UC San Diego)
2016 Christian Cazares (UC San Diego)
2016 Tunmise Olayinka, M.D. (UC San Diego)

Undergraduate Students:

2016 – current Priyadarshini Sebastian (UC San Diego, Applied Mathematics)
2015 – current Erin D. Cole (UC San Diego, Computer Science and Engineering)
2015 – current Simon Haxby (UC San Diego, Applied Mathematics)
2015 – current Liz Izhikevich (UC San Diego, Computer Science and Engineering)
2007 – 2009 Sara LaHue (UC Berkeley, Neurobiology Honors Student)
2008 – 2009 Lisa Tseng (UC Berkeley, Neurobiology)

ACADEMIC SERVICE

2016 – current Kavli Institute for Brain and Mind: Advisory Board
2016 – current Neurosciences Graduate Program: Diversity Committee Chair
2016 UC San Diego, Department of Cognitive Science: Chair selection committee
2016 UC San Diego, Department of Cognitive Science: Committee on faculty search policies and procedures
2015 – current National Academy of Sciences Kavli Frontiers of Science (KFoS) symposium: Organizing member
2015 UC San Diego, Department of Cognitive Science: Graduate admissions committee
2015 – current UC San Diego, Data Science Student Society (DS3): Faculty Representative
2015 – 2017 UC San Diego, John Muir College: Academic Senate Representative (elected)
2015 NIH/CSHL Banbury Meeting, Brain Rhythms as Potential Targets for Intervention in Cognitive Dysfunctions
2014 – current UC San Diego, Neurosciences Graduate Program: Diversity Recruitment
2014 – current UC San Diego, Cognitive Science Student Association: Faculty Representative
2014 – current UC San Diego, Department of Cognitive Science Faculty: Diversity Representative
2006 – 2007 UC Berkeley: Graduate Assembly Delegate
2006 – 2007 UC Berkeley: on Educational Policy Representative
2006 – 2007 UC Berkeley Graduate Assembly Executive Board: Technology Chair

HONORS, AWARDS, & INVITED EVENTS

2016 Computational and Systems Neuroscience (Cosyne): New Attendee Travel Award
2015 National Academy of Sciences: Kavli Fellow
2015 Foo Camp attendee: Invitation-only conference by O'Reilly Media
2015 Alfred P. Sloan Research Fellow in Neuroscience
2014 Foo Camp attendee: Invitation-only conference by O'Reilly Media
2013 University of California: President's Postdoctoral Fellowship Program

- 2012 *Foo Camp attendee*: Invitation-only conference by O'Reilly Media
- 2012 *AAAS*: Finalist - Early Career Award for Public Engagement with Science
- 2011 *Forbes* “Edge Thinker” ([link](#))
- 2011 *SciFoo attendee*: Invitation-only conference by *Nature Publishing Group, Google, Inc.*, and O'Reilly Media
- 2009 *Society for Neuroscience*: Neuroscience Scholars Program
Three-year professional development fellowship
- 2009 *AAAS/Science*: Program for Excellence in Science
Honorary student membership to the American Association for the Advancement of Science
- 2007 *University of California, Berkeley*: Course Improvement Grant
Awarded funding to enhance learning • Integrative Biology 245L: Functional Neuroanatomy
- 2005 *University of California, Berkeley*: Outstanding Graduate Student Instructor
University teaching award • Molecular & Cell Biology 163: Mammalian Neuroanatomy
- 2004 *American Psychological Association*: Diversity Program in Neuroscience
3-year graduate research fellowship
- 1998 *University of Southern California*: Presidential Scholarship
- 1998 *University of Southern California*: Thematic Option Program (alumnus)
Honors general education program
- 1998 *University of Southern California*: Resident Honors Program
Early college admittance program
- 1998 *University of Southern California Undergraduate*: Physics scholarship
- 1998 *Hewlett Packard Outstanding Scholarship*

