SESSION LECTURE

No. 9

Genome Editing

Room: 309A

Co-Chairs: Haoyi Wang 

Maria Jasin 

Day 1 October 27th (Saturday) 13:30 – 17:00		
Time	**Speaker**	**Title**
13:30-14:00	**Haoyi Wang** *Institute of Zoology, Chinese Academy of Science, China*	Gene Editing: Optimization and Application in Primary Cells
14:00-14:30	**Maria Jasin** *Memorial Sloan Kettering Cancer Center, USA*	Interhomolog recombination in mammalian cells
14:30-15:00	**Matthew Porteus** *Stanford University, USA*	Genome Editing of Human Stem Cells: A New Platform for Human Therapie
15:00-15:15	**Tea Break**	
15:15-15:45	**Erik Sontheimer** *University of Massachusetts, USA*	Enhancing genome editing by chemical modification of guides and donors
15:45-16:15	**Danwei Huangfu** *Institute of Memorial Sloan Kettering Cancer Center ,USA*	Human development and disease through the lens of pluripotent stem cells
16:15-16:45	**Hui Yang** *Institute of Neuroscience, Chinese Academy of Science, China*	CRISPR application in animals and gene therapies
16:45-17:00	**Qunxin She** *University of Copenhagen, Denmark*	Microbial genome editing based on endogenous CRISPR-Cas systems

Haoyi Wang

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Dr. Haoyi Wang is a principal of investigator at Institute of Zoology, Chinese Academy of Science. He currently has three main research interests:1. Development of novel tools for genome engineering. 2. Establishment of novel therapeutic methods using gene editing. 3. Study the mechanism of X inactivation in human using stem cell and CRISPR technologies.

Matthew Porteus

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He served on the National Academy Study Committee of Human Genome Editing. His clinical interests on the Pediatric Stem Cell Transplant service are to develop improved methods of curing patients with genetic diseases using stem cell based therapies as well as reducing the complications from allogeneic stem cell transplants. His laboratory research focus is on developing genome editing as an approach to cure disease, particularly those of the blood but also of other organ systems as well.

Danwei Huangfu

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Danwei Huangfu is an Associate Professor in the Developmental Biology Program at Sloan Kettering Institute of Memorial Sloan Kettering Cancer Center. The Huangfu lab is interested in embryonic development and stem cell biology. The lab applies precision genetics in human pluripotent stem cells (hPSCs), including both embryonic and induced pluripotent stem cells, to understand both conserved and nonconserved aspects of human development and disease mechanisms. In particular, the lab has focused on studying diseases that affect the pancreas, including diabetes and pancreatic cancer; and the regulation of DNA methylation during hPSC self-renewal and differentiation. More information about her research can be found from http://www.mskcc.org/huangfu.

Maria Jasin

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Maria Jasin is an investigator at Memorial Sloan Kettering Cancer Center and the Weill Cornell Graduate School of Medical Sciences, New York. She obtained her Ph.D. from the Massachusetts Institute of Technology, and was a postdoctoral researcher at the University of Zürich and Stanford University prior to joining the faculty at MSKCC. Her research accomplishments have led to election to the National Academies of Sciences and Medicine and the American Academy of Arts and Sciences.

Erik Sontheimer

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Dr. Erik Sontheimer is a professor in the RNA Therapeutics Institute and the Program in Molecular Medicine at the University of Massachusetts Medical School. His area ofresearch expertise is RNA function and mechanism in gene expression, with an emphasis on genetic interference pathways. He is a member of the American Academy of Microbiology, an RNA Society Mid-Career awardee, and a co-founder of Intellia Therapeutics.

Hui Yang

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Dr. Hui Yang is a principal of investigator at Institute of Neuroscience, Chinese Academy of Science. His area of research expertise is employing the most advanced genome-editing technologies to generate various genetically modified animal models to study human genetic diseases and examine the therapeutic potential of correcting these disease-causing mutations.