

中华预防医学会科学技术奖项目公示内容

一、项目名称：结直肠癌全程精准预防诊疗体系的建立与推广

二、推荐单位及推荐意见

推荐单位：上海市预防医学会

推荐意见：该项目从结直肠癌早诊早治，手术防治复发，复发转移防治三个方面入手，创建多项新型诊疗技术方法，形成一整套规范化的结直肠癌全程精准预防诊疗体系，国际先进，国内领先：创建早期诊断新方法，灵敏度高，应用便捷，显著提升早期诊断率，具备自主知识产权，应用前景广阔；创建建立精准微创手术体系，预防中晚期结直肠癌术后复发，开展高质量临床研究，牵头制定指南共识，全国推广应用，引领行业规范；创建复发转移防治新方法，首创“转化治疗”理念，创新精准诊疗技术，显著降低复发转移率，提高转化切除率，改善预后，延长生存，制定该领域首部国际标准，发出“中国声音”。该项目累计诊疗结直肠癌患者3万余例，显著改善了结直肠癌的预后，减少了患者痛苦，节约了医疗费用，具有良好的社会效益。同时，该项目牵头制定多部诊疗指南、专家共识，举办高水平学术会议，成果向全国推广应用，提升了全国结直肠癌诊疗水平，卓有成效。同意推荐2025年中华预防医学会科学技术奖。

三、项目简介(项目简要介绍，技术路线，创新点及项目产出)

结直肠癌是我国高发的消化道恶性肿瘤，早期诊断和精准预防是提高患者生存率的关键。项目组围绕结直肠癌预防医学难点，历时16年开展系统研究，创建新型预防与诊疗技术方法，构建规范化全

程预防诊疗体系，显著改善患者预后、延长生存。

项目组创建了血液 5-hmC 肠癌早期筛查模型，显著提高早诊敏感性，肠癌早期发现比例由 6.7% 提升至 16.4%。在国内首次开展基于该技术的大规模人群精准预防性筛查，显著提高结直肠癌和癌前病变的检出率。

项目组率先推广腹腔镜、机器人辅助微创手术，传统医学理念融入微创手术流程，形成针对性预防术后并发症、减少创伤、促进恢复的手术新模式，显著提高肿瘤根治效果，保肛率从 77.3% 提高至 83.1%，并减少术后复发风险。研究成果发表于 *Lancet Gastroenterol Hepatol*、*Ann Surg* 等杂志，并被美国 NCCN 指南采纳。

术后复发转移严重影响结直肠癌患者长期生存。项目组发现并验证了多种有效的复发转移风险预测标志物，创建了术中门静脉灌注化疗精准预防术后高危患者复发转移的方法，成果发表于 *Ann Surg* 等顶级杂志。对已发生转移的患者，首次提出“精准转化治疗”理念：针对 RAS 突变型患者，建立“贝伐珠单抗+化疗”转化治疗方案，将转化切除率由 5.8% 提升至 22.3%；针对 RAS 野生型患者，创建多基因预测模型精准选择西妥昔单抗治疗患者。转移性患者总体 5 年生存率由 12% 显著提升至 41%。研究成果作为改写美国 NCCN 指南的重要依据，发表于 *J Clin Oncol* 并被 ESMO 大会特邀报告，获国家发明专利 3 项。

项目组首次系统提出结直肠癌全程精准预防诊疗新理念，诊疗 3 万余例患者，整体 5 年生存率达到 71.4%（全国同期 57%）。牵头制定国际结直肠癌肝转移诊疗上海共识等 5 部，主编中英文专著 4 部。建

立国内首个机器人结直肠外科教学中心，推广至全国 100 余家三甲医院 20 万例患者，获得 2019 年上海医学科技一等奖、2022 年上海市科技进步一等奖。

四、主要支撑材料目录（被引用论文题目及作者）

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五、主要完成人及完成单位情况

排名	姓名	单位
1	许剑民	复旦大学附属中山医院
2	肖毅	北京协和医院
3	王贵英	河北医科大学第二医院

六、主要完成单位及排名情况

排名	单位名称
1	复旦大学附属中山医院
2	北京协和医院
3	河北医科大学第二医院

公示单位：上海市预防医学会 签章

