



Department of Genetics

Nanocourse Announcement

CRISPR-Cas Systems and the Future of Genome Editing

NEW DATE:

Thursday, November 10th, 2016

9:30 am - 1:00 pm

Harvard Medical School, Armenise Amphitheater

J. Keith Joung

Luca Pinello

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Clustered regularly interspaced short palindromic repeat (CRISPR) RNAs and their CRISPR-associated (Cas) proteins are an important part of adaptive immune systems in many prokaryotes. CRISPR-Cas systems function as RNA-directed endonucleases that can target nucleic acids in a sequence-specific manner and are now widely used as genome editing tools. In this course, we will provide lectures covering: an introduction to genome editing and cutting-edge improvements to CRISPR-Cas systems; a review of bioinformatics tools for guide RNA design and analysis of CRISPR-Cas data; and an overview of on-going and potential therapeutic applications of genome-editing nucleases. The course will also include a practical lab-based workshop for registered students in which participants will learn how to design guide RNAs and how to perform the broadly useful TIDE assay that enables quantification of nuclease-induced mutations in any cell or organism.

All are welcome. No registration is required.

See nanosandothercourses.hms.harvard.edu for a complete nanocourse schedule.