GRANTS & FUNDING

- 2016 *Karli Institute for Brain and Mind Innovative Research Grant*, \$50,000 (Co-Investigator; PI: T. Tran)
- 2015 *Alfred P. Sloan Research Fellow in Neuroscience*, \$50,000
- 2015 *Karli Institute for Brain and Mind Innovative Research Grant*, \$50,000 (Co-Investigator; PI: D. Nitz and J. Olson)
- 2015 *The John A. Majda, M.D. Memorial Grant*, \$10,000 (Mentor; PI: M. Soltani)
- 2015 *R01 MH095984-03S1*, *Revision Application (formerly "Supplement") to parent R01 "Oscillatory Contributions to Working Memory and Attention"* (Co-Investigator; PI: B.R. Postle), Total direct costs \$133,581
- 2015 *Frontiers of Innovation Scholars Program (FISP)*, \$25,000
- 2014 *UCSD Qualcomm Institute (QI)*, *California Institute for Telecommunications and Information Technology (Calit2) Strategic Research Opportunities (CSRO) program*, \$50,000
- 2012 *The Feldman Family Foundation*, \$15,000 (Post-doctoral researcher; PI: A. Gazzaley)

- 2012 University of California, San Francisco. *Information Technology Innovation Contest: Disseminating UCSF Research & Connecting with Disease Communities via Social Media Automation*, \$10,000
- 2011 – 2014 National Institute of General Medical Sciences, NIH. *Institutional Research and Career Development Award (IRACDA) Scholars in Science (ISIS)*, ~\$300,000 (four years salary and benefits, plus research and travel costs). (Mentor: A. Gazzaley)
- 2008 – 2010 National Institute of Neurological Disorders and Stroke, NIH. *Diversity Supplement to NS021135: Attention, Orientation and Human Prefrontal Cortex*, \$122,988. (Graduate student researcher; PI: RT. Knight)

ACADEMIC BOOKS & BOOK CHAPTERS

1. Voytek B & Knight RT (2010). Dynamic communication and connectivity in frontal networks. In *Mind and the Frontal Lobes: Cognition, Behavior, and Brain Imaging* (editors, Levine B & Craik FIM) New York (USA): Oxford University Press.
2. Cohen MX & Voytek B (2013). Linking nonlinear neural dynamics to single-trial human behavior. In *Multiscale Analysis and Nonlinear Dynamics: from Molecules to the Brain* (editors, Schuster HG & Pesenson M) New York (USA): Wiley.
3. Verstynen T & Voytek B (2014). *Do Zombies Dream of Undead Sheep? A Neuroscientific View of the Zombie Brain*. Princeton University Press.
 - **Awards:** American Publishers Professional and Scholarly Excellence (PROSE) Award (Biomedicine & Neuroscience)
 - **Media:** *Science*, BRAAAAINS, 2014 Oct. ([link](#)); *The Lancet: Neurology*, Hungry and angry: could we survive a zombie apocalypse?, 2014 Dec. ([link](#)); *Scientific American*, A True and Complete Account of the Neuroscience of Zombies, 2014 Nov. ([link](#)); *Scientific American MIND*, New Book Explores the Zombie Brain, 2015 Apr. ([link](#)).

PEER-REVIEWED PUBLICATIONS

1. Bauer M, London ED, Rasgon N, Berman SM, Frye MA, Altshuler LL, Mandelkern MA, Bramen J, Voytek B, Woods R, Mazziotta JC, Whybrow PC. Supraphysiological doses of levothyroxine alter regional cerebral metabolism and improve mood in bipolar depression. *Mol Psychiatry* 10(5), 456-469. 2005.
2. Voytek B, Berman SM, Hassid BD, Simon SL, Mandelkern MA, Brody AL, Ling W, London ED. Differences in regional brain metabolism associated with marijuana abuse in methamphetamine abusers. *Synapse* 57(2), 113-115. 2005.
3. London ED, Berman SM, Voytek B, Simon SL, Mandelkern MA, Monterosso J, Thompson PM, Brody AL, Geaga JA, Hong MS, Hayashi KM, Rawson RA, Ling W. Cerebral metabolic dysfunction and impaired vigilance in recently abstinent methamphetamine abusers. *Biol Psychiatry* 58(10), 770-778. 2005.

