

# Computational Immunology MiniCourse (BMS 270)

**Course directors:** Marina Sirota and Matt Spitzer

**What:** 2017 Seminar Series

**When:** Tuesdays and Thursdays at 3:00 - 4:00 PM

**Where:** Mission Hall 1401, except 5/18 and 5/23 in HD-160 (Bakar Auditorium)

**Website:** <https://minicourses.ucsf.edu/bms-270-computational-immunology-2017>

**Livestream link:** <https://lecture.ucsf.edu/ets/Catalog/Full/60449da854fa4154936f6f875a2df6ad21>

Effective modeling, acquisition and mining of data have become crucial for solving important problems in immunology. This course explores novel molecular and computational approaches to interrogating outstanding questions in immunology and related fields. We will provide an overview of computational methods used in the analysis of immunological data, including transcriptomics, next generation sequencing, cytometry and CyTOF. Speakers are invited to share their insights into the state-of-the-art trends, provide a theoretical framework but also focus on real applications.

***Seminars are open to the UCSF community, followed by discussion sessions for the registered students. The seminars will be livestreamed and recorded (see link above).***

|               |  |
|---------------|--|
| <b>May 16</b> | <b>Marina Sirota, UCSF</b><br>Topic: Gene Expression / Genetics / Drug Repurposing |
| <b>May 18</b> | <b>Purvesh Khatri, Stanford</b><br>Topic: Gene Expression Meta-Analysis            |
| <b>May 23</b> | <b>Dvir Aran, UCSF</b><br>Topic: Single Cell Sequencing                            |
| <b>May 25</b> | <b>Patrick Bradley, UCSF</b><br>Topic: Microbiome Analysis                         |
| <b>May 30</b> | <b>Ryan Hernandez, UCSF</b><br>Topic: Immune Repertoire                            |
| <b>June 1</b> | <b>Matthew Spitzer, UCSF</b><br>Topic: Flow Cytometry / CyTOF                      |
| <b>June 6</b> | <b>Student Presentations</b>   |
| <b>June 8</b> | <b>Student Presentations</b>   |