Matthew E. Berginski
Curriculum Vitae
August 2014

Personal Information:

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Education:

2006-2013	Ph.D. in Biomedical Engineering with a Certificate in Bioinformatics and Computational Biology, University of North Carolina at Chapel Hill and North Carolina State University
2002-2006	B.S. in Biomedical Engineering, Georgia Institute of Technology

Publications (*indicates co-first-authorship):

See Google Scholar for Citation Information

1. Chu PH, Tsygankov D, **Berginski ME**, Dagliyan O, Gomez SM, Elston TC, Karginov AV, Hahn KM. Engineered kinase activation reveals unique morphodynamic phenotypes and associated trafficking for Src family isoforms. *PNAS*, 2014 (HTML|PDF)
2. **Berginski ME**, Creed SJ, Cochran S, Roadcap DW, Bear JE, Gomez SM. Automated analysis of invadopodia dynamics in live cells. *PeerJ*, 2014 (HTML|PDF)
3. Karginov AV, Tsygangov D, **Berginski ME**, Chu P, Trudeau ED, Yi JJ, Gomez SM, Elston TC, Hahn KM. Dissecting motility signaling through activation of specific Src-effector complexes. *Nature Chemical Biology*, 2014 (HTML|PDF)
4. Lin LK, Fulton LM, **Berginski ME**, West ML, Taylor NA, Moran TP, Coghill JM, Blazer BR, Bear JE, Serody JS. Intravital imaging of donor allogeneic effector and regulatory T cells with host dendritic cells during GvHD. *Blood*, 2014 (HTML|PDF)
5. Vitriol EA, Wise AL, **Berginski ME**, Bamburg JR, and Zheng JQ. Instantaneous Inactivation of Cofilin1 Demonstrates Its Functions of Filament Severing and Depolymerization in Regulating F-actin Networks. *Molecular Biology of the Cell*, 2013 (HTML|PDF)
6. **Berginski ME**, Gomez SM. The Focal Adhesion Analysis Server: a web tool for analyzing focal adhesion dynamics. *F1000Research*, 2013 (HTML|PDF)
7. Sankar CP, Barhoumi R, **Berginski ME**, Sreenivasappa H, Tranche A, Gomez SM, Rivera GM. Nck enables directional cell migration through the coordination of polarized membrane protrusion with adhesion dynamics. *Journal of Cell Science*, 2013 (HTML|PDF)
8. Chen Z, Lessey E, **Berginski ME**, Cao L, Li J, Trepat X, Itano M, Gomez SM, Kapustina M, Huang C, Burridge K, Truskey G, and Jacobson K. Gleevec, an abl family inhibitor, produces a profound change in cell shape and migration. *PLoS ONE*, 2013. (HTML|PDF)

9. Wu C*, Asokan SB*, **Berginski ME**, Haynes EM, Sharpless NE, Griffith JD, Gomez SM, Bear JE. Arp2/3 Is Critical for Lamellipodia and Response to Extracellular Matrix Cues but Is Dispensable for Chemotaxis. *Cell*, 2012 (HTML|PDF)
10. Shen K, Tolbert CE, Guilluy C, Swaminathan VS, **Berginski ME**, Burridge K, Superfine R, Campbell SL. The vinculin C-terminal hairpin mediates F-actin bundle formation, focal adhesion, and cell mechanical properties. *J Biol Chem*, 2011 (HTML|PDF)
11. **Berginski ME***, Vitriol EA*, Hahn KM, Gomez SM. High-Resolution Quantification of Focal Adhesion Spatiotemporal Dynamics in Living Cells. *PLoS ONE*, 2011 (HTML|PDF)

Presentations and Posters:

1. Comprehensive Spatiotemporal Analysis of Focal Adhesion Dynamics in Living Cells, BMES Meeting, Pittsburgh, PA. October 2009
2. Quantitative Analysis of Focal Adhesions in TIRF Microscopy Images, Bioengineering and Bioinformatics Summer Institute, Richmond, VA, Keynote Seminar. August 2009
3. Focal Adhesion Dynamics Analysis Through Quantitative Image Processing, RECOMB Systems Biology, Boston, MA. October 2008
4. Automatic Characterization of Focal Adhesions in TIRF Microscopy Images, Institute for Biological Engineering Conference, Chapel Hill, NC. March 2008, Received 3rd place in poster competition

Honors:

2006-2009	NSF Graduate Research Fellowship
2006-2008	North Carolina State Dean's Fellowship
2002-2006	Graduated Summa Cum Laude from Georgia Institute of Technology

Other Experience:

2006-2013	Tutor with the Learning Center at the University of North Carolina at Chapel Hill
2008-2009	Intern at the Office of Technology Development at the University of North Carolina at Chapel Hill
2005-2006	Teaching Assistant in BMED 2300 at the Georgia Institute of Technology