Michael W. Cole

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Education

2009 **University of Pittsburgh**
Ph.D. in Neuroscience and affiliated with the Center for the Neural Basis of Cognition and Carnegie Mellon University

2003 **University of California, Berkeley**
B.A. in Cognitive Science (Highest Honors)

Research and Work Experience

2019 – *Present* Associate professor at the Center for Molecular & Behavioral Neuroscience (CMBN), Rutgers University-Newark. Director of the Cole Neurocognition Laboratory

2014 – 2019 Assistant professor at the Center for Molecular & Behavioral Neuroscience (CMBN), Rutgers University-Newark. Director of the Cole Neurocognition Laboratory

2012 – 2013 Post-doctoral research with Steven Petersen (Neuroscience, Radiology, & Psychology, Washington University in St. Louis)
Investigations of brain network organization and cognitive control
Methods: fMRI, functional connectivity, graph theory

2009 – 2013 Post-doctoral research with Todd Braver & Deanna Barch
(Department of Psychology, Washington University in St. Louis)
Investigations of prefrontal cortex, cognitive control, learning, schizophrenia, & intelligence
Methods: fMRI, machine learning, functional connectivity, individual differences, behavior

2004 – 2009 Ph.D. research with Walter Schneider (Department of Psychology, University of Pittsburgh)
Investigations of prefrontal cortex, cognitive control, & learning/memory
Methods: fMRI, MEG, EEG, behavior, functional connectivity, computational modeling

2001 – 2004 Undergraduate and post-baccalaureate research with Mark D'Esposito (Neuroscience and Psychology, UC Berkeley)
Investigations of prefrontal cortex and cognitive control
Methods: fMRI, GLM analysis, event-related time series analysis

2003 Undergraduate research with William DeBello (Neuroscience, UC Davis)
Investigations of the genetic basis of learning and memory
Methods: PCR, analysis of gene expression, gene sequence identification

2001 – 2003 Software engineering and web development for Apple, Inc.

Honors and Awards

2019 Cognitive Neuroscience Society's Young Investigator Award
"Recognizes outstanding contributions by scientists early in their career"

2015 – *Present* Elected to be member of the Cognitive Neuroscience Society's Symposium Committee

2012	Faculty of 1000, Associate Faculty Member
2011	Fellow at the Summer Institute in Cognitive Neuroscience, Santa Barbara, CA
2010	NeuroImage Editor's Choice Award For Cole et al. 2010, "Identifying the brain's most globally connected regions" *Awarded by the editors in acknowledgment of a study's importance and high impact*
2005 – 2008	National Science Foundation Graduate Research Fellowship *Awarded to graduate students whose plans for research have "intellectual merit and beneficial implications for society"*
2007	National Science Foundation Integrative Graduate Education and Research Traineeship (IGERT) Fellowship *Awarded to science graduate students "who will pursue careers in research and education, with the interdisciplinary backgrounds, deep knowledge in chosen disciplines, and technical, professional, and personal skills to become leaders and creative agents for change."*
2003	Highest Honors in Cognitive Science at UC Berkeley *Awarded highest honors based on significant contribution to a research project and high quality honors thesis as judged by professors Mark D'Esposito, M.D. and Robert Knight, M.D.*

Organizational Leadership and Professional Memberships

2018 – *Present*	Associate Member of the Institute for Brain and Neuroscience Research (New Jersey Institute of Technology)
2016 – *Present*	Founder and organizer (along with Drew Headley) of the Integrative Neuroscience Discussion Group (INDG) at the Center for Molecular & Behavioral Neuroscience. This is a group that seeks to develop unified understandings between human and non-human (animal and computational models) neuroscience and psychology.
2015 – *Present*	Member and co-organizer of Newark Brain Connectivity meetings. These meetings bring together scientists interested in brain connectivity research from Newark, NJ and the surrounding region (such as neuroscientists and psychologists from Rutgers University and New Jersey Institute of Technology).
2004 – *Present*	Society for Neuroscience Cognitive Neuroscience Society
2010 – *Present*	Psychonomic Society
2009 – *Present*	Neuroethics Society
2006 – *Present*	Organization for Human Brain Mapping
2004 – 2009	Center for the Neural Basis of Cognition, Carnegie Mellon & University of Pittsburgh Center for Neuroscience, University of Pittsburgh Learning Research and Development Center
2006 – 2007	President of the Department of Neuroscience Graduate Student Organization, University of Pittsburgh
2002 – 2003	President of the Cognitive Science Student Association, UC Berkeley

Research Grants and Fellowships

Co-Principal Investigator: "Major Research Instrumentation: Acquisition of a 3T SIEMENS PRISMA at RUBIC: The Evolution to a Regional Center", National Science Foundation – Division of Behavioral & Cognitive Sciences (BCS) 1919873, PI: Stephen Hanson, Total cost: $1,484,000 — 2019-2020

Co-Principal Investigator: "Major Research Instrumentation: Acquisition of a GPU cluster to support interdisciplinary research in human learning, machine learning, and data science", National Science Foundation – Division of Behavioral & Cognitive Sciences (BCS) 1828528, PI: Patrick Shafto, Total cost: $99,999 — 2018-2021

Co-Investigator: "Imaging the effects of psychosocial stress on cognitive performance", National Science Foundation – Division of Behavioral & Cognitive Sciences (BCS) 1756065, PI: Elizabeth Tricomi, Total cost: $408,699 — 2018-2020

Co-Investigator: "Prescription opiate, drug-cue processing network, and neural connectivity", National Institutes of Health – National Institute on Drug Abuse (I/START R03 DA044496), PI: Suchismita Ray, Total direct cost: $161,644. Status: Completed. — 2017-2018

Principal Investigator: "Brain Network Mechanisms of Aging-Related Cognitive Decline", National Institutes of Health – National Institute on Aging (R01 AG055556), Total direct cost: $250,000/year — 2017-2022

> The goal of this research is to identify network mechanisms that can account for the alterations in both intrinsic brain connectivity and cognitive task activations that occur with aging-related decline of cognitive control abilities among healthy older adults.

Principal Investigator: "Brain Network Mechanisms of Instructed Learning", National Institutes of Health – National Institute of Mental Health (R01 MH109520), Total direct cost: $250,000/year — 2016-2021

> The goal of this research is to utilize the tools of network neuroscience to improve understanding of how instructed learning is implemented in the human brain, from initial learning to expertise.

Co-Principal Investigator: "Integrated Framework for Studying Proactive Control in Rapid Instructed Task Learning", United States – Israel Binational Science Foundation (BSF 2015186), Total cost: $200,000 — 2016-2020

Collaborator: "Neuropsychiatric Classification via Connectivity and Machine Learning", National Institutes of Health (NIH) – National Institute of Mental Health (R03 MH105765), PI: Alan Anticevic, Total cost: $74,000/year. Status: Completed. — 2014-2016

Principal Investigator: "Network Mechanisms of Flexible Cognitive Control", National Institutes of Health – National Institute of Mental Health (K99-R00 MH096801), Total direct cost: $157,000/year. Status: Completed. — 2012-2017

> This project investigates the hypothesis that flexible cognition and behavior is supported by flexible hubs – frontoparietal brain regions with extensive global brain connectivity that flexibly updates according to task demands.

