Timothy D. Verstynen Ph.D.
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Dept. Psychology, 340U Baker Hall
Carnegie Mellon Univ., Pittsburgh, PA

Education

Ph.D. in Psychology, **Emphasis**: **Cognition, Brain and Behavior**
University of California, Berkeley (December 2006)

B.A. in Psychology, University of New Mexico (May 2001)

Professional Experience

2014-Present Adjunct Faculty, Psychology, Univ. Pittsburgh
2012-Present Assistant Professor, Psychology & CNBC, Carnegie Mellon Univ.
2011-2012 Research Associate, LRDC, Univ. Pittsburgh
2009-2011 Post-doctoral Fellow, Psychology, Univ. Pittsburgh
2007-2009 Co-founder, NeuroScoutting LLC
2006-2009 Post-doctoral Fellow, Neuroscience, UCSF

Awards & Honors

2014 PROSE Book Award in Biomedicine and Neuroscience
2013 Distinguished Alumni Award, University of New Mexico
2008-2009 Swartz Foundation Fellowship, Theoretical Neurobiology
2007 Society for Neuroscience Postdoctoral Travel Award
2006 Travel Award, Human Brain Mapping Conference, Florence Italy
2006 Time Magazine Person of the Year (*shared*)
2006-2007 Vision Science Training Grant Fellowship, UCSF
2002-2004 Cognitive Neuroscience Training Grant Fellowship, UC Berkeley
2001 University Honors, Suma Cum Laude, University of New Mexico
2000 Departmental Honors, Dept. of Psychology, University of New Mexico
1999 Travel Award, HealthEmotions Institute, Madison Wisconsin.
1999-2001 New Mexico Access to Research Careers-COR Fellowship.
1996-2000 University Scholars Scholarship from the University of New Mexico

Funding & Research Projects

Principal Investigator: "Action binding during long-term sequential skill learning: computational and neural mechanisms", NSF-CAREER: $507,836 (#1351748); Status: Funded. Dates: 6/1/2014-5/31/2019.

Principal Investigator (Contract, DCS Corp): "Network-Based Advancement of Complex Brain Systems", CTA-CAN: $150,000; Status: Funded. Dates: 5/26/2014-5/25/2015.

Co-Investigator: "Quantitative Big Brain Data: Personalized predictive neuromarkers for stress-related health risks" NSF (#1557572): $100,000. Status: Funded (PI: A Singh). Dates: 09/01/2015-8/31/2016.

Co-Investigator: “Covert Sensorimotor Mapping for Guiding Brian-Computer Interfaces”, VHA-RRDA: $808,256; (PI: J. Collinger). Status: Funded. Dates: 10/1/2014-9/30/2017

Co-Investigator: “Influence of Physical Activity and Weight Loss on Brain Plasticity”, NIH-RO1 (DK095172-02): $2,723,812; Status: Funded (PI: K. Erickson), Dates: 6/1/2012-5/31/2017

Co-Investigator: “BIGDATA: Mid-Scale: DA: Distribution-based machine learning for high dimensional datasets”, NSF (#1247658): $1,000,000; Status: Funded (PI: A. Singh), Dates:1/1/2013-12/31/2016.

Principal Investigator (Contract, DCS Corp): “Connectome-Based Advancement of Brain Systems Analysis”, CTA-CAN Seedling: $133,972; Status: Completed. Dates: 5/26/2012-5/25/2013.

Principal Investigator (Contract, DCS Corp): “Network-Based Advancement of Brain Systems Analysis”, CTA-CAN Seedling: $79,000; Status: Funded. Dates: 5/26/2013-5/25/2014.

Principal Investigator: Translational Neuroscience Research Award, Sandler Foundation: $15,000; Status: Completed, Dates: 1/1/2007 – 12/31/2007.

