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研究方向

本课题组研究的方向是免疫与感染及重大疾病。我们的研究以单核/巨噬细胞为中心，尤其擅长把多种先进的影像学技术（包括活体显微镜技术，活细胞成像技术等）与传统的免疫学和分子生物学研究手段相结合，共同阐明科学问题。本课题组研究方向之一是研究不同来源的单核/巨噬细胞在动物疾病模型下的招募、分化和功能。另一个研究方向是单核/巨噬细胞的调控，以脂质体，病毒载体等为工具，调节单核/巨噬细胞的功能。使他们能够在有效发挥抵抗病原入侵或组织修复功能的同时，最大限度的避免组织损伤。同时我们也致力于研究单核/巨噬细胞在肿瘤微环境中的作用，以最大程度发挥未来肿瘤治疗策略的功效。

教育背景

- 2006-2010 华中科技大学 学士
- 2010-2013 中国科学院武汉病毒研究所 硕士
- 2013-2018 马里兰大学帕克分校 博士
- 2018-2020 马里兰大学帕克分校 博士后
- 2020-今 上海交通大学 长聘教轨副教授

发表文章（*共同一作）

- Sun D*, Zhang M*, Sun P, Liu G, Strickland AB, Chen Y, *et al.*. VCAM1/VLA4 interaction mediates Ly6Clow monocyte recruitment to the brain in a TNFR signaling dependent manner during fungal infection. **PLoS Pathogens** 2020 16(2): e1008361.
- Sun D*, Sun P*, He S, Shi M. Rat IgG mediated circulatory cell depletion in mice requires mononuclear phagocyte system and is facilitated by complement. **Journal of Leukocyte Biology**. 2020 107:529–539.
- Sun DL*, Gao YZ*, Ge X*, Shi ZL, Zhou NY. Special features of bat microbiota differ from those of terrestrial mammals. **Frontiers in Microbiology**. 2020 11:1040.
- Sun D, Sun P, Li H, Zhang M, Liu G, Strickland AB *et al.*. Fungal dissemination is limited by liver macrophage filtration of the blood. **Nature Communications** 2019 10 (1), 1-14. (F1000 Recommended)
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- improved by enhancing neutrophil recruitment in mice. **European Journal of Immunology** 2016 46(7):1704-1714.
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 - Zhang M, Sun D, Shi M. Dancing cheek to cheek: *Cryptococcus neoformans* and phagocytes. **Springerplus**. 2015 12;4:410.
 - Diago-Navarro E, Calatayud-Baselga I, Sun D, Khairallah C, Mann I, Ulacia-Hernando A, *et al.*. Antibody based immunotherapy to treat and prevent infection with hypervirulent *Klebsiella pneumoniae*. **Clinical and Vaccine Immunology**. 2017 24(1): e00456-16
 - Mendez J, Sun D, Tuo W, Xiao Z. Bovine neutrophils form extracellular traps in response to the gastrointestinal parasite *Ostertagia ostertagi*. **Scientific reports** 2018 8 (1), 17598.

奖励和荣誉

2017 AAI 旅行奖励

2018 Avrum Gudelsky Award

2018 国家自费留学生奖学金

会议报告

2015 Donglei Sun, Gongguan Liu, Meiqing Shi. Intravital imaging reveals effective complement C3 mediated filtering of *Cryptococcus neoformans* out of vasculature by Kupffer cells. Gordon Research Conference, Fungal Immunology, Huston.

2017 Donglei Sun, Zhang M, Shi, M. IL-27 limits neutrophil mediated pathology

during pulmonary infection with *Cryptococcus neoformans*. AAI Meetings,
Washington DC,