



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 Signaling mechanism in Polarized Cells

Call: FP7-PEOPLE-ITN-210

Proposal Number: 264399

Project title: Differential signaling of type I interferons through a common set of receptors

Type of position: Experienced Researcher / Post-doc position

Reference Code: TRANSPOL-P4

Eligibility: To this position applies a mobility rule. The respective candidate must not have worked for more than 12 months in Israel within the last three years. Furthermore, the candidate needs to be in the first 5 years (full-time equivalent) of their research careers. In addition, the candidate need to be in possession of a doctoral degree or having at least 4 years of research experience (full-time equivalent) after obtaining the degree, which formally allows them to embark on a doctorate.

Starting date: from Feb 1st, 2011

Duration: 24 months + the possibility of another 12 months extension (covered by the Weizmann Institute)

Salary: According to the Marie Curie-ITN rules: around 56000 Euro/year plus monthly mobility allowance of 800 Euro/month

Short description: Type I interferons show biological activity on all cell types. The most known activity is antiviral, but in addition interferons act on the cell cycle, promote apoptosis and have Immunomodulatory functions. Therefore, it may not be surprising that they are used as treatment against a variety of disease, including hepatitis, cancer and multiple sclerosis. The first step in signaling of all type I interferons is binding to the two transmembrane receptors, IFNAR1 and IFNAR2. Still, different type I interferons given at different doses for different periods of time to different cell types result in a different pattern of response. Using protein

engineering, we have shown that these responses can be simulated through alteration of the binding affinities to the two cell surface receptors, the concentration of the interferon and the time of activation. Using the tools developed by us, we are now investigating how the different strength and duration of binding to the receptors is transmitted into the cell to cause phenotypic different outcomes. In our research we use a combination of high throughput screening, quantitative biophysical binding measurements, protein engineering and system analysis to answer these questions.

Job

Requirements: Experimental background in cell biology, biochemistry or biophysics.

Host Institute: Department of Biological Chemistry
Weizmann Institute of Science
Rehovot, 76100
Israel

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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 program and project, respectively)
- A complete CV
- Proof of proficiency in English language
- At least two names of potential referees who can supply letters of recommendation. One of them should be the PhD supervisor.

**Deadline
for application:** April 29th

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