BMC-GPMLS: Distinguished lecture series

Professor Nevan Krogan

Cellular and Molecular Pharmacology at the University of California, San Francisco (UCSF)

Title: "Using Systems Approaches to Study the Host-Pathogen Interface"

There is a wide gap between the generation of large-scale biological data sets and more-detailed, structural and mechanistic studies. However, recent work that explicitly combine data from systems and structural biological approaches is having a profound effect on our ability to predict how mutations and small molecules affect atomic-level mechanisms, disrupt systems-level networks and ultimately lead to changes in organismal fitness. Our group aims to create a stronger bridge between these areas primarily using three types of data: genetic interactions, protein-protein interactions and post-translational modifications. Protein structural information helps to prioritize and functionally understand these large-scale datasets; conversely global, unbiasedly collected datasets helps inform the more mechanistic studies. Our efforts in this respect have been focused on model organisms, but more recently in mammalian cells, with a particular focus on pathogenesis, as we use these tools, and a number of viruses and bacteria, to systematically and quantitatively study the host-pathogen interface.

Nevan Krogan is a professor of Cellular and Molecular Pharmacology at the University of California, San Francisco (UCSF) and a senior investigator at the Gladstone Institutes. He is also the founding director of the Quantitative Biosciences Institute (QBI) at UCSF – with a mission of supporting scientists at the intersection between the biological and quantitative sciences. http://qbi-ucsf.org/nevankrogran

Time: **Wednesday, March 1st, at 15:00-16:00**

Location: **Fróði auditorium, DeCode Genetics, Sturlugata 8**