Books

T. Verstynen and B. Voytek. “Do Zombies Dream of Undead Sheep? A Neuroscientific View of the Zombie Brain.” 1st ed. Princeton: Princeton, NJ, 2014. *Winner of the 2014 PROSE Award in Biomedicine & Neuroscience.

e-Prints & Supplementary Analyses

“DeBaCl: A Python Package for Interactive DEnsity-BAsed CLustering” B.P. Kent, A. Rinaldo, **T. Verstynen**. arXiv:1307.8136

“FuSSO: Functional Shrinkage and Selection Operator.“ J. B. Oliva, B. Poczos, **T. Verstynen**, A. Singh, J. Schneider, F-C Yeh, W-Y Tseng. arXiv:1311.2234

“An analysis of the emergence of adaptive Bayesian priors from Hebbian learning in a simple attractor network model.” **T. Verstynen**, P. N. Sabes. arXiv:1106.2977

Papers in Submission

“Increasing the Analytical Accessibility of Multishell and Diffusion Spectrum Imaging Data Using Generalized Q-Sampling Conversion.” F-C. Yeh, W-Y Tseng, **T. Verstynen**. (resubmitted) (preprint hosted at: http://arxiv.org/abs/1409.2839)

“Organization of cortico-cortical pathways supporting memory retrieval across subregions of the left ventrolateral prefrontal cortex” J Barredo, **T. Verstynen**, D. Badre (resubmitted)

"Abdominal adiposity negatively associates with the rate of long-term sequential skill learning." A. Millette, B. Lynch, **T. Verstynen** (resubmitted)

"Fusing multiple neuroimaging modalities to assess group differences in perception-action coupling" J Muraskin, J. Sherwin, G. Lieberman, J. O. Garcia, **T. Verstynen**, J. M. Vettel, P. Sajda (resubmitted).

"Brain Dynamics of Post-Task Resting State are Influenced by Expertise: Insights from Baseball Players." J. Muraskin, S. Dodhia, J. O. Garcia, **T. Verstynen**, J. M. Vettel, J. Sherwin, P. Sajda (resubmitted).

"Quantifying Differences and Similarities in Whole-Brain White Matter Architecture Using Local Connectome Fingerprints." F-C Yeh, J. Vettel, A. Singh, B. Poczos, S. Grafton, K. Erickson, W-Y Tseng, **T. Verstynen** (submitted) (preprint hosted at http://biorxiv.org/content/early/2016/03/15/043778)

Manuscripts in Progress

"Differentiating visual from response sequencing during long-term skill learning" B. Lynch, P. Bekuema, & **T. Verstynen** (in revision).

"Perceptual uncertainty interacts with risk value when making spatial decisions." K. Jarbo, R. Flemming, **T. Verstynen** (in preparation).

"Decision strategies, not ventral striatal responses to reward, predict individual differences in obesity." **T. Verstynen**, K Dunovan, C-H Kuan, S. Manuck, P Gianaros. (in preparation).

Peer Reviewed Publications

"Believer-Skeptic meets Actor-Critic: Rethinking the role of basal ganglia pathways during decision-making and reinforcement learning." K Dunovan & **T Verstynen**. *Frontiers in Neuroscience,* doi: 10.3389/fnins.2016.00106 (2016)

"Connectometry: A statistical approach harnessing the analytical potential of the local connectome." Yeh F.C., Badre D., **Verstynen T**. *NeuroImage*.125:162-171 (2016).

"Competing basal-ganglia pathways determine the difference between stopping and deciding not to go." K. Dunovan, B. Lynch, T. Molesworth, **T. Verstynen** *eLife* pii: 08723 (2015)

"White matter microstructure mediates the relationship between cardiorespiratory fitness and spatial working memory in older adults." Oberlin LE, **Verstynen TD**, Burzynska AZ, Voss MW, Prakash RS, Chaddock-Heyman L, Wong C, Fanning J, Awick E, Gothe N, Phillips SM, Mailey E, Ehlers D, Olson E, Wojcicki T, McAuley E, Kramer AF, Erickson KI. *Neuroimage* S1053-8119(15)00875-7 (2015).

