



Carlos Xavier Hernández

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Experience	Graduate Fellow in the Biophysics Program with Vijay Pande @ Stanford University	2013 - Present
	Undergraduate Researcher at the Center for Computational Biology and Bioinformatics with Raul Rabadian @ Columbia University Medical Center	2010 - 2013
	Undergraduate Fellow at the Department of Chemistry and Biochemistry with James Andrew McCammon @ University of California, San Diego	2012
	Undergraduate Fellow at the Department of Biochemistry and Molecular Biophysics with Stephen Goff @ Columbia University Medical Center	2011

Education	Stanford University Biophysics, PhD	Present
	Columbia University in the City of New York Applied Mathematics, BSC	2013

Skills

- Python | Java
- HTML | CSS | JavaScript | SQL
- MATLAB | R | UNIX
- Computational Biochemistry
- Web | Mobile Development
- Machine Learning | Data Mining

Awards	Graduate Research Fellowship National Science Foundation	2013
	ADVANCE Summer Institute Fellowship Stanford University	2013
	Exceptional Research Opportunities Program Fellowship Howard Hughes Medical Institute	2012
	Summer Undergraduate Research Fellowship Genentech	2011



Publications	MDTraj: a modern, open library for the analysis of molecular dynamics trajectories McGibbon R.T., Beauchamp K.A. Schwantes C.R., Wang L.-P., Hernández C.X., Harrigan M.P., Lane T.J., Swails J.M., and Pande V.S. <i>Biophysical Journal.</i> doi: 10.1016/j.bpj.2015.08.015	2015
	Markov State Models Provide Insights into Dynamic Modulation of Protein Function Shukla D., Hernández C.X., Weber J.K., and Pande V.S. <i>Accounts of Chemical Research.</i> doi: 10.1021/ar5002999	2015
	Structure-based Network Analysis of an Evolved G-Protein Coupled Receptor Homodimer Interface Nichols S.*; Hernández C.X.*; Wang, Y. and McCammon J.A. <i>Protein Science.</i> doi: 10.1002/pro.2258	2013
	Understanding the Origins of a Pandemic Virus Hernández C.X., Khiabanian H., Chan J. and Rabidan R. <i>arXiv.</i> arXiv: 1104.4568v1 [q-bio.PE]	2011
Press	Pandemic Flu Risk Raised by Lax Hog-Farm Surveillance <i>Wired Science</i>	2012
	The Origin and Evolution of a Pandemic Virus <i>MAGNet Newsletter</i> , 4:15-18	2011
Mentorship	Irfan Kherani Global Health and Health Policy Student @ Princeton University Thesis: Cross-Hemispheric Phylogenetic Analysis of 2009 H1N1 Pandemic Influenza	2011
	Ravi Vaidya High School Student Thesis: Distinct Circulation of Influenza Virus in Geographically Diverse U.S. Air Force Installations	2010