Curriculum Vitae

Personal Information

Name	Joshua T. Vogelstein
Address	3400 N. Charles St. Center for Imaging Science Clark Hall, Rm 301 Baltimore, MD 21218, USA
Office	Clark Hall, 317C
Telephone	+1.443.858.9911
E-Mail	jovo@jhu.edu
Nationality	USA
Date of birth	Feb. 16, 1980

Profession

▷ Assistant Professor	**Johns Hopkins University**
○ 2014–	Department of Biomedical Engineering
○ 2014–	Institute for Computational Medicine
○ 2014–	Center for Imaging Science
○ 2012–	Institute for Data Intensive Engineering and Sciences
○ 2010–	Human Language Technology Center of Excellence
▷ Senior Research Scientist	Duke University
○ 2012–2014	Department of Statistical Science
○ 2012–2014	Department of Mathematics
○ 2012–2014	Department of Neurobiology
○ 2012–2014	Kenan Institute for Ethics
▷ Asst. Research Scientist	Johns Hopkins University
○ 2011-2012	Department of Applied Mathematics and Statistics
▷ Post Doctoral Fellow	Johns Hopkins University
○ 2009–2011	Department of Applied Mathematics and Statistics

Education

○ PhD, 2009	Department of Neuroscience, Johns Hopkins University
○ MS, 2009	Department of Applied Mathematics and Statistics, Johns Hopkins University
○ BA, 2002	Department of Biomedical Engineering, Washington University in St. Louis

Funding

Current Funding

- 8/1/2013–7/31/2019 — NIH OD019123 (Director's Transformative Research Award)
  Synaptomes of Mouse and Man
- 1/1/2014–6/30/2015 — DARPA 11551224 (GRAPHS)
  Scalable Brain Graph Analyses Using Big-Memory, High-IOPS Compute Architectures
- 1/1/2014–12/31/2014 — LAS
  Data Readiness Level
- 9/10/2012–8/31/2015 — NIH 1R01EB016411 (CRCNS)
  The EM Open Connectome Project
- 3/15/2013–1/31/2015 — NIH 1R01DA036400 (BIGDATA)
  Computational Infrastructure for Massive Neuroscience
- 9/10/2012–3/9/2017 — DARPA FA8750-12-2-0303 (XDATA)
  Fusion and Inference from Multiple and Massive Disparate Distributed Dynamic Data Sets
- 7/01/2012–6/30/2017 — NIH 1R01MH099647-01 (TR01)
  CLARITY: Fully-Assembled Biology
- 4/1/2014–3/30/2015 — Child Mind Institute
  Endeavor Scientists Training Fellowship

Past Funding

- 12/16/09–1/14/13 — NSF 964165
  National Center for Applied Neuroscience Project
- 11/8/2012–10/31/2013 — DARPA FA8750-12-C-0239 (XDATA)
  Graph-Based Scalable Analytics for Big Data

Awards

- 2011 — Trainee Abstract Award, Organization for Human Brain Mapping
- 2008 — Spotlight, Computational and Systems Neuroscience (CoSyNe)
- 2008 — Completed Molecular Biology Summer Workshop
- 2008 — Completed Advanced Techniques in Molecular Neuroscience
- 2005 — Audited Imaging Structure and Function of the Nervous System
- 2004 — Completed Advanced Course in Computational Neuroscience
- 2002 — Dean's List, Washington University

Work & Experience

- 2011–Present — Founder & Co-Director: Open Connectome Project
- 2004–2012 — Chief Scientist, Global Domain Partners, LLC
- Summer 2001 — Research Assistant for Dr, Randy O'Reilly, Dept. of Psychology, University of Colorado
- Summer 2000 — Clinical Engineer, Johns Hopkins Hospital
- Summer 1999 — Research Assistant for Dr. Jeffrey Williams, Dept. of Neurosurgery, Johns Hopkins Hospital
- Summer 1998 — Research Assistant for Dr. Kathy Cho, Dept. of Pathology, Johns Hopkins School of Medicine

