

Dr. Daniel Erlanson and Dr. Michelle Arkin have been collaborators since they were postdocs at Genentech, Inc. Dan and Michelle were early scientists at Sunesis Pharmaceuticals, a start-up company initially focused on fragment-based approaches to tackling challenging targets such as protein-protein complexes. Both were instrumental in developing the chemistry and biophysics of fragment-based discovery. Dan has continued to develop fragment-based technologies throughout his career, most recently as co-founder of Carmot Therapeutics, Inc. Michelle led later-stage drug discovery/development programs at Sunesis, but has recently (re)seen the light and now directs a biology group at UCSF focused on developing inhibitors for protein-protein complexes and allosterically regulated enzymes. These two scientists therefore bring complementary experiences to applying fragment-based techniques to modern drug discovery. This short course will cover the basic ideas behind fragment discovery, outline the major tools used to discover fragments, and highlight case studies in the optimization of fragments to drug leads.

Dr. Daniel A. Erlanson is the co-founder of Carmot Therapeutics, Inc. (<http://www.carmot.us>), a small-molecule drug discovery company applying fragment-based approaches to a variety of therapeutic targets. Prior to Carmot, Dr. Erlanson spent a decade developing fragment-based drug discovery technologies at Sunesis Pharmaceuticals, where he worked since the company's inception. Before joining Sunesis, he was an NIH postdoctoral fellow with Dr. James A. Wells at Genentech. Dr. Erlanson earned his Ph.D. in chemistry from Harvard University in the laboratory of Gregory L. Verdine and his B.A. in chemistry from Carleton College. As well as co-editing the first book on fragment-based drug discovery, Dr. Erlanson is an inventor on more than a dozen issued patents and published patent applications and an author of more than two dozen scientific publications.

Dr. Michelle R. Arkin is the Associate Director of Biology at the Small Molecule Discovery Center (<http://smdc.ucsf.edu>) and Adjunct Assistant Professor in the Department of Pharmaceutical Chemistry at UCSF. In this capacity, she directs the high-throughput screening facility and engages in grant-funded drug discovery research. Prior to her move to UCSF in 2007, Dr. Arkin was the Associate Director of Cell Biology at Sunesis and led the translational science team for Voreloxin, an anti-cancer agent in phase 2 clinical trials. Michelle received her B.A. in chemistry from Bryn Mawr College and her Ph.D. in chemistry at Caltech with Dr. Jacqueline Barton. She then held a Daymon Runyon-Walter Winchell postdoctoral fellowship with Dr. James A. Wells at Genentech. Dr. Arkin's research interests are in seeking innovative approaches to tackle so-called "undruggable" targets.