"Brain volume and white matter in youth with type 2 diabetes compared to obese and normal weight, non-diabetic peers: A pilot study." Rofey DL, Arslanian SA, El Nokali NE, **Verstynen T**, Watt JC, Black JJ, Sax R, Krall JS, Proulx C, Dillon M, Erickson KI. *Int J Dev Neurosci.* Nov;46:88-91 (2015).

"In vivo characterization of the connectivity and subcomponents of the human globus pallidus." P Beukema, FC Yeh, **T. Verstynen** *NeuroImage* 120(15), 382–393 (2015).

"Convergence of superior parietal, orbitofrontal and lateral prefrontal inputs into the human striatum." K. Jarbo & **T. Verstynen**. *J. Neurosci.* 35(9):3865-78 (2015)

"Asymmetry, connectivity, and segmentation of the arcuate fascicle in the human brain." JC Fernández-Miranda, Y Wang, S Pathak, L Stefaneau, **TD Verstynen,** FC Yeh. *Brain Struct Funct.* 220(3):1665-80 (2015).

"Social network diversity predicts white matter microstructural integrity in humans." T. Molesworth, L. Sheu, S. Cohen, P.J. Gianaros, **T. Verstynen**. *Social, Cognitive & Affective Neuroscience 10(9):1169-76* (2015).

"The organization and dynamics of corticostriatal pathways link the medial orbitofrontal cortex to future behavioral responses." **T. Verstynen**. *J. Neurophys* 112 (10): 2457-2469 (2014).

"Mapping Topographic Structure in White Matter Pathways with Level Set Trees" B.P. Kent, A. Rinaldo, F. Yeh, **T. Verstynen**. *PLoS ONE* 9(4):e93344 (2014).

"Cerebral Blood Flow Links Insulin Resistance and Baroreflex Sensitivity" J.P. Ryan, L.K. Sheu, **T. Verstynen**, I.C. Onyewuenyi, P.J. Gianaros. *PLoS ONE*. 8(12):e83288. (2013).

"Explicating the Face Perception Network with White Matter Connectivity." JA Pyles, **T Verstynen**, W Schneider, MJ Tarr. *PLoS ONE* 8(4): e61611. doi:10.1371/ journal.pone.0061611 (2013).

"Competing physiological pathways link individual differences in weight and abdominal adiposity to white matter microstructure." **T. Verstynen**, AM Weinstein, KI Erickson, L Sheu, A Marsland, PJ Gianaros. *NeuroImage* 79:129-37 (2013).

"Deterministic diffusion fiber tracking improved by quantitative anisotropy." F-C. Yeh, **T. Verstynen**, Y. Wang, J.C. Fernandez-Miranda, W-Y. Tseng. *PLoS One* 8(11): e80713. (2013).

"Inflammatory pathways link socioeconomic inequalities to white matter architecture." P. Gianaros, A. Marsland, L. Sheu, K. Erickson, **T. Verstynen** *Cerebral Cortex* 23(9):2058-71 (2013).

"Rethinking the role of the middle longitudinal fascicle in language and auditory pathways." Y. Wang, JC. Fernández-Miranda, **T. Verstynen**, S. Pathak, W. Schneider, F.-C. Yeh. *Cerebral Cortex* Oct;23(10):2347-56 (2013).

"Dynamic sensorimotor planning during long-term sequence learning: the role of variability, response chunking and planning errors." **T. Verstynen**, J. Phillips, E. Braun, B. Workman, C. Schunn, and W. Schneider. *PLoS ONE* 7(10):e47336 (2012)

"Caudate nucleus volume mediates the link between cardiorespiratory fitness and cognitive flexibility in older adults." **T. Verstynen***, B. Lynch*, D. Miller, M. W. Voss, R. S. Prakash, L. Chaddock, C. Basak, A. Szabo, E. A. Olson, T. R. Wojcicki, J. Fanning, N. P. Gothe, E. McAuley, A.F. Kramer, K. I. Erickson. *Journal of Aging Research*, 2012, Article ID 939285 (2012). * authors contributed equally

“Increased body mass index is associated with global decreases in white matter microstructural integrity.” **T. Verstynen**, A. Weinstein, D. Rofey, W. Schneider, J. Jakicic, K. Erickson. *Psychosomatic Medicine* 74(7):682-90 (2012).