Invited Talks

- May '14, slides — *Big Statistics in Brain Sciences*
  Baylor College of Medicine, Dept. of Neuroscience
- Feb '14 — *Big (Neuro) Statistics*
  Big Data: Practice Across Disciplines. Kavli Salon
- Dec '13 — *Statistical Models and Inference for Big Brain-Graphs*
  NIPS Workshop on "Acquiring and analyzing the activity of . . . "
- Mar '13 — *Beyond Little Neuroscience*
  Beyond Optogenetics Workshop at Cosyne
- Mar '13 — *Statistical Inference on Graphs*
  University of Michigan
- Mar '13 — *Statistical Inference on Graphs*
  University of Utah; video
- Dec '12 — *Open Problems in Neuropsychiatry*
  Data Seminar, Duke University
- Dec '12 — *BIG NEURO*
  Theory and Neurobiology, Duke University
- Dec '12 — *Open Connectome Project*
  Academic Medical Center, Amsterdam
- May '12 — *Connectome Classification: Statistical Graph Theoretic . . .*
  Organization for Human Brain Mapping
- Apr '12 — *Decision Theoretic Approach to Statistical Inference*
  Current Topics in Machine Learning, Johns Hopkins University
- Dec '11 — *Are mental properties supervenient on brain properties?*
  NIPS workshop on Philosophy and Machine Learning
- Nov '11 — *Once we get connectomes, what the %#$ are we going to . . .*
  Krasnow Institute for Advanced Study at George Mason U
- Nov '11 — *Once we get connectomes, what the %#$ are we going to . . .*
  Institute of Neuroinformatics
- Oct '11 — *What can Translational Neuroimaging Research do for . . .*
  Child Mind Institute
- Sep '11 — *Consistent Graph Classification*
  Guest Lecture in Deisseroth Lab, Stanford University
- Apr '11 — *Consistent Connectome Classification*
  Math/Bio Seminar, Duke University
- Feb '10 — *Statistical Connectomics*
  Harvard University Connectomics Labs
- Dec '09 — *Towards Inference and Analysis of Neural Circuits Inferred . . .*
  Guest Lecture in Schnitzer Lab
- May '09 — *Neurocognitive Graph Theory*
  National Security Agency
- Mar '09 — *Towards Inferring Neural Circuits from Calcium Imaging*
  Guest Lecture in Yuste Lab
- Dec '09 — *OOPSI: A Family of Optimal OPtical Spike Inference . . .*
  Dissertation Defense, Johns Hopkins University; video
- Nov '08 — *Sequential Monte Carlo in Neuroscience*
  SAMSI Program on Sequential Monte Carlo
- Aug '08 — *Inferring Spike Trains from Calcium Imaging*
  Redwood Center for Theoretical Neuroscience; video
- Oct '08 — *Inferring Spike Trains from Calcium Imaging*
  Cambridge University, Gatsby Unit
- May '08 — *Inferring Spike Trains Given Calcium-Sensitive Fluorescence . . .*
  Statistical Analysis of Neural Data

◦ Jan '08	*Model Based Optimal Inference of Spike Times and Calcium . . .* Neurotheory Center of Columbia University
◦ Mar '07	*Inferring spike times given typical time-series fluorescence . . .* Dept. of Applied Mathematics & Statistics, Johns Hopkins U

Poster Presentations

◦ **JT Vogelstein**, CE Priebe 2013	*Nonparametric Two-Sample Testing on Graph-Valued Data* Duke Workshop on Sensing and Analysis of High-Dimensional Data
◦ Y Qin, et al. 2013	*Robust Clustering of Adjacency Spectral Embeddings of Brain Graph Data via Lq-Likelihood* Organization of Human Brain Mapping
◦ D Koutra, et al. 2013	*Are All Brains Wired Equally?* Organization of Human Brain Mapping
◦ D Sussman, et al. 2013	*Massive Diffusion MRI Graph Structure Preserves Spatial Information* Organization of Human Brain Mapping

Publications

Pre-prints

1. NC Weiler, FC Collman, **JT Vogelstein**, R Burns, SJ Smith. *Molecular architecture of barrel synapses following experience dependent plasticity*.
2. D Durante, **JT Vogelstein**, DB Dunson. *Nonparametric Bayes Modeling of Populations of Networks*. arxiv.

Peer-Reviewed Journal Publications

1. CE Priebe, DL Sussman, M Tang, **JT Vogelstein**. **Statistical inference on errorfully observed graphs**. Accepted at JASA. arxiv.

<City>, August 15, 2014

<Name>, <Surname(s)>