



Post-Doc position opening

EU Marie-Curie Initial Training Network TRANSPOL

<http://www.ruhr-uni-bochum.de/mol-neurobio/TRANSPOL/Transpol.htm>

Topic: Transport and Signaling mechanism in Polarized Cells

- Project title:** Differential signaling of type I interferons through a common set of receptors
- Type of position:** Experienced Researcher / Post-doc position
The candidate **needs to be in the first 5 years** of their research careers (counted from the start of their PhD). The respective candidate must not have worked for more than 12 months in Israel within the last three years.
- Duration:** 24 months + possible extension for another 12 months (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 and structural work, 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.
- Applications:** send to: Dr. Gideon Schreiber
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