“Microstructural organizational patterns in the human corticostriatal system.” **T. Verstynen**, D. Badre, K. Jarbo and W. Schneider. *J Neurophys*. 107(11):2984-95 (2012).

“High definition fiber tractography of the human brain: Neuroanatomical validation and neurosurgical applications.” J.C. Fernandez-Miranda, J. Engh, S. Pathak, K. Jarbo, **T. Verstynen**, Y. Wang, F. Boada, W. Schneider, R. Friedlander *Neurosurgery* 71(2):430-53 (2012).

"Visuotopic cortical connectivity underlying attention revealed with white-matter tractography." A. Greenberg, **T. Verstynen**, Y.C. Chiu, S. Yantis, W. Schneider, M. Behrmann. *J. Neuroscience* 32(8), 2773-2782 (2012).

"In vivo quantification of global connectivity in the human corpus callosum." K. Jarbo, **T. Verstynen**, W. Schneider. *NeuroImage* 59(3): 1988-1996 (2012).

“How each movement changes the next: an experimental and theoretical study of fast adaptive priors in reaching.” **T. Verstynen** and P.N. Sabes. *J. Neuroscience* 31(27):10050-10059 (2011).

“Using pulse oximetry to account for high and low frequency physiological artifacts in the BOLD signal” **T. Verstynen** and V. Deshpande. *NeuroImage.* 55(4):1633-44 (2011).

“Network dynamics mediating ipsilateral motor cortex activity during unimanual actions.” **T. Verstynen** and R.B. Ivry. *J Cog Neuro* 23(9):2468-80. (2011).

“In vivo assessment of microstructrual topographies in the human corticospinal pathways.” **T. Verstynen**, K. Jarbo, S. Pathak, and W. Schneider. *J Neurophysiol.* 105: 336-346 (2011).

“Transcranial magnetic stimulation of posterior parietal cortex affects decisions of hand choice.” F. Olivera, J. Diedrichsen, **T. Verstynen**, J. Duque and R.B. Ivry. *Proc Natl Acad Sci U S A*. (2010). 107(41):17751-177556

“Evidence of somatotopy in the lateral cerebellar hemisphere for coordinated actions.” J. Schlerf*, **T. Verstynen***, R.B. Ivry, and R. Spencer. *J. Neurophysiol.* 103(6):3330-3336 (2010). *co-first authors

“Prefrontal and parietal contributions to refreshing: An rTMS study” B.T. Miller, **T. Verstynen**, M. K. Johnson, M. D’Esposito. *NeuroImage* 39:436-440 (2008).

“Voluntary and involuntary attention affect face discrimination differently " M. Esterman, W. Prinzmetal, J. DeGutis, A. Landau, E. Hazeltine, **T. Verstynen**, and L. Robertson. *Neuropsychologia* 46(4):1032-40 (2008).

"Cerebellar activation during discrete and not continuous timed movements: an fMRI study" Rebecca Spencer, **T. Verstynen**, M. Brett & R. B. Ivry. *NeuroImage* 36, 378-87 (2007). * Winner of the Editors Choice Award for Systems Neuroscience 2007.

"Attenuating illusory binding with TMS of the right parietal cortex" M. Esterman, **T. Verstynen** & L. C. Robertson. *NeuroImage* 35, 1247-1255 (2007).

"Ipsilateral corticospinal projections do not predict congenital mirror movements: A case report." **T. Verstynen**, R. Spencer, C. Stinear, T. Konkle, J. Diedrichsen, W. Byblow & R. B. Ivry *Neuropsychologia* 45(4), 844-852 (2007).