Principal Investigator (fellowship): "Beyond Localization of Memory Functions: Learning Statistical Methods for Estimating Directed Connectivity among Cortical Regions Using Multiple Neuroimaging Technologies", National Science Foundation (IGERT Fellowship), Funded amount: $30,000. Status: Completed. — 2007

> The goal of this research is to learn methodological techniques for estimating directed functional (effective) connectivity and empirically test the efficacy of those techniques using functional MRI and magnetoencephalography.

Principal Investigator (fellowship): "Dissociating the Network Components Underlying Cognitive Control", National Science Foundation (Graduate Research Fellowship), Funded amount: $90,000. Status: Completed. — 2005-2008

The goal of this project is to utilize experimental manipulations of cognitive control processes with functional MRI to identify the shared and specialized roles of cognitive control network brain regions.

Preprint Scientific Publications

1. Spronk M, Kulkarni KR, Ji JL, Keane BP, Anticevic A, **Cole MW** (Preprint). "A whole-brain and cross-diagnostic perspective on functional brain network dysfunction". *bioRxiv*. https://doi.org/10.1101/326728
2. Ito T, **Cole MW** (Preprint) “Network dimensionality underlies flexible representation of cognitive information”. *bioRxiv*. http://doi.org/10.1101/262626
3. Ito, T, Brincat SL, Siegel M, Mill RD, He BJ, Miller EK, Rotstein HG, and **Cole MW** (Preprint). "Task-Evoked Activity Quenches Neural Correlations and Variability in Large-Scale Brain Systems". *bioRxiv*. https://doi.org/10.1101/560730
4. Singh MF, Braver TS, **Cole MW**, Ching S (Preprint) "Individualized Dynamic Brain Models: Estimation and Validation with Resting-State fMRI. Neuroscience". *bioRxiv*. https://doi.org/10.1101/678243
5. Mill RD, Gordon BA, Balota DA, Zacks JM, **Cole MW** (Preprint). "Predicting dysfunctional age-related task activations from resting-state network alterations". *bioRxiv*. doi:10.1101/678086
6. Cocuzza CV, Ito T, Schultz DH, Bassett DS, **Cole MW** (Preprint). "Flexible coordinator and switcher hubs for adaptive task control". *bioRxiv*. http://biorxiv.org/lookup/doi/10.1101/822213

Peer-reviewed Scientific Publications

Google Scholar profile: https://scholar.google.com/citations?user=8FK99kkAAAAJ&hl=en
PubMed/NCBI Bibliography:
http://www.ncbi.nlm.nih.gov/myncbi/browse/collection/43569594/?sort=date&direction=descending
ORCID ID**:** https://orcid.org/0000-0003-4329-438X
h-index (as of 2019-11-11): 35
Citations (as of 2019-11-11): 6679

1. Ito T, Hearne L, Mill R, Cocuzza C, **Cole MW** (2020). "Discovering the Computational Relevance of Brain Network Organization". *Trends in Cognitive Sciences.* 24, 25–38. doi.org/10.1016/j.tics.2019.10.005

2. Kar K, Ito T, **Cole MW**, and Krekelberg B (In Press). "Transcranial Alternating Current Stimulation Attenuates BOLD Adaptation and Increases Functional Connectivity". *Journal of Neurophysiology*.

3. Reid AT, Headley DB, Mill RD, Sanchez-Romero R, Uddin LQ, Marinazzo D, Lurie DJ, Valdés-Sosa PA, Hanson SJ, Biswal BB, Calhoun V, Poldrack RA, **Cole MW** (In Press). "Advancing functional connectivity research from association to causation". *Nature Neuroscience*. https://doi.org/10.1038/S41593-019-0510-4

4. Yang GR, **Cole MW**, Rajan K (2019) “How to study the neural mechanisms of multiple tasks”. *Current Opinion in Behavioral Sciences*. 29:134–143. https://doi.org/10.1016/j.cobeha.2019.07.001

5. Bolt T, Nomi JS, Bainter S, **Cole MW**, Uddin LQ (2019). “The Situation or the Person? Individual and Task-Evoked Differences in BOLD Activity”. *Human Brain Mapping*. 40, 2943– 2954 https://doi.org/10.1002/hbm.24570

6. **Cole MW**, Ito T, Schultz D, Mill R, Chen R, Cocuzza C (2019). "Task activations produce spurious but systematic inflation of task functional connectivity estimates". *NeuroImage*. 189, 1–18. https://doi.org/10.1016/j.neuroimage.2018.12.054

7. Ji JL*, Spronk M*, Kulkarni K, Repovš G, Anticevic A**, **Cole MW**** (2019) "Mapping the human brain's cortical-subcortical functional network organization". *NeuroImage*. 185, 35–57. https://doi.org/10.1016/j.neuroimage.2018.10.006 [*=equal contribution; **=senior authors]

8. Schultz, DH, Ito, T, Solomyak, LI, Chen, RH, Mill, RD, Anticevic, A, & **Cole, MW** (2019). "Global connectivity of the fronto-parietal cognitive control network is related to depression symptoms in the general population". *Network Neuroscience*, 3(1), 107–123. https://doi.org/10.1162/netn_a_00056

9. Chen RH, Ito T, Kulkarni KR, **Cole MW** (2018). "The human brain traverses a common activation-pattern state space across task and rest". *Brain Connectivity*, 8(7), 429–443. https://doi.org/10.1089/brain.2018.0586

10. Dixon ML, De La Vega A, Mills C, Andrews-Hanna J, Spreng RN, **Cole MW**, Christoff K (2018) "Heterogeneity within the frontoparietal control network and its relationship to the default and dorsal attention networks". *Proceedings of the National Academy of Sciences*. 115(7):E1598-E1607. PMCID: PMC5816169 https://doi.org/10.1073/pnas.1715766115

11. **Cole MW**, Patrick LM, Meiran N, Braver TS (2018) "A role for proactive control in rapid instructed task learning.". *Acta psychologica*. 184:20–30. PMCID: PMC5742075 http://doi.org/10.1016/j.actpsy.2017.06.004

12. Ito T, Kulkarni KR, Schultz DH, Mill RD, Chen RH, Solomyak LI, **Cole MW** (2017) "Cognitive task information is transferred between brain regions via resting-state network topology". *Nature Communications*. 8:1027. PMCID: PMC5715061 http://doi.org/10.1038/s41467-017-01000-w

13. Li Q, Yang G, Li Z, Qi Y, **Cole MW**, Liu X (2017) "Conflict detection and resolution rely on a combination of common and distinct cognitive control networks.". *Neuroscience and Biobehavioral Reviews*. 83:123–131. PMID: 29017916 http://doi.org/10.1016/j.neubiorev.2017.09.032

14. **Cole MW**, Braver TS, Meiran N (2017) "The task novelty paradox: Flexible control of inflexible neural pathways during rapid instructed task learning.". *Neuroscience and Biobehavioral Reviews*. 81:4–15. PMCID: PMC5705534 http://doi.org/10.1016/j.neubiorev.2017.02.009

15. Mill RD, Ito T, **Cole MW** (2017) "From connectome to cognition: The search for mechanism in human functional brain networks.". *NeuroImage*. 160:124–139. PMCID: PMC5529276 http://doi.org/10.1016/j.neuroimage.2017.01.060