- patients with lesions to dorsomedial prefrontal cortex. *Brain Cognit* 80(2), 237-249. 2012.
- 16. Funderud I, Lindgren M, Løvstad M, Endestad T, **Voytek B**, Knight RT, Solbakk AK. Differential Go/NoGo activity in both contingent negative variation and spectral power. *PLoS ONE* 7(10), e48504. 2010. 2012.
 - 17. Ritaccio A, Beauchamp M, Bosman C, Brunner P, Chang E, Crone N, Gunduz A, Gupta D, Knight R, Leuthardt E, Litt B, Moran D, Ojemann J, Parvizi J, Ramsey N, Rieger J, Viventi J, **Voytek B**, Williams J, Schalk G. Proceedings of the third international workshop on advances in electrocorticography. *Epilepsy Behav* 25(4), 605-613. 2012.
 - 18. **Voytek B**, Gazzaley A. Stimulating the aging brain. *Ann Neurol* 73(1), 1-3 (editorial). 2013.
 - 19. **Voytek B**, D'Esposito M, Crone NE, Knight RT. A method for event-related phase/amplitude coupling. *NeuroImage* 64, 416-424. 2013.
 - 20. Rolle CE, **Voytek B**, Gazzaley A. Exploring the potential of the iPad and Xbox Kinect for cognitive science research. *Games Health J* 4(3), 221-224. 2015.
 - 21. **Voytek B** & Knight RT. Dynamic network communication as a unifying neural basis for cognition, development, aging, and disease. *Biological Psychiatry* 77(12), 1089-1097. 2015.
- Media: Forbes** ([link](#))
- 22. **Voytek B**, Kayser A, Badre D, Fegen D, Chang EF, Crone NE, Parvizi J, Knight RT, D'Esposito M. Oscillatory dynamics coordinating human frontal networks in support of goal maintenance. *Nature Neuroscience* 18, 1318–1324. 2015.
- Media: Berkeley press release** ([link](#))
- 23. **Voytek B**, Kramer MA, Case J, Lepage KQ, Tempesta ZR, Knight RT, Gazzaley A. age-related changes in 1/f neural electrophysiological noise. *Journal of Neuroscience*, 35(38): 13257-13265. 2015.
- Media: UCSF press release** ([link](#))
- 24. **Voytek B**. The virtuous cycle of a data ecosystem. *PLOS Computational Biology* 12(8): 1-6. 2016.
 - 25. Tran TT, Hoffner NC, LaHue SC, Tseng L, **Voytek B**. Alpha phase dynamics predict age-related visual working memory decline. *NeuroImage* (in press).
 - 26. **Voytek B**, Samaha J, Rolle CE, Greenberg Z, Gill N, Porat S, Kader T, Rahman S, Malzyner R, Gazzaley A. Preparatory encoding of the fine scale of human spatial attention ([preprint](#)), currently under review at a peer-reviewed journal.
 - 27. Peterson EJ, **Voytek B**. Balanced oscillatory coupling improves information flow. bioRxiv ([preprint](#)), currently under review at a peer-reviewed journal.
 - 28. Cole SR, Peterson EJ, van der Meij R, de Hemptinne C, Starr PA, **Voytek B**. Nonsinusoidal oscillations underlie pathological phase-amplitude coupling in the motor cortex in Parkinson's disease. bioRxiv ([preprint](#)), currently under review at a peer-reviewed journal.