"Illusions of force perception: the role of sensori-motor predictions, visual information, and motor errors." J. Diedrichsen*, **T. Verstynen***, A. Hon, Y. Zhang & R.B. Ivry. *J Neurophsyiol* 97, 3305-3313 (2007). *co-first authors

"Coming Unbound: disrupting automatic integration of synesthetic color and graphemes by TMS of the right parietal lobe" M. Esterman, **T. Verstynen**, R.B. Ivry & L.C. Robertson. *J Cog Neuro* 18, 1570-1576 (2006).

"Two types of TMS-induced movement variability following stimulation of the primary motor cortex." **T. Verstynen**, T. Konkle, & R. B. Ivry. *J Neurophysiol* 96, 1018-1029 (2006).

"Ipsilateral motor cortex activity during unimanual hand movements relates to task complexity" **T. Verstynen***, J. Diedrichsen*, N. Albert, P. Aparicio, and R.B. Ivry. *J Neurophysiol* 93(3), 1209-1222 (2005). *co-first authors

"Cerebellar involvement in anticipating the consequences of self-produced actions during bimanual movement." J. Diedrichsen, **T. Verstynen**, S. Lehman, & R.B. Ivry. *J Neurophysiol* 93(2), 801-812 (2005).

"Anticipatory adjustments in the unloading task: Is an efference copy necessary for learning?" J. Diedrichsen, **T. Verstynen**, A. Hon, S. Lehman and R.B. Ivry, *Exp Brain Res* 148, 272-276 (2003).

“Early life exposure to a novel environment modulates ‘handedness’ in rats” A. C. Tang and **T. Verstynen**, *Behavioural Brain Research* 131, 1-7 (2002).

“Neonatal novelty exposure modulates hippocampal volumetric asymmetry in the rat” **T. Verstynen**, R. Tierney, T. Urbanski, and A. Tang. *NeuroReport* 12(14), 3019-3022 (2001).

Book Chapters and Invited Reviews

T. Verstynen (2015). “How form constrains function in the human brain” In R. Scott & S. Kosslyn (Eds), *Emerging Trends in Social & Behavioral Sciences.* New York, NY: Wiley.

K. Erickson, J.D. Creswell, **T. Verstynen**, & P. Gianaros (2014). “Health Neuroscience: Defining a New Field.” *Current Directions in Psychological Science* Dec;23(6):446-453.

J. Schlerf, **T. Verstynen**, J. Diedrichsen (2014). Big challenges from the “little brain” – Imaging the cerebellum. In T. Papageorgiou, G. Christopoulos, & S. Smirnakis (Eds), *Advanced Brain Neuroimaging Topics in Health and Disease- Methods and Applications* (pp. 199-223). Rijeka, Croatia: InTech.

J. Diedrichsen, **T. Verstynen**, J. Schlerf, and T. Wiester (2010). “Advances in functional imaging of the human cerebellum.” *Current Opinion in Neurology*. 23(4):382-387.

T. Verstynen, M. Oliver, & R. B. Ivry (2010). "Experiencing the future: The influence of self-initiation on temporal perception." In R. Nijhawan, *Space and Time in Perception and Action* (pp. 164-180). Cambridge, UK: Cambridge University Press.

Editorial Boards

Guest Editor, *Frontiers in Human Neuroscience.* Special Topic: Explicating the interplay between anatomical and functional connectivity in the human brain.

Ad Hoc Review Experience

Journal of Neuroscience
Cerebral Cortex
Journal of Cognitive Neuroscience
Journal of Neurophysiology
JEP: Human Percept. & Performance
Journal of Neuroscience Methods
Psychosomatic Medicine
Clinical Neurology and Neurosurgery
Neuropsychologia
Journal of Motor Behavior
Experimental Brain Research
Quarterly Review of Exercise & Sport Scienc

Teaching Experience

2014-2015 *Multimodal Neuroimaging Training Program (MNTP): DWI Module*
Duties: Supervise 6-week summer training in using diffusion weighted imaging as part of an NIH funded training grant in collaboration with the University of Pittsburgh.

