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Cancer Immumotherapy

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Time: 11:00am – 12:00noon (Hong Kong Time)
Zoom link: https://cityu.zoom.us/j/98180597885
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Abstract

Cancer immunotherapy is the fastest developing direction in the field of tumor treatment, especially using immunotherapies such as CAR-T, DC vaccine and immune checkpoint inhibitors, which has been approved to enter the clinic and has brought revolutionary progress to cancer treatment. However, the overall response rate of immunotherapy is low. The core of immunotherapy is the anti-tumor effect T cells, whose quantity, activity and versatility determine the success or failure of anti-tumor immunity. T cells functions are regulated by interaction networks between immune cells cancer cells, and microenvironmental events, including the immune tolerance of DCs caused by the continuous exposure to tumor antigen; the presence of large numbers of immunosuppressive cells in the immune microenvironment, such as TAMs and Tregs, which make T cells difficult to survive in the tumor microenvironment (TME); the heterogeneity of tumor cells requires a rich specific T cell repertoire to clear all tumor cells. Therefore, how to improve the immune response of T cells is a key scientific problem to be solved. Based on these, we have developed a series of bioinspired and biomimetic materials based on HDL, Melittin and radiation derivatives to address these challenges. Particular emphasis has been given to the applications of radiation derivatives for cancer immunotherapy.

Biography

Dr. Honglin Jin is a professor in the School of Biomedical and Health at Huazhong Agricultural University (HZAU). He graduated from the Wuhan National Laboratory for Optoelectronics, Huazhong University of science and technology (HUST). He was trained jointly by the University of Toronto and Ontario Cancer Institute from 2008 to 2011 during his PhD study. During the year 2014 to 2021 (before April), he has worked in the cancer center of Wuhan Union Hospital, affiliated with HUST. In April 2021, he was transferred to HZAU. He has received the support of the excellent youth fund of the National Natural Science Foundation of China, won the "academic star" of HUST, and the "Central China excellent scholar program" of HUST. His lab focuses on developing bioinspired and biomimetic materials for cancer immunotherapy, interdisciplinary integration and clinical transformation. He has presided 14 projects (including 3 National Natural Science Foundation projects and 1 key research and development plan of Hubei Province), published over 60 papers, such as *Science Advances*, *ACS nano*, *Small*, *Biomaterials*, *Theranostics*, *Current Opinion in Biotechnology* and *ACS AMI*, and has been granted 4 national invention patents. Currently, he is the editorial board member of Frontiers in Bioengineering and Biotechnology and Chinese Chemical Letters (CCL).

You can join by clicking the above link 10 minutes prior to the seminar. Please download ZOOM and complete the installation beforehand (https://zoom.us/download), and set up your camera and microphone if you wish to participate in the Q&A session after the presentation.

ALL ARE WELCOME

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