



John Muschelli

Objective

To provide statistical and quantitative tools and analyses for diagnostic neuroimaging markers and diseases.

Education

- 2012–Present **PhD Student**, *Johns Hopkins School of Public Health*, Baltimore, MD.
Area of Study: Stroke CT image segmentation
Adviser: Professor Ciprian Crainiceanu
- 2008–2010 **ScM**, *Johns Hopkins School of Public Health*, Baltimore, MD.
Area of Study: fMRI brain image data analysis
Thesis Topic: *An Iterative Approach to Hemodynamic Response Function Temporal Derivatives in Statistical Parametric Mapping for Functional Neuroimaging*
Adviser: Professor Brian Caffo
- 2004–2008 **BS**, *The University of Scranton*, Scranton, PA, GPA: 3.87.
Majors: Biomathematics and Neuroscience
Summa Cum Laude
Advisers: Professor Jakub Jasinski, Professor J. Timothy Cannon

Professional Experience

- 2009–Present **Research Associate**, *Johns Hopkins Biostatistics Center (JHBC)*, Baltimore, MD.
Collaborated on statistical projects with senior consultants.
Report writing and analyzing data using statistical software: R, Stata.
Cleaning and checking quality of data
- 2009–Present **Data Analyst / Data Manager**, *Brain Injury Outcomes Division*, Baltimore, MD.
Analysis of Phase II and III Clinical Trial for Treatment of Intracerebral and Intraventricular Hemorrhage
Dynamic reporting Tools: \LaTeX & R.
Data management and consultation of electronic case report form (eCRF) creation
- 2010–Present **Data Analyst**, *Laboratory for Neurocognitive and Imaging Research at Kennedy Krieger Institute*, Baltimore, MD.
Analysis of functional MRI (fMRI) imaging studies
Programming consultant: Matlab & R.
Participation in the ADHD 200 Competition
- 2008 **Intern**, *Analysis & Inference*, Swarthmore, PA.
Cooperated on statistical projects and conferenced with clients about possible analysis options.
Report writing of analyses: Stata
Data cleaning
- 2007 **Research Intern**, *Dupont Stine-Haskell Laboratory*, Wilmington, DE.
Developed lab skills and techniques: cell culturing, making and sterilizing broth media, optical density readings, inoculations, quality control, cell counts, screening for fungicidal properties of compounds.

Computer skills

Scripting	Proficient: R, Stata, Matlab, Novice: SAS	Markup	\TeX , \LaTeX , \BIBTeX , \TeXShop , WinEdt
Programming	C++, Visual Basic		

Publications

- [1] David G Bundy, John Muschelli, Gwendolyn D Clemens, John J Strouse, Richard E Thompson, James F Casella, and Marlene R Miller. Ambulatory care connections of medicaid-insured children with sickle cell disease. *Pediatric Blood & Cancer*, 2012.
- [2] Ani Eloyan, John Muschelli, Mary Beth Nebel, Han Liu, Fang Han, Tuo Zhao, Anita Barber, Suresh Joel, James J Pekar, Stewart Mostofsky, et al. Automated diagnoses of attention deficit hyperactive disorder using magnetic resonance imaging. 2012.
- [3] Daniel F Hanley, M Zuccarello, K Lane, WC Broaddus, I Awad, EF Aldrich, C Wijman, P Vespa, JL Caron, J Huang, et al. Mistie phase ii results: Safety, efficacy and surgical performance. In *CEREBROVASCULAR DISEASES*, volume 34, pages 4–4. KARGER ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND, 2012.
- [4] Holly E Hinson, Eric Melnychuk, John Muschelli, Daniel F Hanley, Issam A Awad, and Wendy C Ziai. Drainage efficiency with dual versus single catheters in severe intraventricular hemorrhage. *Neurocritical care*, 16(3):399–405, 2012.
- [5] Holly E Hinson, Eric Melnychuk, John Muschelli, Daniel F Hanley, and Wendy C Ziai. Dual intraventricular catheter use in severe intraventricular hemorrhage. In *NEUROLOGY*, volume 74, pages A129–A129. LIPPINCOTT WILLIAMS & WILKINS 530 WALNUT ST, PHILADELPHIA, PA 19106-3621 USA, 2010.
- [6] Jennifer Jaffe, Eric Melnychuk, John Muschelli, Wendy Ziai, Timothy Morgan, Daniel F Hanley, and Issam A Awad. Ventricular catheter location and the clearance of intraventricular hemorrhage. *Neurosurgery*, 70(5):1258, 2012.
- [7] W Andrew Mould, J Ricardo Carhuapoma, John Muschelli, Karen Lane, Timothy C Morgan, Nichol A McBee, Amanda J Bistran-Hall, Natalie L Ullman, Paul Vespa, Neil A Martin, et al. Minimally invasive surgery plus recombinant tissue-type plasminogen activator for intracerebral hemorrhage evacuation decreases perihematomal edema. *Stroke*, 44(3):627–634, 2013.
- [8] Mary Beth Nebel, Suresh E Joel, John Muschelli, Anita D Barber, Brian S Caffo, James J Pekar, and Stewart H Mostofsky. Disruption of functional organization within the primary motor cortex in children with autism. *Human brain mapping*, 2012.
- [9] David W Newell, M Mohsin Shah, Robert Wilcox, Douglas R Hansmann, Erik Melnychuk, John Muschelli, and Daniel F Hanley. Minimally invasive evacuation of spontaneous intracerebral hemorrhage using sonothrombolysis: Clinical article. *Journal of neurosurgery*, 115(3):592–601, 2011.
- [10] Matthew F Niedner, W Charles Huskins, Elizabeth Colantuoni, John Muschelli, J Mitchell Harris II, Tom B Rice, Richard J Brill, and Marlene R Miller. Epidemiology of central line-associated bloodstream infections in the pediatric intensive care unit. *Epidemiology*, 32(12):1200–1208, 2011.
- [11] Alastair JS Webb, Natalie L Ullman, Sarah Mann, John Muschelli, Issam A Awad, and Daniel F Hanley. Resolution of intraventricular hemorrhage varies by ventricular region and dose of intraventricular thrombolytic the clot lysis: Evaluating accelerated resolution of ivh (clear ivh) program. *Stroke*, 43(6):1666–1668, 2012.

- [12] Wendy C Ziai, John Muschelli, Carol B Thompson, Penelope M Keyl, Karen Lane, Shuai Shao, and Daniel F Hanley. Factors affecting clot lysis rates in patients with spontaneous intraventricular hemorrhage. *Stroke*, 43(5):1234–1239, 2012.

Honors and Awards

- 2007–2008 **Presidential Scholar (Full Tuition Scholarship).**
2004–2008 **Dean’s List.**
2004 **Alpha Lambda Delta.**
2008 **Alpha Sigma Nu.**

Academic Service

- 2010–Present **Mentor, Head of Household, *Incentive Mentoring Program.***
Mentor and tutor a student from Dunbar High School, teaching coursework, life skills, support as needed.