



## Interplay between cytoskeleton self-organization and signaling networks

A two-year post-doctoral fellowship in cytoskeleton biophysics is available at the Department of Chemistry of Ecole Normale Supérieure, Paris, France.

**Subject:** The ability of cells to perceive and correctly respond to their environment is encoded by the spatial and temporal dynamics of signaling networks. For example, the interplay between the organization of the cytoskeleton and the intracellular activation of GTPase proteins plays a decisive role for cell division and cell motility.

The aim of our project is to study the interplay between the self-organization of the cytoskeleton and the spatiotemporal dynamics of regulatory proteins using *in vitro* assays (*Xenopus* cell extracts...) and biophysical tools (biomimetic systems, magnetic nanoparticles – quantum dots, fluorescent observation...).

The project will involve collaborations with chemists, physicists and biologists and is financially supported by the French National Research Agency (ANR).

The Laboratory is developing interdisciplinary research between Biophysics, Physical Chemistry and Biology.

**Profile:** The applicant should hold a PhD in Biophysics, Cell Biology, Chemical Engineering, Biochemistry or Soft Matter Physics and show interest for interdisciplinary work. Expected start date: February-March 2010.

Questions regarding the project and applications (curriculum vitae, statement of research interests, and contact information of 2 references) should be addressed to: [zoher.gueroui@ens.fr](mailto:zoher.gueroui@ens.fr)

### References:

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Examining how the spatial organization of chromatin signals influences metaphase spindle assembly. Gaetz J, Gueroui Z, Libchaber A, Kapoor TM. *Nature Cell Biol*. 2006, 8, 924-32.

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