

**Frontiers in Biological Sciences
Seminar Series Presents**

A Systems Approach to Breast Cancer – Carcinogenesis to Therapy

Speaker: Dr. Joe Gray

Director, Center for Spatial Systems
Biomedicine

Oregon Health & Science University

Date: Monday, April 18, 2011

Time: 1:00 to 2:00 p.m.

Place: EMSL Auditorium

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Dr. Gray's laboratory explores mechanisms by which genomic, transcriptional, and proteomic abnormalities occur in selected cancers; elucidates how these abnormalities contribute to cancer pathophysiology; and assesses the ways in which these abnormalities influence responses to gene-targeted therapies. Current studies focus on developing (a) genome-wide analyses of the spectrum of recurrent abnormalities that influence cancer behavior, (b) systems biology approaches to elucidate mechanisms by which cancer-associated molecular abnormalities influence individual responses to therapeutic inhibitors, (c) siRNA approaches to treat breast or ovarian cancer subpopulations that do not respond well to current chemotherapy, and (d) strategies for early detection of metastasis-prone breast cancer.



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