NUS National University of Singapore | Department of Biological Sciences, Faculty of Science

BIOLOGY COLLOQUIUM

Friday, 19 August 2016 | 4pm | DBS Conference Room 1

Hosted by Dr Lin Qingsong

Hypoxia-targeting Salmonella as Cancer Therapy Agent



By **Zichun Hua**

Executive Dean of School of Life Sciences, Nanjing University

In the past 13 years, we have investigated the use of tumor-targeting *Salmonella typhimurium* as cancer therapy agent. We evaluate the efficacy of bacterial cancer therapy via various delivery approaches, its combination with different chemotherapy and biotherapy strategies. We evaluate the toxicity of bacterial cancer therapy during its various delivery approaches. We also perform the mechanistic study on bacterial cancer therapy and explore its novel application as gene therapy carrier. Tumor-targeting *Salmonella typhimurium* can modulate the tumor immune-microenvironment. A series of Salmonella mutants have been constructed for the mechanism study and screening of mutants with higher anti-tumor efficacy and better safety, for the application potential.

About the Speaker

Zichun Hua Ph.D. Executive Dean of School of Life Sciences, Nanjing University, the Changjiang Scholarship Professor and winner of National Outstanding Youth Funds.

Hua received his Bachelor degree in 1986, Master degree in 1989 and Ph.D. in Biochemistry in 1994 from Nanjing University. He did his postdoctoral research at Wardsworth Research Center, New York Health Department in Albany, New York (1994-1996), and became a visiting professor of Berkeley Scholar at the University of Berkeley in California (2000-2003). Professor Hua has devoted to both basic and translational research. He has published over 230 papers in international peer-reviewed journals, and gotten 23 Chinese patents and 2 American patents, 3 European patents and 2 Japanese patents. He has won the second prize of National Technological Innovation Award and the second prize of National Natural Science Award, and the first prize of the Science and Technology Award of Ministry of Education, the first prize of Science and Technology Award of Jiangsu Province three times, the Silver Award of the 15th China International Industry Fair, the top ten excellent cases of the Industry-University Research Cooperation in Chinese Universities between the years of 2008-2010.

Artwork by Ann Nee, DBS, NUS