**Bioinformatics**

at the University of California San Francisco

**Bioinformatics @ UCSF:**
Multidisciplinary graduate study in biological composition, structure, function and evolution at the molecular and systems levels

Apply Now

About the Program

Training Program:
- Program Overview
- Core Curriculum
- Electives
- Seminars & Journal Club
- Academic Progression & Procedures

People:
- Students
- Faculty
- Alumni

Current Events
Admission Information
Links
Contact

NEWS: UCSF wins HHMI Award for its Integrative Program in Complex Biological Systems

---

**Faculty**

**David Agard**
david@msg.ucsf.edu
Professor, Biochemistry & Biophysics

Structure, function, and folding of proteins, chromosomes, and centrosomes

---

**Nadav Ahituv**
nadav.ahituv@ucsf.edu
Assistant Professor, Bioengineering and Therapeutic Sciences

Deciphering the role of gene regulatory sequences in human biology and disease

---

**Patricia Babbitt**
babbitt@cgl.ucsf.edu
Professor, Bioengineering and Therapeutic Sciences and Pharmaceutical Chemistry

Computational and experimental analysis of protein superfamilies for functional inference and enzyme design

---

**Bruce Conklin**
bconklin@gladstone.ucsf.edu
Associate Professor, Gladstone Institute of Cardiovascular Disease, Medicine & Pharmacology

Combining the tools of molecular biology, genetics, bioinformatics, and physiology to answer fundamental issues in pharmacology.

---

**Joe DeRisi**
joederisilab.ucsf.edu
Hughes Investigator, Associate Professor, Biochemistry & Biophysics

Malaria gene expression profiling, functional genomics, microarrays

---

**Ken Dill**
dill@maxwell.ucsf.edu
Professor, Pharmaceutical Chemistry
<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Position and Research Interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hana El-Samad</td>
<td><a href="mailto:helsamad@biochem.ucsf.edu">helsamad@biochem.ucsf.edu</a></td>
<td>Assistant Professor, Biochemistry &amp; Biophysics. Computational biology/stochastic biological dynamics; modeling of biological systems</td>
</tr>
<tr>
<td>Thomas Ferrin</td>
<td><a href="mailto:tef@cgl.ucsf.edu">tef@cgl.ucsf.edu</a></td>
<td>Professor, Pharmaceutical Chemistry &amp; Bioengineering and Therapeutic Sciences. Director, Resource for Biocomputing, Visualization, and Informatics. Molecular graphics; scientific visualization; computational chemistry; bioinformatics; structure-based drug design</td>
</tr>
<tr>
<td>Kathy Giacomini</td>
<td><a href="mailto:kmg@itsa.ucsf.edu">kmg@itsa.ucsf.edu</a></td>
<td>Professor, Bioengineering and Therapeutic Sciences, Cellular &amp; Molecular Pharmacology, and Pharmaceutical Chemistry. Molecular mechanisms of nucleosides transporters and organic cations, and pharmacogenomics</td>
</tr>
<tr>
<td>Matthew Jacobson</td>
<td><a href="mailto:matt@cgl.ucsf.edu">matt@cgl.ucsf.edu</a></td>
<td>Associate Professor, Pharmaceutical Chemistry. Fundamental principles of physical chemistry and biological applications specifically modeling proteins and protein-ligand complexes using physics-based methods</td>
</tr>
<tr>
<td>Ajay Jain</td>
<td><a href="mailto:ajain@jainlab.org">ajain@jainlab.org</a></td>
<td>Professor, Cancer Research Institute, Bioengineering and Therapeutic Sciences, Laboratory Medicine, UCSF Helen Diller Family Comprehensive Cancer Center. Computational approaches for drug design, molecular docking, molecular similarity, predictive pharmacology, and modeling genomic and molecular phenomena involved in cancer.</td>
</tr>
</tbody>
</table>
Cynthia Kenyon  
ckenyon@biochem.ucsf.edu  
Professor, Biochemistry & Biophysics  
Genes and Cells that Regulate the Lifespan of C. elegans

