JOHN DARRELL VAN HORN, M.Eng., Ph.D.

CURRICULUM VITAE

CONTACT INFORMATION:

Business Addresses: Department of Psychology
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SCHOLARLY METRICS:

PubMed: http://tinyurl.com/mfaffgf
Google Scholar (GS): http://tinyurl.com/km89665
ORCID: http://orcid.org/0000-0003-1537-0816
UVA Scholia: https://tools.wmflabs.org/scholia/author/Q30085386
My Bibliography (NCBI): https://tinyurl.com/29mw9nm4

h-index ≥ 61, over 250 peer reviewed publications (*c.f.* GS), book chapters, and abstracts
Co-Authors: 251+ co-authors (1992-2023); 17,183+ Citations (*c.f.* GS)
Erdös Number = 3

EDUCATION:

1989 Bachelor of Arts in Psychology (67 Credit Major; 11 August))
Eastern Washington University
Cheney, WA

1992 Doctor of Philosophy in Psychology (18 November)
Title: *"Brain structural abnormality and laterality in schizophrenia"*
University of London
London, England

2000 Masters of Science in Engineering (25 May)
(Electrical and Computer)
University of Maryland
College Park, Maryland

PROFESSIONAL EXPERIENCE:

August 2019 - Present: Full Professor with tenure, *Department of Psychology*, College of Arts and Sciences, 485 McCormick Road, University of Virginia, Charlottesville, VA 22903

August 2019 – Present: Full Professor with tenure, *School of Data Science*, Elson Building, University of Virginia, Charlottesville, VA 22903

January 2020 – Present: Faculty, *Neuroscience Graduate Program*, University of Virginia, Charlottesville, VA 22903

2018-2019: Associate Professor of Clinical Neurology, *Department of Neurology, Keck School of Medicine of USC*, University of Southern California (USC), 2025 Zonal Avenue, SHN, Los Angeles, CA 90033.

2013-2018: Associate Professor of Neurology (Clinical Scholar), *Department of Neurology, Keck School of Medicine of USC*, University of Southern California (USC).

2013-2019: Faculty member, *USC Mark and Mary Stevens Neuroimaging and Informatics Institute* (INI) and *Laboratory of Neuro Imaging (LONI)* at the Keck School of Medicine of USC, University of Southern California (USC).

2013-2019: Faculty member, *Neuroscience Graduate Program*, University of Southern California (USC), 3641Watt Way, HNB 120, Los Angeles, California 90089-2520.

2013-2019: Director of Education, *USC Mark and Mary Stevens Neuroimaging and Informatics Institute* (INI) at the Keck School of Medicine of USC, University of Southern California (USC).

2014-2015: Chair, Faculty Search Committee, *USC Mark and Mary Stevens Neuroimaging and Informatics Institute* (INI) at the Keck School of Medicine of USC, University of Southern California (USC).

2014-2019: Member of the *USC Neuroscience Program Executive Committee*, University of Southern California (USC).

2014-2019: Faculty member (by courtesy), *USC Viterbi School of Engineering, Ming Hsieh Department of Electrical Engineering*, 3740 McClintock Avenue, EEB 100, Los Angeles, CA 90089-2560

2013: Associate Professor of Neurology, *Laboratory of Neuro Imaging, Department of Neurology*, UCLA David Geffen School of Medicine, 635 Charles E. Young Drive, NRB #225, Los Angeles, CA 90025.

2012-2013: Faculty Member, UCLA Neuroscience Interdepartmental Program (NS IDP)

2012-2013: Faculty Member, UCLA Biomedical Engineering Interdepartmental Program (BME IDP)

2011-2013: Principal, UCLA *Institute for Informatics* (I2).

2011-2013: Assistant Professor of Neurology, Laboratory of Neuro Imaging, Department of Neurology, UCLA David Geffen School of Medicine, 635 Charles E. Young Drive, NRB #225, Los Angeles, CA 90025.

2006-2011: Assistant Adjunct Professor of Neurology, Laboratory of Neuro Imaging, Department of Neurology, UCLA David Geffen School of Medicine.

2002-2006: Research Associate Professor, Psychology and Brain Science/Center for Cognitive Neuroscience, Dartmouth College, 6162 Moore Hall, Hanover, New Hampshire 03755.

2002-2006: Assistant Director, Dartmouth Brain Imaging Center, Dartmouth College.

2001-2006: Operations Director, The fMRI Data Center.

2000-2002: Research Assistant Professor, Psychology and Brain Science/Center for Cognitive Neuroscience, Dartmouth College.

1997-2010: Honorary Research Fellow, Department of Psychology, University College London, University of London, Gower Street, London, WC1E 6BT England.

1997-2000: NIH Staff Fellow, Laboratory of Brain and Cognition, National Institute of Mental Health, 10 Center Drive 4C-104, Bethesda, MD 20892.

1997-2000: Guest Researcher, Brain Imaging Center, National Institute of Drug Abuse, Johns Hopkins Bayview Campus, Baltimore, MD.

1992-1997: IRTA Postdoctoral Research Fellow, Unit on Integrative Neuroimaging, National Institute of Mental Health, Building 10-4C108, 9000 Rockville Pike, Bethesda, MD 20892, and Clinical Brain Disorders Branch, NIMH, Neurosciences Center at St. Elizabeth's Hospital, 2700 Martin Luther King Jr. Avenue SE, Washington, D.C. 20032.

VISITING POSITIONS

March 1 – August, 31, 2023: Visiting Professor of Cognitive Neuroscience, Neuroimaging and Data Analytics, *Scuola IMT Alti Studi Lucca* - Piazza S. Francesco, 19 - 55100 Lucca, LU, Tuscany, Italia (https://www.imtlucca.it/). Conducted student journal clubs, gave lectures, and co-organized with Dr. Emiliano Ricciardi a joint seminar between UVA and IMT faculty.

May 14th – 29th, 2022: Visiting Professor, *Scuola IMT Alti Studi Lucca* - Piazza S. Francesco, 19 - 55100 Lucca, LU, Tuscany, Italia (https://www.imtlucca.it/). [Gave lectures on brain form, function, and connectivity; on the brain as a source of 'big data'; and an examination of the human claustrum; met with IMT students and faculty; developing IMT-UVA student and faculty exchanges; air travel and accommodations reimbursed]

PROFESSIONAL ACTIVITIES:

University Teaching Experience:

University of Virginia:

Under Development: UVA DS 6559 – The Brain and Data Science (Spring Term): A new three-credit graduate-level elective course for the UVA School of Data Science reviewing the various data collection modalities and resulting datatypes associated with measuring the brain in space and time and the means by which those data are analyzed.

2020-Present: *UVA Psych 4420 (formerly 4500) – Brain Mapping with MRI* (Fall Term): A three-credit hour seminar course on the foundational techniques of structural and functional neuroimaging to map brain form, function, and connectivity in health and disease.

2021-Present: *UVA Psych 5500 – Applications of Human Brain Mapping* (Spring Term): A three-credit hour seminar course on the applications of structural and functional neuroimaging to map brain form, function, and connectivity in health and disease.

2020-2021: *DS 6011: Data Science Capstone Project Work I* (Fall Term): This course is designed for capstone project teams to meet in groups, with advisors, and with clients to advance work on their projects. Format changed in Fall 2022.

2021-Present: *DS 6013: Data Science Capstone Project Work II* (Spring Term): This course is designed for capstone project teams to meet in groups, with advisors, and with clients to advance work on their projects.

[November 15, 2019: *Brain and Data Science Meet-Up* – an informal gathering of students and faculty to discuss the data science challenges involved in modern brain science. Hosted by the UVA School of Data Science with contributions from the Department of Psychology and the UVA Brain Institute, the event was sponsored by the Mead Foundation.]

2021-Present: *Virginia Alzheimer's Disease Center (VADC) Scholars Program* (co-directed with Meghan Mattos, UVA School of Nursing).

2020-Present: *UVA School of Data Science Undergraduate Executive Committee*. Contributing to the development of the data science undergraduate curriculum, policies, etc.

2020-Present: UVA Neuroscience Graduate Program.

University of Southern California:
2016-2019: Member of the *USC Keck School of Medicine Graduate Council*.

2013-2019: Education Director and graduate course curricula development through the *USC Mark and Mary Stevens Neuroimaging and Informatics Institute (INI)*. [Duties include the development of complete, one-year master's degree level course in human neuroscience, psychology, neurophysiology, neuroimaging methods, and the information sciences. This is the first such master's program in the country dedicated to the unique combination of neuroimaging and informatics.]

2013-2019: *USC Neuroscience Graduate Program (NGP) Faculty Member*

2014-2019: *USC Viterbi School of Engineering, Ming Hsieh Department of Electrical Engineering Faculty Member* (secondary appointment)

2015: MEDS 340L *The Brain in Health and Disease* [This detailed course at USC involves the study of the human brain with emphasis on structure-functional relationships, illustrative case studies, current imaging techniques, with illustrative laboratory exercises using specimens and slides.]

2014-2016: *Advanced Neuroscience (NEURO 525), Neuroscience Graduate Program, Spring Term*. Contributed two, two-hour lectures and course materials on human neuroanatomy.

2013-2019: *USC Neuroscience Graduate Program (NGP) Annual Retreat Chair*. [Direct planning of the USC NGP retreat, coordinate with student organizers, book the venue, plan activities, etc., for this three-day event held at the Brandeis-Bardin Campus of the American Jewish University in Simi Valley, CA].

2015-2019: NIIN 500 *Neuroimaging and Systems Neuroscience* [This graduate-level course provides a detailed overview of elemental neuroanatomy and brain systems with an emphasis on a neuroimaging perspective. Examples from clinical cases and their consequences on behavior are explored.]

2014: Invited Course Lecturer - *"The Human Visual System Explored using Neuroimaging"*, Department of Ophthalmology, Keck School of Medicine of USC, October 24th, 2014.

2016: Invited Course Lecturer – "*Graphical Data Mining Approaches in Human Neuroimaging*", Machine Learning for Medical Applications, USC Department of Computer Science, January 25th, 2016.

University of California Los Angeles:
2011-2013: *Introduction to Functional Anatomy of Central Nervous System (NS102)*, Neuroscience Program, Autumn Term, University of California Los Angeles, Los Angeles, California (co-taught with Prof. Dwayne Simmons; course inherited from Dr. Arnold Scheibel) [Prepare and conduct neuroanatomy lectures, oversee lab class, procure brain specimens, prepare brain specimens for use in class laboratories, and supervise course TAs]

2009-2011: *Introduction to Human Brain Mapping Using fMRI (NS191B)*, Neuroscience Program, Winter Term, University of California Los Angeles, Los Angeles, California [Prepare and conduct lectures on human neuroimaging using MRI, fMRI, and DTI]

2013: *Training Program in Translational Science Clinical & Translational Science Institute (CTSI) - Neuroimaging: A Short Course on Modern Imaging Modalities in Clinical Investigation*, "Human Connectomics: Representation and Quantification using Diffusion Imaging Methods", April 11, 2013. [Contributed this talk as part of a series of neuroimaging lectures focused on mapping the brain in health and disease]

2013: *Medical Neurosciences II*, Jan. 8-10, 22-24, 2013, UCLA School of Medicine. Taught jointly with Prof. Susan Bookheimer. [Integrated and updated our presentation on "Neuroimaging in Aging and Memory"]

2012: *Medical Neurosciences II*, Jan. 10-12, 24-26, 2012, UCLA School of Medicine. Taught jointly with Prof. Susan Bookheimer. [*Special for this year*: I worked to prepare a self-guided set of slides for the students on "Neuroimaging in Aging and Memory"]

2011: *Medical Neurosciences II*, Jan. 5-7, 25-27, 2011, UCLA School of Medicine. Taught jointly with Prof. Susan Bookheimer.

2010-2013: UCLA Graduate Neurosciences Program Committee, Co-Chair *Focused Areas of Research (FAR) on Neuroimaging and Cognitive Neurosciences*. [Developing the core curriculum for students wishing to specialize in neuroimaging techniques and applications. Involved presentation at two NS IDP graduate student recruitment events]

2010: *Medical Neurosciences II*, Jan. 6-8, 27-29, 2010, UCLA School of Medicine. [Taught jointly with Profs. Susan Bookheimer and Elizabeth Sowell].

2009: *Medical Neurosciences II*, Jan. 7-9, 27-29, 2009, UCLA School of Medicine. [Taught jointly with Profs. Susan Bookheimer and Elizabeth Sowell].

2008: *Medical Neurosciences II*, Jan. 8-10, 22-24, 2008, UCLA School of Medicine. [Taught jointly with Profs. Susan Bookheimer and Elizabeth Sowell].

2008: *Advanced Neuroimaging Summer School*, July 25, 2008, Directors - Profs. Mark Cohen and Russell Poldrack.

2007: *Advanced Neuroimaging Summer School*, August 24, 2007, Directors - Profs. Mark Cohen and Russell Poldrack.

Dartmouth College:
2003-2006: *Introduction to Human Brain Mapping Using fMRI*, PBS60, Psychological and Brain Sciences, Winter Term, Dartmouth College, Hanover, New Hampshire [Grew enrollment from an initial 5 students to become among the most popular upper-level courses in the undergraduate psychology degree curriculum]

University College London:
1989-1992: *Statistical/Experimental Methods and Psychological Laboratory Instruction*, Department of Psychology, University College London, University of London, Gower Street, London, WC1E 6BT England

Undergraduate, Graduate, Medical Student Supervision, and Degree Committees:

University of Virginia:
Zachary Jacokes, School of Data Science Graduate Program, "Cohort Zero", supervisor [working on the quantitative neuroimaging, genetics, and phenomics of Autism Spectrum Disorder]

Rachel Edelstein, Quantitative Psychology Graduate Program, supervisor [focused on the quantitative assessment and predictive modeling of sports-related head injuries; NIH NRSA applicant, 08/2021]

Rebecca Waugh, Quantitative Neurobiology Program, past-supervisor [conducting work on neuroimaging data analytics in Parkinson's Disease and other degenerative neurological disorders; now working on the *Virginia Cognitive Aging Project*]

Ian Adoremos, Cognitive Science Undergraduate student, honors thesis student [working on the quantitative neuroimaging, genetics, and phenomics of Autism Spectrum Disorder; now working as an IRTA Pre-Doctoral Fellow at the National Institutes of Health in Bethesda, MD]

Siva Venkadesh, post-doctoral fellow [mathematical analysis of functional and structural connectivity in Parkinson's Disease; NIH K99/R00 applicant 07/2021; Udall Catalyst applicant 09/2021]. Now a staff scientist at the University of Pittsburgh.

Benjamin Newman, post-doctoral fellow [quantitative modeling of diffusion weighted neuroimaging in Autism Spectrum Disorder and other developmental data sets]. NIH R00 Award submission 10/2023.

