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#### 简历:

研究方向: Small RNA是当前国际研究热点之一。本研究组研究共生生物体内的Small RNA世界

研究工作: 重点阐明共生固氮菌的Small RNA功能

洪国藩, 分子生物学家, 男, 1939年12月生。1964年复旦大学生物系毕业。

在DNA测序研究方面做出杰出贡献。1978年他发现梯度电场抵抗核酸分子扩散效应, 导致DNA顺序的可读量增加30%以上, 在国际上被广泛地应用。他创建了单链DNA双向测定的方法。他创建了高温DNA测序体系。他从嗜热脂肪芽孢杆菌中成功的分离出耐高温高保真高进行性的BstDNA聚合酶, 利用该酶, 成功地消除了长期未能解决的DNA顺序测定由二级结构造成的“堆积效应”。该酶已获美国、欧洲、日本等国的专利。洪国藩的有关DNA研究成果已被收录在美国出版的权威著作《Molecular Cloning》和《Methods in Enzymology》之中。

从2007年开始此项高保真DNA分析体系, 已被美国科学家开发成为高灵敏度、高精度的医学检测技术, 成功地用于妇女子宫颈癌病毒及其他人类病菌的检测(见文献14—20)。

在对共生固氮根瘤菌的结瘤基因的转录调控研究中, 发现了主要调控因子NodD, 控制着豌豆根瘤菌中全部13个结瘤基因的转录, 并对结瘤基因转录调控的分子机制进行深入的研究, 发现了类组蛋白Hu不仅调控结瘤基因的表达, 而且调控根瘤菌的生长代谢等诸多方面。相关研究发表在JBC, NAR, Molecular Microbiology等专业期刊。

获中国科学院科技成果二等奖、科技进步一等奖、国家科技进步二等奖、第三世界科学院生物学奖(Medal Lecture), 香港何梁何利科技进步奖等。

曾任国家攀登计划生物固氮项目首席科学家、中国科学院国家基因中心负责人、联合国UNESCO人类基因组国际科学协调委员会委员、英国《DNA Sequence》杂志编委和英国《Trends in Plant Science》国际顾问编委。

他被选为第三世界科学院院士, 中国科学院院士。

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研究方向:

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