

因为他在人类精子库规范管理、技术水平 提高和推广应用方面的突出贡献, 获得了

国家科技进步二等奖



1983年开始生殖医学研究,先后参加建立人类精子冷冻库和人类胚胎库的研究。 1985年参加国家 "七五"攻关项目"人类体外受精一胚胎冷冻保存",获湖南省科技进步一等奖; 1990年,研究建成植入前胚胎遗传学诊断小鼠模型; 1993年,在美国堪萨斯州大学医学中心研修发育分子生物学,开展EGF受体与早期胚胎发育的相关性研究。

1996年以来,负责主持人类精子库的工作,在着力抓好精子库规范管理、规模化运作的同时,着重研究人类精子的结构与功能、精子生育能力的分子标志和男性生育力保护(包括人类精子和精原干细胞)。结合精子FISH研究证明体细胞正常的畸精症患者,其精子性染色体和常染色体都可能有高度的异常(2001);应用不同pH范围胶合成技术,获得3872点正常全精子蛋白质2-D电泳图谱(3007)。也应用二维电泳(2003)或差异二维电泳(2009)技术比较分析了正常与圆头精子间蛋白质组成的差异,找出了78个差异蛋白质点,对其中44个点进行了质谱分析,发现了在圆头精子中9个上调和35个下调的蛋白质,这些蛋白质与精子发生,细胞内通信、顶体形成、细胞骨架和代谢有关。证实SCF 雌激素在维持人胚精原干细胞体外增殖中的重要作用(2007)。

近期的研究方向集中在应用组学技术分析影响人类精子库供精者生育力的因素和采用人类精原干细胞保存男性的生育能力(包括精原干细胞分离、块 和精子发生重建)。

Expert China

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