16. Mill RD, Bagic A, Bostan A, Schneider W, **Cole MW** (2017) "Empirical validation of directed functional connectivity". *NeuroImage*. 146:275–287. PMID: 27856312 http://dx.doi.org/10.1016/j.neuroimage.2016.11.037

17. **Cole MW**, Ito T, Bassett DS, Schultz DH (2016) "Activity flow over resting-state networks shapes cognitive task activations". *Nature Neuroscience*. 19(12):1718–26. PMID: 27723746 http://dx.doi.org/10.1038/nn.4406

18. Schultz DH, **Cole MW** (2016) "Integrated Brain Network Architecture Supports Cognitive Task Performance". *Neuron*. 92:278–279. http://doi.org/10.1016/j.neuron.2016.10.004

19. Schultz DH, **Cole MW** (2016) "Higher intelligence is associated with less task-related brain network reconfiguration". *Journal of Neuroscience*. 36(33):8551– 8561.

http://doi.org/10.1523/JNEUROSCI.0358-16.2016

20. **Cole MW**, Yang GJ, Murray JD, Repovs G, Anticevic A (2016) “Functional connectivity change as shared signal dynamics”. *Journal of Neuroscience Methods*. 259:22–39. PMCID: PMC4715953 http://doi.org/10.1016/j.jneumeth.2015.11.011

21. **Cole MW**, Ito T, Braver TS (2016) “The Behavioral Relevance of Task Information in Human Prefrontal Cortex.”. *Cerebral Cortex*. 26:2497–2505. PMCID: PMC4869805 http://doi.org/10.1093/cercor/bhv072

22. Etzel JA, **Cole MW**, Zacks JM, Kay KN, Braver TS (2016) “Reward Motivation Enhances Task Coding in Frontoparietal Cortex.”. *Cerebral Cortex*. 26:1647–1659. PMCID: PMC4785950 http://doi.org/10.1093/cercor/bhu327

23. Mattar MG, **Cole MW**, Thompson-Schill SL, Bassett DS (2015) “A Functional Cartography of Cognitive Systems.”. *PLoS Computational Biology*. 11:e1004533. PMCID: PMC4668064 http://doi.org/10.1371/journal.pcbi.1004533

24. **Cole MW**, Ito T, Braver TS (2015) “Lateral Prefrontal Cortex Contributes to Fluid Intelligence Through Multinetwork Connectivity.”. *Brain Connectivity*. 5:497–504. PMCID: PMC4601676 http://doi.org/10.1089/brain.2015.0357

25. Anticevic A, Hu X, Xiao Y, Hu J, Li F, Bi F, **Cole MW**, Savic A, Yang GJ, Repovs G, Murray JD, Wang X-J, Huang X, Lui S, Krystal JH, Gong Q (2015) “Early-course unmedicated schizophrenia patients exhibit elevated prefrontal connectivity associated with longitudinal change.”. *Journal of Neuroscience*. 35:267–286. PMCID: PMC4287147 http://doi.org/10.1523/JNEUROSCI.2310-14.2015

26. Meiran N, Pereg M, Kessler Y, **Cole MW**, Braver TS (2015) “Reflexive activation of newly instructed stimulus-response rules: evidence from lateralized readiness potentials in no-go trials.”. *Cogn Affect Behav Neurosci*. 15:365–373. PMID: 25216992 http://doi.org/10.3758/s13415-014-0321-8

27. Meiran N, Pereg M, Kessler Y, **Cole MW**, Braver TS (2015) “The power of instructions: Proactive configuration of stimulus-response translation.”. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 41:768–786. PMID: 25329082 http://doi.org/10.1037/xlm0000063

28. **Cole MW**, Bassett DS, Power JD, Braver TS, Petersen SE (2014) “Intrinsic and task-evoked network architectures of the human brain.”. *Neuron*. 83:238–251. PMCID: PMC4082806 http://doi.org/10.1016/j.neuron.2014.05.014

29. **Cole MW**, Repovs G, Anticevic A (2014) “The frontoparietal control system: a central role in mental health.”. *The Neuroscientist*. 20:652–664. PMCID: PMC4162869 http://doi.org/10.1177/1073858414525995

30. Yang GJ, Murray JD, Repovs G, **Cole MW**, Savic A, Glasser MF, Pittenger C, Krystal JH, Wang X-J, Pearlson GD, Glahn DC, Anticevic A (2014) “Altered global brain signal in schizophrenia.”. *Proceedings of the National Academy of Sciences*. 111:7438–7443. PMCID: PMC4034208 http://doi.org/10.1073/pnas.1405289111

31. Anticevic A, Hu S, Zhang S, Savic A, Billingslea E, Wasylink S, Repovs G, **Cole MW**, Bednarski S, Krystal JH, Bloch MH, Li C-SR, Pittenger C (2014) “Global resting-state functional magnetic resonance imaging analysis identifies frontal cortex, striatal, and cerebellar dysconnectivity in obsessive-compulsive disorder.”. *Biol Psychiatry*. 75:595–605. PMCID: PMC3969771 http://doi.org/10.1016/j.biopsych.2013.10.021

32. Anticevic A, Tang Y, Cho YT, Repovs G, **Cole MW**, Savic A, Wang F, Krystal JH, Xu K (2014) “Amygdala connectivity differs among chronic, early course, and individuals at risk for developing schizophrenia.”. *Schizophr Bull*. 40:1105–1116. PMCID: PMC4133672 http://doi.org/10.1093/schbul/sbt165

33. Anticevic A, **Cole MW**, Repovs G, Murray JD, Brumbaugh MS, Winkler AM, Savic A, Krystal JH, Pearlson GD, Glahn DC (2014) “Characterizing thalamo-cortical disturbances in schizophrenia and bipolar illness.”. *Cerebral Cortex*. 24:3116–3130. PMCID: PMC4224238 http://doi.org/10.1093/cercor/bht165

34. **Cole MW**, Reynolds JR, Power JD, Repovs G, Anticevic A, Braver TS (2013) “Multi-task connectivity reveals flexible hubs for adaptive task control.”. *Nat Neurosci*. 16:1348–1355. PMCID: PMC3758404 http://doi.org/10.1038/nn.3470

35. Anticevic A, **Cole MW**, Repovs G, Savic A, Driesen NR, Yang G, Cho YT, Murray JD, Glahn DC, Wang X-J, Krystal JH (2013) “Connectivity, pharmacology, and computation: toward a mechanistic understanding of neural system dysfunction in schizophrenia.”. *Front Psychiatry*. 4:169. PMCID: PMC3871997 http://doi.org/10.3389/fpsyt.2013.00169

36. Anticevic A, Brumbaugh MS, Winkler AM, Lombardo LE, Barrett J, Corlett PR, Kober H, Gruber J, Repovs G, **Cole MW**, Krystal JH, Pearlson GD, Glahn DC (2013) “Global prefrontal and fronto-amygdala dysconnectivity in bipolar I disorder with psychosis history.”. *Biol Psychiatry*. 73:565–573. PMCID: PMC3549314 http://doi.org/10.1016/j.biopsych.2012.07.031