TEACHING

Faculty Instructor

- COGS 9: Introduction to Data Science, *UC San Diego*, Fall 2014
Overall Student Recommendation: **Course (100%), Instructor (100%)**
- COGS 3: Introduction to Computation, *UC San Diego*, Spring 2015
TA: Thomas Donoghue
Overall Student Recommendation: **Course (95%), Instructor (92%)**
- COGS 260 / NEU 221: Neural Oscillations, *UC San Diego*, Spring 2015
- COGS 9: Introduction to Data Science, *UC San Diego*, Fall 2015
TA: Thomas Donoghue
Overall Student Recommendation: **Course (100%), Instructor (100%)**
- COGS 1: Introduction to Cognitive Science, *UC San Diego*, Fall 2015
TA: Eunice Lim, Arthur Semenyuk
Overall Student Recommendation: **Course (91%), Instructor (97%)**
- NEU 221: Communicating Science, *UC San Diego*, Fall 2015
- COGS 260 : Neural Oscillations, *UC San Diego*, Spring 2016
- COGS 9: Introduction to Data Science, *UC San Diego*, Spring 2016
TA: Robert Gougelet
Overall Student Recommendation: **Course (97%), Instructor (97%)**

Development

- Spring Semester Teaching Workshop Series (NIH-IRACDA, UCSF/SFSU program)

Graduate Student Instructor

- Marion Diamond, IB 245: Func Neuroanatomy, *UC Berkeley* 2008
Overall Student Evaluation: 6.94/7.00
- Marion Diamond, IB 245: Func Neuroanatomy, *UC Berkeley* 2007
Overall Student Evaluation: 6.80/7.00
- Jeffrey Winer, MCB 163: Mamm Neuroanatomy, *UC Berkeley* 2005
Overall Student Evaluation: 6.65/7.00

ACADEMIC ACTIVITIES

Scientific Tools

brainSCANr ([link](#))

- The Brain Systems, Connections, Associations, and Network Relationship engine. Search tool to visually examine the relationships between brain regions, functions, and diseases.

Grant Review Service

International: The Netherlands Organisation for Scientific Research (NWO, the Dutch Research Council) Vici programme external reviewer; Israel Science Foundation (ISF)

Non-profit: John Templeton Foundation

9. *International Conference on the Fantastic in the Arts*, Orlando, FL, USA. 2011 Mar. Reviewed abstract: “Breach in the mind: The hypothetical neuroanatomy subserving the process of ‘unseeing’ in China Miéville’s *The City & The City*”
10. Social Media for Science Outreach, *ScienceOnline Bay Area*, swissnex, San Francisco, CA, USA. 2012 May.
11. *swissnex*, San Francisco, CA, USA. 2012 May.
12. UCSF Center for Educational Partnerships, *National Youth Leadership Forum*, San Francisco, CA, USA. 2012 Jul.
13. Social Media for Science Outreach, *NASA Ames Research Center*, Mountain View, CA, USA. 2012 Jul.
14. *Big Picture Science, Bay Area Science Festival*, Computer History Museum, Mountain View, CA, USA. 2012 Oct.
15. *Stanford University, Neuroscience PhD Program*, Professional Development Program, Stanford, CA, USA. 2013 Jan.
16. *University of California, San Francisco*, Recruitment Fair, CA, USA. 2013 Jan.
17. *University of California, Berkeley*, Careers Beyond Academia conference, Berkeley, CA, USA. 2013 Mar.
18. *University of California, San Diego*, Family Weekend, CA, USA. 2014 Oct.
19. *TEDxSanDiego*, San Diego, CA, USA. 2014 Nov.
20. *University of California, San Diego*, Social Sciences Supper Club, CA, USA. 2014 Nov.
21. *Torrey Pines High School*, La Jolla, CA, USA. 2014 Dec.
22. *High Tech Middle School*, San Diego, CA, USA. 2015 Jan.
23. *Los Angeles Brain Bee*, UC Irvine, CA, USA. 2015 Feb.
24. *High Tech High School*, San Diego, CA, USA. 2015 Mar.
25. *Torrey Pines High School*, La Jolla, CA, USA. 2015 Mar.
26. *UC San Diego*, “Social Media for Campus Researchers and Faculty”. 2015 Apr.
27. *Clarion Workshop*, UC San Diego, CA, USA. 2015 Jul.
28. *City of Hope*, Eugene and Ruth Roberts Summer Student Academy, Duarte, CA, USA. 2015 Jul.
29. *Rueben H. Fleet Science Center, Adult Lecture Series*, San Diego, CA, USA. 2016 Mar.
30. *Pacific Ridge School*, Carlsbad, CA, USA. 2016 Mar.
31. *San Diego State University*, Graduate Student Symposium, CA, USA. 2016 Apr. (keynote)
32. *Chancellor's Associates Scholars Program*, UC San Diego, CA, USA. 2016 Jul.
33. *Osher Lifelong Learning Institute at UC San Diego*, CA, USA. 2016 Sep.
34. *San Diego Independent Scholars*, La Jolla, CA, USA. 2016 Sep.
35. *The Communicating Science Workshop*, La Jolla, CA, USA. 2016 Sep. (keynote)