University of Southern California:
Sonja Fenske, USC Neuroscience Graduate Program, Ph.D. committee chairperson
Minqi Chong, USC Viterbi School of Engineering, Ph.D. committee member

Kavi Patel, Keck School of Medicine of USC, Medical Student, Summer Project Supervisor, 2014 [supervised work on neuroanatomically-informed electroencephalography source localization in TBI patients, submitted as a poster to the 2015 Organization for Human Brain Mapping Annual Meeting in Honolulu, HI]

Adam Wade, Keck School of Medicine of USC, Medical Student, Summer Project Supervisor, 2014 [supervised work on pupil diameter correlates of traumatic brain injury measured using multimodal MRI, submitted as a poster to the 2015 Organization for Human Brain Mapping Annual Meeting in Honolulu, HI]

Avnish Bhattrai, Masters of Science in Neuroimaging and Informatics (NIIN) student, 2015-2016. [Supervised his work as a research assistant doing work on traumatic brain injury (TBI). This resulted in a poster submission for the 2016 Organization for Human Brain Mapping Annual Meeting in Geneva, Switzerland, as well as a co-authorship on a peer-reviewed research article. Mr. Bhattrai is now a doctoral candidate at the University of Arizona]

Carinna Torgerson, former Research Assistant, at USC and, before, at UCLA. [Supervised her work toward several first author publications, conference presentations, etc. She is presently a doctoral candidate in the USC Neuroscience Graduate Program]

Jocelyn Hull, Keck School of Medicine of USC, Medical Student, Project Supervisor, 2016-2017 [supervised work on her project entitled "Resting-State Functional Connectivity in Autism Spectrum Disorders"; currently an Internal Medicine Specialist in Rochester, Minnesota. She graduated with honors from University of Southern California Keck School of Medicine in 2019]

University of California Los Angeles:
Doctorates of Philosophy:

Micah Chambers, Biomedical Engineering, (2010-2013; supervisor) – [Selected in July 2011 as a Neuroimaging Training Program (NITP) Fellow of which only 6 are awarded annually. Presented neuroimaging work at several international scientific conferences. Awarded a phRMA Fellowship for neuroimaging informatics. Currently working in industry.]

Carl Lederman, Mathematics (supervisor/committee member; completed, September 2011) "Finite element and mesh-free applications to image processing", [now works for a US Air Force contractor at Edwards AFB modeling fluid dynamics using some of the methods we developed for the analysis of brain imaging data]

Salvatore John Torrisi, Department of Psychiatry (committee member, completed summer, 2013), "Functional brain connectivity during emotion regulation and applications to bipolar disorder", [conducted post-doctoral work at the National Institutes of Health, Bethesda, MD; Assistant Research Scientist, NCIRE - The Northern California Institute for Research and Education]

Daya Alexander, M.S., UCLA Neuroscience Interdepartmental Program, Department of Neurosurgery, "The effect of repeat mild traumatic brain injury in the adolescent rat on Alzheimer's disease pathogenesis", (committee member, 2011-2013)

Joel Frohlich, B.S., UCLA Neuroscience Interdepartmental Program, Department of Neurosurgery (lab rotation supervisor) [09/2014 - published review article and a book chapter on the ketamine model of schizophrenia. Completed his PhD in neuroscience at UCLA where his was also a post-doctoral fellow. Now a post-doc studying brain stimulation at Universitätsklinikum Tübingen].

Masters Degrees:
Robin Jennings, Biomedical Statistics, (2009-2011; supervisor) – [I supervised her work on the meta-analytic assessment of publication bias in the peer-reviewed brain activation neuroimaging literature. This resulted in her first first-author publication. She now is responsible for managing clinical trial research projects at UCSD.]

Jessica Lu, Neurosurgery Neuroengineering, (2010-2012; committee member) – [Jessica works in the area of brain-computer interfaces and completed her degree in 2012]

Undergraduate Degree Research Projects:
None

Post-Doctoral Fellows:
Andrei Irimia, Ph.D. (2010-2013), concerning work on traumatic brain injury [Andrei was a winner of the Department of Neurology Poster Day Mazziotta Prize in 2012]. He has competed for and received numerous travel awards to present his work. He is now a tenured member of the faculty in the Leonard Davis School of Gerontology of the University of Southern California.

Shantanu Joshi, Ph.D. (2009-2013), concerning work on geometric shape analysis, comparison, and display of the human brain. [He was a winner of the Department of Neurology Poster Day Mazziotta Prize in 2012]. He has many publications relevant to neuroimaging data analysis, data mining, and visualization. He is now on the faculty in the Neurology Department at the David Geffen School of Medicine at UCLA.

Other:
2007-2008: Anna Xu, Independent Study Program, UCLA (supervisor).
2007-2008: Rebecca Liu, Independent Study Program, UCLA (supervisor).

Community Outreach Instruction:
2011-2013: UCLA NS IDP "Brain Camp" (directed by Dr. Joseph Watson) [A two-week summer program for under-represented high school students from around the Los Angeles area.]

2012: The Los Angeles Brain Bee (http://www.losangelesbrainbee.com/) [Conducted two sessions introducing high-school level participants to neuroimaging research.]

Dartmouth College:
Doctorates of Philosophy:
2006: Marian Berryhill, Ph.D., "Within and Between Hand Acquisition of Multiple Stimulus-Response Mappings", Dartmouth College, Hanover, NH (committee member)

2005: Kestutis Kveraga, Ph.D., "Neural and Behavioral Mechanisms of Sensorimotor Performance Shifts Under Speed Uncertainty", Dartmouth College, Hanover, NH (committee member)

2005: Malia Mason, Ph.D., "In Search of a Default Mental Mode: Stimulus-Independent Thought, Stream of Consciousness, and the Psychology of Mindwandering", Dartmouth College, Hanover, NH (committee member)

Undergraduate Degree Research Projects:
2006-2007: Jonathan Woolf, Dartmouth Presidential Scholar Project, "Modeling Functional Connectivity of Motor Systems with BOLD fMRI and DTI" (supervisor).

2006: Sarah Wang, "Optical Nastygmus using Caloric Stimulation in fMRI"

2004: Melana Yanos, Senior Honors Thesis, Dartmouth College, Hanover, NH (supervisor).

2003: Ryan Duffy, Senior Honors Thesis, Dartmouth College, Hanover, NH (supervisor).

Other:
2010-2011: Carinna Torgerson, Loyola Marymount University [various projects involving connectomics, traumatic brain injury, Bipolar Disorder, and Autism Spectrum Disorder. I supervised her first published research study which appeared in spring 2013. She is now a graduate student in the USC Neuroscience Graduate Program and has a number of papers published or under consideration at peer-reviewed journals.]

2006: Dartmouth Women in Science Program (WISP): Tory Sheppard, "Neuroeconomics: Finding the 'Buy Button' in the Brain"; Jessica Lane, "The Aging Brain" (supervisor).

2014: Summer internship supervisor for Mr. Adam Wade and Mr. Kavi Patel, Keck School of Medicine of USC.

2014-2016: Consulting Supervisor for Master's Degree Candidate Andrew Zywiec in the Department of Physiology and Neuroscience, St. George's University, Grenada West Indies. Visiting scholar at USC from January 19th-February 19th, 2016.

2012-2015: Bo Wang, Ph.D. Dissertation Committee, "4D Image Modeling for Pathological Anatomy Analysis", School of Computing, University of Utah, Salt Lake City, Utah.

Memberships in Academic Societies:

1993-Present: Society for Neuroscience
1997-Present: Organization for Human Brain Mapping (OHBM) -
Chair of Education, [2013-Beijing, China; **2014-Hamburg, Germany**; 2015-Honolulu, HI];
Program Chairman [2014-Hamburg, Germany; **2015-Honolulu, HI**; 2016-Geneva, Switzerland]
Scientific Advisory Board [2017-Present]
Best Practices Committee, Inaugural Chair [2020-2022]
2016-Present: Society for Claustrum Research –
Past President, [2018-2019], Chicago, IL
President, [2017-2018], San Diego, CA
Vice President, [2016-2017], Washington DC
2002-Present: Cognitive Neuroscience Society
2004-Present: American Psychological Society
2004-2007: American Association of University Professors

1996-2007, 2019-2023: American Association for the Advancement of Science
1997-2007: American Society for Gravitational and Space Biology
1991-1995: The British Psychological Society
1991-1993: The Royal Statistical Society
1990-1993: Association for the Study of Animal Behaviour

Professional Journal Article Ad Hoc Review and Editorships:

Ad Hoc Reviewer:
American Journal of Psychiatry (since 2012)
Archives Italiennes de Biologie
Biomed Central Medical Imaging (since 2007)
Brain Connectivity (since 2013)
Brain Research
Cerebral Cortex
Cognitive, Affective, and Behavioral Neuroscience
Computers in Biology and Medicine
Current Biology (since 2015)
Epilepsia
Frontiers in Neuroscience (since 2010)
GigaScience (since 2013)
Human Brain Mapping
Journal of Cognitive Neuroscience (since 2001)
Journal of Chemical Neuroanatomy (since 2014)
Journal of Neuroimaging
Journal of Neuroscience
Journal of Neuroscience Methods (since 2018)
Nature (since 2013)
Nature Communications (since 2016)
Nature Neuroscience
Nature Reviews Neurology (since 2013)
Neuron
NeuroImage (since 1997)
NeuroImage: Clinical (since 2013)
Neuropsychologia
PNAS - special consultant to the topic editor (since 2015)
Trends in Cognitive Science

Editorships:
Brain Imaging and Behavior (since 2006; Founding Editorial Board);
Elsevier Science Publishers (since 2007; book proposal reviewer);
Frontiers in Brain Imaging Methods (since 2012; Associate Editor);
Frontiers in Neuroinformatics (since 2008, Associate Editor);
Neuroscience Imaging (since 2005; Founding Editorial Board);
Neuroinformatics (since 2006; Editorial Board, since 2009; Action Editor, since 2018; Editor-in-Chief, since 01/2022).

2008: *Brain Imaging and Behavior* – New Horizons for the Next Era of Human Brain Imaging, Cognitive and Behavioral Research: Pacific Rim Activity (December), Editor.

2009: *Frontiers in Neuroinformatics* - Neuroimaging Workflow Design and Data-Mining (April), Editor.

2012: *Frontiers in Neuroinformatics* – Electronic Data Capture, Representation, and Applications in Neuroimaging (expected to appear in April), Editor.

2013: *Brain Imaging and Behavior* – New Horizons in Human Brain Imaging: A Focus on Genetic Neuroimaging in Aging and Age-Related Disease, Editor.

2014: *Frontiers in Neuroinformatics* – Recent Advances and the Future Generation of Neuroinformatics Infrastructure (with Xi Cheng, Daniel Marcus, and Qian Luo).

2015: *Brain Imaging and Behavior* – New Horizons in Human Brain Imaging: A Focus on the Developing Brain, Editor (with Kevin Pelphrey).

2015: *Neurosurgical Focus* - Neuroimaging in Degenerative and Traumatic Encephalopathies, Editor (with Meng Law and Charles Liu).

Research Grant Review Duties:
2011: Reviewer for *the NIH Neurotoxicology and Alcohol [NAL] Study Section*.

2010: Reviewer for NIH ZRG1 BDCN A55R Panel (RFA-OD-10-005) "*Recovery Act Limited Competition: NIH Director's Opportunity for Research in Five Thematic Areas (RC4)*"

2013-2014: Army Rapid Innovation Fund, *Traumatic Brain Injury Assessment and Treatment,* (TBI-AT)

2014: *Opportunities for Collaborations at the NIH Clinical Center* (U01; PAR-13-358)

2014: *NIH Mentored Quantitative Research Development Award* (K25; PA-14-048)

2015: Reviewed applications for two *NIH BRAIN* R25 RFAs: Short Courses in Computational Neuroscience (RFA-MH-15-215) and in Research Tools and Methods (RFA-MH-15-220).

2015: Reviewer for the Large Investment Grant Programme of *The Netherlands Organisation for Scientific Research* (NWO).

2015: Primary Reviewer for the *National Institute of Diabetes and Digestive and Kidney Diseases* (NIDDK) ancillary R01 application for the "LOOK AHEAD" program (ZDK1 GRB-6 (J4) 1).

2016: Reviewer for the "Lifespan Human Connectome – Baby Connectome" (U01) grant mechanism for the *NIH Blueprint for Neuroscience Research*.

2016: Reviewer for the "NIMH Research Education Programs (R25)" grant program (ZMH1 ERB-X (01) 1).

2016: Reviewer for the "NIDDK Ancillary Studies" grant program (ZDK1 GRB-9 (J1) 1).

2020: Clinical High Risk for Psychosis Research Network and Data Coordinating Center (RFA-MH-20-340; RFA-MH-20-341).

2020: 2020/10 ZNS1 SRB-H (14) R; Review of RFA NS-20-013 White Matter Lesion Etiology of Dementia in the U.S. Including in Health Disparity Populations (U19)

2021-2022: NIH Emerging Imaging Technologies in Neuroscience (EITN) study section.

2021: HEAL Initiative: HEALthy Brain and Child Development Consortium Administrative Core (U24; RFA-DA-21-022) and HEAL Initiative: HEALthy Brain and Child Development Data Coordinating Center (U24; RFA-DA-21-023) study section.

Relevant Committees and Service:

University of Virginia:

2023-2024 Co-Chair (with Fiona Greenland, Dept. of Sociology), Committee on Strategic Planning for Research, Scholarship, and Creative Activity in Arts & Sciences, Office of the Dean of the School of Arts and Sciences, University of Virginia.

2023-Present Faculty Member, LIFE Academy (University of Virginia Chapter; see https://www.imprs-life.mpg.de/life-program).

2022-Present Member of the UVA School of Data Science Promotion and Tenure Committee.

2022-2023: Chair, Tenure/Tenure Track Open Rank, UVA School of Data Science *Neuroscience Grand Challenges Faculty Selection Committee*.

2020-2022: Chair, Tenure/Tenure Track Open Rank *Data Analytics and Data Systems Engineering, Data Analytics "At Scale" Faculty Selection Committee* [Past Chair; Dr. Don Brown, Chair until 11/2020].

2019-2020: Co-Chair (with Dr. Steven Boker), *Quantitative Psychology and Data Science Junior Faculty Selection Committee*.

2021-Present: Member, UVA *Program in Fundamental Neuroscience (PFN).*

2021-2022: Member, *Chair of Molecular Biology Search Committee*, UVA School of Medicine.

2020: Member, *UVA School of Data Science* Building Committee.

2020: Chair, Change-in-Academic-Series Review Committee for Dr. Heman Shakeri, *UVA School of Data Science*.

2020: Member, UVA School of Data Science Undergraduate Program Development Committee

2019-Present: Member, *UVA School of Data Science* Academic Affairs Committee.

2020: Member, *UVA Department of Psychology*, Web Presence Committee

University of Southern California:

2013-2019: *USC Mark and Mary Stevens Neuroimaging and Informatics Institute (INI), Keck School of Medicine of USC,* Director, Education Committee. [established the first U.S. master of science degree program in neuroimaging and informatics (http://niin.usc.edu); hosting seminars, visiting faculty, and student groups]

2013-2019: Member of the *USC Neuroscience Graduate Program* Student Selection Committee.

2014-2019: Faculty Director, *USC Neuroscience Graduate Program* Annual Retreat Committee.

2014-2019: Member, *USC Neuroscience Graduate Program* Executive Committee

2015-2019: *USC Mark and Mary Stevens Neuroimaging and Informatics Institute (INI), Keck School of Medicine of USC,* Center for Image Acquisition Policy Committee.

University of California Los Angeles:

2007-2008: Committee on Graduate Education, Dept of Neurology, David Geffen
School of Medicine (Spenser - Chair, Gorden - staff); Committee on Resident Core Curriculum, Department of Neurology, David Geffen School of Medicine (Stern - Chair, Gorden - staff)

2008-2009: Committee on Graduate Education, Dept of Neurology, David Geffen School of Medicine (Mody - Chair, Gorden - staff); Information Technology, Department of Neurology, David Geffen School of Medicine (Toga - Chair, Hansin de Asis - staff)

2009-2013: Brain Mapping Center Seminar Series Committee (Allan Wu – Chair)

2009: Neuroimaging Planning Committee, UCLA School of Medicine (Cannon – Chair)

2010-2013: Information Technology, Dept of Neurology, David Geffen School of Medicine (Toga - Chair, Hansin de Asis - staff)

2010-2013: Executive Board, Staglin Center for Cognitive Neuroscience, UCLA.

2010-2013: *Neuroimaging Focus Area of Research (FAR)* directorship (with Susan Bookheimer), Neuroscience IDP.

