张鹏晖：特聘研究员

<http://hias.ucas.ac.cn/fzyxy/info/1083/1372.htm>

张鹏晖，中国科学院杭州医学所特聘研究员，博士生导师。获国家级青年人才项目（2021）、浙江省卫生高层次创新人才项目（2021）支持。2015年博士毕业于南京大学化学系，2018年在美国佛罗里达大学化学系任访问学者，2015-2020年任西安交通大学讲师、副教授，2020年加入中国科学院基础医学与肿瘤研究所。代表性研究成果包括：1.提出了基于肿瘤细胞内异常表达microRNA为触发源的药物控释策略；2. 开发了DNA、蛋白外的第三类可编程分子工具——环境响应分子砌块库；3. 建立了一系列智能探针，用于肿瘤微环境响应与程序化调控。目前已发表论文28篇，其中代表性工作发表在Nature Chemistey、Advanced Materials、JACS、Angew、ACS Nano等高水平学术期刊，被引用2000余次，其中4篇入选ESI高被引文章。先后主持国家自然科学基金青年、面上、重大研究计划培育项目等省部级项目7项。

研究方向：从事创新分子药物与纳米药物、mRNA设计与递送技术、智能分子网络与细胞命运调控等研究。

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Zhang Penghui

Distinguished Researcher

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Positions: Distinguished Researcher of the Hangzhou Institute of Medicine, Chinese Academy of Sciences; Doctoral Advisor.

Profile:

Awards: Supported by the National Youth Talent Project (2021) and Zhejiang Provincial Program for High-Level Innovative Health Talents (2021).

Educational Background and Work Experience:

In 2015: Ph.D. in Chemistry from Nanjing University.

In 2018: Visiting Scholar of the Department of Chemistry of University of Florida.

From 2015 to 2020: Lecturer and Associate Professor of Xi’an Jiaotong University.

In 2020: Joined the Institute of Basic Medicine and Cancer, Chinese Academy of Sciences.

Representative Research Achievements:

1. Proposed a drug-controlled release strategy triggered by the abnormal expression of microRNA within tumor cells.

2. Developed a third class of programmable molecular tools beyond DNA and proteins—environment-responsive molecular building blocks.

3. Established a series of smart probes for tumor microenvironment response and programmed regulation.

Publications:

He has published 28 papers, with his representative works published in high-impact journals such as Nature Chemistry, Advanced Materials, JACS, Angewandte Chemie, and ACS Nano, and cited over 2,000 times.

Four of his papers were selected as ESI Highly Cited Papers.

Funding:

Principal Investigator for seven provincial and ministerial-level projects, including the Youth Science Fund Project, General Project and Major Research Plan Project of the National Natural Science Foundation of China.

Research Directions:

Innovative molecular drugs and nano drugs

mRNA design and delivery technologies

Intelligent molecular networks and cell fate regulation

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