

# Combi Seminar

Wednesday, 3.29.23 | Foege Auditorium | 1:30

remote viewing option: <https://depts.washington.edu/gstrestrc/remote.htm>

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## Dr. Manu Setty

Fred Hutchinson Cancer Center

<https://research.fredhutch.org/setty/en.html>

## “Density landscapes of single-cell phenotypic manifolds”

Today’s scientific techniques make it possible for researchers to examine the inner workings of individual cells — and produce massive amounts of data in the process. Dr. Manu Setty takes a multi-disciplinary approach to develop computational methods that make it possible to analyze and understand today’s enormous datasets. In particular, he focuses on the complex regulatory interactions that govern cell-fate choice, or how non-specialized cells choose to become cells with specialized functions. He has identified gene networks that regulate embryonic development as well as those that regulate production of blood cells in adult bone marrow. This cellular decision-making can go wrong in diseases like cancer, in which once-specialized cells sometimes regress and regain characteristics of their earlier selves that drive excessive growth. Setty seeks to understand cell-fate choice under normal conditions as a foundation for understanding how this process goes awry in disease.

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

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