Neuroscience

1. *University of California, Berkeley Cognitive Science Student Association*, Berkeley, CA, USA. 2005 May.
2. *University of California, Berkeley Cognitive Science Student Association*, Berkeley, CA, USA. 2006 Apr.
3. *University of California, Berkeley Cognitive Science Student Association*, Berkeley, CA, USA. 2006 Nov.
4. *University of California, Berkeley Cognitive Science Student Association*, Berkeley, CA, USA. 2007 Apr.
5. *Neural Information Processing Systems: Large Scale Brain Dynamics Workshop*, Vancouver, BC, Canada. 2007 Dec.

6. *University of California, Berkeley Cognitive Science Student Association*, Berkeley, CA, USA. 2008 Apr.
7. *IEEE/University of California, Berkeley Cognitive Science Student Association*, Berkeley, CA, USA. 2009 Mar.
8. *California Cognitive Science Conference*, Berkeley, CA, USA. 2009 Apr.
9. *Rikshospitalet University Hospital*, Oslo, Norway. 2009 May.
10. *Max-Planck-Institut für Kognitions- und Neurowissenschaften*, Leipzig, Germany. 2009 Aug.
11. *University of Oregon, Department of Psychology*, Eugene, OR, USA. 2009 Nov.
12. *IEEE/University of California, Berkeley CS/EE Demo Day*, Berkeley, CA, USA. 2010 Apr.
13. *Bay Area Memory Meeting*, Stanford, CA, USA. 2010 Aug.
14. *University of California, Davis, Center for Mind and Brain: Time-Frequency Bootcamp*, “Advanced Time-Frequency Analysis Methods”, Davis, CA, USA. 2010 Aug.
15. *University of California, Berkeley, Cognition, Brain, and Behavior*, Berkeley, CA, USA. 2010 Oct.
16. *International Congress for Clinical Neurophysiology: Neuronal Oscillations in Multi-scale Brain Networks Workshop*, Kobe, Japan. 2010 Oct.
17. *University of Washington, College of Computer Science & Engineering*, Seattle, WA, USA. 2010 Nov.
18. *Computational and Systems Neuroscience: Developing Simplified Algebras to Describe Large-Scale Brain Dynamics Workshop*, Salt Lake City, UT, USA. 2011 Feb.
19. DARPA “Narrative Networks (N2): The Neurobiology of Narratives Workshop”, San Francisco, California, USA. 2011 Apr.
20. *California Cognitive Science Conference*, Berkeley, CA, USA. 2011 Apr.
21. *Stanford University, Dept. of Neurology and Neurological Sciences*, Stanford, CA, USA. 2011 May.
22. *XI International Conference on Cognitive Neuroscience*, Symposium Chair, “The Cognitive Role of Cross-frequency Coupling”, Palma, Mallorca, Spain. 2011 Sep.
23. *3rd International Workshop on Advances in Electrocorticography*, Washington, DC, USA. 2011 Nov.
24. *University of California, Berkeley, Brain Imaging Center Research Day*, Berkeley, CA, USA. 2011 Dec.
25. *International Conference on the Fantastic in the Arts*, Orlando, FL, USA. 2012 Mar.
Reviewed abstract: “Medusa to Slake-moth: The Neurobiological Basis of Hypnagogia, Paralysis, Hallucinations, and Other Magical Abilities of Literary Monsters”
26. *Annual Meeting of the San Francisco Neurological Society*, Keynote Speaker, Sonoma, CA, USA. 2012 May.
27. *Neuroscience Information Framework*, 2012 May.
28. *International Neuropsychological Society*, Oslo, Norway. 2012 Jun.
29. *Bay Area Memory Meeting*, Davis, CA, USA. 2012 Aug.
30. *Allen Brain Institute*, Seattle, WA, USA. 2012 Aug.
31. *University of California, Berkeley, CA, USA*. 2012 Sep.
32. *Stanford University, Dept. of Neurology and Neurological Sciences*, Stanford, CA, USA. 2012 Sep.
33. *University of Chicago, IL, USA*. 2012 Oct.
34. *University of California, San Francisco, Grand Rounds*, CA, USA. 2013 Jan.
35. *Stanford University, Neuroscience PhD Program*, Stanford, CA, USA. 2014 Feb.
36. *University of California, San Diego, Neuroscience Retreat*, CA, USA. 2014 May.

