

Biosketch



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Dr. Guo obtained his Ph.D in Microbiology from the Faculty of Biosciences, Braunschweig University of Technology in Germany, and received his postdoctoral training at the Institute of Biotechnology, University of Helsinki, Finland. He has been a professor in microbiology/virology at Wuhan University since 2002. He served as the dean of the School of Basic Medical Sciences (SBMS) (2011.1-2016.10) and the vice-dean of the College of Life Sciences (2004.4-2011.7), Wuhan University. He also served as the director of the Modern Virology Research Center and the Deputy Director of the National Key Laboratory of Virology at Wuhan University for a long period. Since August 2016, he served as the dean of the School of Medicine (Shenzhen), Sun Yat-sen University, China. He also acts as a member of several national committees of experts for counseling and evaluations, including expert panel of grant evaluation of China National Natural Science Foundation and CNAS Expert Committee for Laboratory Biosafety. Now he serves as the president of Virology Division of Chinese Society for Microbiology (equivalent to Chinese Society for Virology), and a managing member of the Medical Virology Division of Chinese Society for Medicine. He also serves as members of several editorial boards, such as Virology, Medical Microbiology and Immunity, Journal of Biosafety & Biosecurity, and Virologica Sinica.

Dr. Guo focuses his work on molecular mechanisms of the infection and pathogenesis of RNA viruses, in particular, on the RNA genome replication and immune escape of coronaviruses, including the recently emerged COVID-19 virus. He has uncovered novel mechanisms of RNA modification and established high throughput platform for screening inhibitors targeting coronavirus methyltransferases. He discovered that the well-known tumor suppressor PTEN also plays a pivotal role in antiviral innate immunity. His group also adopts gene editing technologies to genetically modify or disrupt the HIV receptors and provirus of T cells and hematopoietic stem cells of the patients, aiming at functional cure of HIV/AIDS by genetic therapy. He published his work in Nature Immunology, Cell Research, PNAS, Hepatology, PLoS Pathogens, Journal of Virology, etc. He has obtained several prestigious research awards and fundings. He was selected as National Distinguished Young Scholar by National Natural Science Foundation of China (NSFC) in 2009 and acts as the chief scientist of the National Basic Research Program ("973" project) in cellular antiviral innate immunity. He is also a scholar of National "WanRen Talents Program" for Sci & Tech Innovation.

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Selected Publications:

1. Panpan Hou#, Penghui Jia#, Kongxiang Yang#, Zibo Li, Tian Tian, Yuxin Lina, Weijie Zeng, Fan Xing, Yu Chen, Chunmei Li, Yingfang Liu, and **Deyin Guo*** (2021) An unconventional role of an ASB family protein in NF- κ B activation and inflammatory response during microbial infection and colitis. *Proceedings of the National Academy of Sciences of the United States of America* January 19, 2021 118 (3) e2015416118. <https://doi.org/10.1073/pnas.2015416118>. doi:10.1073/pnas.2015416118.
2. Yingjun Li#, Liu Cao#, Ge Li, Feng Cong, Yunfeng Li, Jing Sun, Yinzhu Luo, Guijiang Chen, Guanguan Li, Ping Wang, Fan Xing, Yanxi Ji, Jincun Zhao, Yu Zhang* **Deyin Guo***, Xumu Zhang*. (2021) *Journal of Medicinal Chemistry* 2021 Feb 1. doi: 10.1021/acs.jmedchem.0c01929.
3. Luo Y, Yu F, Zhou M, Liu Y, Xia B, Zhang X, Liu J, Zhang J, Du Y, Li R, Wu L, Zhang X, Pan T, **Guo D**, Peng T, Zhang H. (2021) Engineering a reliable and convenient SARS-CoV-2 replicon system for analysis of viral RNA synthesis and screening of antiviral inhibitors. *mBio*. 2021 Jan 19;12(1): e02754-20.
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8. Qiaoqiao Xiao#, Shuliang Chen#,* , Qiankun Wang, Zhepeng Liu, Shuai Liu, Huan Deng, Wei Hou, Dongcheng Wu, Yong Xiong, Jiafu Li, and **Deyin Guo*** (2019) CCR5 editing by *Staphylococcus aureus* Cas9 in human primary CD4+ T cells and hematopoietic stem/progenitor cells promotes HIV-1 resistance and CD4+ T cell enrichment in humanized mice. *Retrovirology*. 2019 Jun 11;16(1):15. doi: 10.1186/s12977-019-0477-y
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