Samy SAKR, J Biotechnol Biomater 2015, 5:7
http://dx.doi.org/10.4172/2155-952X.C1.046

OMICS International
conferenceseries.com

412th OMICS International Conference

World Bio Summit & Expo

November 02-04, 2015 Dubai, UAE

High-quality domain-based protein interaction mapping: application for drug discovery

Samy SAKR
Hybrigenics services, France

Protein interaction mapping has proven instrumental for the delineation and understanding of cancer signaling pathways, both in Homo sapiens and model organisms. We previously published a *drosophil*a protein interaction map centered on fly orthologs of human cancer-related and signaling proteins[1]. We now report the completion of the cognate human interaction map using the same high-quality, domain-based yeast two-hybrid (Y2H) technology. 149 human homologs of the 102 drosophila proteins, including 29 human oncogenes and tumor suppressors, were used as entry points to screen at saturation a highly complex, random-primed placenta cDNA library comprised of 10 million independent fragments in yeast. The features of the drosophila and human parallel interaction maps were compared. Orthology relationships were combined with Y2H and genetics data to examine the conservation of interaction networks across evolution. We believe that this protein interaction map centered on human cancer signaling pathways will be an invaluable resource for researchers in the field. The same technology was applied to the unbiased identification of the protein targets of bioactive compounds, using a "chemical three-hybrid" approach. Example of target deconvolution for compounds initially selected in phenotypic screens will be presented.

Biography

Samy SAKR is a Business Development Manager at Hybrigenics services, a major player in the field of protein interactions with landmark contributions and achievements. He has done a PhDon PcG proteins and their implication in cancer at the Human Genetics Institute (University of Montpellier, FRANCE) and a MBA at the Grenoble Business School FRANCE.

ssakr@hybrigenics.com

Notes: