DAVID S. SHIN, PH.D.

STRUCTURAL BIOLOGY, PROTEIN ENGINEERING, BIOINFORMATICS

PROFILE

David S. Shin, Ph.D.

San Francisco Bay Area

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SOCIAL

linkedin.com/in/davidshin1
github.com/datadaveshin

SKILLS

- Protein Engineering
- SAXS
- Crystallography
- Bioinformatics
- Biochemistry
- Cloning/Expression
- Purification
- Data Analysis
- Data Visualization
- Scripting
- Grant Writing
- Presentation

EDUCATION

Ruth L. Kirschstein Fellow,
Skaggs Institute Fellow
in Structural Biology
The Scripps Research Institute, La Jolla, CA

Ph.D., Biochemistry and Molecular Biology
University of Arkansas for Medical Sciences,
Little Rock, Arkansas

B.A., Chemistry
Arizona State University, Tempe, AZ

PROFESSIONAL EXPERIENCE

2010 - 2016 LAWRENCE BERKELEY NATIONAL LAB / JOINT BIOENERGY INSTITUTE
Research Scientist

2008 - 2010 THE SCRIPPS RESEARCH INSTITUTE
Senior Research Associate

1998 - 2008 THE SCRIPPS RESEARCH INSTITUTE
Research Associate and Postdoctoral Fellow

PROJECTS

Protein Engineering for Biofuels

Developed Shell/Python-based bioinformatics and automation protocols to facilitate cloning, protein engineering, and high-throughput structural analyses for biofuel synthetic biology projects

Structural Biology for Cancer and Amyotrophic Lateral Sclerosis

To inform on key protein assemblies, SAXS was combined with X-ray crystallography to enhance understanding of Rad51/BRCA2 interactions, and SOD mutants

Discovery using SAXS

Circumvented need for neuronal cell culture for amytrophic lateral sclerosis ligand screening by developing protocols utilizing small-angle X-ray scattering (SAXS)

Solution for Protein Stability

Dove ~2.5 km in the Alvin submerisble to retrieve hydrothermal vent worms and led DNA sequencing to provide structural biologists with *thermostable eukaryotic* human homolog proteins

PROFESSIONAL STATEMENT

I am a professionally-minded, congenial researcher that strongly believes in teamwork and assisting when needed. I'm looking forward to new challenges and opportunities. Likely one of my better assests is coming up with ways to get from point A to point B for difficult problems and projects. I have been sought out in the labs I have worked in for concept development, project design and my ability to help get projects funded (some in excess of $20M).

HIGHLIGHTS

Scientific work has been featured in Cell and Nature, and has resulted in publishing over 20 journal articles, 4 cited abstracts, 3 book chapters and 2 patent publications. In addition, over 140K GenBank, 12 RCSB PDB X-ray crystallographic, and 3 BioIsis SAXS dataset depositions were deposited. I was the recipient of 2 fellowships and the Incyte Discovery Award. A detailed CV is available on LinkedIn.