- 37. *University of California, Los Angeles*, Computational Neuroscience Affinity Group, CA, USA. 2014 May.
- 38. *University of California, Los Angeles*, Learning and Memory Symposium, CA, USA. 2014 Jun.
- 39. *University of California, San Diego*, Cognitive Science Student Association Conference, CA, USA. 2014 Jun.
- 40. *University of California, Los Angeles*, Cognitive Science Conference, CA, USA. 2015 Apr. (keynote)
- 41. *University of Pennsylvania*, Computational Memory Lab, Philadelphia, PA, USA. 2015 Aug.
- 42. *University of California, Merced*; Mind, Technology, and Society Seminar, CA, USA. 2016 Jan.
- 43. *University of California, Los Angeles*, Integrative Center for Neural Repair, CA, USA. 2016 Mar.
- 44. *Cognitive Neuroscience Society: The role of amplitude, phase, and rhythmicity of neural oscillations in top-down control of cognition Symposium*, New York City, NY, USA. 2016 Apr.
- 45. *Arizona State University*, Neural Oscillations Conference, AZ, USA. 2016 May.
- 46. *Computational Properties of the Prefrontal Cortex meeting*, Lyon, France. 2016 Aug.
- 47. *University of Southern California*, Neuroimaging and Informatics seminar, CA, USA. Oct 2016.
- 48. *Brown University*, Neuroscience Seminar Series, Providence, RI, USA. 2017 Jan.
- 49. *Stanford University*, Center for Mind, Brain, and Computation seminar series. 2017 Mar.
- 50. *Baylor College of Medicine*, Core for Advanced MRI (CAMRI) seminar series. 2017 Mar.
- 51. *Ernst Struengmann Forum*, Manifestations and Mechanisms of Dynamic Brain Coordination over Development, Frankfurt, Germany. 2017 Mar.

