Université Nice Sophia-Antipolis

Post-doctoral position in Cell Biology/Biophysics of fungi:

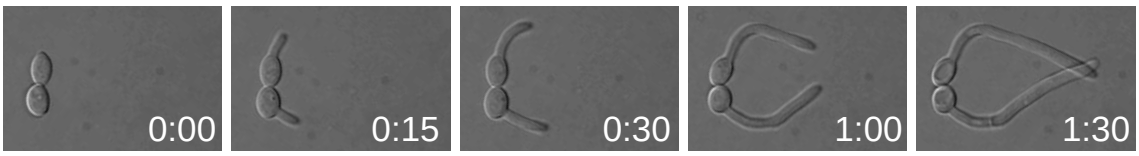
The biophysics of growth and morphogenesis of the human pathogenic opportunistic fungi Candida albicans

iBV, Institute of Biology Valrose (team Polarized growth in yeast, Rob Arkowitz, Martine Bassilana)
http://ibv.unice.fr/EN/equipe/arkowitz.php

LPMC, Condensed Matter Physics Lab (team Microfluidics, Physical Chemistry and Biology at Interfaces, Xavier Noblin, Agnese Seminara
http://lpmc.unice.fr/spip.php?rubrique82&lang=en

Summary:

This collaborative project will examine the biophysics of filamentous growth in the human fungal opportunistic pathogen *Candida albicans*. *C. albicans* filamentous growth is critical for its pathogenicity and ability to invade solid surfaces such as a range of different tissues. Little is known about the relationship between turgor pressure, tip growth and cell polarity in this opportunistic fungal pathogen. Several studies have begun to examine physical force generation in the model yeasts *S. cerevisiae* and *S. pombe*, however there is little to no information on quantitative relationships between physical forces generation, cell morphology and polarity in the human fungal pathogen, *C. albicans.* This project will establish methods to quantitate *C. albicans* tip pressure in different growth conditions as well as in wild-type cells and a range of cell polarity mutants. This collaborative project will involve work at the interface of biology and physics – taking advantage of expertise and resources (clean room, microscope facilities, *etc.*) in both institutes.



Filamentous growth in *C. albicans*. (time indicated hour:minute)

Qualifications:

Applicants should be highly motivated with a strong interest and experience in Cell Biology and/or Biophysics. Experience with microscopy, microfabrication or microbiology is a plus. Ability to work independently in the context of a dynamic, interactive interdisciplinary group is essential. Ability to communicate in English is critical.

Gross Salary: 2350 €. Duration: 1 year.

Closing date: October 31st

Details of how applicants should apply: Candidates should send a letter of application and curriculum vitae with names and contact information for two or three referees to Rob Arkowitz (arkowitz@unice.fr).