Tanja Kortemme  
kortemme@cgl.ucsf.edu  
Assistant Professor, Bioengineering and Therapeutic Sciences  
Computational biology, prediction and design of protein interactions and networks, synthetic biology

Nevan Krogan  
krogan@cmp.ucsf.edu  
Assistant Professor, Cellular and Molecular Pharmacology  
Functional Insights from Genetic and Physical Interaction Maps

Hao Li  
haoli@genome.ucsf.edu  
Associate Professor, Biochemistry & Biophysics, Pharmaceutical Chemistry, Cellular & Molecular Pharmacology  
Bioinformatics, genome sequence analysis, gene regulation

Wendell Lim  
lim@cmp.ucsf.edu  
Professor, Cellular & Molecular Pharmacology  
Structure-function studies of potassium channels in mammalian heart and hippocampus.

Michael McManus  
mcmmanus@diabetes.ucsf.edu  
Assistant Professor, Microbiology & Immunology  
Mammalian microRNA and RNA Interference Pathways

Katie Pollard  
kpollard@gladstone.ucsf.edu  
Associate Investigator/Professor, Gladstone Institute/Biostatistics/Institute for Human Genetics
<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Title &amp; Department</th>
<th>Research Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neil Risch</td>
<td><a href="mailto:rischn@humgen.ucsf.edu">rischn@humgen.ucsf.edu</a></td>
<td>Professor and Director, Center for Human Genetics</td>
<td>Genetic epidemiology of complex diseases in ethnic populations</td>
</tr>
<tr>
<td>Andrej Sali</td>
<td><a href="mailto:sali@saliab.org">sali@saliab.org</a></td>
<td>Professor, Bioengineering and Therapeutic Sciences</td>
<td>Computation grounded in the laws of physics and evolution to study the structure and function of proteins</td>
</tr>
<tr>
<td>John Sedat</td>
<td><a href="mailto:sedat@msg.ucsf.edu">sedat@msg.ucsf.edu</a></td>
<td>Professor, Genetics</td>
<td>Organization and architecture of chromosomes; three-dimensional microscopy</td>
</tr>
<tr>
<td>Mark Segal</td>
<td><a href="mailto:mark@biostat.ucsf.edu">mark@biostat.ucsf.edu</a></td>
<td>Professor, Epidemiology &amp; Biostatistics</td>
<td>Genotype - phenotype association; comparing DNA fingerprints; analysis of gene expression / microarray data; statistical methods</td>
</tr>
<tr>
<td>Saunak Sen</td>
<td><a href="mailto:sen@biostat.ucsf.edu">sen@biostat.ucsf.edu</a></td>
<td>Associate Professor in Residence, Epidemiology and Biostatistics</td>
<td>Genetic analysis of complex traits, statistical genetics/genomics, Bayesian statistics, statistical computing</td>
</tr>
<tr>
<td>Brian Shoichet</td>
<td><a href="mailto:shoichet@cgl.ucsf.edu">shoichet@cgl.ucsf.edu</a></td>
<td>Professor, Pharmaceutical Chemistry</td>
<td>Molecular docking, structure-based inhibitor discovery, beta-lactamase activity-stability-evolution, and crystallography.</td>
</tr>
<tr>
<td>Chao Tang</td>
<td><a href="mailto:chao.tang@ucsf.edu">chao.tang@ucsf.edu</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Professor, Bioengineering and Therapeutic Sciences & Biochemistry and Biophysics

Design and organization principles of biological systems; quantitative study and systems analysis of biological networks; systems biology.

Christopher Voigt
cavoigt@picasso.ucsf.edu
Associate Professor, Pharmaceutical Chemistry

Design and evolution of gene circuits and pathways.

Jeff Wall
wallj@humgen.ucsf.edu
Assistant Professor, Institute for Human Genetics

Evolutionary and Human Genetics

Jonathan Weissman
weissman@cmp.ucsf.edu
Professor, Department of Cellular and Molecular Pharmacology

Mechanism of molecular chaperones and protein folding in vivo.

The Graduate Group in Bioinformatics is supported by an NIH training grant.

©2009, Regents of the University of California