37. **Cole MW**, Laurent P, Stocco A (2013) “Rapid instructed task learning: a new window into the human brain's unique capacity for flexible cognitive control.”. *Cogn Affect Behav Neurosci*. 13:1–22. PMCID: PMC3557598 http://doi.org/10.3758/s13415-012-0125-7

38. Anticevic A, **Cole MW**, Murray JD, Corlett PR, Wang X-J, Krystal JH (2012) “The role of default network deactivation in cognition and disease.”. *Trends Cogn Sci (Regul Ed)*. 16:584–592. PMCID: PMC3501603 http://doi.org/10.1016/j.tics.2012.10.008

39. **Cole MW**, Yarkoni T, Repovs G, Anticevic A, Braver TS (2012) “Global connectivity of prefrontal cortex predicts cognitive control and intelligence.”. *Journal of Neuroscience*. 32:8988–8999. PMCID: PMC3392686 http://doi.org/10.1523/JNEUROSCI.0536-12.2012

40. Meiran N, **Cole MW**, Braver TS (2012) “When planning results in loss of control: intention-based reflexivity and working-memory.”. *Front Hum Neurosci*. 6:104. PMCID: PMC3347625 http://doi.org/10.3389/fnhum.2012.00104

41. **Cole MW**, Etzel JA, Zacks JM, Schneider W, Braver TS (2011) “Rapid transfer of abstract rules to novel contexts in human lateral prefrontal cortex.”. *Front Hum Neurosci*. 5:142. PMCID: PMC3221399 http://doi.org/10.3389/fnhum.2011.00142

42. **Cole MW**, Anticevic A, Repovs G, Barch D (2011) “Variable global dysconnectivity and individual differences in schizophrenia.”. *Biol Psychiatry*. 70:43–50. PMCID: PMC3204885 http://doi.org/10.1016/j.biopsych.2011.02.010

43. **Cole MW**, Bagic A, Kass R, Schneider W (2010) “Prefrontal dynamics underlying rapid instructed task learning reverse with practice.”. *Journal of Neuroscience*. 30:14245–14254. PMCID: PMC3128837 http://doi.org/10.1523/JNEUROSCI.1662-10.2010

44. **Cole MW**, Yeung N, Freiwald WA, Botvinick M (2010) “Conflict over cingulate cortex: Between-species differences in cingulate may support enhanced cognitive flexibility in humans.”. *Brain Behav Evol*.

75:239–240. PMID: 20693782 http://doi.org/10.1159/000313860

45. Braver TS, **Cole MW**, Yarkoni T (2010) “Vive les differences! Individual variation in neural mechanisms of executive control.”. *Curr Opin Neurobiol*. 20:242–250. PMCID: PMC2904672 http://doi.org/10.1016/j.conb.2010.03.002

46. **Cole MW**, Pathak S, Schneider W (2010) “Identifying the brain's most globally connected regions.”. *NeuroImage*. 49:3132–3148. PMID: 19909818 http://doi.org/10.1016/j.neuroimage.2009.11.001

47. **Cole MW**, Yeung N, Freiwald WA, Botvinick M (2009) “Cingulate cortex: diverging data from humans and monkeys.”. *Trends Neurosci*. 32:566–574. PMID: 19781794 http://doi.org/10.1016/j.tins.2009.07.001

48. **Cole MW**, Schneider W (2007) “The cognitive control network: Integrated cortical regions with dissociable functions.”. *NeuroImage*. 37:343–360. PMID: 17553704 http://doi.org/10.1016/j.neuroimage.2007.03.071

49. Schumacher EH, **Cole MW**, D'Esposito M (2007) “Selection and maintenance of stimulus-response rules during preparation and performance of a spatial choice-reaction task.”. *Brain Research*. 1136:77–87. PMCID: PMC1892617 http://doi.org/10.1016/j.brainres.2006.11.081

50. Hester R, D'Esposito M, **Cole MW**, Garavan H (2007) “Neural mechanisms for response selection: comparing selection of responses and items from working memory.”. *NeuroImage*. 34:446–454. PMID: 17071112 http://doi.org/10.1016/j.neuroimage.2006.08.001

51. Curtis CE, **Cole MW**, Rao VY, D'Esposito M (2005) “Canceling planned action: an FMRI study of countermanding saccades.”. *Cereb Cortex*. 15:1281–1289. PMID: 15616130 http://doi.org/10.1093/cercor/bhi011

Book Chapters and Conference Proceedings Publications

1. **Cole M.W.** (2017). “Control and Connectivity: Dynamic Networks in the Human Brain”. Book chapter in: Egner T. *Wiley Handbook of Cognitive Control*. John Wiley & Sons, Ltd.

2. Meiran N., **Cole M.W.**, and Braver T.S. (2013). “When Planning Results in Loss of Control: Intention-Based Reflexivity and Proactive Control”. Book chapter in: Seebass, G., Schmitz, M., & Gollwitzer, P. M. *Acting intentionally and its limits: Individuals, groups, institutions*. Berlin: De Gruyter.

3. Etzel, J.A., **Cole M.W.**, Braver T.S. (2012). “Looking Outside the Searchlight”. In G. Langs, I. Rish, M. Grosse-Wentrup, & B. Murphy (Eds.), Machine Learning and Interpretation in Neuroimaging. *Lecture Notes in Computer Science*. (vol. 7263, pp. 26–33). Springer Berlin / Heidelberg. doi:10.1007/978-3-642-34713-9_4

4. Schneider W., Pathak S., Phillips J.S., **Cole M.W.** (2009). “High Definition Fiber Tracking Exposes Circuit Diagram for Brain Showing Triarchic Representation, Domain General Control, and Metacognitive Subsystems”. *AAAI Fall Symposium: Biologically Inspired Cognitive Architectures*

5. Schneider W., **Cole M.W.**, Pathak S. (2008). “Reverse Engineering the Brain with a Circuit Diagram Based on a Segmented Connectome and System Dynamics”. *AAAI Fall Symposium: Biologically Inspired Cognitive Architectures*

Invited Talks and Symposia

1. **Cole M.W.** (November, 2019). Brain network organization as the computational architecture of cognition. Invited talk presented at the Montreal Neurological Institute-Hospital (MNI), Montreal, Quebec, Canada.

2. **Cole M.W.** (November, 2019). Brain network organization as the computational architecture of cognition: Implications for mental health. Invited talk presented at the Rutgers-Princeton Center for Computational Cognitive Neuro-Psychiatry, Piscataway, NJ.

3. **Cole M.W.** (March, 2019). Brain network organization as the computational architecture of cognition. Invited talk presented at the Cognitive Neuroscience Society conference, San Francisco, CA.

4. **Cole M.W.** (April, 2018). The Cognitive and Computational Relevance of Functional Brain Networks. Invited talk presented at New York University (NYU) School of Medicine, New York, NY.

5. **Cole M.W.** (April, 2018). The Cognitive and Computational Relevance of Functional Brain Networks. Invited CNBC Alumni Talk presented at the Center for the Neural Basis of Cognition (CNBC), University of Pittsburgh and Carnegie Mellon University, Pittsburgh, PA.

6. **Cole M.W.** (November, 2017). Neural and cognitive bases of rational and critical thinking. Invited talk presented at Columbia University, New York, NY.

7. **Cole M.W.** (March, 2017). The Cognitive Relevance of Functional Brain Networks. Invited talk presented at Carnegie Mellon University, Pittsburgh, PA.

