

## STEVEN S. PLOTKIN

Ph.D (University of Illinois, Urbana-Champaign), B.Sc. (Rensselaer Polytechnic Institute)

### Employment History

2001 – Assistant Professor, Department of Physics and Astronomy, University of British Columbia, Vancouver

1999 – 2001 Post-Doctoral Fellow, University of California at San Diego

1998 – 1999 Post-Doctoral Researcher, University of California at San Diego

### Ten most significant publications over the past 5 years (Total: 10)

1. Plotkin, S. S. “Determination of barrier heights and prefactors from protein folding rate data” *Biophys. J.* **88** (6) (2005).
2. Clementi, C. and Plotkin, S. S. “The effects of nonnative interactions on protein folding rates: Theory and simulation”, *Protein Science* **13**, 1750-1766 (2004).
3. Ejtehadi, M. R., Avall, S. A. and Plotkin, S. S. “Three-body interactions improve the prediction of rate and mechanism in protein folding models”, *Proc Nat Acad Sci USA* **101**, 15088-15093 (2004).
4. Oztop, B., Ejtehadi, M. R. and Plotkin S. S. “Protein folding rates correlate with heterogeneity of folding mechanism” *Phys. Rev. Lett.* **93**, 208105 (2004).
5. Plotkin, S. S, Wolynes, P. G. “Buffed energy landscapes: Another solution to the kinetic paradoxes of protein folding”, *Proc Nat Acad Sci USA* **100** (8), 4417-4422 (2003).
6. Plotkin, S. S. and Onuchic, J. N. “Structural and Energetic Heterogeneity in Protein Folding I: Theory”, *J. Chem. Phys.* **116** (12) 5263-5283 (2002).
7. Plotkin, S. S, Onuchic, J. N. Understanding Protein Folding with Energy Landscape Theory, Part I: Basic Concepts, *Quart. Rev. Biophys* **35** (2) 111-167, (2002).
8. Plotkin, S. S, Onuchic, J. N. Understanding Protein Folding with Energy Landscape Theory, Part II: Quantitative Aspects, *Quart. Rev. Biophys* **35** (3) 205-286 (2002).
9. Plotkin, S. S. Speeding Protein Folding Beyond the Go Model: How a Little Frustration Sometimes Helps. *PROTEINS: Structure, Function, and Genetics* **45**, 337-345 (2001).
10. Plotkin, S. S & Onuchic, J. N. Investigation of routes and funnels in protein folding by free energy functional methods. *Proc Nat Acad Sci USA* **97**, 6509-6514 (2000).

### Competitive Grant Funding for the last 5 years

1. Alfred P. Sloan Research Fellowship, A. P. Sloan Foundation, 2005-2006, \$22,500USD per year. Chief Investigator: Steven Plotkin
2. Nanopore-based detector for capillary electrophoresis, National Institutes of Health, 2004-2007, \$200,000USD per year, Chief Investigators: Andre Marziali, Steven Plotkin, Jeff Young (UBC), Mark Akeson (UCSC).
3. Theoretical investigation of protein function: From microscopic dynamics to macroscopic cellular growth, Natural Sciences and Engineering Research Council of Canada (NSERC), 2002-2007, \$34,000CAD per year.
4. Visualization and computation infrastructure for biomolecule folding, recognition, and binding theory, Canada Foundation for Innovation, 2002-2005, \$30,875CAD per year.