

Biosketch



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Jun Wu obtained bachelor's degree of medicine in the department of medicine, Hubei medical university. She received her M.D. from the University of Duisburg-Essen, Germany in 2008. She did her postdoctoral training at Department of Infectious Diseases, Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan till 2012. In 2013, she moved to the Department of Infectious diseases, Union Hospital, Tongji Medical College, HUST, and worked as a physician and an associated Professor there.

Her research is focused on the regulation of liver immune microenvironment by Pattern Recognition Receptor-mediated innate immune response, and its correlation with clinical outcomes of viral hepatitis, autoimmune liver disease, and end-stage liver disease (cirrhosis, liver failure). Her team found intrahepatic immune cells (liver sinusoidal endothelial cells (LSEC), Kupffer cells) constitutively express Toll Like receptor (TLR) and NOD like receptor (NLR); activation of the TLR3/NOD1 signaling pathway in the liver can control HBV replication in mouse model and Initiate the interaction between NK cells and LSEC.

In the current COVID-19 pandemic, her team focuses on the antibody response of symptomatic and asymptomatic patients. The results show that the humoral immune response of symptomatic COVID-19 patients to SARS-CoV-2 is quite typical, that is, the immune response can be induced early in the course of the disease, reaching a peak quickly and entering the continuous memory stage. Both the prevalence and the durability of IgG responses and neutralizing capacities clearly correlated positively with symptoms. Regardless of sex, age, and body weight, asymptomatic individuals lost their SARS-CoV-2-specific IgG antibodies more often and rapidly than symptomatic COVID-19 patients.

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Selected Publications:

1. Du Y; Yan H; Zou S; Khera T; Li J; Han M; Yang X; Wang B; Liu J; Sun S; Zheng X; Dittmer U; Lu M; Yang D; Wedemeyer H*; **Wu J***; Natural Killer Cells Regulate the Maturation of Liver Sinusoidal Endothelial Cells Thereby Promoting Intrahepatic T-Cell Responses in a Mouse Model, *Hepatology Communications*, accepted 2021
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3. Du Y, Yang X, Li J, Sokolova V, Zou S, Han M, Yan H, Wey K, Lu M, Dittmer U, Yang D, Epple M*, **Wu J***. Delivery of toll-like receptor 3 ligand poly(I:C) to the liver by calcium phosphate nanoparticles conjugated with an F4/80 antibody exerts an anti-hepatitis B virus effect in a mouse model. *Acta Biomater*. 2021, S1742-7061(21)00073-8.
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Research Group

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