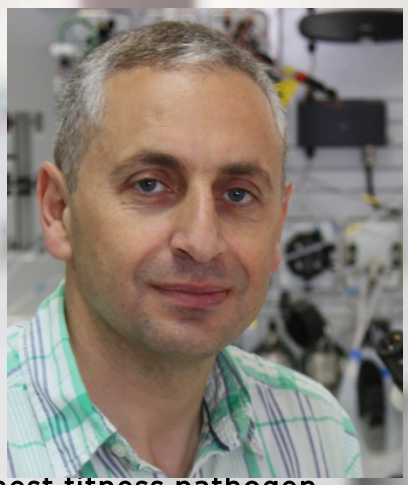
TWINCORE

TWINCORE – Seminar

Thursday March 12th, 2015, 5 p.m.
TWINCORE Lecture Hall

„HIV use of alternative routes through cellular pathways “

Akram Alian, Ph.D



Viruses rely on hijacking the cellular machinery of their host for successful replication. Since all protein-protein interactions depend on specific physical interfaces between interacting proteins, mimicry of cellular protein-protein interacting interfaces may be a mechanism by which pathogens modulate the biology of their hosts. The disorder of HIV-1 accessory proteins, the presence of homologous sets of viral or cellular proteins with conserved binding domains, and harboring multiple protein-protein interacting motifs or participating in different multi-protein complexes favor diversity and flexibility in interaction partners. The highest fitness pathogen variant is that who is able to select for the most favorable cellular pathway, most successfully evading obstacles presented by the host environment. Evidence indicates that the replication of HIV-1 needs to be considered on a pathway level recognizing that interactions with specific cellular factors may be readily replaceable when challenged. This will necessitate the convergence of proteogenomic, transcriptomic among other “omic” efforts to map the network of pathogen interactions with cellular pathways, importantly highlighting redundancies and alternatives.

Who is Akram Alian, Ph.D?

Assistant Professor, Faculty of Biology, Technion, Haifa, Israel.

Before:

- Associate Research Scientist, University of California in San Francisco, USA.
- Postdoctoral Fellow, University of California in San Francisco, USA.
- Ph.D. in Microbiology, The Hebrew University of Jerusalem, Israel.

Dr. Alian will be available for talks throughout the day. Please contact Christine Goffinet for slot allocation.

Contact: Jun.-Prof. Dr. Christine Goffinet
TWINCORE, Centre for Experimental and Clinical Infection Research,
Feodor-Lynen-Str. 7, 30625 Hannover, Phone: 0511 22002 7130