2014 *Carnegie Mellon University (86-173): Virtual Neuroanatomy*
Duties: Graduate lab-based seminar using interactive imaging tools to learn functional neuroanatomy. Completely designed and structured.

2013-15 *Carnegie Mellon University (85-314): Research Methods in Cognitive Neuroscience*
Duties: Upper level, lab-based undergraduate course. Completely designed and structured.

2013, 2015 *Carnegie Mellon University (86-111): Immortui Cerebrum: The neuroanatomy of zombie minds.* (Renamed in 2015)

Duties: Freshmen seminar on diagnosing the zombie brain using neuropsychology and neuroanatomy.
Duties: Graduate student instructor that involved teaching weekly discussion sections, reviewing and assisting students in reading current class-relevant literature, and test preparation.

2012 *University of Pittsburgh Psychology 499: Brain Connectivity Class*
Duties: Guest lecturer and guided laboratory tutorials.

2012 *Brown University: In-vivo Fiber Tractography Workshop*
Duties: Two day accelerated workshop on white matter tactography methods.

2011 *University of Pittsburgh: In-vivo Fiber Tractography Short Courses (2 per year)*
Duties: Instructor of workshop designed to train basic proficiency at white matter tractography methods. Also designed as independent guest lectures in diffusion imaging classes.

2003 *UCB Psychology 101: Research Design and Statistics*
Duties: Graduate student instructor that involved teaching 2 weekly discussion sections, statistical laboratories, reviewing and assisting students in homework problems.

2002 *UCB Cognitive Science 84: Transcranial Magnetic Stimulation*
Duties: Technical assistant that was primarily involved in demonstrations of TMS experiments, assisting in programming group designed experiments and training students to use TMS

Scientific Advisory Boards

2009-Present Neuroscouting, LLC
2010-Present Zombie Research Society

Professional Affiliations

Cognitive Neuroscience Society
Society for Neuroscience
American Physiological Society
Society for the Neural Control of Movement
Organization for Human Brian Mapping
American Psychosomatic Society

Invited Talks

March 9, 2016: Department of Psychology Colloquium, University of California, Berkeley,CA.

March 31, 2016: Stanford Cognitive & Systems Neuroscience Group, Stanford University, CA.

Feb. 17, 2016: Center for Molecular and Behavioral Neuroscience Colloquium, Rutgers University, NJ.

Aug 14, 2015: Hooks Books Events, Janelia Farm Research Center, Ashburn, VA

March 10, 2015: Molecular, Cellular and Integrative Neurosciences Program Lecture. Colorado State University, Fort Collins, CO.

March 9, 2015: Neuroimaging Center Symposium. Colorado University, Boulder, CO.

March 4, 2015: WVU Student Seminar. West Virginia University, Morgantown, WV

Feb 25, 2015: Magnetic Resonance Research Center Lecture: UPMC, Pittsburgh, PA

Nov 3, 2014: Pittsburgh MRI Retreat. University of Pittsburgh, Pittsburgh, PA

Oct 31, 2014: Google Cambridge, Cambridge, MA

Oct 31, 2014: Harvard Bookstore, Cambridge, MA

Oct 16, 2013: Cognitive Lunch Seminar. Princeton University, Princeton, NJ

Feb 28, 2013: UNM Lobo Living Room Lecture. University of New Mexico, Albuquerque, NM

June 7, 2013: Café Sci Lecture. Carnegie Science Center. Pittsburgh, PA.

Oct 7, 2011: Biological & Health Psychology Brown Bag Series. University of Pittsburgh, Pittsburgh

May 14, 2010: Psychology Afternoon Lecture Series. University of New Mexico, Albuquerque

Oct. 31, 2010: ZombiCon, Seattle, WA.

