



# Genome Sciences Seminar

Wednesday, 1.18.17 | 3:30 | Foege Auditorium

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## Dr. Garry Nolan

Professor of Microbiology & Immunology  
Stanford University

<http://web.stanford.edu/group/nolan/index.html>

## "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.

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Refreshments served outside the Auditorium at 3:20pm

Questions? Contact Brian Giebel at [bgiebel@uw.edu](mailto:bgiebel@uw.edu) or visit the Seminar website at <http://www.gs.washington.edu/news/seminars.htm>

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