



Integrated Biological Systems Seminar

Presents: Giovanni Paternostro, Ph.D.

“Systems Approaches and Algorithms for Discovery of Combinatorial Therapies”

Effective therapy of complex diseases requires control of highly nonlinear complex networks that remain incompletely characterized. In particular, drug intervention can be seen as control of cellular network activity. We will discuss in special detail the design of algorithms that identify optimal control parameters in cellular networks based on a quantitative characterization of control landscapes, maximizing utilization of incomplete knowledge of the state and structure of intracellular networks. The use of new technology for high-throughput measurements is key to these new approaches to combinatorial therapies and essential for the characterization of control landscapes and implementation of the algorithms.

Wednesday, January 20

Noon-1:00pm

STSI Conference Room 1

3344 N. Torrey Pines Court Suite 300

La Jolla, CA 92037

Lunch will be provided.

Future dates and presenters include:

February 17 – Pauline Ng, Ph.D. – “Characterizing the Immune System using Next-Generation Sequencing”

March 17 – Joseph Ecker, Ph.D. - “Sequencing Epigenomes”

April 14 – Eric Topol M.D.

May 19 – TBD

June 16 – Bing Ren, Ph.D.

Please contact Kelly Bakken with any questions Bakken.Kelly@scrippshealth.org or 858-554-5706.