



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:** Stoichiometry and regulation of AMPA receptor-TARP complex formation in receptor trafficking and ion channel function
- Type of position:** Early Stage Researcher (ESR)/ PhD position
- Reference code:** TRANSPOL-P3
- 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:** February 1st, 2011 or March 1st, 2011
- Duration:** 36 months
- Salary:** According to the Marie Curie-ITN rules: around 36000 €/year plus monthly mobility allowance of 500 €/month
- Short description:** Proper expression of AMPA-type glutamate receptors in synapses and their specific functional properties crucially depend on the transmembrane AMPA receptor-regulatory proteins (TARPs), $\gamma 2$, $\gamma 3$, $\gamma 4$, and $\gamma 8$, homologs of the calcium channel subunit $\gamma 1$. Three more $\gamma 1$ homologs, $\gamma 5$, $\gamma 6$, and $\gamma 7$, had been classified as non-TARPs, a view which has recently been disputed for $\gamma 7$ and $\gamma 5$, which are now designated Type II-TARPs. The successful candidate will 1) investigate what role these Type II-TARPs have in modulating AMPA receptor properties, and if they may interact with other glutamate receptor subfamilies such as kainate and NMDA receptors; 2) investigate the trafficking and stoichiometry of AMPAR-Type II-TARP complexes; 3) elucidate the molecular mechanism of Type II-TARP modulation by generating chimeric constructs to identify TARP-interacting domains of AMPARs.
- Job requirements:** Experimental background in molecular biology, protein biochemistry and/or electrophysiology.

Host institute: Department of Biochemistry I - Receptor Biochemistry
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How to apply: Please send the following documents via e-mail to the
TRANSPOL coordinating office: 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 programme and project, respectively)
- A complete CV
- Certified copies of University Diploma or Master certificates
- Proof of proficiency in English language
- Two letters of recommendation

**Deadline
for application:** **January 15th, 2011**

**For further
information:** Please contact the supervisor of this project or directly the TRANSPOL
coordinating office: transpol@rub.de