

Post-doc position

We are seeking a motivated postdoctoral scientist for a project aiming to understand the role of membrane traffic in the directional migration of epithelial cells in gut homeostasis. The position is funded for an initial period of 18 months and is available from January 2022.

Context

The position is open for a joint project between the teams “Molecular mechanisms of intracellular transport” (Bruno Goud) and “Cell invasion and migration” (Danijela Vignjevic) in the Cell Biology and Cancer Department at the Institut Curie. Research in these teams is based on multidisciplinary approaches combining molecular and cellular biology, state-of-the-art live cell imaging, biophysics, *ex vivo* and *in vivo* models. Examples of the type of work performed are illustrated in their latest publications: Science 2019, 365:705 doi:10.1126/science.aau3429; J Cell Biol 2019, 218: 2215-2231 doi:10.1083/jcb.201805002.

Project

Cell migration is fundamental to many physiological processes, as diverse as development or immune responses, and is involved in many diseases such as cancer cell invasion. To migrate, cells adapt their mode of migration to the physical properties of their micro-environment and respond to environmental cues. Intestinal epithelial cells (IECs) of the gut migrate collectively from the base of the villi (crypts) to their tips. During migration, IECs display a front-back polarity axis characterized by actin-rich basal protrusions oriented in the direction of migration. How the front-back polarity axis is established and what the guidance cue is for directional migration is not known, but we obtained preliminary evidence that RAB6-mediated trafficking of integrins plays a key role in the migratory process.

Profile

- PhD in cell or developmental biology
- Experience with mouse models (training in animal experimentation, injections, harvesting organs)
- Experience with live cell imaging and super-resolution microscopy is not mandatory but will be highly appreciated

Skills and responsibilities

- Scientific rigor and excellent analytical and synthetic capabilities
- Team spirit and dynamic personality
- Design, perform experiments and analyze obtained data
- Present findings at international seminars
- Write manuscripts and participate in funding applications

Interested candidates should address to Bruno Goud (bruno.goud@curie.fr) and Danijela Vignjevic (Danijela.vignjevic@curie.fr), a cover letter summarizing their scientific skills, training, and accomplishments as well as their future goals, a CV, and contact information for three references.