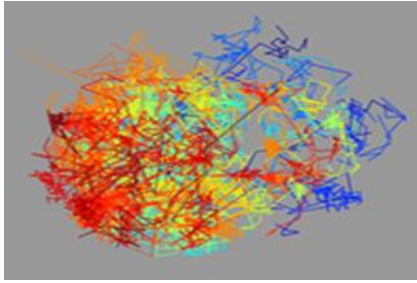


Postdoctoral Position open: Super-resolution PALM microscopy of cell division factors in yeast nuclei



A postdoctoral position in the Royer lab (<https://science.rpi.edu/biology/faculty/catherine-royer>) at Rensselaer Polytechnic Institute Center for Biotechnology and Interdisciplinary Science is available beginning January 1, 2019. The project involves the single molecule spatial mapping at high resolution of the transcription factors implicated in the G1/S transition in budding yeast. We are interested in how nutrient conditions and key deletions that result in size phenotypes affect the nuclear organization of these factors. The project is a collaboration between the Royer lab and the laboratory of Mike Tyers at the University of Montreal IRIC, just a short drive from Rensselaer. The Tyers group works at the cutting edge of understanding cells state transitions from yeast to human cell lines. <https://www.irc.ca/en/research/principal-investigators/michael-tyers/>. Our collaboration is aimed at defining the molecular mechanisms of the commitment to division in budding yeast (see Dorsey et al, Cell Systems, 2018).

The Royer lab has a home-built PALM STORM super-resolution microscope, as well as a 1 and 2-photon scanning microscope capable of single molecule FLIM, PIE and FCS/scanning N&B analysis. The Center for Biotechnology and Interdisciplinary Studies houses a Core microscopy facility, including confocal and STED microscopes, as well as AFM. CBIS also houses a FACS facility, among many other Core Facilities. <http://research.rpi.edu/facilities>.

The ideal candidate would have expertise in optical microscopy or spectroscopy, as well as familiarity with Labview and Matlab programming environments. The project would include PALM/STORM data acquisition and analysis in the context of yeast cell division, as well as implementation of instrument upgrades (i.e., two color and 3D capabilities).

Interested candidates should contact Catherine Royer (royerc@rpi.edu) and attach a CV. Two letters of reference will be required. Salary will be at least \$47,476/year and will be commensurate with experience. Rensselaer Polytechnic Institute (www.rpi.edu) is located in Troy New York, overlooking the Hudson River. Troy is about 2 ½ hours' drive or train ride from New York City and about 3 ½ hours from Montreal. Surrounded by the Adirondack, Catskill and Berkshire ranges, Troy offers plenty of opportunity for outdoor activities in addition to scientific pursuits.