

UC San Francisco – Postdoctoral Position Openings

Ion Channel Structural and Chemical Biology

MINOR LAB UCSF - Cardiovascular Research Institute, Departments of Biochemistry and Biophysics, & Cellular and Molecular Pharmacology

Postdoctoral positions are available immediately for highly motivated individuals with a strong interest in **studies of ion channels** in the lab of Prof. Dan Minor at the University of California, San Francisco (UCSF). The Minor Lab merges structural, biochemical, chemical biology, genetic, and electrophysiological methods to dissect mechanisms of complex protein machines involved in electrical signaling.

Projects focus on biochemical, electrophysiological, and cell based approaches to studying ion channel function, the development of **new chemical biology tools** to manipulate channel activity, studies of ion channel lipid interactions, and on determining the structures of ion channel complexes by both **crystallographic** and **single particle cryo-electron microscopy (cryo-EM)** approaches. The fellows will benefit from both the outstanding lab environment and the highly collaborative UCSF community. As part of the UCSF Macromolecular Structure Group, the lab uses an extensive set of crystallographic and cryo-EM resources, including: two R-axis IV systems, regular access to synchrotron beamline 8.3.1 at the nearby Advanced Light Source (ALS) in Berkeley, and on campus state-of-the-art Talos Arctica and Titan Krios cryo-EMs using the latest generation of K2 Summit direct electron detectors.



Ongoing projects focus on mechanisms of voltage-gated, thermosensitive, and mechanosensitive channels and efforts develop new agents to control and image ion channels involved in pain represented by:

Arrigoni, C., Rohaim, A., Shaya, D., Findeisen, F., Stein, R.A., Nurva, S.R., Mishra, S., Mchaourab, H.S., and Minor, D.L., Jr., 'Unfolding of a temperature-sensitive domain controls voltage-gated channel activation' *Cell* **164** 922-936 (2016)

Lolicato, M., Arrigoni, C., Mori, T., Sekioka, Y., Bryant, C., Clark, K.A., Minor, D.L., Jr. 'K_{2P}2.1(TREK-1):activator complexes reveal a cryptic selectivity filter binding site' *Nature* **547** 364-368 (2017)

More information is available at the lab website <http://www.cvri.ucsf.edu/~dminor/>

Candidates should have (or expect) an Ph.D. or M.D. and should have experience in protein biochemistry, cell biology, electrophysiology, or structure determination by crystallographic or cryo-electron microscopy methods.

TO APPLY:

Interested individuals should send a current CV to Prof. Daniel Minor at daniel.minor@ucsf.edu