July 27, 2009: Sloan-Swartz Annual Meeting on Computational Neuroscience, Harvard University, Cambridge

April 2, 2008: Interdisciplinary Forum on Cognitive Neuroscience Seminar, University of California, San Francisco

March 20, 2007: Interdisciplinary Forum on Cognitive Neuroscience Seminar, University of California San Francisdo, San Francisco, CA

October 19, 2006: Informal Seminar: Human Motor Control Section, National Institute of Health (NIH), Bethesda, MD

April 26, 2006: Department of Psychology Seminar, University of Auckland, New Zealand

February 16, 2006: Cognition, Brain and Behavior Symposium, Department of Psychology, University of California, Berkeley

Conference Abstracts

"Long-term sequence training alters movement representations in primary motor cortex." P. Beukema & **T Verstynen**. Society for Neuroscience 2016.

"Sensory uncertainty influences value-based risky decisions." R. Flemming, K. Jarbo, & **T. Verstynen**. Society for Neuroscience 2016.

"Neural substrates of risky spatial decisions under conditions of perceptual uncertainty." K. Jarbo & **T. Verstynen**. Society for Neuroscience 2016.

"A biologically-constrained hybridization of reinforcement learning and accumulator models for adaptive decision-making." K. Dunovan & **T. Verstynen**. Society for Neuroscience 2016.

"Long-term skill learning is associated with a reorganization of cortical motor representations." P. Beukema & **T Verstynen**. Human Brain Mapping 2016.

"Topography of the Fornix and Stria Terminalis in the Living Human Brain." L. Banihashemi & **T. Verstynen.** Human Brain Mapping 2016.

"Visualization and quantification of corticothalamic somatotopies in humans." E Kilroy, W Burge, F-C Yeh, & **T Verstynen**. Human Brain Mapping 2015.

"Efficacy of Generalized Q-Sampling Imaging on Deterministic Tractography in Phantom & Neural Data" S Lichenstein*, J. Bishop, F-C Yeh, **T Verstynen**. Human Brain Mapping 2015.

"The development of corticostriatal structural connectivity patterns during adolescence" B Larsen, **T Verstynen**, F-C Yeh, K Jarbo, B Luna. Human Brain Mapping 2015.

"Construction of a high angular resolution diffusion MRI atlas using Human Connectome Project Data" F-C.Yeh and **T Verstynen**. IMSRM 2015

"Learning to stop or waiting to go: Targets of adaptive Bayesian updating during inhibitory control." **T. Verstynen**, L. Scholl & T. Molesworth, Abst. Society for Neuroscience, 2014.

"A fiber orientation distribution function (fODF) atlas of the healthy human brain." F.-C. Yeh & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

"Parcellating the internal and external globus pallidus using diffusion-based clustering." P. Beukema & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“Differentiating serial cue prediction from motor sequence learning during long-term skill training.” B. Lynch, A. Ting, S. Wilhelmi, D. Marchetto & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“The difference between stopping and deciding not to go: Behavioral, imaging and modeling evidence.” K. Dunovoan, T. Molesworth & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“Highway from the Danger Zone: Interactions between uncertainty and cost in spatial estimation.” K. Jarbo, R. Flemming & **T. Verstynen**, Abst. Society for Neuroscience, 2014.

“The predictive value of functional connectivity.” M. Clute, A. Singh, B. Poczos, **T. Verstynen**. Abst. Organization for Human Brain Mapping, 2014.

“FuSSO: Functional Shrinkage and Selection Operator.” J. B. Oliva, B. Poczos, **T. Verstynen**, A. Singh, J. Schneider, F. Yeh, W-Y. Tseng. (*AISTATS Conference) Journal of Machine Learning Research W&CP*, 33 :715-723 (2014)

“Convergence of superior parietal, orbitofrontal and lateral prefrontal inputs into the human striatum” K. Jarbo & **T. Verstynen**, Abst. Cog. Neuro. Society, 2013.

