“Using fluorescence microscopy and fluid mechanics to reveal how biological materials move through fluid”

Abstract: Using fluorescence microscopy and fluid mechanics to reveal how biological materials move through fluid.

Synopsis:
Most biological processes are aqueous, and the physics of micro-scale movement in fluid environments can be counterintuitive. I will discuss recent experiments with the theme of building up a three-dimensional, microscopic picture of motion. Multi-component lipid membranes are fluids whose flow can be observed to couple closely to that of the surrounding water. Observations on a slightly larger scale illuminate the dynamics of embryonic cell sheet folding.