

徐宇君 教授,1996年毕业于美国芝加哥大学遗传学系,取得博士学位。先后在美国加州大学旧金山分校和美国西北大学生殖科学中心任职,并于2005年起在美国西北大学担任终身系列教职(Tenure-track Assistant Professor),并建立了自己的实验室,主攻精子发生和发育的遗传机制,并探讨人类生殖调控通路的起源和演化历史,以期发现和阐明高度保守的人类生殖发育关键因子和通路。他的团队在过去几年里已成功地找到在动物界包括人类生殖过程中高度保守的调控因子,并在小鼠等模式动物中建立了敲除和转基因模型,为系统地阐明人配子发育的关键通路,研究导致人类不育的遗传机制,尤其是常见的Y染色体微缺失所致男性不育的诊断和治疗研究打下了良好的基础。他的工作不仅被生殖领域同行所关注,还被美国媒体和大众科学杂志比如"国家地理(National Geographic)"报道。他团队的博士生和博士后多次在美国生殖学大会上发言并获奖,并获得生殖领域颇有声望的Serono生殖内分泌博士后奖学金。

徐教授现任江苏省特聘教授,南京医科大学生殖医学国家重点实验室特聘教授,博士生导师。同时兼任美国西北大学妇产科学系和神经和行为科学系的兼职教授,担任美国男科学会评奖委员会委员和美国 Plos One, Genesis, Journal of Andrology, Molecular Reproduction and Development等杂志的评审,同时也是 Spermatogenesis杂志的编委会成员。生殖医学国家重点实验室是中国唯一的生殖医学领域的国家级重点实验室,也是我国生殖领域两个国家重点实验室之一。除著名的沙家豪教授(国家生殖医学实验室主任)领导的实验室外,最近从国外引进了包括徐宇君教授在内的在国际生殖领域研究前沿的多名教授作为生殖医学国家重点实验室新PI,在南京形成了我国生殖医学研究的新中心。

主要成就:

- 1. 完成美国国立卫生院重点项目"男性避孕药的功能组学研究",首次发现人类最古老的生精基因Boule,揭示了DAZ家族的起源和演化历史;
- 2. 利用果蝇作为动物模型,分析比较了人DAZ家族成员在精子发生过程中的功能差别,开拓了用果蝇研究人 类不育基因功能的先例。

目前的研究兴趣:

- 1. 配子发生和发育的遗传机制,尤其是人无精子因子家族(DAZ family)介导的男性不育机制研究;
- 2. 人类生殖遗传机制的起源和演化,转录后调控在生殖发育和干细胞自我再生和分化中的调控机制;
- 3. 动物配子发生遗传机制的系统生物学和比较基因组学研究。

EXPERTS IN CHINA

Dr. Eugene Yujun Xu Jiangsu Provincial Professor, Nanjing Medical University professor, is a Principle Investigator at the newly founded State Key Laboratory of Reproductive Medicine in Nanjing, China. He received his Ph.D. in Genetics from University of Chicago. Then he obtained his postdoctoral fellowship training at Howard Hughes Medical Institute of Indiana University and later at the University of California San Francisco in the United States. He started his own lab in 2005 when he took a tenure-track position at the Center for Genetic Medicine at Northwestern University. His group has been focusing on the genetic mechanism of mammalian gametogenesis in particular, the pathway involving the human Deleted in AZoospermia (DAZ) family. Recently his group traced the evolution history of human DAZ family and found that all three members of DAZ gene family evolved from an ancient meiotic gene—Boule. Moreover, homologues of Boule gene appear to be highly conserved and are present in every major group of animal. He and his colleagues further showed that mouse Boule is required only for spermatogenesis, just like its fly counterpart, supporting functional conservation of BOULE from fly to mammals. Currently, his group aims to reveal the core regulatory machinery of mammalian gametogenesis and to further our understanding of the underlying mechanism for human infertility with the goal to facilitate the diagnosis and treatment of human infertility.