"The Heterogeneity Illusion: High Parameter Imaging of Cancer & Immunity"

Nolan Lab:

We use multiparametric single-cell analysis to study hematopoiesis, cancer and leukemia, autoimmunity and inflammation. We also develop computational approaches for network and systems immunology. Our most recent efforts are focused on a single cell analysis advance using a mass spectrometry-flow cytometry hybrid device, the so-called “CyTOF”.

The approach uses an advanced ion plasma source to determine the levels of tagged reagents bound to cells—enabling a vast increase in the number of parameters that can be measured per cell. Our laboratory has already begun a large scale mapping of the hematopoietic hierarchy in healthy human bone marrow at an unprecedented level of detail.

We are working to enable a deeper understanding not only of normal immune function, but also detailed substructures of leukemias and solid cancers as well as autoimmunity and pathogen effects upon the immune system.

Refreshments served outside the Auditorium at 3:20pm
Questions? Contact Brian Giebel at bgiebel@uw.edu or visit the Seminar website at http://www.gs.washington.edu/news/seminars.htm

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