8. **Cole M.W.** (February, 2017). Stable and Dynamic Functional Brain Network Architectures Underlying Flexible Cognition. Invited talk presented at Vanderbilt University, Nashville, TN.

9. **Cole M.W.** (November, 2016). Functional Brain Network Mechanisms Underlying Flexible Cognitive Control. Invited talk presented at the Control Processes Conference in San Diego, CA.

10. **Cole M.W.** (October, 2016). Stable and Dynamic Functional Brain Network Architectures Underlying Flexible Cognition. Invited talk presented at the Cognitive Neuroscience Seminar Series at Taub Institute, Columbia Medical School, New York, NY.

11. **Cole M.W.** (June, 2016). Brain network mechanisms of rapid instructed task learning. Invited talk presented at the Attention & Performance Conference, Turnhout, Belgium.

12. **Cole M.W.** (May, 2016). Brain Network Mechanisms of Flexible Cognitive Control. Invited talk presented at Humbolt University, Berlin, Germany.

13. **Cole M.W.** (July, 2015). Brain Network Mechanisms of Flexible Cognitive Control. Invited talk presented at the Dresden Symposium on Volition and Cognitive Control, Dresden, Germany.

14. **Cole M.W.** (April, 2015). Flexible Learning: Understanding Cognitive Control and Intelligence in the Brain. Talk presented at Rutgers Research Day, Newark, NJ.

15. **Cole M.W.** (March, 2015). Human brain network dynamics and goal-directed cognition. Talk presented at Newark NeuroTalks, Newark, NJ.

16. **Cole M.W.** (November, 2014). Functional connectivity differences in brain networks: contributions of shared and unshared variance. Invited talk presented at the Asilomar conference, Pacific Grove, CA.

17. **Cole M.W.** (August, 2014). Multi-task functional connectivity and flexible hubs. Invited talk presented at the International Conference on Cognitive Neuroscience (ICON), Brisbane, Australia.

18. **Cole M.W.** (June 20, 2014). Intrinsic and dynamic brain network architectures underlying adaptive behavior in humans. Invited talk presented at the Princeton Neuroscience Institute, Princeton, NJ.

19. **Cole M.W.** (May 14, 2014). Intrinsic and task-evoked network architectures of the human brain. Invited talk presented at the Nathan S. Kline Institute (NKI), Orangeburg, NY.

20. **Cole M.W.** (May 10, 2014). Flexible Thinking: Understanding Cognitive Control and Intelligence in the Brain. Invited talk presented at the Learning and the Brain conference, New York, NY.

21. **Cole M.W.** (November 7, 2013). Intrinsic and Dynamic Network Architectures of the Human Brain. Invited talk presented at the Psychology Department, UC Berkeley, Berkeley, CA.

22. **Cole M.W.** (April 8, 2013). Brain Network Mechanisms of Flexible Cognitive Control in Health and Disease. Invited talk presented at the Department of Psychiatry, Yale, New Haven, CT.

23. **Cole M.W.** (January 15, 2013). Brain Network Mechanisms of Flexible Cognitive Control. Invited talk presented at the McGovern Institute for Brain Research, MIT, Cambridge, MA.

24. **Cole M.W.** (December 14, 2012). A role for the brain network mechanisms of flexible cognitive control in human intelligence. Invited talk presented at the International Society for Intelligence Research, San Antonio, TX.

25. **Cole M.W.** (November 9, 2012). Global Brain Connectivity and Other Graph Theoretical Approaches: Methods and Findings. Invited talk/workshop presented at the MRI Users' Meeting Group, The Ohio State University, Columbus, OH.

26. **Cole M.W.** (November 7, 2012). Brain Network Mechanisms of Flexible Cognitive Control. Invited talk presented at the Center for Molecular and Behavioral Neuroscience, Rutgers, Newark, NJ.

27. **Cole M.W.** (March 18, 2011). Investigating Global Brain Connectivity: Methods, Software, and Findings. Talk presented at the Neuroimaging Informatics and Analysis Center seminar series, Washington University, St. Louis, MO.

28. **Cole M.W.** (March 3, 2010). Multiple Network Mechanisms Underlying Flexibility in Prefrontal Cortex. Talk presented at the Brain, Behavior, and Cognition seminar series, Washington University, St. Louis, MO.

29. **Cole M.W.** (January 4, 2010). Network Mechanisms Underlying Flexibility in Prefrontal Cortex. Invited talk presented as part of the Center for Mind and Brain seminar series, UC Davis, Davis, CA.

30. **Cole M.W.** (May 13, 2008). Source Localization with MEG: An MNE Software Overview. Talk presented for the University of Pittsburgh MEG center, Pittsburgh, PA.

31. **Cole M.W.** (January 22, 2008). Connectomics of the Human Cognitive Control Network. Invited talk presented for Beatriz Luna's lab, Pittsburgh, PA.

32. **Cole M.W.** (October 28, 2006). Using Functional MRI to Inform Neural Models of Decision Making. Talk presented at the annual CNBC retreat, Pittsburgh, PA.

33. **Cole M.W.** (October 2, 2006). Specialization and integration within a cortical cognitive control network. Talk presented at the CNBC 'Brain Bag', Pittsburgh, PA.

34. **Cole M.W.** (March 27, 2006). Innate functional connectivity from resting state linear correlations. Invited talk presented at the Clinical Cognitive Neuroscience Lab's Methods Monday forum, Pittsburgh, PA.

35. **Cole M.W.** (November 2, 2005). Dissociations in Cognitive Control: The Specialized Roles of Lateral and Medial Prefrontal Cortex. Talk presented at the Cognitive Psychology 'Brown Bag', Pittsburgh, PA.

36. **Cole M.W.** (October 1, 2005). Results and statistics in fMRI. Talk presented at the 2005 CNBC fMRI Workshop, Pittsburgh, PA.

Published Abstracts and Presentations

1. Schultz D.H., Ito T., **Cole M.W.** (October, 2019). *Cognitive control networks balance domain generality and specificity in representing task rule information across multiple cognitive domains*. Poster presented at the Society for Neuroscience Conference.

2. Ito T., Yang G.R., Cocuzza C.V., Schultz D.H., **Cole M.W.** (June 2019). *Predicting motor behavior using neural encoding models during complex cognitive tasks*. Poster presented at the Organization for Human Brain Mapping conference, Rome, Italy.

3. Cocuzza C.V., Ito T., **Cole M.W.** (June 2019). *Intrinsic connectivity-based encoding models predict naturalistic visual representations*. Poster presented at the Organization for Human Brain Mapping conference, Rome, Italy.

4. Mill R.D., Hamilton J.L., Winfield E.C., Lalta N., Chen R.H., Spronk M., **Cole M.W.** (June 2019). *Decoding task information with high spatiotemporal prescision in source EEG networks*. Poster presented at the Organization for Human Brain Mapping conference, Rome, Italy.

5. **Cole M.W.**, Mill R.D., Ito T., Sanchez-Romero R. (March, 2019). The centrality of causal inference to cognitive and network neuroscience. Talk presented at the Cognitive Neuroscience Society conference, San Francisco, CA.

6. Mill R.D., Gordon B.A., Balota D.A., & **Cole M.W.** (September, 2018). Predicting dysfunctional aging-related task activations from resting-state network alterations. Poster presented at the Resting State and Brain Connectivity conference, Montreal, Canada.

