BIOLS SEMINAR SERIES

北京生命科学研究院精品讲座

报告时间：2012年10月19日（星期五）上午10:00

报告地点：中国科学院生物物理所9501会议室

报告题目：Molecular dissection of a stem cell niche and its control of germ cell fate decisions in *C. elegans*.

报 告 人：Dr. Judith Kimble. Member of National Academy of Sciences (USA). Investigator, Howard Hughes Medical Institute. Professor, Department of Cell and Regenerative Biology, University of Wisconsin-Madison.

欢迎广大科研人员和研究生光临！

Prof. Judith Kimble received her Ph.D in 1978 at University of Colorado, Boulder, majored in Molecular, Cellular & Developmental Biology, and she finished her Postdoctoral fellow in MRC Lab of Molecular Biology, Cambridge, UK. She is professor of Department of Medical Genetics, and Department of Cell and Regenerative Biology, U. Wisconsin-Madison and also Investigator of Howard Hughes Medical Institute. Dr. Kimble is member of National Academy of Sciences, Amarican Academy of Arts and Science and President's Committee on National Medal of Science, etc. She was on Editorial Board of *Cell*. At present, Dr. Kimble is the Editor of *Annual Reviews of Cell & Developmental Biology* and *Science*, and also on Editorial Board of Faculty 1000, Head of Developmental Biology.

Prof. Kimble's laboratory analyzes the *C. elegans* mesenchymal niche for germ line stem cells and the germ cell's response to niche signaling. Their results define an intricate regulatory network that specifies self-renewal or differentiation along a linear cellular axis. Key elements of the network include conserved stem cell regulators, Notch signaling and the FBF broad-spectrum differentiation repressor. During this seminar, she will describe the recent results that bear on principles and the mechanisms of stem cell regulation with an emphasis on germline stem cells and their differentiation as sperm or oocyte.

Key Publications:

2012. A nuclear Argonaute promotes multi-generational epigenetic inheritance and germline immortality. ***Nature.*** (in press)
2012. A conserved PUF/Ago/eEF1A complex attenuates translation elongation. ***Nature Structural and Molecular Biology***.19(2), 176-183.
2010. Chemical reprogramming of *Caenorhabditis elegans* germ cell fate. ***Nature Chemical Biology*** 6, 102-104.
2007. Controls of germline stem cells, entry into meiosis, and the sperm/oocyte decision in *Caenorhabditis elegans*. ***Annu. Rev. Cell Dev. Biol.*** 23, 405-433.
2007. The mysteries of sexual identity: the germ cell's perspective. ***Science*** 316, 400-401.
2006. Asymmetric and symmetric stem-cell divisions in development and cancer. ***Nature*** 441, 1068-1074.
2005. A β-catenin identified by functional rather than sequence criteria and its role in Wnt/MAPK signaling. ***Cell*** 121, 761-772.
2002. A regulatory cytoplasmic poly(A) polymerase in *Caenorhabditis elegans*. ***Nature*** 419, 312-316.
2002. A conserved RNA-binding protein controls germline stem cells in *Caenorhabditis elegans*. ***Nature*** 417, 660-663.
2000. LAG-3 is a putative transcriptional activator in the *C. elegans* Notch pathway. ***Nature*** 405, 364-368.
1999. Control of organ shape by a secreted metalloprotease in the nematode *Caenorhabditis elegans*. ***Nature*** 399, 586-590.
1998. C. elegans: Sequence to biology. ***Science*** 282, 2011
1997. A conserved RNA-binding protein that regulates sexual fates in the *C. elegans* hermaphrodite germ line. ***Nature*** 390, 477-484.

联系电话：64887916　　联系人：程 浩

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中国科学院
北京生命科学研究院