Genetics and Epigenetics of the Germline.

Registration not required

10/28(Mon) 17:00-18:00

Taniguchi Memorial Hall, Research institute for Microbial Diseases



Dr Jeremy Wang, MD, PhD

Department of Biomedical Sciences, University of Pennsylvania School of Veterinary Medicine, Philadelphia, USA.

My research focuses on understanding the regulation of meiosis, retrotransposon silencing, and germline stem cell self-renewal by assessing the function of a number of novel proteins identified in my lab. On one hand, our studies provide molecular insights into the development of germ cells in mice. On the other hand, these mouse studies have important implications for understanding the genetic causes of male infertility in humans. We have performed cost-effective genome-wide screens and identified many fertility factors. We find that the X chromosome plays a disproportionately eminent role in mammalian male fertility, challenging the dogma that the X chromosome is a female chromosome. Indeed, we have shown that TEX11, an X-linked gene, is essential for male fertility in mice and men. I will present our investigation of a number of factors (TEX11, TEX15, MOV10L1 and their binding proteins) and our findings on meiotic recombination, piRNA biogenesis, retrotransposon silencing in germ cells, and male infertility in humans.







共催:

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Prof. Masahito Ikawa (06-6879-8375), Research Institute of Microbial Diseases Prof. Katsuhiko Hayashi (06-6879-3900), Graduate School of Medicine

*This seminar is eligible for credit certification from the Graduate School of Medicine. (Please check with your supervisor to determine whether this seminar is a "research seminar".)