7. Cocuzza C.V., Hamilton J., Winfield E., Bassett D.S., **Cole M.W.** (September, 2018). A Network Science Cartography of Cognitive Control System Dynamics. Poster presented at Cognitive Computational Neuroscience, Philadelphia, PA.

8. Ito T, Keane BP, Mill RD, Chen RH, Hearne LJ, Arnemann KL, He BJ, Rotstein HG, **Cole MW** (September, 2018). A dynamical systems model of intrinsic and evoked activity, variability, and functional connectivity. Poster presented at Conference on Cognitive Computational Neuroscience, Philadelphia, PA.

9. Ito T, Rotstein HG, **Cole MW** (July, 2018). A dynamical systems model of intrinsic and evoked activity, variability, and functional connectivity. Poster presented at Neurobiology of Cognition Gordon Research Conference, Newry, MA.

10. Ito T, **Cole MW** (June, 2018). Dimensionality of intrinsic network connectivity underlies flexible task representation. Poster presented at the Organization for Human Brain Mapping, Singapore.

11. Mill, R.D., Gordon, B.A., Balota, D.A., **Cole, M.W.** (June, 2018). Predicting dysfunctional aging-related task activations from resting-state network alterations. Poster presented at the Organization for Human Brain Mapping conference, Singapore.

12. Ito T. & **Cole M.W.** (November, 2017). Cognitive control networks contain a mixture of diverse connectivity patterns characteristic of predicted flexible hub mechanisms. Poster presented at the Society for Neuroscience, Washington, DC.

13. Schultz D., Ito T., Solomyak L., Chen R., Mill R., Kulkarni K., **Cole M.W.** (November, 2017). Systematic flexibility of global functional connectivity patterns supports flexible cognitive control. Poster presented at the Society for Neuroscience, Washington, DC.

14. **Cole M.W.** & Ito T. (September, 2017). Computational Network Mechanisms of Task-Evoked Functional Connectivity. Poster presented at Cognitive Computational Neuroscience, New York, NY.

15. **Cole M.W.**, Schultz D., Mill R. (June, 2017). Activity flows over intrinsic and task-evoked functional networks shape cognitive task activations. Talk presented at the Organization for Human Brain Mapping, Vancouver, Canada.

16. **Cole M.W.**, Ito T., Schultz D.H., Mill R.D. (March, 2017). Activity flows over task-evoked networks shape cognitive task activations across task switches. Poster presented at Cognitive Neuroscience Society, San Francisco, CA.

17. Ito T., Schultz D., Solomyak L., Chen R., Mill R., **Cole M.W.** (November, 2016). Cognitive control networks route task information to other networks via intrinsic functional connectivity pathways. Poster presented at the Society for Neuroscience, San Diego, CA.

18. Mill R., Bagic A., Schneider W., **Cole M.W.** (November, 2016). Network signatures of flexible cognitive control are reflected in oscillatory MEG source connectivity. Poster presented at the Society for Neuroscience, San Diego, CA.

19. Schultz D., Ito T., Solomyak L., Chen R., Mill R., Kulkarni K., **Cole M.W.** (November, 2016). Cognitive control network global connectivity is related to the mental health of healthy individuals. Poster presented at the Society for Neuroscience, San Diego, CA.

20. Spronk M., Anticevic A., **Cole M.W.** (November, 2016). Cognitive control network flexible hub connectivity is altered across distinct mental illnesses. Poster presented at the Society for Neuroscience, San Diego, CA.

21. Ito T., Schultz D., Solomyak L., Chen R., Mill R., **Cole M.W.** (August, 2016). Intrinsic functional connectivity shapes task information between networks. Poster presented at the Neural Computation and Psychology Workshop, Philadelphia, PA.

22. **Cole M.W.**, Schultz D., Chen R., Kulkarni K., Ito T. (April, 2016). The cognitive relevance of resting-state fMRI: Spontaneously organized networks and brain states across rest and task. Talk presented at Cognitive Neuroscience Society, New York, NY.

23. Chen R., Kulkarni K., Ito T., **Cole M.W.** (April, 2016). Spontaneously organized brain states revealed by dynamic multivariate pattern analysis of resting state fMRI. Poster presented at Cognitive Neuroscience Society, New York, NY.

24. Mill R., Bagic A., Schneider W., **Cole M.W.** (April, 2016). Empirical validation of directed functional connectivity across fMRI and MEG. Poster presented at Cognitive Neuroscience Society, New York, NY.

25. Schultz D., **Cole M.W.** (April, 2016). General intelligence and the efficiency of task-evoked brain network dynamics. Poster presented at Cognitive Neuroscience Society, New York, NY.

26. Chen R., Shafto P., **Cole M.W.** (October, 2015). Multivariate pattern analysis of resting state activity reveals spontaneously organized brain state dynamics. Poster presented at Society for Neuroscience, Chicago, IL.

27. Schultz D.H., **Cole M.W.** (October, 2015). Efficiency of brain network dynamics associated with cognitive ability. Poster presented at Society for Neuroscience, Chicago, IL.

28. Mill R., Bagic A., Schneider W., **Cole M.W.** (October, 2015). Exploiting sensory reactivation from memory to validate directed functional connectivity measures with fMRI and MEG. Poster presented at Society for Neuroscience, Chicago, IL.

29. **Cole M.W.**, Bassett D.S., Schultz D.H. (October, 2015). Intrinsic and dynamic functional network architectures shape task-evoked activation patterns in the human brain. Poster presented at Society for Neuroscience, Chicago, IL.

30. Yang G.J., Murray J.D., Repovs G., **Cole M.W.**, Wang X.J., Glahn D.C., Pearlson G.D., Krystal J.H., Anticevic A. (October, 2015). Cortical Hierarchy Underlies Preferential Connectivity Disturbances in Schizophrenia. Poster presented at Society for Neuroscience, Chicago, IL.

31. **Cole M.W.**, Yang G. J., Murray J. D., Repovs G., Anticevic A. (November, 2014). Reconceptualizing brain network change as shared signal dynamics. Talk presented at Society for Neuroscience, Washington, DC.

32. Mattar M.G., **Cole M.W.**, Thompson-Schill S.L., Bassett D.S. (November, 2014). A dynamic functional cartography of cognitive systems. Poster presented at Society for Neuroscience, Washington, DC.

33. Schultz, D., & **Cole, M.W.** (April, 2015). Task-general and task-specifying functional brain dynamics. Poster presented at Cognitive Neuroscience Society meeting, San Francisco, CA.

34. **Cole M.W.**, Bassett D., Power J.D., Petersen S. (November, 2013). Multi-task functional connectivity reveals the human brain's dynamic network architecture and stable functional backbone. Poster presented at Society for Neuroscience, San Diego, CA.

35. **Cole M.W.**, Reynolds J.R., Power J.D., and Braver T.S. (October, 2012). Flexible Hubs: A Novel Mechanism for Flexible Cognitive Control. Poster presented at Society for Neuroscience, New Orleans, LA.

36. **Cole M.W.**, Etzel J., and Braver T.S. (April, 2012). Identifying Flexible Hubs: A Novel Mechanism for Flexible Cognitive Control. Talk presented at Cognitive Neuroscience Society, Chicago, IL.

