SEMINAR

ALL ARE WELCOME

TEMASEK LIFESCIENCES LABORATORY

28 April 2015 (Tuesday), 11am
The Auditorium (Level 1)
Hosted by: Dr YU Feng Wei

Structural biology of p75ntr death receptor signaling

Professor Carlos Ibáñez
National University of Singapore &
Karolinska Institute



Prof. Carlos Ibáñez graduated from University of Buenos Aires, Argentina with a Licentiate in Biological Sciences and a PhD in Biological Sciences in 1986 and 1989 respectively. He received his Docent in Molecular Neurobiology from Karolinska Institute, Sweden in 1993. The research of Prof. Ibáñez utilizes a range of molecular, cellular and genetic techniques to elucidate the functions and molecular mechanisms of action of neuronal growth factors and their receptors. Prof. Ibáñez has published more than 100 articles in international journals, with more than 11,000 citations and an H-index of 58. Prof Ibáñez is a member of the Nobel Committee for Physiology or Medicine and also member of the European Molecular Biology Organization (EMBO).

The research of Carlos Ibáñez utilizes a range of molecular, cellular and genetic techniques to elucidate the functions and molecular mechanism of action of neuronal growth factors and their receptors. Due to the pervasive role of these molecules in all aspects of nervous system development and function, this approach has allowed Ibáñez and his colleagues to address fundamental problems in neurobiology, such as neurogenesis, neuronal differentiation and survival, axon guidance, synaptogenesis and connectivity. Their discoveries include, in addition to previously unknown growth factors and receptors, novel principles of protein-protein recognition, signal transduction, and cell-cell contact. Regular interactions with the industrial sector have in addition resulted in 6 patents, several of which underlie the current development of therapies for peripheral neuropathies, neurodegenerative disorders and metabolic diseases.

Recent Publications:

1. Guo, T., Marmol, P., Moliner, A., Björnholm, M., Zhang, C., Shokat, K. M. and **Ibáñez, C. F**. (2014). Adipocyte ALK7 links nutrient overload to catecholamine resistance in obesity. **eLife** 3, e03245.
2. Vilar, M., Charalampopoulos, I., Kenchappa, R.S., Simi, A., Karaca, E., Reversi, A., Choi, S., Bothwell, M., Mingarro, I., Friedman, W.J., Schiavo, G., Bastiaens, P.I.H., Verveer, P.J., Carter, B.D. and **Ibáñez, C.F (2009**) Activation of the p75 neurotrophin receptor through conformational rearrangement of disulphidelinked receptor dimers. **Neuron**, 62, 72-83.
3. Paratcha, G., Ledda, F. and **Ibáñez, C.F**. (2003) The neural cell adhesion molecule NCAM is an alternative signaling receptor for GDNF family ligands. **Cell**, 113, 867-879.