Department of Genetics

Nanocourse Announcement

The CRISPR-Cas9 System and the Future of Genome Editing

Thursday, November 6th, 2014 9:30 am – 1:00 pm Harvard Medical School, New Research Building, Room 1031

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Clustered regularly interspaced short palindromic repeats (CRISPRs) and their associated endonuclease, Cas9, are an important part of the immune systems of many prokaryotes. CRISPR-Cas systems act as RNA-directed endonucleases that target nucleic acids in a sequence-specific manner. Importantly, CRISPR-Cas9 systems have been shown to be highly adaptive. In 2012, it was demonstrated that Cas9 could be directed to different target sites simply by changing the sequence of an associated RNA, leading to speculation that the system might be used as a genome editing tool. This discovery kicked off the rapid development and refinement of CRISPR-based genome editing tools as well advances in using this technology both to further basic research and to develop potential therapies for a number of human diseases. In this course, we will provide an introduction to genome editing and the development of the CRISPR-Cas system. We will also highlight some potential applications of CRISPR-Cas9 towards both basic research and human therapeutics. Finally, we will provide an overview of some of the resources available at Harvard for researchers interested in using CRISPR-Cas9 genome editing to further their projects.

All are welcome. No registration is required. See nanosandothercourses.hms.harvard.edu for a complete nanocourse schedule.