37. **Cole M.W.**, Yarkoni T., Repovs G., and Braver T.S. (November, 2011). Flexible hubs: Global brain connectivity correlates of human intelligence. Talk presented at Society for Neuroscience, Washington, D.C.

38. Repovs, G., Anticevic, A., **Cole, M.W.**, & Barch, D.M. (May, 2011). Simulated comparisons of slow and rapid event-related task-based functional connectivity. Poster presented at Society for Biological Psychiatry; San Francisco, CA.

39. **Cole M.W.**, Yarkoni T., Repovs G., Braver T.S. (April, 2011). Flexible hubs: Global brain connectivity correlates of human intelligence. Poster presented at Cognitive Neuroscience Society, San Francisco, CA.

40. **Cole M.W.**, Braver T. (November, 2010). Task Set Formation: Switching to a Completely Novel Task Enhances Task Switching Costs. Talk presented at Psychonomics, St. Louis, MO.

41. **Cole M.W.**, Zacks J., Etzel J.A., and Braver T. (November, 2010). Independent and distributed coding of task-set decision rules within prefrontal cortex. Poster presented at Society for Neuroscience, San Diego, CA.

42. **Cole M.W.**, Anticevic A., Repovs G., Barch D. (August, 2010). Locus of dysconnectivity: Dorsolateral prefrontal connectivity correlates with the cardinal symptoms of schizophrenia. Poster presented at the Gordan Research Conference: Neurobiology of Cognition, Waterville Valley, NH.

43. **Cole M.W.**, Bagic A., Kass R., Schneider W. (October, 2009). Rapid Task Learning as a Window into the Neural Basis of Executive Control. Poster presented at Society for Neuroscience, Chicago, IL.

44. Schneider W., Pathak S., Phillips J., and **Cole M.** (2009). High Definition Fiber Tracking Exposes Circuit Diagram for Brain Showing Triarchic Representation, Domain General Control, and Metacognitive Subsystems. In Samsonovich, A. V., Noelle, D., and Mueller, S. (Eds.). Biologically Inspired Cognitive Architectures II: Papers from the AAAI Fall Symposium. AAAI Technical Report FS-09-01, Menlo Park, CA: AAAI Press.

45. **Cole M.W.**, Schneider W. (June, 2009). From Symbols to Rules to Complex Behaviors: The Neural Basis of Rapid Instructed Task Learning. Poster presented at Human Brain Mapping, San Francisco, CA.

46. **Cole M.W.**, Pathak S., Schneider W. (June, 2009). Identifying the Brain's Most Globally Interactive Regions. Poster presented at Human Brain Mapping, San Francisco, CA.

47. **Cole M.W.**, Kunkel A., Martins B., Schneider W. (November, 2008). The Neural Basis of Rapid Instructed Task Learning. Poster presented at Society for Neuroscience, Washington, DC.

48. Pathak S.*, **Cole M.W.***, Schneider W. (November, 2008). Identifying the Brain's Most Globally Interactive Regions. Poster presented at Society for Neuroscience, Washington, DC. **First two authors contributed equally*

49. Schneider W., **Cole M.**, and Pathak S. (2008). Reverse engineering the brain with a circuit diagram based on a segmented connectome and system dynamics. In Samsonovich, A. V., Khosla, D., Itti, L., Shanahan, M., Chella, A., Granger, R. H., Mueller, S., Goertzel, B., and Noelle, D. (Eds.). Biologically Inspired Cognitive Architectures: Papers from the AAAI Fall Symposium. AAAI Technical Report FS-08-04, Menlo Park, CA: AAAI Press.

50. **Cole M.W.**, Laurent P. (November, 2008). Neurevolution: An Example Of Blogging To Enhance Scientific Communication. Poster presented at Society for Neuroscience, Washington, DC.

51. **Cole M.W.**, Martins B., Schneider W. (April, 2008). The Neural Basis of Rapid Instructed Task Learning. Poster presented at Cognitive Neuroscience Society, San Francisco, CA.

52. Pathak S., Martins B., **Cole M.W.**, Schneider W. (April, 2008). Anatomical and Functional Segmentation of the Cognitive Control Network: Supporting a preliminary cognitive control network connectome.

Poster presented at Cognitive Neuroscience Society, San Francisco, CA.

53. **Cole M.W.**, Pathak S., Schneider W. (April, 2008). Medial Frontal Cortex Directs Attention Along Multiple Pathways to Resolve Perceptual Decision Difficulty. Poster presented at Cognitive Neuroscience Society, San Francisco, CA.

54. **Cole M.W.**, Schneider W. (June, 2007). Perceptual Decision Making Is Mediated by the Cognitive Control Network via ACC/pre-SMA to DLPFC Connectivity. Poster presented at Human Brain Mapping, Chicago, IL.
55. **Cole M.W.**, Schneider W. (May, 2007). Causal Connectivity Within a Cognitive Control Network During Perceptual Decision Making. Poster presented at Cognitive Neuroscience Society, New York, NY.
56. **Cole M.W.**, Schneider W. (June, 2006). Dissociation of anterior cingulate, dorsolateral prefrontal, and premotor cortex during a visual search task reveals specialized roles within a commonly activated fronto-parietal network. Poster presented at Human Brain Mapping, Florence, Italy.

57. Schneider W., Siegle G., McHugo M., Gemmer L., Jones D., Fissell K., Koerbel L., Suzuki I., Jung K., Goldberg R., Wheeler M., **Cole M.W.**, Hill N. (June, 2006). 2006 Pittsburgh Brain Activity Interpretation Competition: Inferring Experience Based Cognition from fMRI Data. Poster presented at Human Brain Mapping, Florence, Italy.

58. **Cole M.W.**, Schneider W. (April, 2006). Dissociation of anterior cingulate, dorsolateral prefrontal, and fronto-polar cortex during a visual search task reveals specialized roles within a commonly activated fronto-parietal network. Poster presented at Cognitive Neuroscience Society, San Francisco, CA.

59. **Cole M.W.**, Schneider W. (November, 2005). Less Working Memory, More Control: Greater BOLD Response to Overcoming Prepotency in Prefrontal and Parietal Cortices. Talk presented at Society for Neuroscience, Washington, D.C.

60. Schneider W., Hill N., **Cole M.W.** (November 2005). Native and Supported Mode Processing in Attentional Control Network. Talk presented at Psychonomics, Toronto, Canada.

61. Schneider W., Hill N., Chein J., McHugo M., **Cole M.W.** (November, 2004). Subsystems Supporting attention, decision making, learning, and skilled performance. Talk presented at Psychonomics, Minneapolis, MN.

