



人才队伍

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个人简介:

1998年获美国冷泉港实验室和纽约州立大学石溪分校分子生物学和生物化学博士学位，1999到2005于美国加州大学洛杉矶分校医学院从事癌症研究，先后为博士后和助理教授，2006年以“百人计划”入选者应聘中国科学院上海生命科学研究院生物化学与细胞生物学研究所研究员。

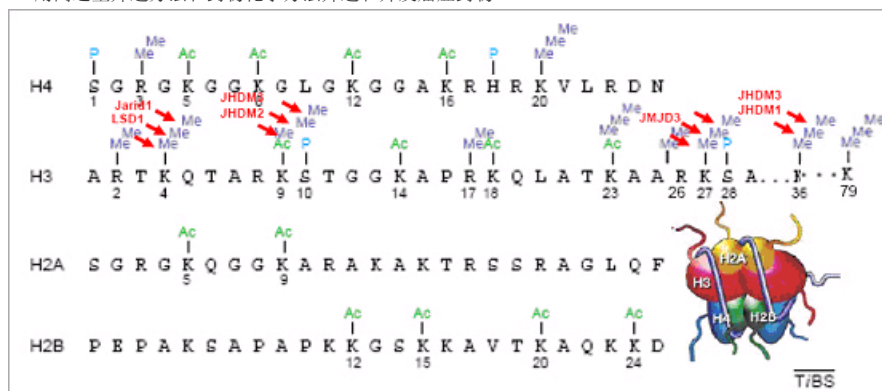
研究方向: 表观遗传及其与癌症和胚胎干细胞的关系

研究工作:

组蛋白修饰是发生在染色体组成成分—组蛋白上的修饰，主要有甲基化(me)、乙酰化(Ac)、磷酸化(P)、泛素化，ADP-核糖基化等修饰方式。其中，组蛋白甲基化修饰比较复杂，可以发生在赖氨酸或是精氨酸上，而且每个修饰位点可以有不同的甲基化修饰状态。根据修饰位点以及修饰状态的不同，甲基化修饰可以激活或抑制基因转录，从而参与正常生理如个体发育、胚胎干细胞定向分化等过程，同时也参与病理如癌症的形成和发展。

组蛋白去甲基化酶(去除组蛋白甲基化的酶)的研究是表观遗传研究领域的前沿性学科，自2004年发现第一个组蛋白去甲基化酶LSD1以来，目前共发现了六类组蛋白去甲基化酶，我们实验室发现和鉴定了两类组蛋白去甲基化酶(JARID1和JMJD3)。目前和将来的研究集中于:

1. 结合生物信息学，用高通量筛选方法寻找新的组蛋白去甲基化酶
2. 用敲除小鼠和胚胎干细胞分化模型研究组蛋白去甲基化酶的生物学功能，确定它们与癌症发生发展、胚胎干细胞全能性维持和定向分化的关系，寻找癌症的诊断方法和治疗靶点
3. 用高通量筛选方法和药物化学方法筛选和开发癌症药物



代表性论文:

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3. Hanqing Lin, Yiqin Wang, Yanru Wang, Feng Tian, Pu Pu, Yi Yu, Hailei Mao, Ying Yang, Ping Wang, Lulu Hu, Yan Lin, Yi Liu, Yanhui Xu, **Charlie Degui Chen**. Coordinated regulation of active and repressive histone methylations by a dual-



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研究组成员