Dartmouth College:
2002-2007: Dartmouth Brain Imaging Center Protocol Review Committee
2004-2005: Dartmouth Brain Imaging Center 3T MRI Scientific Advisory Committee
2003: Dartmouth College Bioinformatics Advisory Committee

Society for Neuroscience (Washington, DC):
2007-2010: Society for Neuroscience, Neuroinformatics Standing Committee
2003-2004: Society for Neuroscience, Brain Informatics Group (BIG)

National Institutes of Health (Bethesda, MD):
2006: Linking Informatics of Neuroscience Communities (LINC), Neuroimaging Informatics Committee, National Institutes of Health
2003-2008: NifTI Neuroimaging Data Formats Working Group Committee
2005-2006: Sub-Committee on Neuroimaging, Human Brain Project, NIMH

Organization for Human Brain Mapping (HQ'd in Minnesota, MN):
2012-2013: 2013 Annual Meeting Program Committee
2012-2015: Education Committee Chairman
2014-2016: Annual Meeting Program Chairman (Hamburg, Germany; Honolulu, HI; Geneva, Switzerland)
2017-Present: OHBM Scientific Advisory Board Member
2020-Present: OHBM Standards Committee Chair

International Neuroinformatics Coordinating Facility (INCF; Stockholm, Sweden):
2010-2016: Data Sharing Workgroup
2017-Present: Training and Education Committee

Conferences, Symposia, and Workshops:

Organizer and Chair, "Neuroscientific Data Sharing for the New Millennium", NIMH Neuroinformatics Office Social, **Society for Neuroscience Annual Meeting**, San Diego, CA. November 13th, 2001.

Workshop Co-Director, fMRI Data Center Summer Workshop In Neuroinformatics, **Dartmouth College**, Hanover, NH July 4th-6th, 2002.

Organizer and Chair, "Human Brain Project: Recent Advancements in Computational Toolsets for Inspection and Visualization of fMRI and EEG Methods", NIMH Neuroinformatics Office Social, **Society for Neuroscience Annual Meeting**, Orlando, FL, November 5th, 2002.

Workshop Director, fMRI Data Center Summer Workshop In Neuroinformatics, **Dartmouth College**, Hanover, NH, July 7th-9th, 2003.

Workshop Director, fMRI Data Center Summer Workshop In Neuroinformatics, **Dartmouth College**, Hanover, NH, July 11th-13th, 2004.

Co-Organizer and Co-Chair, "Human Brain Project: Ontologies for Neuroscience", NIMH Neuroinformatics Office Social, **Society for Neuroscience Annual Meeting**, New Orleans, LA, November 8th-12th, 2003.

Co-Chair "Neuropsychology, Psychiatry, and the 'Neuroexperience'", Seventh Annual fMRI Experience Conference and British Psychophysiological Society Annual Meeting, **Aston University**, Birmingham, England, September 12th – 16th, 2005.

Organizer, Brain Imaging Research at Dartmouth College, **Dartmouth College**, Hanover, New Hampshire, October 26th, 2006.

Presentation: **Institute for Pure and Applied Mathematics** (IPAM), "A Role for Levels Sets in Functional Neuroimaging Data Analysis?" - Professor Stanley Oscher's Laboratory, with Ivo Dinov: March 28th, 2007.

Chair, Capturing Experimental Design Metadata In Ways That Facilitate Data Mining (Working Group #1),"PubMed Plus: New Directions in Publishing and Data Mining" Leadership Conference, Eric P. Newman Education Center (EPNEC),Washington University Medical Center, **Washington University in St. Louis**, St. Louis, Missouri, June 18th-19th, 2007.

Co-chair, fMRI Special Interest Group, **Center for Biomedical Computing (CCB)**, LONI, UCLA (with Cornelius Hojatkashani, Russell Poldrack, and Mirella Dapretto), June 2007-Sept 2009.

Co-chair, *Special Interest Group for DTI (SIG-DTI)*, **Center for Computational Biology (CCB),** LONI, UCLA (with Nathan Hageman and Kristi Clarke), since June 2007.

Organizer, *New Horizons in Human Brain Imaging: A Focus on the Pacific Rim*, Waikaloa, HI, April 12-15, 2009.

Co-chair, *Statistical Shape Analysis: Theory, Software, and Applications*, **ISBI 2009**, Boston, MA, June 28th-July1st, 2009.

Organizer, *Slicer Software Training Event*, **UCLA Neuroscience Research Building**, Los Angeles, CA, November 8th, 2010.

Organizer, *New Horizons in Human Brain Imaging: A Focus on Brain Networks and Connectivity*, Turtle Bay, HI, December 1-3, 2010.

Organizer, *Big Data Analysis Using LONI Pipeline*, **UCLA Neuroscience Research Building**, Los Angeles, CA, April 17th, 2012.

Organizer, *New Horizons in Human Brain Imaging: A Focus on Genetic Neuroimaging in Aging and Age-Related Disease*, Turtle Bay, HI, March 4-6, 2013.

Chair – "Genes and Brain Networks Session", 11th Annual CNS Basic And Translational Science Symposium System Biological Approaches To Gut-Brain Interactions In Health and Disease – From Molecular To Social Networks, **University of California Los Angeles**, April 26th, 2013.

Organizer, *New Horizons in Human Brain Imaging: A Focus on the Neuroimaging of Brain Development*, Turtle Bay, HI, March 5-7, 2014.

Organizer, *Structural and diffusion brain imaging for medical image analysis in 3D Slicer: A workshop and tutorial on 3D neuroimaging and visualization*, Institute of Neuroimaging and Informatics, **Keck School of Medicine of USC**, University of Southern California, Los Angeles, CA, February 14th, 2014.

Organizer, *LONI Pipeline Demo Day – Big Data Analysis using the LONI Pipeline*, **Rosen Family Campus Theater, University of Southern California**, Los Angeles, CA, October 2nd, 2015.

Co-Organizer, *California Big Data Biomedical Workshop*, **J.W. Marriott Hotel and Resort**, Palm Desert, CA, October 9-10th, 2015.

Workshop Co-Organizer, *LONI Pipeline Demo Day – Big Data Analysis using the LONI Pipeline*, **Soto Street Building, University of Southern California**, Los Angeles, CA, February 19th, 2016.

Director/Organizer, NIH-NSF *Data Science Innovation Labs* Program:

2016 – Theme of Mobile Health, Lake Arrowhead, CA, June 20-24.
2017 – The Human Microbiome, Wylie Inn and Conference Center, June 19-23.
2018 – The Mathematics of Single Cell Dynamics, River House Inn, Bend, Oregon, June 24-29.
2019 – Data Science Challenges in Rural Health and Environmental Exposures, North Carolina, June 17-21.
2020-2021 – Data Integration in the Brain Sciences, July 19th -24th. Virtual Only. *Postponed to take place beginning in late 2020 and completing in 2021 due to COVID-19.*
2021-2022 – Ethical Challenges in Biomedical AI, Boar's Head Inn, Charlottesville, Virginia, June 12-17.
2022-2023 - Data Science and the Secondary Health Effects of the COVID-19 Pandemic, The Lodges at St. Edwards Park, Seattle, WA, June 25-30.

Co-Organizer, *Imagining the New University: Rethinking scholarship, education, and institutions for an open, networked era*, March 8 - March 9, 2017, **Big 10 Conference Center**, Rosemont, IL.

Co-Organizer, *BD2K Guide to the Fundamentals of Data Science Series*, Friday mornings beginning September 9, 2016. [This online webinar series provides essential training suitable for individuals at an introductory "101" overview level. All video presentations from the seminar series are streamed for live viewing, recorded, and posted online for future viewing and reference, as well as indexed as part of the Educational Resource Discovery Index (ERuDIte) archive. The webinar series is a collaboration between the TCC, the NIH Office of the Associate Director for Data Science, and BD2K Centers Coordination Center (BD2KCCC)]. Series concluded in 2018 but was restarted at UVA under NIGMS R25 funding in October 2020.

Symposium Co-Organizer: "Brodmann (1868-1918): A pioneer of human brain mapping and his impact on present and future concepts" (with Karl Zilles, Research Centre Jülich, Jülich, Germany), 24th *Annual Organization for Human Brain Mapping Annual Meeting*, Singapore, June 18th, 2018 [session specifically highlighted during the closing remarks from the past-president].

Symposium Organizer: "Neuroimaging Assessment and Outcome Prediction in Traumatic Brain Injury", *International Organization of Psychophysiology*, **IMT School of Advanced Study**, Lucca, Italy, September 6th, 2018.

Symposium Organizer: Neuroplasticity and Brain Repair Retreat "Metaplasticity and Megaplasticity: Changing the Brain from Synapse to Community", UCLA Lake Arrowhead Conference Center, Lake Arrowhead, CA, December 6 – 8, 2019.

Symposium Co-Organizer: "Big Data Imaging Genomics: Reproducible Findings, Individual Predictions, and Clinical Decisions" (with Peter Kochunov, Li Shen, and Paul M. Thompson), *Pacific Symposium on Biocomputing*, Waikaloa, Hawaii, January 2-9, 2022.

Symposium Senior Faculty Organizer: *UVA-IMT Lucca Joint Seminar on the Brain and Data Science*, May 5th, 2023. With Professor Emiliano Ricciardi of the IMT Lucca.

Public Seminar Organizer: *Animating Alzheimer's*, The Jefferson School, Charlottesville, VA, May 6th, 2023. [A public showing of the film "Animating Alzheimer's" and community engagement event. Supported through UVA's 3Cavs Program].

Review Committee Member: *The Munich School of Data Science*, Munich, Germany, May 15-16, 2023.

Session Chair: "Education, History and Social Aspects of Brain Imaging", *Organization for Human Brain Mapping Annual Meeting*, Montreal, Canada, July 16-22, 2023.

HONORS AND SPECIAL AWARDS:

2023: UVA Neuroscience Photo Contest winner.
2020: University of Virginia, Research Award recognition from the Office of the UVA Vice President of Research.
2020: Named to the inaugural class of *Fellows of the Organization for Human Brain Mapping (OHBM)* [https://tinyurl.com/y97e2fls; The OHBM Fellow distinction honors outstanding Active members who have demonstrated academic and intellectual leadership in the disciplines represented by the Society over an extended period of time. No more than 1% of current active OHBM members will be selected in any given year to receive the Fellow of OHBM status. See https://tinyurl.com/t7cgnla. Selected fellows are permitted to include the initials "FOHBM" among their credentials to indicate their status as an honored member of one of the community's most eminent societies for human brain mapping.]
2013: Best Paper Award - *Medical Image Computing and Computer Assisted Intervention Society* (MICCAI), with Bo Wang (Utah), Marcel Prastawa (Utah), Andrei Irimia (USC), Paul Vespa (UCLA), and Guido Gerig (Utah)
2013: Runner-Up, *Best Video of the Brain*, 2013 Brain-Art Competition, The Neuro Bureau (https://www.neurobureau.org/galleries/brain-art-competition-2013/#video), *Organization for Human Brain Mapping Annual Meeting*, Seattle, WA.
2012: Certificate of Distinction in Education, Department of Neurology, UCLA
2012: Winner, *Best Representation of the Human Connectome*, 2012 Brain-Art Competition, The Neuro Bureau (https://www.neurobureau.org/galleries/brain-art-competition-2012), *Organization for Human Brain Mapping Annual Meeting*, Beijing, China.
2011: *National Alliance for Medical Image Computing (NA-MIC)* Summer Tutorial Contest Winner – "Automatic Segmentation of Traumatic Brain Injury MRI volumes using Atlas Based Classification and 3D Slicer" (with Andrei Irimia and Micah Chambers)
2009: Frontiers Associate Editor Award, Frontiers Research Foundation
2004: State of New Hampshire Governor's Commendation
1992-1997: NIH Intramural Training Award Research Fellowship
1992: NATO Collaborative Research Award (CRG 910941)
1990-1991: Tragaskis Bequest (U.K.)
1990-1992: Overseas Research Award (U.K.), renewed twice
1989: National Dean's List
1988-1989: Psi Chi Honors Society

RESEARCH GRANTS AND FELLOWSHIPS RECEIVED:

Grant writing has long been a particular emphasis, involving focused research-oriented NIH grants, project-based NIH programs, and private foundation awards. This includes several R01's, an NIH ARRA RC1 "Challenge Grant", Phase I and II STTRs, and other neuroscience-focused research awards. Additionally, I have taken a principal role in the writing of major, multi-site, multi-investigator proposals under U54, U24, U01, P41, and P20 class NIH mechanisms. These include large-scale, "team-science" grants for the Human Connectome Project (HCP; U54/U01), the LONI Resource (P41), the fMRI Data Center (P20), Big Data to Knowledge (BD2K; U54, U24, and numerous grant supplements), and academic-corporate partnerships on computational neuroimaging methods for the analysis of traumatic brain injury (STTR Phases

I/II). In each of these, I have authored or made major contributions to the applications, provided major intellectual direction, supervised the creation of graphical content, web-based supporting information, budget creation/justification, resource descriptions, etc. Moreover, I have authored and co-authored numerous published papers on work conducted under these efforts, presented work at conferences, etc. I also have had much success in NIH R13 meeting awards to support the *New Horizons in Human Brain Imaging* meeting series and for providing student travel fellowships for the *Organization for Human Brain Mapping (OHBM)* 2015 annual meeting. I have also been awarded several NIH grant award supplements along with National Science Foundation (NSF) support to conduct the *Data Science Innovation Lab* series (2016-2019). This activity, in particular, is supported (as of 2020) by an NIH R25 grant. In what follows, I list active, submitted, in-preparation, and completed grants of which I have served as PI, co-investigator, or otherwise have made important contributions:

ACTIVE:

2020-2025: NIH Innovative Programs to Enhance Research Training (IPERT)
Title: Biomedical Data Science Innovation Labs: An Intensive Research Project Development Program
Role: **PI**
Amount: $824,681
Comment: To encourage community and career path development, we will develop a series of unique Biomedical Data Science Innovation Lab workshops based on large-scale biomedical data to address salient challenges in health and disease. This event will follow a rigorous, interactive, mentored, and facilitated format over a 5-day residential program where team projects will be developed for NIH/NSF grant submissions. Finally, we will rigorously assess and characterize program effectiveness against emerging metrics from the Science of Team Science community.

2017-2022: NICHD R01 Autism Centers of Excellence: Networks - 2R01HD073983-01
Role: **Site PI** (Data Coordinating Center; Kevin Pelphrey, UVA, Project PI)
Title: Multimodal Developmental Neurogenetics of Females with ASD
Total: $300,000/year for 5 years
Comment: Under this project, I am the PI of the data coordinating center responsible for the receipt, quality assurance, archiving, and informatics of all autism neuroimaging and electrophysiological data gathered at the project's participating centers (University of Virginia, Children's National Hospital, Yale, Harvard, University of Washington, UCLA, and USC).

2018-2023: NICHD R01 - 1 R01 MH117982-01
Role: **Site PI** (Data Coordinating Center; Mirella Dapretto, UCLA, project PI)
Total: $837,175/year for 5 years
Comment: The proposed research will take a critical first step toward parsing the significant heterogeneity observed in Autism Spectrum Disorder (ASD) by combining state-of-the-art imaging and data-analytic methods to examine brain function, novel approaches to account for genetic susceptibility, and an unprecedentedly deep phenotypic characterization of a large, gender-balanced sample of youth with ASD. Capitalizing on the availability of EEG data previously collected on this sample as part of a different project, we will also explore whether any ASD subgroups identified by combining imaging, genetic, and phenotypic measures may be linked to distinct EEG profiles in order to develop easily deployable biomarkers of ASD that are predictive of meaningful differences in symptomatology and developmental outcomes. A better understanding of the neural mechanisms underlying heterogeneity in ASD will ultimately contribute to the development of more personalized and efficacious interventions.

