



科学研究

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研究方向

1. 胚胎干细胞向心肌细胞定向分化以及斑马鱼心血管系统发育中miRNA的功能及其临床应用；
2. 利用模式生物研究成体干细胞介导的再生分子机制及其在再生医学中应用前景；
3. miRNA参与基因表达调控的分子机制与疾病。

主要成果

提出了miRNA调节其靶基因mRNA的稳定性进而介导转录后的调控，是一种生物学普遍机制(Cell 2005)。进一步通过对带有突变Dicer1等位基因的小鼠研究，发现该小鼠对水疱性口炎病毒的易感性增加，提示在病毒感染和复制过程中宿主miRNA扮演着重要的角色(Immunity 2007)。以动脉粥样硬化等慢性炎性疾病作为研究对象，开展细胞内信号转导和基因表达调控研究，发现p38MAPK信号转导通路在动脉粥样硬化早期形成和中晚期发展中的作用，丰富了对该疾病分子机理的认识(Circulation Research 1999, 2000)。研究发现心肌细胞中microRNA能够调节心肌细胞的大小，并在心肌肥厚的发生中起重要调控作用(J Cell Science 2010, J Cell Physiol 2010, J Cell Physiol 2011)；发现内皮microRNA有效调节血管完整性(Circulation Research 2011)；并深入研究了microRNA自身降解调节机制(Nucleic Acids Res 2011)。该研究组临床转化研究发现血浆中心肌细胞特异的miR-208a含量升高可以作为有价值的早期临床诊断心肌梗死的生物标记物(Biomarker) (European Heart Journal 2010)。

学习经历

- 1990 第二军医大学医学学士
- 1997 第二军医大学医学博士
- 1997-1999 中科院上海细胞生物学研究所博士后

工作经历

- 1990-1994 第二军医大学长海医院心内科，医师
- 1994-1997 第二军医大学长征医院心内科，医师
- 1997-2000 第二军医大学长海医院心内科，主治医师，讲师
- 2000-2004 The Scripps Research Institute, Visiting Scientist
- 2005-至今 中科院上海生命科学院/上海交通大学医学院健康科学研究所研究员

荣誉(证书, 称号, 会员)

- 1999 中国科学院优秀博士后称号
- 1999 上海市博士后生命科学学术报告会优秀论文一等奖
- 2000 上海市科协第八届青年优秀科技论文一等奖
- 2003 上海市科协第九届青年优秀科技论文二等奖
- 2010 第十三届“明治乳业生命科学奖”

近期主要论文

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