Title: Joint PhD position in quantitative checkpoint biology (Rahi-Barth labs)

Your mission
Checkpoints arrest the cell cycle when cells are damaged. However, checkpoints also ‘fail’ or ‘give up’ after long arrests. This phenomenon is thought to be critical for biology and medicine but is poorly understood. By combining novel engineered protein-based optogenetic tools, molecular biology, genetics, and microscopy, we want to understand how checkpoints tell time at the molecular level. In a collaboration between the Rahi lab, where you would be performing molecular biology centered on yeast and recording timelapse microscopy movies, and the Barth lab, where you would be designing new optogenetic allosteric switches for checkpoint proteins using computational protein design, we will explore how checkpoints read out DNA damage and decide to arrest for specific amounts of time before ‘letting go’.

Your profile
Candidates should have a Msc in biophysics, bioengineering, or related disciplines and be experienced in molecular and/or cell biology, and computer programming.

Contact
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