Jim Bowie

My group is fascinated by protein structure, folding and stabilization. This interest has led us into three main areas: (1) learning how membrane proteins fold and how they can be stabilized; (2) the structures and biological functions of a biological polymer they discovered, that is formed by a very common protein module called a SAM domain; (3) developing and stabilizing enzyme pathways for the production of biofuels.

Carla Koehler

Our research encompasses two major areas: Understanding the mechanism of protein import into mitochondria and determining the process by which defects in mitochondrial protein translocation lead to disease.

A basic question in cell biology is the mechanism by which a protein reaches its correct location within the cell. Of all the organelles in a mammalian cell, the mitochondrion is the most complex because two membranes must be crossed. In addition to the metabolic role, the mitochondria is a key player in many cellular processes including apoptosis, metal ion homeostasis and aging. My specific interests lie in mitochondrial biogenesis, particularly the mechanism by which proteins are imported into the mitochondrial inner membrane.