“Dissociable effects of lean mass versus fat mass on neuromorphology in children” B. Lynch, **T. Verstynen**, A. M. Weinstein, N. A. Khan, L. Raine, A. F. Kramer, C. H. Hillman & K. I. Erickson, Abst. American Psychosomatic Society, 2013.

“Social network diversity predicts white matter microstructural integrity in humans” **T. Molesworth**, L. Sheu, S. Cohen, P. Gianaros & T. Verstynen, Abst. American Psychosomatic Society, 2013.

“Level set trees for visualization and clustering of fiber tractography data” B. P. Kent, A. Rinaldo, F. C. Yeh & **T. Verstynen**, Abst. Organization for Human Brain Mapping, 2013.

“Branching out with level set trees: Generalizing beyond densities and enabling interactive data analysis” B. P. Kent, A. Rinaldo & **T. Verstynen**, Abst. Joint Statistical Meeting, 2013.

“How reward and punishment influence proactive and reactive inhibition” T. Molesworth & **T. Verstynen**, Abst. Cog. Neuro. Society, 2013.

“Indirect influence of medial orbitostriatal projections on response selection: Check yourself before you rectus yourself” **T. Verstynen** & J. Vettel. Abst. Cog. Neuro. Society, 2013.

"Gray matter volume, cardiorespiratory fitness, and cognitive function: a whole brain, voxel-based mediation analysis." A.M. Weinstein, **T. Verstynen**, R.S. Prakash, M.W. Voss, L. Chaddock, A. Szabo, E. McAuley, A.F. Kramer, K.I. Erickson. *Abst. Society for Neuroscience 2012*.

"Altered cortico-basal ganglia connectivity with obesity predicts inefficient executive control processing" **T. Verstynen**, R. Leckie, A. M. Weinstein, J. Jakicic, D. L. Rofey, K. I. Erickson. Abst. *Society for Neuroscience 2012*.

“The Influence of an Aerobic Exercise Intervention on Brain Volume in Late Adulthood”, K. I. Erickson, A. M. Weinstein, **T. D. Verstynen**, M. W. Voss, R. Shaurya Prakash, J. Woods, E. McAuley, A. F. Kramer, *ICAD 2012*

“Resting State Connectivity Links Community Socioeconomic Status to Preclinical Atherosclerosis” L. Sheu, M. Wu, I. Christie, **T. Verstynen**, P. Gianaros, *HBM 2010.*

"The behavioral, neurophysiological and anatomical changes following long term motor skill learning." **T. Verstynen**, B. Workman, E. Braun, J. Phillips, C. Schunn, W. Schneider. *Abst. Society for Neuroscience 2011*.

"Topographic structural connectivity underlying visual attention." A. Greenberg, **T. Verstynen**, Y.-C. Chiu, S. Yantis, W. Schneider, M. Behrmann. *Abst. Society for Neuroscience 2011*.

"White matter connectivity of the human superior temporal sulcus using diffusion imaging." J.A. Pyles, **T.D. Verstynen**, W. Schneider, M.J. Tarr. *Abst. Society for Neuroscience 2011*.

“Increased BMI is associated with globally decreased white matter integrity.” **T. Verstynen**, A. Weinstein, W. Schneider, J. Jakicic, K.I. Erickson. *Abst. Human Brain Mapping 2011.*

“Clinical Quality Fiber Tracking and Connectome Mapping in Neurosurgery & Traumatic Brain Injury.” W. Schneider, K. Jarbo, S. Sin**, T. Verstynen**, S. Pathak, J. Fernandez-Miranda, D. Okonkwo, F. Boada. *Abst. Human Brain Mapping 2011.*

“Spatiotopic Structural Connectivity Underlying Visual Attention.” A. Greenberg, **T. Verstynen**, W. Schneider, M. Behrman. *Abst. Human Brain Mapping 2011.*

“Structural connectivity of face selective cortical regions with high-definition fiber-tracking.” J. Pyles, **T. Verstynen**, W. Schneider, M. Tarr. *Abst. Vision Sci. Soc*. 2011.

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