2021-2021: University of Virginia 3Cavs Program
Title: Animating Alzheimer's
Role: **PI** (with co-I's George Bloom, UVA Biology, and Ishan Williams, UVA Nursing)
Amount: $60,000
Comment: A project to create an animated movie of the neurobiological processes underlying Alzheimer's Disease.

SUBMITTED:

2022-2023: NIH High-End Instrumentation (HEI) S10 Grant
Title: High-Performance Neuroscience Computational Platform

Role: **PI**
Amount: $2 million for one year to purchase equipment only
Comment: To support neuroscience discovery at scale this project will acquire and deploy a shared, neuroscience-dedicated, high-performance computing instrument. The proposed high-end instrumentation will form the core of UVA's institutional goals for advancing research excellence in brain and data sciences and will greatly enhance a diverse array of science on the brain in health and disease.

2022-2024: R21
Title: Investigating Sex and Genotype Effects on Pediatric Cortical Structure Using Neuroimaging Databases
Role: **PI** (with Tanya Evans, UVA SOM, contact PI)
Amount: $444,560.00
Comment: This study seeks to understand the relationship between genes related to reading disability, sex, and surface-based brain metrics of cortical thickness, cortical surface and local gyrification index in a typically developing cohort. This will be done by leveraging existing neuroimaging and genetic databases, and strengthened through inclusion of an independent sample for replication. The goal is to better understand the relationship between these factors to better enable early identification of susceptibility to reading disability and better, more focused reading remediation strategies.

2022-2027: National Science Foundation
Title: URoL_EN – Emergent computation networks and how living systems perceive their world
Role: **PI** (with Heman Shakeri, UVA SDS, and Teague Henry, UVA Psychology and SDS)
Amount: $125,000/yr
Comment: The proposed work will advance understanding of how realistic neurobiological networks present emergent properties and how network feedback mechanisms modulate the training of neural networks. Four graduate trainees and two postdoctoral researcher will be trained at the intersection of computational neuroscience, network science, and control theory. All software be open-source software, designed for use in machine learning as well as for use in neural simulation.

2024-2029: National Institutes of Health T32
Title: The iTHRIV Clinical Translational Data Science Training Program
Role: **PI**
Amount: $1,111,165
Comment: Modern clinical and translational research is dependent upon massive amounts of data, due to technological advances in data-generating devices (imaging, genome sequencing, etc.), increases in computer storage capacities, and the proliferation of publicly available data sets. Future advances in clinical translational science will require innovations in data science to analyze such large and complex data. The iTHRIV Clinical Translational Data Science Training Program, at the University of Virginia, through a multi-disciplinary research environment and rigorous curriculum, will attract and train the next generation of clinical translational scientists in advanced data and computational science methods to transform the translational science process so that new treatments and cures for diseases can be delivered to more patients faster.

IN PREPARATION:

2026-2030: NIH Innovative Programs to Enhance Research Training (IPERT)
Title: Biomedical Data Science Innovation Labs: An Intensive Research Project Development Program
Role: **PI**
Amount: ~$1,000,000
Comment: To cultivate community and career path development, we will develop a series of unique Biomedical Data Science Innovation Lab workshops based on large-scale biomedical data to address salient challenges in health and disease. This event will follow a rigorous, interactive, mentored, and facilitated format over a 5-day residential program where team projects will be developed for NIH/NSF grant submissions. Finally, we will rigorously assess and characterize program effectiveness against emerging metrics from the Science of Team Science community.

2024-2029: NINDS RM1 Interdisciplinary Team Science Grant
Title: Parkinson's Disease Research Collaborative (PDRC)
Role: Data Science and Neuroimaging **Core PI** (with Giselle Petzinger, USC, Michael Jakowec, USC, and Daniel Holschneider, USC)
Amount: $1.5million/year

Comment: The overarching goal of the center is to support specialized collaborative work as well as independently to define the causes of and discover improved treatments for PD.

2024-2029: NIA Alzheimer's Disease Research Center (ADRC) P30 Award
Title: Virginia Alzheimer's Disease Center (VADC)
Role: Research Education Component (REC) **PI** (Carol Manning, Ph.D. and Jaideep Kapur, M.D., PhD, Overall MPIs)
Amount: $1.4million/year
Comment: The Virginia Alzheimer's Disease Center (VADC) will train, cultivate, and support graduate students, postdoctoral fellows, junior faculty, and research associates at the University of Virginia by leveraging the interdisciplinary and collaborative nature of UVA faculty in the VADC and related programs. These include foundational and hands-on activities presented virtually and in-person through innovative project and grant development workshops.

2024-2029: NIH Parent R01
Title: Structural and Connectivity Mapping of the Claustrum
Role: **PI**
Amount: $500,000 total/year
Comment: The human claustrum is a poorly understood brain structure which forms widespread reciprocal connections with the cerebral cortex. Studies have associated abnormalities in the size and function the claustrum with neuropsychiatric symptoms in diseases like Wilson's disease, Alzheimer's disease, and epilepsy. This project will optimize MRI protocols for in vivo human as well as *ex vivo* mouse imaging of the claustrum, develop novel algorithms for the reliable characterization of its anatomy, and detailing its neural connectivity.

2024-2029: NIH Biomedical Technology Development and Dissemination (BTDD) Centers (P41)
Title: The UVA Center for Brain and Data Science
Role: **PI**
Amount: $1.4 million/year
Comment: The UVA Center for Brain and Data Science (CBDS) creates and applies innovative solutions for the investigation of data science approaches to neuroscientific imaging, genetics, behavioral, and clinical research. We seek to develop, validate, and disseminated a host of resources for large-scale data processing (e.g., connectomics, segmentation, registration, morphometry, and statistical mapping), translational studies (e.g., Alzheimer's disease, schizophrenia, Parkinson's disease, fronto-temporal dementia, traumatic brain injury, and autism spectrum disorder) and robust infrastructure (e.g., a graphical workflow environment, database resources, interactive visualization tools). CBDS provides the UVA, Commonwealth of Virginia, and neuroscience community with an advanced computational infrastructure that includes multiple web-services, hundreds of validated graphical pipeline analysis protocols, dozens of diverse computational brain atlases, access to a multi-core compute Grid cluster, and data commons archive containing rich multimodal, multiscale datasets.

COMPLETED:

2015-2019: NIH U24 - 1U24ES026465-01
Title: Big Data U: Empowering Modern Biomedicine via Personalized Training
Role: **PI**
Amount: $1.4 million/year direct
Comment: This is a unique team effort based at USC involving investigators from the Stevens Institute, the Information Sciences Institute (ISI), and the School of Cinematic Arts to develop a novel training paradigm for Big Data education.

2016-2019: NIH U24 - 1U24ES026465-01 – Supplement
Title: Innovation Lab Scoping Workshops
Role: **PI**
Amount: $45,000/year direct
Comment: To host a planning and preparatory meeting in advance of a larger Innovation Lab workshop.

2016-2019: NIH U24 - 1U24ES026465-01 – Supplement
Title: Innovation Labs: An Intensive Big Data Biomedicine Proposal Development Program
Role: **PI**

Amount: $144,956 /year direct
Comment: To organize and host an Innovation Lab workshop focused on topics relevant to the use of "Big Data" in biomedicine. A different theme is identified each year and young faculty apply to attend this week-long event. Carefully selected senior faculty mentors guide teams in the development of novel research projects in the chosen topic domain.

2016-2019: NIH U24 - 1U24ES026465-01 – Supplement
Title: BD2K TCC International Interactions and Frameworks for "Big Data" Training and Standards
Role: **PI**
Amount: $100,000 /year direct
Comment: A unique international meeting is proposed for bringing together experts from science training consortia across three continents (North America, Europe, and Africa) to discuss and plan for enhanced collaboration, the sharing of knowledge, and the development of further joint activities.

2018: National Science Foundation
Title: Innovation Lab Travel Stipend Support
Role: **PI**
Amount: $40,000 total costs
Comment: To support travel stipends for the 2018 Data Science Innovations Lab event at the Riverhouse Inn and Conference Center in Bend, Oregon.

2014-2017: NIH - 1U54EB020406-01
Title: Big Data for Discovery Science (BDDS)
Role: **Co-Investigator** (PI: Toga, A.W.)
Amount: $2,095,250/year
Comment: The overarching goal of the BDDS Center project is to ease the management and organization of biomedical big data and accelerate data-driven discovery by eliminating or reducing three distinct barriers to effective discovery science: complexity with respect to physical distribution and heterogeneity, scalability of analysis, and ease of access and interaction with big-data and associated analytic methods. These issues are fundamental to discovery science and transcend the specifics of the research question as we span levels of scale from cells to organs to systems, and integrate data from imaging, genetics, "omics," and phenotypes.

2017-2019/(2022): NINDS R01
Title: Effects of blood-brain barrier disruption upon white matter connectivity subsequent to traumatic brain injury in older adults
Role: **Co-Investigator** (Andrei Irimia, PI)
Amount: $250,000 annually
Comment: To assess the effects of traumatic brain injury on blood brain barrier integrity in older adults and the prospects for recovery from injury.

1998-2019/(2023): NIH - 2P41EB015922-21
Title: Laboratory of Neuro Imaging Resource (LONIR) – Training and Dissemination
Role: **Investigator** (Arthur W. Toga, PI)
Amount: $1,717,236/yr total costs ($190,621 for training and dissemination)
Comment: Under the direction of Dr. Arthur Toga, Director of the USC Mark and Mary Stevens Neuroimaging and Informatics Institute, this effort seeks to generate a comprehensive suite of technologies include algorithmic and computational methods for image management, processing, data analysis and visualization. The technologies are ideally suited to enable holistic studies of the interactions between different imaging data modalities, phenotypic population characteristics, and physiological brain connectivity. The intention of training and dissemination under LONIR is to provide a complete battery of the materials needed to educate investigators both on the theory and philosophy of image analysis, computational anatomy and multidimensional modeling, as well as the specific applications of software developed as part of the LONI P41 Resource.

2012-2017: NIH/NIBIB - 7P41EB015922-17
Role: **Co-Investigator** (PI: Toga, A.W.)
Title: Laboratory of Neuro Imaging Resource (LONIR)
Amount: $1,187,436/year

Comment: Under this recently renewed award I am responsible for the majority of education and outreach activities involving workshops held at UCLA and worldwide surrounding informatics and image data processing software developed under this resource.

2012-2017: NICHD R01 Autism Centers of Excellence: Networks - 1R01HD073983-01
Role: **Site PI** (Data Coordinating Center; Kevin Pelphrey, GWU, project PI)
Title: Multimodal Developmental Neurogenetics of Females with ASD
Amount: $300,000/year for 5 years
Comment: Under this project, I am the PI of the data coordinating center responsible for the receipt, quality assurance, archiving, and informatics of all autism neuroimaging and electrophysiological data gathered at the project's participating centers (Yale, Harvard, University of Washington, UCLA, and USC).

2017: National Science Foundation
Title: Innovation Lab Travel Stipend Support
Role: **PI**
Amount: $40,000 total costs
Comment: To support travel stipends for the 2017 Data Science Innovations Lab event at the Wylie Inn and Conference Center near Boston, MA.

2015-2018: NIH Phase II STTR
Title: Multimodality Image-Based Assessment System for Traumatic Brain Injury
Role: **PI** (with Stephen Aylward of Kitware, Inc.)
Amount: $200,000/year
Comment: In the US, approximately1.7 million individuals are victims of traumatic brain injury (TBI) annually, with many requiring surgical intervention or long-term care. Initial assessment and treatment of TBI have appropriately become major US healthcare initiatives, yet the effects of TBI can be particularly challenging for the patient and for healthcare systems. Neuroimaging data and processing approaches, however, are presently not properly employed to address this challenge. We propose to refine, apply, and test tools initiated under our Phase I STTR to perform the combined, efficient analysis of multimodal neuroimaging data sets for use in assessing the extent of brain injury, its change over time, and for optimization of treatment planning.

2017: National Science Foundation
Title: Innovation Lab Travel Stipend Support
Role: **PI**
Amount: $40,000 total costs
Comment: To support travel stipends for the 2017 Data Science Innovations Lab event at the Wiley Inn and Conference Center, Boston, MA.

2012-2017: NICHD R01 Autism Centers of Excellence: Networks - 1R01HD073983-01
Role: **Site PI** (Data Coordinating Center; Kevin Pelphrey, GWU, project PI)
Title: Multimodal Developmental Neurogenetics of Females with ASD
Amount: $300,000/year for 5 years
Comment: Under this project, I am the PI of the data coordinating center responsible for the receipt, quality assurance, archiving, and informatics of all autism neuroimaging and electrophysiological data gathered at the project's participating centers (Yale, Harvard, University of Washington, UCLA, and USC).

2016: National Science Foundation
Title: Innovation Lab Travel Stipend Support
Role: **PI**
Amount: $40,000 total costs
Comment: To support travel stipends for the 2016 Data Science Innovations Lab event at Lake Arrowhead, CA.

2015: NIH/NINDS/NIBIB - 1 R13 NS092117-01
Role: **PI**
Title: Student Investigator Travel Awards for OHBM 2015
Amount: $13,000/year

Comment: This provides NIH funding to support trainee travel awards to the 2015 annual meeting of the Organization for Human Brain Mapping (OHBM) in Honolulu, Hawaii. The OHBM is the primary international meeting concerned with the organization of the human brain and its investigation with MRI-based imaging approaches. These awards will assist with travel expenses for deserving US-based postdoctoral fellows, medical students and graduate students and those from developing countries with the highest ranking scientific abstracts.

2014-2015: U01DK082370
Role: **Site PI** (Emeran Mayer, project PI)
Title: MAPP Research Network Second Phase
Amount: $39,761
Comment: This project as part of the MAPP Research Network will provide new insights into causes progression, and risk factors for Urological Chronic Pelvic Pain. The proposed studies expand on the insights gained from successful initial MAPP funding cycle and will address symptom patterns, patient subtypes and various biomarkers, including brain signatures in addition to identification of factors associated with and predictive of symptom change, Here, I supervise the multimodal analysis of brain imaging data and correlate brain biomarkers with clinical metrics of chronic pain.

2009-2013: NIMH R21 - 1R21MH086104
Role: **Co-Investigator** (PI: Altshuler, L)
Title: Functional Connectivity and Anatomic Connectivity in Bipolar Disorder
Amount: $100,000/yr for 3 years
Comment: We developed integrated approaches to the joint analysis of functional as well as structural connectivity on data obtained in patients with bipolar disorder and age-and gender- matched healthy control subjects.

2013-2014: NIMH
Role: **PI**
Title: LONI Pipeline and NITRC-CE Joint Testbed Project to Enhance and Expedite Neuroimage Data Processing from the National Database for Autism Research (NDAR)
Amount: $100,000
Comment: This was a joint project between our group, investigators at the University of Massachusetts, and the NIMH to integration computational, data processing, and primary neuroimaging data in autism.

2010-2014: NIH/ NIBIB/NINDS 2U54EB005149-06
Title: Traumatic Brain Injury (Core 2D: Driving Biological Project)
Role: **Site PI** (U54 Project PI: Ron Kikinis, M.D., Brigham and Women's Hospital, Harvard School of Medicine)
Amount: $247,492 per year
Comment: This project worked to develop sophisticated multi-modal neuroimage data processing methodologies for patient-specific consideration of traumatic brain injury (TBI). The methods and their applications have appeared in several high-profile publications.

2013: IBM, Inc.
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on Neuroimaging and Genetics in Aging and Age-Related Disease"
Amount: $15,000

2013: International Neuroinformatics Coordinating Facility
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on Neuroimaging and Genetics in Aging and Age-Related Disease"
Amount: $10,000

2013: *CANARIE*
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on Neuroimaging and Genetics in Aging and Age-Related Disease"
Amount: $10,000

2013: *Institute for Collaborative Biotechnology*
Role: **PI** (with Grafton, S.T.)

