2024 年度广东省科学技术奖公示表
（青年科技创新奖格式）

<table>
<tr><td rowspan="2">候选人
基本情况</td><td>姓名</td><td>黄慧琳</td><td>工作单位</td><td colspan="3">中山大学肿瘤防治中心</td></tr>
<tr><td>职称</td><td>正高级研究员</td><td>学历</td><td>博士</td><td>从事专业</td><td>遗传学</td></tr>
<tr><td colspan="2">提名者</td><td colspan="5">广东省卫生健康委员会</td></tr>
<tr><td colspan="2">提名意见</td><td colspan="5">黄慧琳博士在中山大学获得博士学位后，在海外高水平研究机构长期从事RNA表观遗传学前沿研究，于2020年入职中山大学，并入选国家海外高层次人才计划青年项目。黄慧琳现任中山大学肿瘤防治中心研究员、博士生导师，华南恶性肿瘤防治全国重点实验室独立PI。回国后，她作为第一批进驻黄埔院区的PI参与了全重室的平台建设，并搭建了高水平的RNA表观遗传学研究平台和研究队伍。黄慧琳教授针对急性髓系白血病预后差这一重大临床问题，从RNA表观遗传角度深入钻研，取得了多项创新性工作，展现了极为出色的学术能力，对相关学科的发展做出了突出贡献。最近，黄慧琳教授发表在《Nature Cell Biology》的研究论文，证实了 RNA 乙酰化异常在白血病干细胞代谢重塑及 AML 发病中的关键作用，极大深化了对 AML 发病机制的理解，为攻克复发难治型 AML 提供了新靶点，也为解决 MENIN 抑制剂耐药问题开辟了新路径，具有重要理论意义和临床转化价值。
黄慧琳教授潜心深耕RNA表观遗传学领域，开发了高灵敏度、高准确性的RNA表观转录组测序技术以及多种以RNA表观修饰调控蛋白为靶点的小分子抑制剂，具有相当大的转化前景。黄慧琳教授政治立场坚定，在承担国家和省市科技项目、学科建设、人才培养等方面做出了突出贡献。我单位极力推荐黄慧琳教授申请广东省青年科技创新奖。</td></tr>
<tr><td colspan="2">候选人的主要
科研业绩</td><td colspan="5">代表性论文清单（#第一/共一作者，*通讯/共通讯作者）：

1. Subo Zhang#, Feng Huang#, Yushuai Wang#, Yifei Long#, Yuanpei Li, Yalin Kang, Weiwei Gao, Xiuxin Zhang, Yueting Wen, Yun Wang, Lili Pan, Youmei Xia, Zhoutian Yang, Ying Yang, Hongjie Mo, Baiqing Li, Jiacheng Hu, Yunda Song, Shilin Zhang, Shenghua Dong, Xiao Du, Yingmin Li, Yadi Liu, Wenting Liao, Yijun Gao, Yaojun Zhang, Hongming Chen, Yang Liang, Jianjun Chen, Hengyou Weng*, <u>Huilin Huang</u>*. NAT10-mediated mRNA N^4-acetylcytidine reprograms serine metabolism to drive leukaemogenesis and stemness in acute myeloid leukaemia. ***Nature Cell Biology***, 2024, 26(12):2168-2182.

2. Yi Zhou#, Yaxin Zhang#, Mingzhou Li#, Tian Ming#, Chao Zhang, Chengmei Huang, Jiexi Li, Fengtian Li, Huali Li, Enen Zhao, Feng Shu, Lingtao Liu, Xingyan Pan, Yijun Gao, Lin Tian, Libing Song*, <u>Huilin Huang</u>*, Wenting Liao*. Oncogenic KRAS drives immunosuppression of colorectal cancer by impairing DDX60-mediated dsRNA accumulation and viral mimicry. ***Science Immunology***, 2024, 9(100): eado8758.

