



CENTRE DE RECHERCHE EN BIOCHIMIE MACROMOLECULAIRE (CRBM)
MONTPELLIER (FRANCE)

PhD

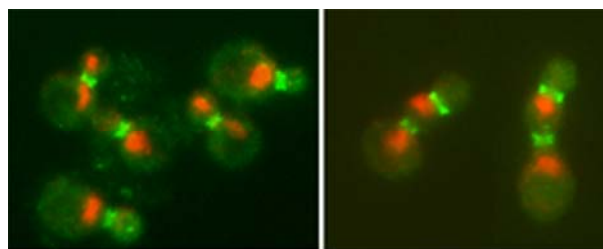
on

Spatio-temporal control of septin dynamics

starting October 1st 2010 (3 years)

Septins are highly conserved GTP-binding proteins that associate with cellular membranes and the actin and microtubule cytoskeleton. They are able to assemble into filaments and higher ordered assemblies, such as rings. Their importance is underscored by the several links between septins and human pathological conditions, such as cancer, Parkinson and other neurodegenerative diseases. Despite fulfilling various cellular functions such as cytoskeleton organization, membrane compartmentalization and cell polarity, septins have been implicated in cytokinesis in many different eukaryotic organisms. Yet their precise function in this process remains to be determined.

In the budding yeast *S. cerevisiae* septins form a ring at the future site of cytokinesis that undergoes dynamic transitions during the cell cycle. The selected student will study how the septin ring is regulated during the cell cycle, with a special emphasis to its cytokinetic functions.



The project will involve microscopy, genetics, molecular biology and biochemical techniques. We seek a highly motivated student with a strong genetic background.

Candidates should address their CV, motivation letter references to:
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