Data Science

- 1. *AtGoogleTalks Tech Talk*, Mountain View, CA, USA. 2010 Jan. ([video link](#))
- 2. *TEDxBerkeley*, Berkeley, CA, USA. 2010 Apr. ([video link](#))
- 3. *SciFoo* lecture, Mountain View, CA, USA. 2011 Aug.
- 4. *Ignite talk at AndroidOpen*, San Francisco, CA, USA. 2011 Oct. ([video link](#))
- 5. *In-Q-Tel CEO Summit*, CA, USA. 2012 Feb.
- 6. *Orange Institute*, Palo Alto, CA, USA. 2012 Feb.
- 7. *Splunk*, San Francisco, California, USA. 2012 Mar.
- 8. *Where Conference (O'Reilly Media) workshop*, San Francisco, CA, USA. 2012 Apr.
- 9. *Where Conference (O'Reilly Media) speaker*, San Francisco, CA, USA. 2012 Apr.
- 10. *Lookout*, San Francisco, CA, USA. 2012 May.
- 11. *Nerd Nite East Bay*, Berkeley, CA, USA. 2012 Nov.
- 12. *Hult International Business School*, San Francisco, CA, USA. 2013 Jan.
- 13. *The Hive*, Palo Alto, CA, USA. 2013 Feb.
- 14. *Strata*, Santa Clara, CA, USA. 2013 Feb.
- 15. *Kaggle*, San Francisco, CA, USA. 2013 Mar.
- 16. *BrightTALK*, "Machine Learning: How to Make it Work in Your Organization". 2013 Jul.
- 17. *General Assembly*, San Francisco, CA, USA. 2013 Aug.
- 18. *University of San Francisco*, CA, USA. 2013 Oct.
- 19. *PSFK*, San Francisco, CA, USA. 2013 Nov.
- 20. *Intuit*, Mountain View, CA, USA. 2014 Feb.
- 21. *Data Science for Sustainability*, San Francisco, CA, USA. 2014 Aug.

22. *Strata*, New York, NY, USA. 2014 Oct.
23. *Scripps Institution of Oceanography, Climate Science and Policy Program*, La Jolla, CA, USA 2016 Aug.

ACADEMIC SCIENCE FICTION

Awards

2010 *Zombie Research Society*: Georgie Award in Science

Scientific Advisory Boards

- Advisor: Zombie Research Society

Lectures

1. 1st annual *zomBcon*, Seattle, WA, USA. 2010 Oct.
 - Panelist: *Plague Science*
 - Speaker: *Scanning the Zombie Brain*
 - Panelist: *Zombie Anatomy*
2. *San Francisco Nerd Nite*, San Francisco, CA, USA. 2011 Jan.
3. *Comic-Con International*, San Diego, CA, USA. 2011 Jul.
 - Panelist: *History of the Modern Zombie*
 - Panelist: *Science of Zombies: Is a real-life zombie "virus" possible?*
4. 2nd annual *zomBcon*, Seattle, WA, USA. 2011 Oct.
5. *NightLife*, California Academy of Sciences/Bay Area Science Festival, San Francisco, CA, USA. 2011 Oct.
6. *Brentwood Public Library*, Brentwood, CA, USA. 2012 May.
7. *Comic-Con International*, San Diego, CA, USA. 2012 Jul.
8. *Antioch Library*, Antioch, CA, USA. 2012 Aug.
9. *NightLife*, California Academy of Sciences/Bay Area Science Festival, San Francisco, CA, USA. 2012 Oct.
10. *University of Wisconsin*, 2012 Dec.
11. *McDaniel College*, 2013 Apr.
12. *Comic-Con International*, San Diego, CA, USA. 2013 Jul.
13. *San Diego State University*, CA, USA. 2014 Apr.
14. *Westercon* (Guest of Honor), Salt Lake City, UT, USA. 2014 Jun.
15. *Comic-Con International*, San Diego, CA, USA. 2014 Jul.
 - Panelist: *Zombie Myths and Misconceptions*
 - Panelist: *Nerdist Science Panel*
16. *Skeptics Distinguished Science Lecture Series*, Caltech, Pasadena, CA, USA. 2014 Oct.
17. *UC San Diego Neuroscience Retreat*, CA, USA. 2015 May.
18. *UC San Diego California Bookstore Day*, CA, USA. 2015 May.
19. *KPBS: Zombies 101*, CA, USA. 2015 Jun.
20. *Academic Connections*, CA, USA. 2015 Jul.
21. *Suds & Science*, San Diego, CA, USA. 2015 Oct.
22. *Natural History Museum of Los Angeles County*, Los Angeles, CA, USA. 2016 Jun.
23. *Trevor Day School*, New York, NY, USA. 2016 Sep.
24. *Suds & Science*, San Diego, CA, USA. 2016 Oct.
25. *Rueben H. Fleet Science Center Night of Science*, San Diego, CA, USA. 2016 Oct.