Title: "New Horizons in Human Brain Imaging: A Focus on Neuroimaging and Genetics in Aging and Age-Related Disease"
Amount: $20,000
Comment: Funds to support participant travel costs.

2009-2012: NIMH ARRA RC1 Challenge Grant Program
Role: **PI**
Title: Informatics Meta-Spaces for the Exploration of Human Neuroanatomy
Amount: ~$500,000 direct per year
Comment: The NIH priority score for this proposal was ranked in the 1st percentile. This project is developing a Google-Earth like interface for the interactive examination of multiple brain imaging data sets drawn from large-scale neuroimaging archives. It has generated several peer-reviewed research articles.

2010-2011: *Hewlett-Packard*
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on Brain Networks and Connectivity"
Amount: $10,000
Comment: Proposal evaluated for its ability to link scientists with potential industry partners in pursuing research on brain connectivity using large-scale computation.

2010-2011: *Isilon, Inc.*
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on Brain Networks and Connectivity"
Amount: $10,000
Comment: Isilon recognized the need for high-end storage in neuroimaging and selected our proposal as an example of big data storage needs in the biomedical sciences.

2010-2011: *CANARIE*
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on Brain Networks and Connectivity"
Amount: $10,000
Comment: Resulting from a partnership between the Canadian C-Brain Project and LONI.

2007-2009: *University of California Pacific Rim Institute*
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on the Pacific Rim"
Amount: $3000
Comment: The UC Pacific Rim Institute evaluates funding proposals that seek to seed interactions between UC campuses and institutions based around the Pacific. Meeting proposals are critically reviewed by a panel of faculty from around the UC.

2007-2009: *International Brain Research Organization (IBRO)*
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on the Pacific Rim"
Amount: €4000
Comment: IBRO provides support for international meetings and conferences through critical review of proposals from submitters around the world. They were particularly excited about our proposal for this meeting of Pacific Rim based neuroimaging researchers.

2008-2009: *Sun Microsystems*
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on the Pacific Rim"
Amount: $10,000
Comment: High performance computing is now becoming the standard expectation for multimodal imaging and Sun contributed funds to support this unique meeting.

2007-2009: *CSIRO (Australia)*

Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on the Pacific Rim"
Amount: $3000
Comment: The CSIRO is the Australian equivalent of the NSF in the US and provides research and conference support for collaborative work involving investigators based in Australia. They evaluated our proposal for support as one of "leading example promoting international coordination and collaboration"

2008-2009: *Institute for Collaborative Biotechnology*
Role: **PI** (with Grafton, S.T. and Miller, M.B., UCSB)
Title: "New Horizons in Human Brain Imaging: A Focus on the Pacific Rim"
Amount: $20,000
Comment: The ICB is supported by funding from the US Army to examine individual differences in human brain function that relate to basic cognitive functions as well as military applications for determining battlefield readiness. Funding proposals are evaluated by an international panel of reviewers.

2010-2011: NINDS/NIDA/NIMH R13 - International Planning Visits and Workshops
Role: **PI** (Co-Investigators: Bandettini, P., Strother, S., Cheng, K., Egan, G., Stenger, A., Evans, A., Grafton, S.T., Miller, M.B.)
Title: "New Horizons in Human Brain Imaging: Modeling Brain Connectivity"
Amount: $30,000 per year
Comment: Provided the majority of support for our second New Horizons meeting on brain networks and connectivity.

2004-2009: NIH/NIMH - 5 R01 MH71940
Role: **Co-Investigator** (PI: Toga, A.W.)
Title: "Collaborative Brain Mapping: Tools for Sharing"
Total Award Amount: $2,442,113
Comment: A project to develop tools for human brain atlasing, data sharing, and visualization of neuroimaging results.

2007-2008: NIMH/NINDS/NIBIB R13 - International Planning Visits and Workshops
Role: **PI**
Title: "New Horizons in Human Brain Imaging: A Focus on the Pacific Rim"
Amount: $15,000 per year
Status: Award completed Aug 2009
Comment: With the support of this award I was able to host the inaugural New Horizons meeting on the Big Island of Hawaii, involving 30 speakers and 40 attendees.

2005-2007: NIMH Human Brain Project (HBP) P20 (Dartmouth, UC Berkeley, Rotman Institute), P20 MH072580-01
Role: **PI** (with Michael Gazzaniga)
Title: "fMRI Research via Database Mining, Management, and Visualization"
Amount: $909,123 costs per year
Comment: This P20 project provided support for the fMRI Data Center project to gather and archive complete neuroimaging data sets from peer-reviewed cognitive neuroimaging investigations using fMRI.

2005: Neuroscience Center at Dartmouth Grant
Role: **Co-Investigator** with Jeffrey S. Taube, Ph.D. and Jay C. Buckey, M.D.
Title: "Neural Substrates for the Perception of Self-Motion and Motion Sickness"
Amount: $12,000 for one year
Comment: An small project to conduct fMRI in healthy subjects subjected to visual motion in which they experienced mild motion sickness.

2003-2008: NINDS (RO1-NS33504-10)
Role: **Co-Investigator** (Scott T. Grafton M.D., Dartmouth, PI)
Title: "Functional Substrates of Long-Term Motor Learning"
Amount: $250,000 per year
Comment: This was a project to computationally model continuous human motor function during pursuit tracking during fMRI image acquisition.

2003-2008: NINDS (PO1 – NS44393)
Role: **Co-Investigator** (with Scott Grafton, M.D.; James Houk Ph.D., Northwestern Univ., Program Project PI)
Title: "Integration of Motor Programs Over Time - Project 1. Motor Program Integration in Humans" (Scott Grafton M.D., Dartmouth, Sub-Project PI)
Amount: $250,000 per year
Comment: A project seeking to examine the notion of 'internal models of motor control' in humans performing continuous tasks of motor performance.

2001-2004: NSF (01-071) Infrastructure for Cognitive Science
Role: **Co-Investigator** (as of 2003; Michael S. Gazzaniga, Ph.D., Dartmouth, PI)
Title: "The fMRI Data Center"
Amount: Five year program - $1 million direct costs for one year
Comment: This project provided the initial support for the fMRI Data Center project to gather and archive complete neuroimaging data sets from peer-reviewed cognitive neuroimaging investigations using fMRI.

2001-2002: National Science Foundation (01-41)
Role: **PI**
Title: "A Pilot Project to Investigate Continuous Performance fMRI in Normal Humans"
Amount: $49,967 total costs per year
Comment: A project seeking to develop and examine the continuous performance of tasks of motor control.

LECTURES AND PRESENTATIONS:

Invited Lectures:

The Department of Psychology, City of London Polytechnic, London, England, May 15th, 1991

The Department of Speech Sciences, University College London, London, England, December 5th, 1991

VA Medical Center, Minneapolis, MN, January 8th, 1997

Department of Radiology, University of Washington Medical Center, Seattle, WA, January 13th, 1997

National Institutes of Drug Abuse (NIDA), Johns Hopkins University Bayview Campus, Baltimore, MD, May 29th, 1997

Georgetown Institute for Cognitive and Computational Sciences, Georgetown University, Washington D.C., September 26th, 1997

Department of Neuropsychiatry, Johns Hopkins University, Baltimore, MD, November 11th, 1997

The Neurosciences Institute, La Jolla, CA, June 29th, 1999

Neural Information Processing Systems, Rumba Two-Day Workshop, Whistler, B.C., Canada, December 6th, 2001.

2002 Biological Psychiatry Annual Meeting, Philadelphia, Pennsylvania, May 17th, 2002

fMRI Experience IV, National Institutes of Health, Bethesda, Maryland May 13th-14th, 2002

CODATA 18th International Conference, Montreal, Quebec, Canada, September 30th, 2002.

Neural Information Processing Systems, Rumba Two-Day Workshop, Whistler, B.C., Canada, December 12th -14th, 2002.

Trans-NIH (NICHD, NIDA, NIMH, & NINDS) Conference on Pediatric Functional Neuroimaging, Bethesda, MD, May 24th-26th, 2004.

Center for the Study of Learning, Georgetown University, Washington D.C., June 24th, 2004

Human Brain Project Annual Meeting, National Institutes of Health, Natcher Center, April 25th, 2005.

fMRI Experience VII, Aston University, Birmingham, England, September 14th, 2005

Boston Area Dartmouth Alumni Association, Boston Museum of Science, April 8th, 2006.

Databasing the Brain Workshop - Oslo, Norway, June 25 – 27, 2006

Advanced Neuroimaging Summer School (Russell A. Poldrack & Mark S. Cohen, Directors), UCLA Faculty Center (Hacienda Room), August 13-24, 2007.

1st INCF Workshop on Neuroimaging Database Integration – Karolinska Institute, Stockholm, Sweden, August 29-30, 2007.

Department of Radiology Weekly Seminar Series, University of Washington, Seattle, WA, September 24th, 2007.

New Directions in Data Mining: Synergistic Enhancements of Online Journals and Databases Panel Discussion, Society of Neuroscience Annual Meeting, November 6th, 2007, San Diego, CA.

1st INCF Workshop on Neuroimaging Database Sustainability – Karolinska Institute, Stockholm, Sweden, December 13th -14th, 2007.

INCF Autumn School on Methods in Neuroinformatics, "Imaging the Brain at Rest", Royal Institute of Technology, Stockholm, September 10-11, 2008.

INCF Autumn School on Methods in Neuroinformatics, "Scientific Workflow Design and Optimization", University of West Bohemia, Pilsn, Czech Republic, September 5-8, 2009.

Advanced Neuroimaging Summer School (Mark S. Cohen, Director), UCLA Faculty Center (Hacienda Room), July 16th, 2010.

Colloquium Speaker, Department of Psychology, Stanford University, October 20th, 2010.

Colloquium Speaker, Department of Radiology, University of Washington, June 13-14th, 2011.

Invited Speaker, *2nd Annual Traumatic Brain Injury Conference*, Washington, DC, March 6-7th, 2012.

Invited Speaker, *Structure and Function Connectivities in Neurodegenerative Diseases: A Biotechnology National Research Resource*, University of California San Francisco, CA, June 2, 2012.

Invited Speaker, "The Analysis of Large Data Sets", *The Use and Federation of Large Data Sets in Ontario,* The Ontario Brain Science Institute, Toronto, ON, Canada, August 22-23, 2012.

Invited Speaker, "Measuring and Modeling Alterations in Structural Connectivity in Brain Trauma", *The 13th Annual University of California Neurotrauma Symposium*, Sonoma, CA September 9-11, 2012.

Invited Speaker, "Mapping Connectivity Damage in a Famous Case of TBI", *Department of Anatomical Sciences and Neurobiology,* University of Louisville, Louisville, Kentucky, January 24th, 2013.

Invited Speaker, "Modeling the Network Connectivity in a Noted Neurological Case", *The Feinstein Institute for Medical Research,* North Shore Jewish Hospital, Long Island, New York, March 20th, 2013.

Invited Speaker, "Large Scale Brain Networks", *11th Annual CNS Basic And Translational Science Symposium System Biological Approaches To Gut-Brain Interactions in Health And Disease – From Molecular To Social Networks*, University of California Los Angeles, April 26th, 2013.

Invited Speaker, "Multimodal Brain Atlasing in the Connectomics Era", *International Neuroinformatics Coordinating Facility (INCF) Human Atlasing Workshop*, Seattle, WA, June 14-15, 2013.

Invited Faculty, "International Neuroinformatics Coordinating Facility (INCF) Achieving Excellence in Neuroinformatics in Latin America", *Summer Course, Cuban Neuroscience Center*, Havana, Cuba, September 16-21, 2013.

Invited Symposium Speaker: "Neuroimaging Data Processing Challenges in the Context of Traumatic Brain Injury (TBI)", *USC Department of Biomedical Engineering (BME)*, October 14th, 2013.

Invited Grand Rounds Speaker: "Multimodal Neuroimaging in TBI: Rationale, Analysis, Modeling, and Implications for Clinical Outcome", *Keck School of Medicine of USC, Department of Neurology*, October 29th, 2013.

Invited Symposium Speaker: "Neuroimaging Data Processing Challenges in the Context of Traumatic Brain Injury (TBI)", *USC Ming Hsieh Department of Electrical Engineering*, November 4th, 2013.

Invited Special Symposium Speaker: "Traumatic Brain Injury (TBI): Exploration with Multimodal Neuroimaging, Analysis, and Modeling", *Lewis Center for Neuroimaging*, University of Oregon, December 4th, 2013.

Speaker: "NA-MIC TBI DBP: Three Years of Progress in Modeling and Mapping Neurotrauma", *Marriot City Center*, Salt Lake City, UT, January 9th, 2014.

USC Department of Neurology/INI Research Retreat Presenter: "Modeling and Mapping of Neurotrauma", *Keck School of Medicine of USC*, February 8th, 2014.

Invited Grand Rounds Speaker: "Modern Neuroimaging Approaches for the Examination of Neurotrauma: Implications for Cognitive and Psychiatric Assessment", *Keck School of Medicine of USC, Department of Psychiatry*, February 11th, 2014.

Faculty Speaker: "Accessing and Processing ASD Neuroimaging Data from LONI, NITRC, and NDAR Resources", *New Horizons in Human Brain Imaging*, Oahu, Hawaii, March 7th, 2014.

Invited Speaker: "High-Throughput MRI Image Processing using the LONI Pipeline: History, Usage, and Applications", *Yale University*, April 22nd, 2014.

Keynote Speaker: "Mapping of Structural and Connectomic Alteration in Traumatic Brain Injury", *Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount Sinai*, New York, New York, May 29th, 2014.

Invited Speaker: "Integrating Clinical Imaging Challenges, Connectomics, Informatics Approaches, and their Application", *Centre for Integrative Neuroscience (MCIN), Montreal Neurological Institute, McGill University*, Montreal, Canada, September 5th, 2014.

Workshop Leader: "Professionalism and Ethics in Neuroscience", *USC Neuroscience Graduate Program Retreat*, September 26th, 2014.

Invited Speaker: "Big Data Informatics for Brain Imaging", *Cuban Neuroscience Center*, Havana, Cuba, October 18th, 2014.

Colloquium Speaker: "Challenges for Neuroimaging Big Data Analytics and Resources", *MIND Research Institute*, University of New Mexico, Albuquerque, NM, March 6th, 2015.

Invited Symposium Speaker: "The Graphical Mining of Large-Scale Neuroimaging Datasets", *University of Sao Paulo*, Sao Paulo, Brazil, March 13th, 2015.

Colloquium Speaker: "Multimodal Neuroimaging Approaches in Neurotrauma", Department of Psychology, *University of Delaware*, Newark, Delaware, April 9th, 2015.

Symposium Speaker: "Connectome and Genomics: Omics and Big Data For Neuroradiology, Session I - Omics and Big Data for Brain Development and Neurodegenerative Disorders". *American Society of NeuroRadiology (ASNR) Annual Meeting*, Chicago, Illinois, April 28th, 2015.

Colloquium Speaker: "Big Data, the Brain, and You", Biomedical and Health Information Sciences (BHIS), *University of Illinois at Chicago*, Chicago, Illinois, May 18th, 2015.

Speaker: "Traditional and Emerging Neuroimaging Techniques for Sports-Induced Concussions", *National Summit on Sports Concussion: Sports and Concussion Outcomes*, Los Angeles, CA, June 5th, 2015.

Session Chair and Speaker: "The Promise of Structural and Functional Connectomics to Advance Understanding of Heterogeneous Etiology in Autism", *State-of-the-Science: Neuroimaging of Autism, Organization for Human Brain Mapping (OHBM) Annual Meeting*, June 16th, 2015, Hawaii Convention Center, Honolulu, Hawaii.

