

IMCB Invited Speaker



Speaker : Prof. Giorgio Scita
*Unit Director, IFOM Foundation,
Institute FIRC of Molecular Oncology, Milan, Italy*

Date : 14 January 2014, Tuesday

Time : 11:00AM - 12:00PM

Venue : IMCB Seminar Room 3-46, Level 3, Proteos, Biopolis

Host : Dr. Weimiao Yu

Seminar :

Endocytic networks in the control of the plasticity of tumor dissemination

Tumor dissemination to distant site and seeding of metastasis is the major clinical problem in cancer. We aim to understand the molecular underlying mechanisms through study how the interplay between membrane and actin dynamics regulate the plasticity of tumor cell migration and invasion. We study the networks of small RAB GTPases, focusing on the founding members RAB5, which by controlling key steps of intracellular trafficking pathways has a pervasive role in decoding spatial information and migratory signaling, influencing tumor cell invasive plasticity. We further focus on a poorly studied, curvature sensing, F-BAR-domain containing, protein family that by acting at the membrane/actin cytoskeleton interphase controls early endocytic steps of cell-cell and cell-adhesive receptor, thereby impinging on epithelial morphogenesis and epithelial-to-mesenchymal transition of normal and cancer cells. We will specifically explore the impact of these endocytic networks in the progression and dissemination of breast cancers (BC), which features dysregulation of the expression of some of these critical endo-components.

About the Speaker :

Giorgio Scita obtained his Ph.D. in Food Chemistry and Technology at the University of Parma, Italy, in the Department of Biochemistry. He received his first postdoctoral training at the University of California, Berkeley working on Vitamin A metabolism. Next, he moved to the National Cancer Institute (NCI) of the National Institutes of Health (NIH), where he worked on the integration between the retinoic acid receptor and Ras signaling pathways in Keratinocytes, under the leadership of Dr. Stuart Yuspa. In 1995, he returned to the European Institute of Oncology (IEO) Milan, under the supervision of Prof. Pier Paolo Di Fiore, he became interested in EGFR signaling. In 2001, he became Principal Investigator at the IEO, and in 2003 he moved to the IFOM Foundation, the FIRC Institute of Molecular Oncology, Milan, where he acquired tenured P.I status in 2008. In 2006, he was appointed associate professor of General Pathology at the School of Medicine of the University of Milan. His primary research interest has been on dissecting basic mechanisms of cell migration focussing on signaling leading to spatial and temporal regulation of actin dynamics: the powerhouse for cell motility. More recently, using breast cancer as a model system, he has been investigating the impact of membrane and actin dynamics interplay and its deregulation on tumor migration plasticity and dissemination.

Scita has authored more than 80 publications, which include more than 70 original articles and 8 invited reviews in refereed journals. The average impact factor of these publications is slightly above 10. Notably, the average impact factor of the 44 publications of the last 10 years is above 12 and, of these, 18 publications (42%) have appeared in journals with an impact factor >10. He has also published 4 book chapters and 3 meeting proceedings.



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