62. Schumacher E.H., **Cole M.W.**, Singer A., D'Esposito M. (October, 2004). Distinguishing Response Selection Sub-processes with Functional Magnetic Resonance Imaging. Poster presented at Society for Neuroscience, San Diego, CA

63. Schumacher E.H., **Cole M.W.**, Singer A., D'Esposito M. (April, 2004). Distinguishing Response Selection Sub-processes with Functional Magnetic Resonance Imaging. Poster presented at Cognitive Neuroscience Society, San Francisco, CA

64. Curtis C.E., **Cole M.W.**, Rao V., Ollinger J., D'Esposito M. (April, 2004). Canceling planned action: An fMRI study of countermanding saccades. Poster presented at Cognitive Neuroscience Society, San Francisco, CA

65. Curtis C.E., **Cole M.W.**, Rao V., Ollinger J., D'Esposito M. (October, 2003). Canceling planned action: An fMRI study of countermanding saccades. Poster presented at Society for Neuroscience, New Orleans, LA

Service to Peer-reviewed Scientific Journals

Member of editorial boards

Associate Editor for journal *Network Neuroscience* (2016-Present)
Member of the Advisory Board for *Brain Structure and Function* (2015-Present)
Review editor at *Frontiers in Human Neuroscience* (2014-Present)

Ad Hoc Reviewer for Journals

Acta Psychologica
Biological Psychiatry (3x)
BioSystems (2x)
Brain
Brain and Language
Brain Communications
Brain Connectivity (2x)
Brain Research
Brain Sciences
Brain Structure and Function (8x)
Cerebral Cortex (16x)
Cognition (7x)
Cognitive, Affective & Behav. Neuroscience (2x)
Current Directions in Psychological Science
eLife (2x)
Frontiers in Human Neuroscience (3x)
Human Brain Mapping (12x)
Journal of Cognitive Neuroscience (7x)
Journal of Experimental Psychology: General
Journal of Experimental Psychology: HPP
Journal of Neuroscience (24x)
Journal of Neuroscience Methods
Journal of Neurophysiology
Molecular Psychiatry (2x)
Nature Communications (6x)
Nature Neuroscience (6x)
Nature Reviews Neuroscience
Network Neuroscience (5x)
NeuroImage (45x)
NeuroImage: Clinical (2x)
Neuron (12x)
Neuropsychologia (3x)
Neuroscience & Biobehavioral Reviews (3x)
Personality Neuroscience
Perspectives on Psychological Science
Philosophical Transactions B
PLOS Biology (2x)
PLOS Computational Biology (6x)
PNAS (8x)
Psychological Medicine (2x)
Quarterly Journal of Experimental Psychology
Schizophrenia Bulletin
Scientific Reports
The American Journal of Psychiatry
Trends in Cognitive Sciences (2x)

Service to Grant-issuing Institutions

Grant Review Panel Member

The US National Science Foundation (NSF), Integrative Strategies for Understanding Neural and Cognitive Systems (NCS) panel, 2018
The US National Institutes of Health (NIH), ad hoc member of Cognition & Perception (CP) study section, 2018 (2x)
The US National Science Foundation (NSF), special BRAIN Initiative panel, 2017
The Busch Biomedical Grant Program, 2016

Ad Hoc Reviewer for Grants

The Wellcome Trust, 2017
The Netherlands Organization for Scientific Research, 2015
The United Kingdom Medical Research Council, 2015

Mentoring

Faculty:

Brian Keane (mentor on NIH K01)	2016-
Ravi Mill (research associate faculty)	2019-

Postdoctoral fellows:

Douglas Schultz (*now assistant professor at University of Nebraska)*	2014-2018
Ravi Mill (*now research associate faculty*)	Spring 2015-Fall 2019
Marjolein Spronk (*now working as a data scientist at Rancho BioSciences*)	2015-2017
Katelyn Arnemann (*now working as a data scientist at Data Cubed Health*)	Summer 2018-November 2019
Luke Hearne	Summer 2018-
Ruben Sanchez-Romero	Fall 2018-

PhD students:

Richard Chen	Fall 2014-
Pinelopi Kyriazi	Fall 2014 (rotation)
Takuya Ito	Fall 2015-
Carrisa Cocuzza	Fall 2016-
Katherine Wolfert	Fall 2017 (rotation)
Ian Kim	Fall 2018 (rotation)

Full-time research assistants at Rutgers University-Newark:

Levi Solomyak	2014-2016
Takuya Ito	2014-2015
Kaustubh Kulkarni (*now MD-PhD student at Icahn School of Medicine at Mount Sinai)*	Fall 2015-Summer 2017
Julia Hamilton	Summer 2017- Summer 2019
Emily Winfield	Spring 2018-

Undergraduate research assistants at Rutgers University-Newark:
Sara Horton (Summer 2015, Summer 2016), Brayan Zambrano (2016; received NSF LSAMP fellowship), Miguel Vivar (2016-2017; received McNair Scholar award, NSF LSAMP fellowship, and Aresty Fellowship), Ryan Welch (2015-2017; high school student), Nicole Lalta (2017-; NSF LSAMP fellowship), Brian Siaw (2017; NIH LSAMP fellowship), Yanira Sanchez (2018; NSF LSAMP fellowship), Aisha Assaf (2017-), Diana Rodas (2018-)

Member of Ph.D. thesis committee for:
Dana Mastrovito (2016-2018), Kainan Sally Wang (Summer 2017-), Hillary Levinson (2018-)

Outside member of Ph.D. thesis committee for:
Azeezat Azeez (NJIT, 2018-); Luke Hearne (The University of Queensland, 2017); Co-mentor and member of PhD committee for Alisha Janssen, clinical psychology PhD student at the Ohio State University (2014-2016)

Visiting scholars mentored:
Guochun Yang, Senne Braem, Mia Tharp, Hannah Bohle

Research assistants at Washington University (2009-2013):
Lauren Patrick, Nicholas Fazzio, Jordan Livingston, Takuya Ito, Lauren Ness, Maria Chushak, Cameron Smith

Research assistants at the University of Pittsburgh (2004-2009):
Eliezer Kanal, Sudhir Pathak, Amber Kunkel, Anderson Tesfazion

Teaching Experience

Spring 2020	Lead instructor for *Foundations in Neuroscience III*, a graduate-level course at Rutgers University-Newark providing an introduction to cognitive neuroscience
Fall 2018	Co-instructor for *Introduction to Neuroscience*, an undergraduate-level course at Rutgers University-Newark providing an introduction to neuroscience
Spring 2018	Co-instructor for *Foundations in Neuroscience III*, a graduate-level course at Rutgers University-Newark providing an introduction to cognitive neuroscience
Spring 2016	Course developer and instructor for *Network & Complexity Neuroscience*, a graduate-level course at Rutgers University-Newark
Fall 2015	Course developer and lead instructor for *Foundations in Neuroscience III*, a graduate-level course at Rutgers University-Newark providing an introduction to cognitive neuroscience
Spring 2015	Co-instructor for Critical Thinking in Neuroscience course, Rutgers University-Newark
Spring 2012	Co-instructor (with Todd Braver) for *Functional Neuroimaging*, Washington University in St. Louis
2011	Guest lecturer for *Cognitive Neuroscience* (Instructor: Todd Braver), Washington University in St. Louis
2010	Guest lecturer for *Cognitive Neuroscience* (Instructor: Todd Braver), Washington University in St. Louis
Fall 2006	Teaching assistant for *Introduction to Neuroscience* (Instructor: David Wood), University of Pittsburgh
Spring 2006	Guest lecturer for *Laboratory on fMRI Data Acquisition and Analysis* (Instructor: Walter Schneider), University of Pittsburgh
Spring 2003	Teaching assistant for *The Neural Basis of Language and Thought* (Instructors: Jerome Feldman and George Lakoff), UC Berkeley