

# IMCB Invited Speaker



**Speaker : Prof. Rosalie Sears**  
*Department of Molecular and Medical Genetics,  
Oregon Health and Science University, USA*

**Date :** 15 May 2013 (Wednesday)

**Time :** 4:00PM - 5:00PM

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

**Host :** Dr. Vinay Tergaonkar

## Seminar :

### Targeting post-translational control of Myc activity for cancer therapy

Protein stability and transcriptional activity of the c-Myc oncoprotein are regulated by key phosphorylation and proline isomerization events. Serine62 phosphorylated (pS62)-Myc has increased protein stability and upon Pin1-mediated proline isomerization its transcriptional activity is enhanced. This is coupled to Myc degradation mediated by pS62-primed Threonine58 phosphorylation (pT58) and Axin1-coordinated Myc destruction at Myc target gene promoters. Inhibition of Pin1 and activation of PP2A to dephosphorylate S62 show therapeutic efficacy in both breast and pancreatic cancer.

## About the Speaker :

Dr. Sears is a Professor in the Department of Molecular and Medical Genetics at Oregon Health & Science University (OHSU). She received her Ph.D. in Cell Biology in 1993 from the Department of Cell Biology, Vanderbilt University, Nashville TN. She conducted her postdoctoral fellowship in the Department of Genetics at Duke University, Durham, NC, 1994-2000. Dr. Sears was appointed an Assistant Research Professor in the Department of Genetics, Duke University in 2001. She obtained her tenure track Assistant Professor position in the Department of Molecular and Medical Genetics at OHSU 2002. She was promoted to Associate Professor in 2007, received tenure in 2009, and full Professor in 2012. Dr. Sears was appointed co-leader of the OHSU Knight Cancer Institute's Cancer Biology program in 2008. Dr. Sears holds 2 R01s, a Leukemia and Lymphoma Scholar award, a Department of Defense Breast Cancer Research grant, and two private foundation grants.