

One postdoctoral position is available in the group of Nik Sgourakis, UC Santa Cruz.

We study the structure and dynamics of MHC-I molecules, and their interactions with molecular chaperones, viral immunoevasins and T cell receptors. Using a combination of NMR spectroscopy, cryoEM and computational methods we aim to determine high-resolution structures of intermediate states, together with their kinetic and thermodynamic properties, towards understanding fundamental immune recognition mechanisms. Results from our solution experiments are validated using *in vitro* immunological assays established in our lab. All projects are funded by the NIH (R35, RO1).

Recent work: McShan et al. *Nature Chemical Biology*, 2018

Evangelidis et al., *Nature Communications*, 2018

Natarajan et al. *Nature Communications*, 2017

Lab information:

<http://niksgourakis.chemistry.ucsc.edu>

Our group has routine access to 500, 600 and 800 MHz NMR spectrometers and a dedicated computer cluster with 412 cores, as well as Q-band EPR, 200 keV cryoEM and X-ray crystallization equipment in a recently upgraded structural biology core facility. A full set of complementary techniques for biophysical characterization (SPR, BLI, ITC, fluorescence), flow cytometry and chemical screening facilities are available within our department. The Sgourakis laboratory is located at the new Physical Sciences Building in UCSC's "Science Hill", a vibrant and growing biomedical community in Santa Cruz, CA.