

REU students working with von Dassow will use microscopy – fluorescent labeling, confocal imaging, or high-speed video – to investigate eggs, embryos, or larvae of various marine invertebrates.  For example, one available project would be to follow up on a previous student's incidental discovery that caffeine treatment of starfish oocytes interferes with chromosome segregation during meiosis.  Another possible project would seek evidence, using a genetically-encoded calcium sensor, that starfish and sea urchin larvae sense fluid disturbances through their skin.  Yet another project would use fluorescent cytoskeletal labels to characterize the development of multiciliated cells in nemertean larvae.