3. Hengyou Weng#*, Feng Huang#, Zhaojin Yu#, Zhenhua Chen#, Emily Prince, Yalin Kang, Keren Zhou, Wei Li, Jiacheng Hu, Chen Fu, Tursunjan Aziz, Hongzhi Li, Jingwen Li, Ying Yang, Li Han, Subo Zhang, Yuelong Ma, Mingli Sun, Huizhe Wu, Zheng Zhang, Mark Wunderlich, Sean Robinson, Daniel Braas, Johanna ten Hoeve, Bin Zhang, Guido Marcucci, James C Mulloy, Keda Zhou, Hong-Fang Tao, Xiaolan Deng, David Horne, Minjie Wei*, <u>Huilin Huang</u>*, Jianjun Chen*. The m6A reader IGF2BP2 regulates glutamine metabolism and represents a</td></tr>
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	therapeutic target in acute myeloid leukemia. ***Cancer Cell***, 2022, 40(12): 1566-1582. 4. Yixiao Zhu#, Chengmei Huang#, Chao Zhang#, Yi Zhou#, Enen Zhao, Yaxin Zhang, Xingyan Pan, **Huilin Huang***, Wenting Liao*, Xin Wang*. LncRNA MIR200CHG inhibits EMT in gastric cancer by stabilizing miR-200c from target directed miRNA degradation. ***Nature Communications***, 2023, 14(1): 8141. 5. Shenghua Dong#, Yutong Wu, Yadi Liu, Hengyou Weng*, **Huilin Huang***. N6-methyladenosine Steers RNA Metabolism and Regulation in Cancer. ***Cancer Communications***, 2021,41(7): 538-559. 6. Weiqi Su#, Lin Che#, Wenting Liao*, **Huilin Huang***. The RNA m6A writer METTL3 in tumor microenvironment: emerging roles and therapeutic implications. ***Frontiers in Immunology***, 2024, 15:1335774. 7. **Huilin Huang**#, Hengyou Weng#, Bowen Dong, Panpan Zhao, Hui Zhou*, Lianghu Qu*. Oridonin Triggers Chaperon-mediated Proteasomal degradation of BCR-ABL in Leukemia. ***Scientific Reports***, 2017, 7: 41525. 8. Hengyou Weng#, **Huilin Huang**#, Bowen Dong, Panpan Zhao, Hui Zhou*, Lianghu Qu*. Inhibition of miR-17 and miR-20a by oridonin triggers apoptosis and reverses chemoresistance by derepressing BIM-S. ***Cancer Research***, 2014, 74(16): 4409-4419. 9. HengYou Weng#, **HuiLin Huang**#, PanPan Zhao, Hui Zhou*, LiangHu Qu*. Translational repression of cyclin D3 by a stable G-quadruplex in its 5' UTR: implications for cell cycle regulation. ***RNA Biology***, 2012, 9(8):1099-1109. 10. **HuiLin Huang**#, HengYou Weng#, LuQin Wang, ChunHong Yu, QiaoJuan Huang, PanPan Zhao, JunZhi Wen, Hui Zhou*, LiangHu Qu*. Triggering Fbw7-mediated proteasomal degradation of c-Myc by oridonin induces cell growth inhibition and apoptosis. ***Molecular Cancer Therapeutics***, 2012, 11(5): 1155-1165. **知识产权和标准规范：** 1. **黄慧琳**，翁桁游，周惠，屈良鹄；冬凌草甲素在制备FBW7抑癌蛋白激活剂中的应用，2013-08-28，中国，发明专利，ZL201110413556.X 2. 翁桁游，**黄慧琳**，周惠，屈良鹄；miR-17-5p及miR-20a在制备依托泊苷耐药逆转剂中的应用，2016-01-27，中国，发明专利，ZL201310274073.5 3. 翁桁游，**黄慧琳**，周惠，屈良鹄；冬凌草甲素联合依托泊苷在制备抗肿瘤药物中的应用，2016-08-10，中国，发明专利，ZL201310273969.1