



## EU Marie-Curie Initial Training Network



### TRANSPOL

A European Research Training Network at the interface of  
Cell/Molecular Biology and Membrane Physics

Topic: Transport and Signalling mechanism in Polarized Cells

Call: FP7-PEOPLE-ITN-210

Proposal Number: 264399

**Project title:** Role of membrane trafficking and endosomal sorting in interferon signaling

**Type of position:** Early Stage Researcher (ESR)/ PhD position

**Reference Code:** TRANSPOL-P8

**Eligibility:** To this position applies a mobility rule. The respective candidate must not have worked for more than 12 months in Germany within the last three years. Furthermore, the candidate needs to be in his/her first four years of his/her research career. The four years are counted from the date a degree was obtained which formally entitles to embark on a doctorate.

**Starting date:** March 1<sup>st</sup>, 2011

**Duration:** 36 months

**Salary:** According to the Marie Curie-ITN rules: around 36000 Euro/year plus monthly mobility allowance of 500 Euro/month

**Short description:** We have found that clathrin-dependent endocytosis and association with lipid microdomains differentially control the JAK/STAT signaling pathway and the antiviral and antitumoral activities induced by IFN-alpha and IFN-gamma. We will pursue this novel aspect of IFN signaling:

- 1) Identification of new actors at the crossroads of IFN trafficking and signaling (subcellular proteomics with chemical library and siRNAs...).
- 2) Use of high resolution cell imaging (FRET, TIRF,...) to follow in real time the dynamics of signaling complexes associated with activated IFN-Rs (coll. Nikon Centre Curie Inst.)
- 3) Study of the role of endosomal sorting in the signaling of IFN-Rs.

The use of biochemical approaches and molecular inhibitors (mutants, siRNAs) will allow a thorough dynamic and molecular characterization of the interactions that are involved in signaling and trafficking of IFN-Rs. We will identify new actors at the

crossroads of signaling and trafficking. We will study their role on the signaling pathways and biological activities sustained by IFNs (antiviral assay, cell proliferation, immune defense). The analysis of this regulation in cancer cells should allow to identify the factors that are responsible for the defects, and thus new potential therapeutic targets.

**Job**

**Requirements:** Experimental background in cell biology, biochemistry, cell imaging

**Host Institute:** The Curie Institute  
Traffic, Signaling and Intracellular Laboratory  
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**How to apply:**

please send the following documents via e-mail to the TRANSPOL coordinating office: [transpol@rub.de](mailto:transpol@rub.de).

- Clearly indicate the project you are applying for by referring to the Reference code of this job offer
- Letter of motivation (research interests, reasons for applying to this program and project, respectively)
- A complete CV
- Certified copies of University Diploma or Master certificates
- Proof of proficiency in English language
- Two letters of recommendations

**Deadline**

**for application:** April 29th

**For further information:**

Please contact the supervisor of this project or directly the TRANSPOL coordinating office: [transpol@rub.de](mailto:transpol@rub.de)