

A 3-year PhD fellowship funded by the French Research Agency (ANR) starting between January 1st and March 31st 2019 is available in the **Mitotic regulation of chromosome partitioning and cell division** lab headed by **Simonetta Piatti** at the Research Center of Cell Biology in Montpellier (CRBM, <http://www.crbm.cnrs.fr/en/team/mitotic-regulation-of-chromosome-partitioning-and-cell-division/>) to work on

CONTROL OF SEPTIN ORGANIZATION AND DYNAMICS

We seek a talented and highly motivated candidate having completed a Master in Biology or related disciplines and holding a strong interest in Cell Biology and Genetics. Candidates with experience on yeast molecular genetics and/or advanced live cell imaging techniques will be favoured.

The PhD project aims at understanding some of the basic mechanisms at the heart of **cytokinesis**, the process leading to the physical separation between daughter cells. Cytokinesis is a fundamental process that is also key to cell fate decisions. Indeed, cytokinesis errors profoundly affect the distribution of chromosomes, organelles and polarity factors to daughter cells. In budding yeast cytokinesis strictly relies on the formation of a septin ring at the division site that acts as a scaffold for the assembly of the cytokinetic machinery. We have recently found that at the end of mitosis the septin ring must be displaced from the division site to allow constriction of the contractile actomyosin ring at cytokinesis. Furthermore, this process is triggered by the conserved Cdc14 cell cycle phosphatase. Aim of this project is to identify the critical targets of Cdc14 in this process and how these proteins contribute to the overall organisation of the septin ring. The project will involve genetic screens, advanced super-resolution microscopy and live cell imaging, as well as reconstitution assays to assemble septin filaments *in vitro* on biomimetic membranes in tight collaboration with the group of Laura Picas at the neighbouring IRIM institute (<http://www.cpbs.cnrs.fr/index.php/en/researchh/teams/biologie-quantitative-du-traffic-membranaire-et-pathogenese-2>).

Montpellier is a scientifically and culturally vibrant city situated in the south of France, near the mediterranean sea midway between Nice and Barcelona. It is one of the most attractive and fastest-growing city in France, hosting >70,000 students and researchers particularly strong in life sciences and agronomy. CRBM is located on the CNRS campus, along with two other CNRS life science institutes (IGMM and IRIM), an Institute of Functional Ecology (CEFE) and soon joined by all Montpellier chemistry (Pôle Balard). IGMM, CRBM and IRIM (hosting together 500 students, engineers and scientists) are sharing their numerous high-end technical facilities, and provide an ideal environment for students to start their scientific career.

Interested candidates should send their CV and a motivation letter to Simonetta Piatti (simonetta.piatti@crbm.cnrs.fr) before the 15th of December 2018.