Speaker: "Integration of behavioral, structural, functional, and genetic data for the study of autism spectrum disorders", *The Eleventh International Conference on Data Integration in the Life Sciences 2015 (DILS2015)*, held at University of Southern California's Information Sciences Institute in Marina del Rey, California, on July 9-10, 2015.

Special Lecturer: "LONI Pipeline: A Scalable, Distributed & Service-Oriented Big Data Neuroimaging and Genetics Workflow System", Instituto de Neurobiología, Universidad Nacional Autónoma De México (UNAM), Campus Juriquilla, Mexico on July 28th, 2015.

Invited Speaker: "New Frontiers of Brain Research using Big Data Neuroimaging and Informatics", hosted by the *University of Southern California – Mexico Office*, Impact Hub DF (http://mexicocity.impacthub.net/), Ciudad de Mexico, on July 30th, 2015.

Invited Speaker: "Communications and Information Theory to Analysis of Functional Connectivity", *State of the Art Neuroimaging: Bench to Bedside*, Grove Park Inn, Asheville, NC, September 3rd-6th, 2015.

Invited Speaker: "Emerging Biomarkers and Approaches to TBI", *State of the Art Neuroimaging: Bench to Bedside*, Grove Park Inn, Asheville, NC, September 3rd-6th, 2015.

Invited Speaker: "What is Big Data?", *State of the Art Neuroimaging: Bench to Bedside*, Grove Park Inn, Asheville, NC, September 3rd-6th, 2015.

Seminar Speaker: "Ethics in Biomedical Research – Incidental Findings", *USC Neuroscience Graduate Program Retreat*, AJU Brandeis-Bardin Campus, Simi Valley, CA, September 25th, 2015.

Seminar Speaker: "Don't Shade your Eyes – Plagiarize?", *USC Neuroscience Graduate Program Retreat*, AJU Brandeis-Bardin Campus, Simi Valley, CA, September 25th, 2015.

Plenary Speaker: "Graphical Data Mining Approaches in Human Neuroimaging", Centro de Investigación en Matemáticas A.C., Mathematics Research Center, Guanajuato, Mexico, November 5-6th, 2015.

Seminar Speaker: "Toward Efficient Large-Scale Data Processing using Computational Workflow Systems", Centro de Investigación en Matemáticas A.C., Mathematics Research Center, Guanajuato, Mexico, November 5-6th, 2015.

Host and Organizer: Pedro Valdes-Sosa, M.D., Ph.D., from the Cuban Neuroscience Center in Havana, Cuba: i) USC Neuroscience Graduate Program Distinguished Speaker, ii) *Inaugural USC Latino "Last Lecture"* speaker, February 29th, 2016, USC, Los Angeles, CA. [Noteworthy as being the first time since prior to the Cuban Revolution that USC had hosted a Cuban-based scientist. See http://dailytrojan.com/2016/02/29/cuban-neuroscientist-gives-last-lecture/].

Invited Speaker: "BD2K: Training Coordination Center (TCC)", *ELIXIR-Europe, All-Hands-Meeting*, Barcelona, Spain, March 9th-10th, 2016.

Session Chair: "Big Data Neuroimaging", *18th World Congress of Psychophysiology (IOP2016) of the International Organization of Psychophysiology (IOP)*, Havana, Cuba August 31st to September 4th, 2016.

Symposium Organizer: "Big Data Neuroimaging", International Organization for Psychophysiology (IOP) Annual Meeting, Melia Habana Hotel and Conference Center, Havana, Cuba, August 31st to September 4th , 2016.

Symposium Co-Organizer: "California Big Data Biomedical Workshop", *Hyatt Vineyard Creek Resort*, Sonoma, CA, September 29th-October 1st, 2016 [with Arthur Toga, Paul Thompson, and Carl Kesselman].

Symposium Co-Organizer: "Big Data for Discovery Science", *Association for Computing Machines, Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB)*, Seattle, WA, Sunday, October 2, 2016.

Symposium Co-Organizer: "Scientific Knowledge Discovery over Big Data", *Society for Neuroscience Annual Meeting*, San Diego, CA, Thursday, November 17, 2016.

Keynote Speaker: "Mapping white matter connectivity of the human claustrum using *in vivo* neuroimaging", *Society for Claustrum Research Third Annual Symposium, The Undiscovered Claustrum in Conjunction with the Centenary Celebration of Francis Crick, Salk Institute*, Torrey Pines, CA, Saturday, November 12, 2016.

Speaker: "Big Opportunities for Big Data Training at USC and Beyond", *USC Institute for Prevention Research (IPR) and the Department of Preventive Medicine*, USC Health Sciences Campus, January 20, 2017.

Invited Lecturer: "Informatics Infrastructure for Neuroimaging: Toward an Atlas for the Vision Impaired", *IMT School for Advanced Study*, Lucca, Italy, March 24th, 2017.

Presenter: "Analysis of white matter connectivity affirms the claustrum as a member of the Rich Club network of the human brain", *2017 Australasian Neuroscience Society Annual Meeting*, December 2nd, 2017, Sydney, Australia

Invited Lecturer: "The Last Brain Region: the Study of the Claustrum, its Form, Connectivity and Function", Monash Biomedical Imaging, *Monash University*, December 6th, 2017, Melbourne, Australia.

Seminar Speaker: "Neuroimaging across the spectrum of Traumatic Brain Injury (TBI)", Department of Neurobiology, *Florida State University*, Tallahassee, FL, February 5th, 2018.

Presenter: "Learning Paths in the ERUDITE portal", Applying Bioinformatics and Data Science Competency Frameworks to ELIXIR Training, Amsterdam, The Netherlands, April 4-6th, 2018.

Seminar Speaker: "Making data science training resources FAIR", *eSciences Institute, University of Washington*, Seattle, WA, April 11th, 2018.

Symposium Speaker: "Multimodal Brain Signatures", 24th *Annual Organization for Human Brain Mapping Annual Meeting*, Singapore, June 18th, 2018.

Symposium Speaker: "Toward the FAIRness of Data Science Training Resources", *26th International Conference on Intelligent Systems in Molecular Biology (ISMB)*, Hyatt Regency Hotel, Chicago, IL, July 8th, 2018.

Workshop Speaker: "Applying the FAIR principles to Online Data Science Training Resources", *Workshop on Developing a Data Science Competent EHS Workforce*, National Institute of Environmental Health Sciences, Research Triangle, Park, North Carolina, August 14-15, 2018.

Invited Lecturer: "Neuroimaging as a 'Big Data' Science", *Data Science Institute, University of Virginia*, Charlottesville, Virginia, August 30th, 2018.

Symposium Speaker: "Mild cognitive impairment and structural brain abnormalities in a sexagenarian with a history of childhood traumatic brain injury", *International Organization for Psychophysiology, IMT School for Advanced Study,* Lucca, Italy, September 6th, 2018.

Symposium Speaker: "Data Science: An Introduction to the Computational Tools and Techniques for Large-scale Biomedical Research", *NIDA-NIAAA 2018 Mini-Convention: Frontiers in Addiction Research,* San Diego Convention Center, November 2, 2018.

Invited Lecturer: "The Last Brain Region: the Study of the Claustrum, its Form, Connectivity and Function", Department of Psychology, *University of Virginia,* December 13th, 2018, Charlottesville, Virginia.

Conference Presenter: "ERudite Learning Paths", *Bioinformatics Education Summit,* May 14-17, 2019, Newlands Tsogo Sun Hotel, Cape Town, South Africa.

Keynote Speaker: "Data Science: An introduction to the computational tools and techniques for large-scale biomedical research", Big Data Neuroscience Workshop 2019: Organized by the Advanced Computational Neuroscience Network (ACNN), September 19 - 20, 2019, *University of Michigan, Ann Arbor,* Michigan.

Seminar Speaker: "Considering Big Data: Finding our way in an era of large-scale studies of brain form and function", October 26th, 2020, Social Lunch, Department of Psychology, *University of Virginia,* Charlottesville, Virginia.

Invited Lecturer: "The Brain as a 'Big Data' Science", Data Science Lecture Series, *Morehouse School of Medicine,* Atlanta, GA, April 29th, 2021.

Seminar Speaker: "The Brain as a Data Science", October 19th, 2021, Neuroscience Graduate Program, *University of Virginia*, Charlottesville, Virginia.

Colloquium Speaker: "The Brain as a 'Big Data' Science", November 11th, 2021, Department of Biochemistry and Molecular Genetics, *University of Virginia,* Charlottesville, Virginia.

Seminar Speaker: "The Last Brain Region: The Study of the Claustrum, it's Form, Connectivity and Function", February 3rd, 2022, Cognitive Lunch, Department of Psychology, *University of Virginia,* Charlottesville, Virginia.

Visiting Faculty Lecture: "The Brain as a Big Data Science", May 17th, 2022, *Scuola IMT Alti Studi Lucca,* Italy.

Visiting Faculty Lecture: "Finding the Claustrum", May 19th, 2022, *Scuola IMT Alti Studi Lucca*, Italy.

Visiting Faculty Lecture: "The -Omics of Autism", May 24th, 2022, *Scuola IMT Alti Studi Lucca,* Italy.

Visiting Faculty Lecture: "Considering Conduction Velocity as a Driver of Brain Networks", May 24th, 2022, *Scuola IMT Alti Studi Lucca, Italy.*

Speaker: INCF Short Course on Neuroinformatics, "Human Neuroimaging", October 2-4, 2023, *University of Washington,* Seattle, WA. [https://incf.org/blog/incf-short-course-introduction-neuroinformatics-2023]

Keynote Speaker: "Big Data in Neuroimaging: Challenges Associated with Multi-Institutional Collaborations", *International Initiative for Traumatic Brain Injury Research (inTBIR),* December 4th, 2023, via Zoom.

Other Scientific Presentations:

Psychobiology Society/Psychophysiology Society Joint Conference; Royal Holloway and Bedford New College, Egham, England; September 23rd-25th, 1991:

Van Horn, J.D. and McManus, I.C. "Ventricular enlargement in schizophrenia: A meta-analysis of studies using the ventricular-brain ratio (VBR)."

Symposium: Issues in Schizophrenia; Department of Psychology, University College London, England; November 7th, 1991;
Van Horn, J.D. and McManus, I.C. "Neuropathology in Schizophrenia."

Society of Nuclear Medicine, 40th Annual Meeting, Toronto Convention Center, Toronto, Ontario, Canada; June 8th-11th, 1993:
Esposito, G., **Van Horn, J.D.**, Weinberger, D.R., and Berman, K.F. "Gender differences in cerebral blood flow with PET: Is there an effect of cognitive state?"

Mattay, V.S., Berman, K.F., Ostrem, J.L., **Van Horn, J.D.**, Bigelow, L.B., Goldberg, T.E., and Weinberger, D.R. "The effect of amphetamine on regional cerebral blood flow during cognitive activation: A PET study"

American Psychiatric Association, 146th Annual Meeting, San Francisco, CA; May 22nd-27th, 1993:
Van Horn, J.D., Berman, K.F., Esposito, G., Ostrem, J.L., and Weinberger, D.R. "Is there frontal lobe lateralization? A study using PET".

Canadian Society for Brain, Behaviour, and Cognitive Science/Experimental Psychological Society Joint Conference, University of Toronto, Toronto, Canada, July 15th-17th, 1993:
McManus, I.C. and **Van Horn, J.D.** "Task difficulty and hand differences on the Annett Pegboard Task".

Society for Neuroscience, 23rd Annual Meeting, Washington Convention Center, Washington DC, November 7th-12th, 1993:
Van Horn, J.D., Terrazas, A., Berman, K.F., Goldberg, T.E., and Weinberger, D.R., "A linear regression approach to the assessment of rCBF changes in cognitive paradigms: A Monte Carlo simulation study"

Berman, K.F., Ostrem, J.L., **Van Horn, J.D.**, Mattay, V.S., Esposito, G., and Weinberger, D.R. "A comparison between normal monozygotic and dizygotic twins studied during cognition with positron emission tomography"

Esposito, G., Weinberger, D.R., **Van Horn, J.D.**, Ostrem, J.L., and Berman, K.F. "Do women have more active brains than men? A PET study during cognitive activation"

American College of Neuropharmacology Conference, Honoloulu, HI, December 12th-18th, 1993:
Van Horn, J.D., Gold, J., Esposito, G., Ostrem, J.L., Weinberger, D.R., and Berman, K.F. "Maze learning and frontal lobe functioning assessed with PET"

Ostrem, J.L., Berman, K.F., Mattay, V.S., **Van Horn, J.D.**, Esposito, G., and Weinberger, D.R. "A comparison of two abstract reasoning tasks using O15 PET"

Esposito, G., Berman, K.F., **Van Horn, J.D.**, Ostrem, J.L., and Weinberger, D.R. "Determinants of cerebral blood flow during cognitive tasks"

American Academy of Neurology Conference, Washington, D.C., May 4th, 1994:
Berman, K.F., Ostrem, J.L., Mattay, V.S., Esposito, G., **Van Horn, J.D.**, Torrey, E.F., Weinberger, D.R. "The roles of the dorsolateral prefrontal cortex and the hippocampus in working memory: PET studies of normal and abnormal states"

Society of Biological Psychiatry Annual Meeting, Philadelphia, PA, May 18th-22nd, 1994:
Berman, K.F., Ostrem, J.L., Mattay, V.S., Esposito, G., **Van Horn, J.D.**, Abi-Dargham, A., Torrey, E.F., and Weinberger, D.R. "The roles of the dorsolateral prefrontal cortex and hippocampus in working memory and schizophrenia"

Van Horn, J.D., Gold, J., Esposito, G., Ostrem, J.L., Weinberger, D.R., and Berman, K.F. "The role of the frontal lobe during maze learning assessed using PET"

Esposito, G., **Van Horn, J.D.**, Ostrem, J.L., Mattay, V.S., Weinberger, D.R., and Berman, K.F. "The effect of sex, age and pCO2 on cerebral blood flow during cognitive stimulation"

Ostrem, J.L., Berman, K.F., Mattay, V.S., **Van Horn, J.D.**, Esposito, G., and Weinberger, D.R. "The neural basis of abstract reasoning: An investigation of two problem solving tasks with PET"

American Psychiatric Association, 146th Annual Meeting, San Francisco, CA; May 21st-26th, 1994:
Van Horn, J.D., Terrazas,A., Weinberger, D.R., and Berman, K.F. "Monte Carlo simulation of PET region of interest data sets"

Ostrem, J.L., **Van Horn, J.D.**, Esposito, G., Gold, J., Weinberger, D.R., and Berman, K.F. "Effects of cohort size on PET cognitive activation"

Society of Nuclear Medicine 41st Annual Meeting, Orlando, FL, June 5th-8th, 1994:
Berman, K.F., Schmidt, P.J., Ostrem, J.L., Danaceau, M.A., Esposito, G., **Van Horn, J.D.**, Mattay, V.S., Rubinow, D.R., Weinberger, D.R. "Effects of gonadal steroids on cerebral blood flow: Patients with menstrual-related mood disorder and controls studied with PET during medical oophorectomy and hormone replacement"

Society for Neuroscience 24th Annual Meeting, Miami Beach, FL, November 13th-18th, 1994:
Esposito, G., Kirkby, B.S., **Van Horn, J.D.**, Ostrem, J.L., Weinberger, D.R., and Berman, K.F. "Aging effects on CBF during cognitive stimulation: A focus on the frontal lobe"

Kirkby, B.S., Ostrem, J.L., **Van Horn, J.D.**, Weinberger, D.R., and Berman, K.F. "Functional reorganization following closed head injury: A PET study of monozygotic twins"

Esposito, G., Kirkby, B.S., **Van Horn, J.D.**, Ostrem, J.L., Weinberger, D.R., and Berman, K.F. "Aging effects on CBF during cognitive stimulation: A focus on the frontal lobe"

Berman, K.F., Schmidt, P.J., Ostrem, J.L., Danaceau, M.A., Esposito, G.E., **Van Horn, J.D.**, Rubinow, D.R., Weinberger, D.R. "PET studies of cognitively related cerebral blood flow in menstrual-related mood disorder patients and controls: Effects of gonadal steroids".

