

Carlos Xavier Hernández

Address:

Room S296
318 Campus Drive,
Stanford, CA 94305

Telephone: (973) 280-3860**Email:** cxh@stanford.edu**URL:** <https://www.stanford.edu/~cxh>**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 Rabadan @ 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 and Mobile Development
- Machine Learning | Data Mining

Awards

Graduate Research Fellowship
National Science Foundation

2013

ADVANCE Summer Institute Fellowship
Stanford University

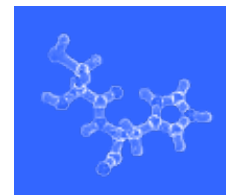
2013

Exceptional Research Opportunities Program Fellowship
Howard Hughes Medical Institute

2012

Summer Undergraduate Research Fellowship
Genentech

2011



Publications

Markov State Models Provide Insights
into Dynamic Modulation of Protein Function
Shukla D., Hernández C.X., Weber J.K., and Pande V.S.
accepted 2014

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.
submitted 2014

Structure-based Network Analysis
of an Evolved G-Protein Coupled Receptor Homodimer Interface
Nichols S.*, Hernández C.X.*, Wang, Y. and McCammon J.A.
Protein Science. doi: 10.1002/pro.2258 2013

Understanding the Origins of a Pandemic Virus
Hernández C.X., Khiabani H., Chan J. and Rabadan R.
arXiv: 1104.4568v1 [q-bio.PE] 2011

Press

Pandemic Flu Risk Raised by Lax Hog-Farm Surveillance
Wired Science 2012

The Origin and Evolution of a Pandemic Virus
MAGNet Newsletter, 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