

Meet Editor-in-Chief

李劲松

中国科学院生物化学与细胞生物学研究所研究员、课题组长、博士生导师，细胞生物学国家重点实验室主任



李劲松博士从事干细胞与胚胎发育相关研究。1993年毕业于江西农业大学，获学士学位；1996年毕业于扬州大学，获硕士学位；2002年毕业于动物研究所，获博士学位；2002年至2007年在洛克菲勒大学从事博士后研究；2007年8月起任中科院上海生化与细胞所研究员，研究组长。率领团队建立了小鼠孤雄单倍体胚胎干细胞（即“人造精子细胞”），证明其能代替精子使卵母细胞受精产生健康小鼠（即“半克隆技术”），并利用“人造精子细胞”携带CRISPR-Cas9文库实现了小鼠个体水平的遗传筛选；建立基于受精卵和精原干细胞介导的CRISPR-Cas9遗传疾病治疗策略。研究成果2011年和2012年入选“中国科学十大进展”。以第一作者或通讯作者身份在*Cell*, *Nature*, *Cell Stem Cell*, *Nature Cell Biology*, *Cell Research*等杂志发表90余篇研究论文。目前，实验室正在利用“人造精子细胞”介导半克隆技术开展多方面研究，包括：揭示生殖前体细胞发育的分子调控机制，建立人类疾病包括出生缺陷和生殖缺陷等在内的小鼠模型，探讨精原干细胞的细胞倍性可塑性的调控机制等。另外，生化与细胞所利用该技术正在组织实施基因组标签计划（Genome Tagging Project, GTP），计划构建基因组范围编码蛋白质基因的原位标签小鼠库。

Jin-Song Li is a professor and director of State Key Laboratory of Cell Biology, Shanghai Institute of Biochemistry and Cell Biology (SIBCB), Chinese Academy of Sciences. He obtained his PhD from Institute of Zoology, Chinese Academy of Sciences, in 2002 and followed by postdoctoral training at Rockefeller University before joining SIBCB in 2007. His research is to establish high-efficient reprogramming strategies, generate high-quality reprogrammed cells, as well as to elucidate molecular mechanism of epigenetic reprogramming. He has made fundamental contributions to the establishment of androgenetic haploid embryonic stem cells ('artificial spermatids') and haploid cell-mediated semi-cloned technology, in which, injection of haploid cells into oocytes enables high-efficient generation of live mice (semi-cloned mice). 'Artificial spermatids', combining with CRISPR-Cas9 technology, open new avenues for gene function analyses *in vivo*. One ongoing project using the combined application of 'artificial spermatids' and CRISPR-Cas9-based gene editing is to tag all proteins in mice, which is designated as the Genome Tagging Project (GTP). Meanwhile, he has demonstrated, for the first time, that CRISPR-Cas9 can efficiently correct the genetic defect through injection into mouse zygotes. He has also established a spermatogonial stem cell-mediated gene correction strategy. Moreover, he has demonstrated that *Zscan4*, a factor involved in oocyte-mediated reprogramming, after being applied in iPSC generation, can not only significantly increase the efficiency of iPSC derivation but also significantly improve the quality of iPSCs through stabilizing the genome integrity during reprogramming.