

BC225/NB230 Epigenetics in health and disease, Fall 2019

Monday 1:00-2:30 (~2:15)

Thursday 1:00-2:30 (~2:15)

Location: BC Conference room (Med Sci I D240)/Hitachi Plumwood Auditorium

This is an exciting cutting-edge course on current topics in epigenetics, focusing on the impact of epigenetic regulation of the genomic functions (gene regulation, DNA replication and repair) on development, metabolism, learning and memory, and human disorders. The course will be led by instructors with expertise in different areas in the epigenetics field and ends with a one-day symposium “Epigenetics Day” with prominent speakers.

Course organizers: Paolo Sassone-Corsi, Marcelo Wood, and Kyoko Yokomori

Other instructors: Xing Dai, Haoping Liu, Selma Masri

Contact: Kyoko Yokomori (X48215, kyokomor@uci.edu)

Course web site and syllabus: <https://eee.uci.edu/17f/90849>

I. Basic concept of epigenetics (lecture only)

M 9/30/19 (1) Introduction/ **Special Lecture by Tim Downing** (DNA methylation)

Th 10/3/19 (2) Nuclear organization (Yokomori-1)

M 10/7/19 (3) Histone modifying enzymes (Kevin Koronowski/Sassone-Corsi Lab)

Th 10/10/19 (4) Cutting edge techniques and reagents to study epigenetics (Zymo)

M 10/14/19 (5) **Special Lecture by Rob Spitale**

II. Chromatin regulation in development

Th 10/17/19 (6) Chromatin Regulation in Development and Stem Cells (Dai-1)

M 10/21/19 (7) Discussion (Dai-2)

Th 10/24/19 (8): Chromatin regulation in filament development (Liu-1)

M 10/28/19 (9) Discussion (Liu-2)

III. Chromatin regulation in human health and disease

W 10/30/19 (10) **BC Seminar Trey Ideker UCSD (Hitachi Plumwood Auditorium)**

Th 10/31/19 (11) Histone modifying enzymes in learning and memory (Wood-1)

M 11/4/19 (12) Discussion (Wood-2)

M 11/11/19 (--) No class

Th 11/14/19 (13) Epigenetics and metabolism (Masri-1)

M 11/18/19 (14) Discussion (Masri-2)

Th 11/21/19 (15) The role of histone modifying enzymes in addiction (Wood-3):

M 11/25/19 (16) Discussion (Wood-4)

Th 12/2/19 (17) Epigenetic abnormality in human disorders I (Yokomori-2)

M 12/5/19 (18) Discussion (Yokomori-3)

Fr 12/6/19 (19) Epigenetics Day

M 12/9/19 (20) Discussion (Yokomori-4)