

# 脑与认知科学国家重点实验室学术报告-1: **The Sensory Basis of Mate Selection in *Drosophila***

时间地点: 2017年9月26日 上午9:00-10:30, 6237会议室

报告题目: **The Sensory Basis of Mate Selection in *Drosophila***

第一报告人: 王艺瑾 加州大学圣芭芭拉分校

主持人: 刘力研究员

第一报告摘要:

How environmental cues affect the behavior and decision-making in animals is the central question in neuroscience. Courtship and mating are essential for animal reproduction. And the mate selection is critical for reproductive success and mating investment. However, the molecular and neural mechanism of mate choice is still poorly studied and understand. Here, using molecular genetic approach, behavior screening, electrophysiological recording and live imaging in fruit fly, we identified ion channels and sensory cells that sense sex-specific pheromone and impact on decisions of their mate selection. And most recently, we also transfer our discoveries in fruit flies to *Aedes aegypti*, a main vector which spreads dengue, yellow fever, Zika and other diseases in the world, to develop the new strategies in mosquito control.

第一报告人简介: 2005年本科毕业于浙江大学生命科学学院, 2012年博士毕业于中国科学院生物物理研究所(刘力实验室), 2013年至今, 在加州大学圣芭芭拉分校 Dr.Craig Montell 实验室从事博士后研究。

## 脑与认知科学国家重点实验室学术报告-2: **Sex, sleep or food: how are animal behaviors generated and selected?**

时间地点: 2017年9月26日 上午10:30-12:00, 6237会议室

报告题目: **Sex, sleep or food: how are animal behaviors generated and selected?**

第二报告人: 潘玉峰, 东南大学生命科学研究院教授

主持人: 刘力研究员

第二报告摘要:

How the potential for animal behavior is built into nervous system is a fundamental question in neuroscience. It is generally believed that animal behaviors are controlled together by nature (genes) and nurture (environment), but how these two factors jointly control animal behaviors is still poorly understood. I use male courtship behavior in *D. melanogaster* as a model system to study the following questions: (1) How does doublesex gene, which is well conserved, function in the nervous system to allow male courtship in an experience-dependent manner? (2) How does social experience affect the courtship circuitry in molecular and neuronal levels? (3) How is the doublesex- and experience-dependent courtship pathway different from the innate fruitless-dependent pathway? (4) How does nervous system select particular behaviors (e.g. sleep, sex or feeding) based on internal and external cues? I will discuss these questions in my talk.

第二报告人简介: 2004年7月本科毕业于南开大学物理学院, 2009年7月博士毕业于中国科学院生物物理研究所(刘力 实验组), 2009年9月至2014年8月期间于美国霍华德休斯医学研究所(HHMI)詹宁斯农场(Janelia Farm)研究中心从事博士后工作, 2014年9月回国工作, 2015年入选中组部第十一批“千人计划”青年人才, 2016年获得国家优秀青年基金。代表性研究论文发表在Cell, PNAS, Nature Communications等杂志。