

Stephanie C. Weber

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Education

Ph.D. Biochemistry, Stanford University	2011
B.S. Biology, B.S. Chemistry, <i>summa cum laude</i> , Duke University	2006

Research Experience

Postdoctoral fellow with Cliff Brangwynne, Princeton University <i>An intracellular phase transition couples nucleolar size with cell size in early C. elegans embryos</i>	2011-2015
Graduate student with Julie Theriot, Stanford University <i>Macromolecular motion in vivo: anomalous diffusion through an “active” viscoelastic medium</i>	2007-2011
Undergraduate student with Arno Greenleaf, Duke University <i>FF Domains and the binding of PCAPs to the carboxy terminal domain of RNA polymerase II</i>	2005-2006
Summer student with Kerry O’Banion, University of Rochester <i>The use of RNA interference to elucidate the role of mPGES-1 in PGE2 biosynthesis</i>	2004
Undergraduate student with Steve Haase, Duke University <i>The effect of CLB6 on population doubling time in Saccharomyces cerevisiae</i>	2003-2005

Honors, Awards and Fellowships

Damon Runyon Postdoctoral Fellowship	2012-2015
Jane Coffin Childs Memorial Fund Postdoctoral Fellowship (declined)	2012
Life Sciences Research Foundation Postdoctoral Fellowship (declined)	2012
Bioengineering Outstanding Teaching Assistant Award	2011
Harold M. Weintraub Graduate Student Award <i>National award recognizing outstanding achievement in graduate studies in the biological sciences</i>	2011

NSF Graduate Research Fellowship	2008-2011
Graduation with Distinction in Biology, Chemistry	2006
Faculty Scholar Award <i>Highest honor bestowed upon a Duke undergraduate recognizing intellectual leadership and scholarly accomplishment</i>	2005
Phi Beta Kappa	2005
Deans' Summer Research Fellowship	2005
GEBS/NSF REU Summer Scholars Program	2004
Howard Hughes Research Fellows Program	2003

Publications

Berry, J. M.*, **Weber, S. C.***, Vaidya, N., Haataja, M. and Brangwynne, C. P. (2015) RNA transcription modulates phase transition-driven nuclear body assembly, *Proceedings of the National Academy of Sciences*, In press.

*Co-first authors.

Weber, S. C., and Brangwynne, C. P. (2015) Inverse size scaling of the nucleolus by a concentration-dependent phase transition, *Current Biology*, 25, 641.

Weber, S. C., and Brangwynne, C. P. (2012) Getting RNA and protein in phase, *Cell*, 149, 1188.

Weber, S. C., Thompson, M. A., Moerner, W. E., Spakowitz, A. J. and Theriot, J. A. (2012) Analytical tools to distinguish the effects of localization error, confinement and medium elasticity on the velocity autocorrelation function, *Biophysical Journal*, 102, 2443.

Weber, S. C., Spakowitz, A. J. and Theriot, J. A. (2012) Nonthermal ATP-dependent fluctuations contribute to the *in vivo* motion of chromosomal loci, *Proceedings of the National Academy of Sciences*, 109, 7338.

Weber, S. C., Theriot, J. A. and Spakowitz, A. J. (2010) Subdiffusive motion of a polymer composed of subdiffusive monomers, *Physical Review E* 82, 011913.

Weber, S. C. and Theriot, J. A. (2010) Mu gets in the loop, *Molecular Cell* 39, 1.

Weber, S. C., Spakowitz, A. J. and Theriot, J. A. (2010) Bacterial chromosomal loci move subdiffusively through a viscoelastic cytoplasm, *Physical Review Letters* 104, 238102.

Invited Talks

- Weber, S. C.** and Brangwynne, C. P. (2014) Nucleolar assembly and growth are governed by a concentration-dependent phase transition, *American Society for Cell Biology*, Annual Meeting.
- Weber, S. C.** and Brangwynne, C. P. (2014) Inverse size scaling of the nucleolus by a concentration-dependent phase transition, *Biophysical Society*, Disordered Motifs and Domains in Cell Control.
- Weber, S. C.** and Brangwynne, C. P. (2014) Nucleolar size and assembly is governed by a concentration-dependent phase transition, *Gordon Research Conference*, Post-Transcriptional Gene Regulation.
- Weber, S. C.**, Spakowitz, A. J. and Theriot, J. A. (2010) ATP-dependent fluctuations drive macromolecular motion *in vivo*, *American Society for Cell Biology*, Annual Meeting.

Teaching/Mentoring Experience

- Pedagogical training through the Teaching Transcript Program,
The McGraw Center, Princeton University 2013-2015
- Guest Lecturer, CBE433 Mechanics and Dynamics of Soft Living Matter,
Princeton University Aut 2012, 2014
- Mentor for high school, undergraduate, senior thesis and graduate students,
Princeton University 2011-2015
- Teaching Assistant, BIOE41 Physical Biology of Macromolecules,
Stanford University Aut 2010
- Teaching Assistant, Physiology Course, Marine Biological Laboratory,
Woods Hole, MA Sum 2008
- Teaching Assistant, BIO109 The Human Genome and Disease,
Stanford University Win, Spr 2008

Service

- Princeton Postdoc Council 2013-2015
*Serve as liaison between postdocs and administration;
Organize professional development and social events
for the postdoctoral community at Princeton*
- Outreach 2012-2015
*Design and deliver lectures and lab activities for middle school
students at Stuart Country Day School in Princeton, NJ
and Kilmer Elementary School in Trenton, NJ*

References

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