XVIIth International Symposium on Cerebral Blood Flow and Metabolism, Cologne, Germany, July 2nd-6th, 1995:
Berman, K.F., Schmidt, P.J., Ostrem, J.L., Danaceau, M.A., **Van Horn, J.D.**, Esposito, G., Rubinow, D.R., and Weinberger, D.R. "The effects of gonadal steroid hormones on cognitively-related regional cerebral blood flow: A positron emission tomography study";

Esposito, G., Kirkby, B.S., **Van Horn, J.D.**, Ostrem, J.L., Mattay, V.S., Weinberger, D.R., and Berman, K.F. "Normal aging is associated with task-specific neurophysiological changes: PET rCBF measurements during cognitive stimulation".

Society of Magnetic Resonance Third Annual Meeting, Nice, France, August 19th-25th, 1995:
Ramsey, N.F., Kirkby, B., van Gelderen, P., Berman, K., Moonen, C.T.W., Mattay, V.S., Frank, J.A., **Van Horn, J.D.**, Esposito, G., and Weinberger, D.R. "A direct comparison of 3D BOLD fMRI and H215O PET imaging of primary sensory motor cortex in humans".

Society for Neuroscience 25th Annual Meeting, San Diego, CA, November 11th-16th, 1995:
Van Horn, J.D., Esposito, G., Kirkby, B.S., Weinberger, D.R., and Berman, K.F. "Appraisal of univariate and multivariate analysis techniques for PET brain image quantification"

Kirkby, B.S., **Van Horn, J.D.**, Esposito, G., Goldberg, T.E., Weinberger, D.R., and Berman, K.F. "Long term changes in rCBF during cognition following severe closed head injury: A PET study"

Esposito, G., Kirkby, B.S., **Van Horn, J.D.**, Weinberger, D.R., and Berman, K.F. "Different pathophysiological mechanisms of altered Wisconsin Card Sort performance in schizophrenics and elderly normal subjects"

Austin-Lane, J.L., Kirkby, B.S., **Van Horn, J.D.**, Esposito, G., Weinberger, D.R., and Berman, K.F. "A retrospective study of the effects of chronic smoking on regional cerebral blood flow during cognitive processing"

Berman, K.F., Gold, J.M., Noga, J.T., Abi-Dargham, A., **Van Horn, J.D.**, and Weinberger, D.R. "A PET study of working memory in schizophrenia: Effects of performance level"

Weinberger, D.R., Ramsey, N.F., Kirkby, B., van Gelderen, P., Berman, K.F., Mattay, V.S., Frank, J.A., **Van Horn, J.D.**, Esposito, G., and Moonen, C.T.W. "Three-dimensional BOLD fMRI and O-15 Water PET neuroactivation maps are highly correlated".

Society of Nuclear Medicine 43rd Annual Meeting, Denver, CO, June 3rd-6th, 1996:
Esposito, G., Kirkby, B.S., **Van Horn, J.D.**, Ostrem, J.L., Weinberger, D.R., and Berman, K.F. "Different pathophysiological mechanisms of impaired Wisconsin Card Sorting in elderly normal subjects and schizophrenics studied with PET"

2nd International Conference on Functional Mapping of the Human Brain, Boston, MA, June 17th-21st, 1996:
Van Horn, J.D., Esposito, G., Weinberger, D.R., and Berman, K.F. "Volume-based multivariate discriminant and canonical correlation analysis of neurophysiological measures of brain function"

Maisog, J.M., Courtney, S., **Van Horn, J.D.**, and Haxby, J.V. "Multivariate multiple regression on fMRI data to map functionally distinct areas"

Esposito, G., Kirkby, B.S., **Van Horn, J.D.**, Ostrem, J.L., Weinberger, D.R., and Berman, K.F. "Impaired Wisconsin Card Sorting test performance in normal aging and in schizophrenia: PET evidence of different pathophysiological mechanisms for a common cognitive deficit"

Ellmore,T.M., **Van Horn, J.D.**, Kirkby, B.S., Austin-Lane, J., Weinberger, D.R., and Berman, K.F. "The effects of signal averaging in cognitive and motor PET paradigms"

Mattay, V.S., Santha, A.K.S., **Van Horn, J.D.**, Sexton, R., Frank, J.A., and Weinberger, D.R. "Motor function and hemispheric asymmetry: A whole brain Echo Planar fMRI study"

Society for Neuroscience 26th Annual Meeting, Washington D.C, November 16th-21st, 1996:
Weinberger, D.R., Santha, A., Mattay, V.S., Frank,J., Kirkby, B., **Van Horn, J.D.**, Esposito, G., and Berman, K.F. "Within subject neuroactivation mapping with whole brain isotropic EPI and 3-D PET: A direct comparison"

Goldberg, T.E., Fleming, K. Berman, K.F., **Van Horn, J.D.**, Esposito, G., Ostrem, J., Gold, J.M., and Weinberger, D.R. " Neurophysiology of dual task performance: A PET O15 study"

Esposito. G., Kirkby, B.S., **Van Horn, J.D.**, Weinberger, D.R., and Berman, K.F. "PET evaluation of cognitively related neurophysiological sequelae accompanying incidental findings of microvacular changes in the elderly: A preliminary report"

Van Horn, J.D., Austin-Lane, J.L., Kirkby, B.S., Esposito, G., Weinberger, D.R. and Berman, K.F. "Characterizing rCBF response in a PET study of graded working memory load"

Ellmore, T.E., **Van Horn, J.D.**, Esposito, G., Kirkby, B.S., Austin-Lane, J.L., Weinberger, D.R., and Berman, K.F. "Signal averaging in cognitive and motor PET paradigms"

Berman ,K.F., Schmidt, P.J., Rubinow, D.R., Esposito, G., **Van Horn, J.D.**, Austin-Lane, J.L., Danaceau, M.A., and Weinberger, D.R. "Modulation of cognitively related cortical activity by gonadal steroid hormones directly demonstrated with PET"

Society for Magnetic Resonance Imaging Annual Meeting, Vancouver, Canada, April 12th-18th, 1997:

Callicott, J.H., Santha, A., Mattay, V.S., **Van Horn, J.D.**, Coppola, R., Podell, D., Finn, K., Bertolino, A., Frank, J.A., and Weinberger, D.R. " A preliminary examination of statistical power and the creation of intra-subject activation maps in fMRI"

Bertolino, A., Esposito, G., Callicott, J.H., Mattay, V.S., **Van Horn, J.D.**, Frank, J.A., Berman, K.F., and Weinberger, D.R. "H-MRSI predicts rCBF activation during working memory in patients with schizophrenia"

Ye, F.Q., Berman, K.F., Ellmore, T., Esposito, G., **Van Horn, J.D.**, Yang, Y., Duyn, J., Salustri, C., Smith, A., Frank, J., Weinberger, D.R., and McLaughlin, A.C. "H215O PET validation of arterial spin tagging measurements of cerebral blood flow in humans"

Society for Research on Nicotine and Tobacco Annual Meeting, Washington, D.C., March 5th-7th, 1999:
Ernst, M., Jons, P.H., Matochik, J.A., **Van Horn, J.D.**, Heishman, S.J., and Henningfield, J.E. "Nicotine effects on cerebral blood flow during a working memory task"

Cognitive Neuroscience Society Annual Meeting, Washington D.C., April 11th-13th, 1999:
Von Turennout, M., Ellmore, T., Chow, L., **Van Horn, J.D.**, Martin, A. "Long-lasting reduction in neural activity after a single exposure to real and nonsense objects: An event-related fMRI study of perceptual priming"

5th International Conference on Functional Mapping of the Human Brain, Dusseldorf, Germany, June 21st-26th, 1999:
Van Horn, J.D. and Ellmore, T.E. "Modeling the hemodynamic response function in fMRI using linear time invariant systems"

6th International Conference on Functional Mapping of the Human Brain, San Antonio, TX, USA, June 12th-16th, 2000:
Van Horn, J.D., Ingeholm, J., Furey, M. and Haxby, J.V. "Accounting for cardiac and respiratory variation in BOLD signal using multivariate regression analysis in event-related fMRI"

Society for Neuroscience 31st Annual Meeting, San Diego, CA, November 10th-15th 2001:
Van Horn, J.D. , Inati, S., Grafton, S.T. "Patterns of brain activation in visuomotor tracking: a study using continuous performance fMRI"

Kveraga, K., Hughes, H.C., Inati, S., and **Van Horn, J.D.** "Regions associated with response selection processes are activated with increasing stimulus entropy"

Neural Information Processing Systems Annual Meeting, RUMBA Two-Day Workshop: Concepts and Methods in Neuroimaging, Whistler, B.C., Canada, December 7-8, 2001
Van Horn, J.D. "The human visuomotor system investigated using continuous performance paradigms in fMRI"

Cognitive Neuroscience Society Annual Meeting, San Francisco, California April 14th-16th, 2002
Van Horn, J.D., Woodward, J.B., Grethe, J.S., Aslam, J., Rus, D., Rockmore, D., and Gazzaniga, M.S. "Summary statistic measures for rapid assessment and clustering of fMRI time course dynamics"

Cognitive Neuroscience Society Annual Meeting, San Francisco, California April 18th-20th, 2004
Van Horn, J.D., Woodward, J.B., Dobson, J, Wolfe, J. Vance, B., Schumacher, S., Grafton, S.T., Rockmore, D., and Gazzaniga, M.S. "The fMRI Data Center: An Essential Resource for Cognitive Neuroscience"

Society for Neuroscience 34th Annual Meeting, San Diego, CA, October 23rd-27th 2004:
Van Horn, J.D., Yanos, M.E.S., Schmitt, P.J., and Grafton, S.T. "Ethanol-Related BOLD Activity Suppression in Frontal and Parietal Cortex during Visuomotor Target Capture"

12th International Conference on Functional Mapping of the Human Brain, Florence, Italy, June 11th-15th, 2006:
Farrer, C., Frey, S.H., **Van Horn, J.D.**, Tunik, G., Turk, D., and Grafton, S.T. "The angular gyrus is equally involved in different aspects of action awareness."

Hamilton, A. and **Van Horn, J.D.** "FIND: A simple tool for searching fMRI papers."

15th International Conference on Functional Mapping of the Human Brain, San Francisco, CA, June 18 - 23, 2009:
Colby, J.J., Smith, L., O'Connor, M.J., Bookheimer, S.Y., **Van Horn, J.D**., Sowell, E.R., "A tract-based diffusion tensor imaging study of the effects of prenatal methamphetamine exposure on white matter microstructure"

Patel, V., Dinov, I.D., **Van Horn, J.D.**, Toga, A.W. "MiND: An Extensible Framework for Storage and Modification of DWI Metadata"

Dinov, I.D., Parker, D.S., Hojatkashani, C., Magsipoc, R., Lozev, K., Petrosyan, P., Liu, Z., MacKenzie-Graham, A., **Van Horn, J.D.**, Toga, A.W. "Neuroimaging Workflow Construction, Execution, Validation and Interpretation using the LONI Pipeline"

Special Interest Group on Graphics and Interactive Techniques (SIGGRAPH), July 25th-29th, 2010, Los Angeles, CA
Bowman, I., Joshi, S., Jennings, R., Hasson, D., Liu, Z, Toga, A. and **Van Horn, J.D.** "Visual Mining of Neuro-Metaspaces"

16th Annual Meeting of the Organization for Human Brain Mapping, Barcelona, Spain, June 6-10, 2010
Rosen, B., Wedeen, V.J., **Van Horn, J.D.**, Fischl, B., Buckner, R.L., Wald, L., Hamalainen, M., Stufflebeam, S., Roffman, J., Shattuck, D.W., Thompson, P.M., Woods, R.P., Freimer, N., Bilder, R., and Toga, A.W. "The Human Connectome Project"

VisWeek 2010, Salt Lake City, UT, October 24th-29th
Joshi, S.H., Bowman, I., and **Van Horn, J.D.** "Large-scale neuro-anatomical visualization using a manifold embedded approach"

17th Annual Meeting of the Organization for Human Brain Mapping, Quebec City, Canada, June 6-10, 2010
Irimia, A., Chambers, M.C., Prastawa, M.W., Gouttard, S., Vespa, P.M., Hovda, D.A., Alger, J.R., Pujol, S.M.A., Gerig, G., Aylward, S.R., Toga, A.W., Kikinis, R., and **Van Horn, J.D.** "Automatic Multimodal Segmentation for the Clinical Assessment of Traumatic Brain Injury in 3D Slicer"

Bowman, I., Joshi, S.H., and **Van Horn, J.D. "**Graphical Knowledge Discovery for Neuroimaging Archives"

18th Annual Meeting of the Organization for Human Brain Mapping, Beijing, China, June 10-14, 2012.
Irimia, A., **Van Horn, J.D.**, Chambers, M.C., Prastawa, M.W., Gouttard, S., Vespa, P.M., Hovda, D.A., Alger, J.R., Pujol, S.M.A., Gerig, G., Aylward, S.R., Toga, A.W., and Kikinis, R. "Connectome-level evaluation of neurodegeneration caused by traumatic brain injury"

Bowman, I., Joshi, S.H., and **Van Horn, J.D.** "Graphically-Driven Exploration and Informatics of Neuroimaging Data Archives"

VisWeek 2012, Seattle, WA, October 14-19, 2012.
Bowman, I., Joshi, S.H., and **Van Horn, J.D.** "Query-Based Coordinated Multiple Views with Feature Similarity Space for Visual Analysis of MRI Repositories"

International Society for Biomedical Imaging (ISBI), San Francisco, CA, April 7-11, 2013.
Van Horn, J.D., Joshi, S., and Bowman, I. "Graphical Data Mining of Human Cortical Surface Morphometry"

Goh, M., Irimia, A., Torgerson, C., Kikinis, R., Vespa, P., and **Van Horn, J.D.** "High-Resolution Electroencephalographic Forward Modeling in Traumatic Brain Injury Using the Finite Element Method"

Wang, B., Prastawa, M., Irimia, A., Chambers, M., Sadeghi, N., Vespa, P., **Van Horn, J.D.**, and Gerig, G. "Analyzing Imaging Biomarkers for Traumatic Brain Injury Using 4D Modeling of Longitudinal MRI"

19th Annual Meeting of the Organization for Human Brain Mapping, Seattle, WA USA, June 16-20, 2013.
Labus, J., Ashe-McNalley, C., **Van Horn, J.D.**, Torgerson, C., Irimia, A., Chambers, M., Tillisch, K., and Mayer, E. "Alterations in regional volumetric brain network properties in persistent abdominal pain"

Chambers, M., Irimia, A., Altshuler, L., and **Van Horn, J.D.** "Structural and Resting-State Functional Connectivity Disturbances in Bipolar Disorder"

Irimia, A., Goh, M., Torgerson, C., Kikinis, R., Vespa, P., and **Van Horn, J.D.** "Effects of traumatic brain injury upon the inverse localization accuracy of electroencephalography"

Goh, M., Irimia, A., Torgerson, C., Kikinis, R., Vespa, P., and **Van Horn, J.D.** "Impact of brain injury upon the EEG forward solution as computed using the finite element method"

Dinov, I., Eggert, P., Pierce, J., Hobel, S., Liu, Z., Petrosyan, P., Zamanyan, A., **Van Horn, J.D.**, and Arthur Toga "Neuroimaging-Genetics Pipelines: Big Data, Independent Software Tools and Dispersed Devices"