47. Donoghue T, Sebastian P, **Voytek B**. Automated Analysis of Resting State Cortical Oscillatory Characteristics using Magnetoencephalography (MEG). *International Conference on Biomagnetism*, Seoul, South Korea. 2016
48. Cole SR & **Voytek B**. Nonsinusoidal oscillatory shape can drive spurious cross-frequency coupling. *Society for Neuroscience*, San Diego, CA, USA. 2016
49. Donoghue T, Fox W, Kim A, **Voytek B**. The relation of alpha-phase to visual perception is dependent on attention and location of stimuli. *Society for Neuroscience*, San Diego, CA, USA. 2016
50. Gao R & **Voytek B**. Spiking correlates and temporal variability of oscillatory frequency modulation. *Society for Neuroscience*, San Diego, CA, USA. 2016
51. Gougelet R, Ouyang AC, Patel RD, Wang X, **Voytek B**. Evaluating high-resolution frequency spectral estimation approaches to real-time frequency modulation neurofeedback. *Society for Neuroscience*, San Diego, CA, USA. 2016
52. Izhikevich L, Peterson EJ, **Voytek B**. Neural oscillatory power is not Gaussian distributed across time. *Society for Neuroscience*, San Diego, CA, USA. 2016
53. Peterson EJ & **Voytek B**. Gain control across cortical layers can be mediated by balanced oscillatory coupling. *Society for Neuroscience*, San Diego, CA, USA. 2016
54. Rosen B, Peterson EJ, Campbell AM, Belger, A, **Voytek B**. Spectral 1/f noise differences account for apparent oscillatory band-specific effects in Schizophrenia. *Society for Neuroscience*, San Diego, CA, USA. 2016
55. Sebastian P, Donoghue T, Noto T, Haxby S, **Voytek B**. Data mining to generate novel hypotheses for the genetic underpinnings and functional roles of cortical oscillations. *Society for Neuroscience*, San Diego, CA, USA. 2016
56. van der Meij R, Maris E, **Voytek B**. Extracting neural networks formed by consistent between-cell spike timing from unit recordings. *Society for Neuroscience*, San Diego, CA, USA. 2016
57. Samaha J, Sprague TC, **Voytek B**, Gazzaley A, Postle BR. Preparatory encoding of the location and scope of human spatial attention. *Society for Neuroscience*, San Diego, CA, USA. 2016

REJECTIONS & FAILURES

Academic

- *University of Southern California*: academic probation, loss of scholarships, ejected from the university due to low GPA (successfully appealed re-admission), 2000
- Applied to neuroscience PhD programs at *UC Berkeley*, *UC Irvine*, *UCLA*, *UC San Diego*, and *UC San Francisco*. Rejected with no interviews, except Berkeley, 2004

Professional

- Applied to two faculty jobs in 2010 and three in 2012; received one offer
- *Society for Neuroscience* Symposium, “Data-driven approaches for neuroscientific discovery”: Denied, 2014
- *Society for Neuroscience* Social Issues Roundtable, “Interplay between Culture and Neuroscience and the Effect on the Public Trust”: Denied, 2014; denied, 2015

Scientific peer-review

- *Voytek et al. (2010), J Cogn Neurosci* 2010: Rejected from 3 journals
- *Voytek & Knight (2010), Proc Natl Acad Sci USA*: rejected from 2 journals

BACON (3)

1. **Tom Savini** (Bacon 1) with *Kevin Bacon, Friday the 13th* (1980)
2. **Max Brooks** (Bacon 2) with *Tom Savini, Doc of the Dead* (2014)
3. **Bradley Voytek** (Bacon 3) with *Max Brooks, Zombies: The Truth* (2010)