Torgerson, C., Irimia, A., Chambers, M., and **Van Horn, J.D.** "Seeking the Hidden: Uncovering the Claustrum's Curious Connections Using Diffusion Tensor Imaging"

Society for Neuroscience 31st Annual Meeting, San Diego, CA, November 10th-15th 2013:
Irimia, A, Goh, SYM, Torgerson, C.M., Chambers, M.C., Vespa, P.M., Kikinis, R., and **Van Horn, J.D.** "Electroencephalographic Inverse Localization of Cortical Loci Generating Epileptiform Activity in Comatose Acute Traumatic Brain Injury Patients"

20th Annual Meeting of the Organization for Human Brain Mapping, Hamburg Germany, June 8-12, 2014:
Irimia, A., Goh, S.-Y.M., Torgerson, C.M., and **Van Horn, J.D.** "Connectomic neuroimaging for estimating effective brain age as a biomarker of neurodegeneration"

Irimia, A., Goh, S.-Y.M., Torgerson, C.M., Vespa, P., **Van Horn, J.D.** "Multimodal neuroimaging for mapping brain atrophy and axonal demyelination in traumatic brain injury"

Goh, S.-Y.M., Irimia, A., Torgerson, C., **Van Horn, J.D.**, Kikinis, R., and Vespa, P. "Localization of epileptiform electrical activity recorded from severe TBI patients using
scalp EEG"

Van Horn, J.D., Hall, D., Haselgrove, C., Koser, B., Liu, Z., Petrosayan, P., Dinov, I., Toga, A., and Kennedy, D. "Linking Data, Computation, and Processing through NDAR, NITRC, and the LONI Pipeline"

21st Annual Meeting of the Organization for Human Brain Mapping, Honolulu, Hawaii, June 14-18, 2015:
Clark, D., Haselgrove, C., Kennedy, D.N., Liu, Z., Milham, M., Petrosyan, P., Torgerson, C.M., **Van Horn, J.D.**, and Craddock, R.C. "Harnessing cloud computing for high capacity analysis of neuroimaging data from NDAR"

Torgerson, C.M., Irimia, A., **Van Horn, J.D.**, and the GENDAAR Working Group "The search for structural biomarkers in autism spectrum disorder"

Patel, K., Irimia, A., Goh, S.-Y.M., Wade, A.C., Vespa, P.M., and **Van Horn, J.D.** "The relationship between epileptiform activity and cortical atrophy after traumatic brain injury"

Wade, A., Irimia, A., Goh, S.-Y.M., Patel, K., Vespa, P.M., and **Van Horn, J.D.**, "Acute Glasgow Coma Score, pupil size, and seizure occurrence predict cortical atrophy six months after traumatic brain injury"

Poline, J.B., Keator, D., Gorgolewski, K.J., Auer, T., Chen, G., Craddock, C., Flandin, G., Ghosh, S., Halchenko, Y.O., Hanke, M., Haselgrove, C., Helmer, K., Jenkinson, M., Klein, A., Lanyon, L., Marcus, D., Margulies, D., Maumet, C., Michel, F., Nichols, B.N., Nichols, T., Poldrack, R., Reynolds, R., Saad, Z., Schmah, T., Steffener, J., Turner, J., **Van Horn, J.D.**, and Kennedy, D.N., "How to make brain imaging research efficient and reproducible: Building software development community and standards"

Goh, S.-Y.M., Irimia, A., Torgerson, C.M., Tubi, M.A., Real, C.R., Hanley, D.F., Martin, N.A., Vespa, P.M., and **Van Horn, J.D.** "Quantitative evaluation of the corticospinal tract in hemorrhagic stroke using diffusion tractography"

Kennedy, D., Haselgrove, C., **Van Horn, J.D.**, and Hall, D. "The National Database for Autism Research: Quality Assurance Metrics for Structural Neuroimaging"

Dinov, I., **Van Horn, J.D.,** Petrosyan, P., Liu, Z., Hobel, S., and Toga, A.W. "The Pipeline Environment: A Scalable, Distributed and Service-Oriented Neuroimaging and Genetics"

Ghosh, S., Auer, T., Gorgolewski, K., Halchenko, Y., Hanke, M., Flandin, G., Nichols, N., Poldrack, R., **Van Horn, J.D.**, Marcus, D., and Keator, David "NIDM-Workflow - The Evolution of Provenance in Neuroimaging"

Irimia, A. and **Van Horn, J.D.** "Scale dependence of graph-theoretic measures in network representations of human brain connectivity"

SPIE Medical Imaging 2016, San Diego, California, February 27th-March 3rd, 2016:
Goh, S-Y. M., Irimia, A., Vespa, P.M., and **Van Horn, J.D.** "Patient-tailored multimodal neuroimaging, visualization, and quantification of human intra-cerebral hemorrhage.

22nd Annual Meeting of the Organization for Human Brain Mapping, Geneva, Switzerland, June 24-30, 2016:
Irimia, A., Torgerson, C., Abe, S., and **Van Horn, J.D.** "Machine learning distinguishes ASD patients from healthy control subjects based on brain morphometry"

Bhattrai, A., Irimia, A., and **Van Horn, J.D.** "Assessing neurometabolism after traumatic brain injury: insights from multimodal neuroimaging"

Torgerson, C., Bhattrai, A., Jacokes, Z., Law, M., Hazany, S., Irimia, A., and **Van Horn, J.D.** "Multimodal Neuroimaging of Brain Structure Alterations in Adolescents with Anatomic Hemispherectomy"

Irimia, A., Vespa, P., **Van Horn, J.D.** "Spatiotemporal profiles of post-traumatic epileptiform discharges initiated via recurrent excitation"

Abe, S., Irimia A, **Van Horn, J.D.** "Large-scale interactive graphical visualization of brain surfaces using INVIZIAN"

Petrosyan, P., Hobel, S., Irimia, A., **Van Horn, J.D.**, and Toga, A.W. "LONI QC: a system for the quality control of structural, functional and diffusion brain images"

Twenty-Third Annual Meeting of the Organization on Human Brain Mapping, June 25-29, 2017, Vancouver, Canada

Abe, S., Irimia, A., Lei, X., Jacokes, Z.J., Torgerson, C.M. and **Van Horn, J.D.** for the GENDAAR Research Consortium "Visualizing brain surfaces in multi-dimensional space using the INVIZIAN platform"

Bhattrai, A., Irimia, A., Torgerson, C.M., and **Van Horn, J.D.** "Neuroimaging analysis of white matter connectivity between the claustrum and the rich-club network of the human brain"

Hinojosa-Rodriguez, M., Lei, X., Torgerson, C.M., Irimia, A. and **Van Horn, J.D.** "Deep learning reveals brain features associated with preterm birth and perinatal risk factors"

Irimia, A., Goh, S.Y.M., Torgerson, C.M., and **Van Horn, J.D.** "Effects of micro-hemorrhages upon white matter connectivity in older adults"

Jacokes, Z.J., Torgerson, C.M., Irimia, A. and **Van Horn, J.D.** for the GENDAAR Consortium "Quality control and analysis of structural magnetic resonance imaging volumes acquired by the Autism Center of Excellence Collaboration"

Lei, X., Torgerson, C.M., Abe, S., Irimia, A., and **Van Horn, J.D.** for the GENDAAR Consortium "Comparison of machine learning methods for identifying structural brain features associated with the interaction of autism spectrum disorders with sex"

Lei, X., Torgerson, C.M., Abe, S., Irimia, A., and **Van Horn, J.D.** for the GENDAAR Consortium "Machine learning using neural networks reveals the structural brain features which modulate the interaction between sex and autism spectrum disorder"

Torgerson, C.M., Jacokes, Z.J., Hull, J.V., Irimia, A. and **Van Horn, J.D.** "Effects of Alzheimer's disease upon the volume and surface area of the human claustrum as revealed using magnetic resonance imaging"

Van Horn, J.D., Irimia, A., Torgerson, C.M., Jacokes, Z.J., McLean, R., and Harding, R.A. "Neuroimaging-based classification of mild cognitive impairment in traumatic brain injury: a case study investigation"

2017 Australasian Neuroscience Society Annual Meeting, December 2nd, 2017, Sydney, Australia

Van Horn, J.D., Bhattrai, A., Irimia, A., and Torgerson, C.M. "Analysis of white matter connectivity affirms the claustrum as a member of the Rich Club network of the human brain"

Van Horn, J.D., Irimia, A., Torgerson, C., Jacokes, Z., McClain, R., Harding, R., and Vespa, P. "Neuroimaging-Based Classification of MCI Following TBI during Youth"

Twenty-Fourth Annual Meeting of the Organization on Human Brain Mapping, June 17-21, 2018, Singapore

Torgerson, C., Jacokes, Z., **Van Horn, J.D.**, and the GENDAAR Research Consortium "Autism Spectrum Disorder and cortical thickness in sibling pairs"

Asturias, A., Jacokes, Z., Torgerson, C., Gajawelli, N., Romano, R., Law, M., Liu, C., and **Van Horn, J.D.** "Transient Changes in Cortical Thickness during a Season of Collegiate Football"

Asturias, A., Jacokes, Z., Torgerson, C., Gajawelli, N., Romano, R., Liu, C., Law, M., and **Van Horn, J.D.** "Diffusion Imaging and Generalized Fractional Anisotropy in Contact Sport Collegiate Athletes"

Kim, H., Irimia, A., Hobel, S., Petrosyan, P., M., Tang, H., Esquivel Castelo Blanco, R.I., Duffy, B.A., Zhao, L., Liew, S-.L., Clark, K., Law, M., Mukherjee, P., **Van Horn, J.D.**, and Toga, A.W. "LONI-QC, Web-based system for quality control of neuroimaging data: Part 1 - Design and workflow"

Tang, H., Irimia, A., Hobel, S., Petrosyan, P., M., Esquivel Castelo Blanco, R.I., Duffy, B.A., Zhao, L., Crawford, K., Liew, S-.L., Clark, K., Law, K., Mukherjee, P., Manley, G.T., **Van Horn, J.D.**, Toga, A.W, and Kim, H. "LONI-QC, Web-based system for quality control of neuroimaging data: Part 2 – AutoQC and evaluation"

Jacokes, Z., Kim, H., **Van Horn, J.D.**, and the GENDAAR Research Consortium "Quality Control in Structural Imaging Data across Multiple Sites using Factor Analysis"

Twenty-Fifth Annual Meeting of the Organization on Human Brain Mapping, June 9-13, 2019, Rome, Italy

Jacokes, Z., Torgerson, C., and **Van Horn, J.D.** for the GENDAAR Research Consortium "Statistical Analysis of Sex in Autism Spectrum Disorder Using Canonical Correlation"

Torgerson, C., Jacokes, Z., and **Van Horn, J.D.** for the GENDAAR Research Consortium "Sexual dimorphism without group differences in ASD and typically developing subjects"

Twenty-Seventh Annual Meeting of the Organization on Human Brain Mapping, June 5-9, 2021, Virtual Format

Van Horn, J.D., Shakeri, H., Henry, T., Venkadesh, S. "Issues of Reproducibility in a Commonly Used Approach for Independent Components Analysis in fMRI"

Henry, T., Venkadesh, S., Shakeri, H., Jacokes, Z., **Van Horn, J.D.** "ICA fails in network reconstruction when sources are not independent: A methodological evaluation"

Venkadesh, S., Shakeri, H., Henry, T., **Van Horn, J.D.** "Transient clusters in simulated networks of heterogeneous neuronal populations"

Venkadesh, S., Schiehser, D., Petkus, A., Jakowec, M., Petzinger, G., **Van Horn, J.D.** "Instantaneous network modularity and cognitive performance in Parkinson's disease patients"

Pacific Symposium on Biocomputing, January 3-7, 2022, Waikoloa, HI

Van Horn, J.D., Venkadesh, S., Jacokes, Z.J., Adoremos, I., and Pelphrey, K.A., for the Autism Centers of Excellence (ACE) GENDAAR Research Consortium "Phenoneurogenomic Decomposition of Diagnosis and Sex In Autism Spectrum Disorder"

Twenty-Eighth Annual Meeting of the Organization on Human Brain Mapping, June 19-24, 2022, Glasgow, Scotland

Van Horn, J.D., Venkadesh, S., Jacokes, Z.J., Adoremos, I., Pelphrey, K.N., for the GENDAAR Research Consortium, "Diagnosis and Sex in Autism Spectrum Disorder Explored using Phenomics, Genetics, and Neuroimaging"

Waugh, R., Venkadesh, S., Donahue, E., Schiehser, D., Petkus, A., O'Neill, J., Alger, J., Jakowec, M., Petzinger, G., and **Van Horn, J.D.** "Cognitive, physical, and neural metrics of Parkinson's Disease: A canonical correlation analysis"

Venkadesh, S., Donahue, E.K., Schiehser, D., Bui, V., Tuazon, A.C., Foreman, R., Wang, R., Haase, D., Duran, J., Petkus, A., Lund, B., Wing, D., Higgins, M., Holschneider, D.P., Jakowec, M.W., **Van Horn, J.D.**, Petzinger, G.M. "Associations between physical activity, functional connectivity and cognition in Parkinson's disease"

Pacific Symposium on Biocomputing, January 3-7, 2023, Waikoloa, HI

Newman, B.T., Jacokes, Z., and **Van Horn, J.D.** for the GENDAAR Consortium "Extracellular water characterizes sex-specific differences in Autism Spectrum Disorder"

Twenty-Ninth Annual Meeting of the Organization on Human Brain Mapping, July 19-24, 2023, Montreal, Canada

Jacokes, Z., Newman, B.T., and **Van Horn, J.D.** and the GENDAAR Consortium "Sex Differences in Autism Spectrum Disorder in Subcortical Brain Regions using Exploratory Graph Analysis"

Newman, B.T., Jacokes, Z., Venkadesh, S., and **Van Horn, J.D.** "Diffusion microstructure is associated with T1/T2 ratio measures of myelination"

Newman, B.T., Skyberg, A., Graves, A., Goldstein, A., Brindley, S., Kim, M., **Van Horn, J.D.**, Druzgal, T.J., Morris, J.P., and Connelly, J.J. "Brain microstructure is associated with future epigenetic state"

Venkadesh, S., Singh, J., Newman, B.T., and **Van Horn, J.D.** "Fitness landscapes of structural integration in directed human brain connectomes"

PUBLICATION/BIBLIOGRAPHY:

RESEARCH PAPERS

A. Research Papers (PEER-REVIEWED):

1. **Van Horn, J.D.** and McManus, I.C. (1992) "Ventricular enlargement in schizophrenia: A meta-analysis of studies using the ventricular-brain ratio (VBR)," *British Journal of Psychiatry*, 160, 687-697. [Initiated the study, performed all literature searches, conducted the analysis, and wrote the paper]

2. Laland, K.N., Kumm, J., **Van Horn, J.D.**, and Feldman, M.W. (1995) "A gene-culture model of human handedness", *Behavior Genetics*, 25, 433-445. [Performed detailed goodness-of-fit analyses between observed and expected gene-culture model frequencies of human handedness]

3. **Van Horn, J.D.**, McIntosh, A.R., and Maisog, J. Ma. (1995) "Complications in the use of the SPM Chi-Squared Statistic", *Journal of Cerebral Blood Flow and Metabolism*, 15, 895-896.

4. Ramsey, N.F., Kirkby, B.S., Van Gelderen, P., Berman, K.F., Duyn, J.H., Frank, J.A., Mattay, V.S., **Van Horn, J.D.**, Esposito, G., and Weinberger, D.R. (1996) "Functional mapping of human sensorimotor cortex with 3D BOLD fMRI correlates highly with H215O PET rCBF", *Journal of Cerebral Blood Flow and Metabolism*, 16, 755-764. [Conducted all SPM analyses of PET data]

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