CURRICULUM VITAE

Personal Information						
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Research Interest

The current research aims at understanding the invasion function of *Babesia* into host red blood cells, screening drug target and new drugs for controlling *Babesia*.

Education & Working Experience

Lan He is a professor in the College of Veterinary Medicine, Parasitology group at Huazhong Agricultural University. She received a B.S. degrees and Ph.D. degree from Huazhong Agricultural University in 2006 and 2011, respectively. Then worked as a postdoctoral researcher and research scientist at the College of Veterinary Science, Huazhong Agricultural University and Texas Tech University Health Science Center from 2011 to 2013. She started her lab in HZAU in 2014, and was promoted to professor in 2020.

Publications

Publications in recent three years:

- (1) Guo JY., Luo XY., Wang S., **He L.***, Zhao JL. Xanthohumol and Gossypol Are Promising Inhibitorsagainst Babesia microti by In Vitro Culture via High-Throughput Screening of 133 Natural Products. Vaccines. 2020, 8: 613.
- (2) Shu X., Guo JY., Nie Z., Xia YJ., <u>He L.</u>*, Zhao JL.*. A novel 53 kDa protein (BoP53) in Babesia orientalis poses the immunoreactivity using the infection serum. Parasitology International. 2020, 78: 102152.
- (3) Tian Y., Li FJ., Guo JY., Hu YL., Shu X., Xia YJ., Kang T., Yu L., Liu Q., Nie Z., Wang S., Ao YSQ., An XM., Zhao JL., <u>He L.</u>*, Identification and characterizations of a rhoptries neck protein 5 (BoRON5) in *Babesia orientalis*. Parasitology International. 2020, 77: 102106.
- (4) Wang S., Li MX., Luo XY., Yu L., Nie Z., Liu Q., An XM., Ao YSQ., Liu Q., Chen JX, Tian Y., Zhao JL., He L.*. Inhibitory effects of Fosmidomycin against *Babesia microti in vitro*. Front Cell Dev

- Biol. 2020; 8: 247.
- (5) Liu Q., Yu L., Jiang F., Li MX., Zhan XY., Huang Y., Wang S., Du XY., <u>He L.</u>*, Zhao JL. Annotation and characterization of *Babesia gibsoni* apicoplast genome. Parasites & Vectors. 2020; 13: 209.
- (6) Li MX, Ao YSQ, Guo JY, Nie Z, Liu Q, Yu L, Luo XY, Zhan XY, Zhao YN, Wang S, An XM, <u>He L*</u>, Zhao JL. Surface antigen 1 is a crucial secreted protein that mediates Babesia microti invasion into host cells. 2020; 10: 3046, Frontiers in Microbiology.
- (7) Yu L., Zhan XY., Liu Q., Sun YL., Li MX., Zhao YN., An XM., Tian Y., <u>He L.</u>*, Zhao J. Identifying the Naphthalene-based compound, 3, 5-Dihydroxy 2-Napthoic Acid (DHNA) as a novel lead compound for designing LDH-specific antibabesial drug. 2020; 10:1663. Frontiers in Pharmacology.
- (8) Yu L., Shen Z., Liu Q., Zhan X., Luo X., An X., Sun Y., Li M., Wang S., Nie Z., Ao Y., Zhao Y., Peng G., Mamoun C., <u>He L.</u>*, Zhao J. Crystal structures of *Babesia microti* Lactate Dehydrogenase (BmLDH) reveal a critical role for Arg99 in catalysis. 2019, The FASEB J. 33:12.
- (9) Guo J., Sun Y., Luo X., Li M., He P., <u>He L.*</u>, Zhao J*. De novo transcriptome sequencing and comparative analysis of Haemaphysalis flava Neumann, 1897 at larvae and nymph stages. Infect. Genet. Evol. 2019, 75: 104008.
- (10) Sun Y., He L.*, Yu L, Guo J., Nie Z., Liu Q., Zhao J.* Cathepsin L—a novel cysteine protease from Haemaphysalis flava Neumann, 1897. Parasitol. Res. 2019, 118 (5): 1581-1592.
- (11) Zhan X., He J., Yu L., Liu Q., Sun Y., Nie Z., Guo J., Zhao Y., Li M., Luo X., <u>He L.</u>*, Zhao J.*. Identification of a novel thrombospondin-related anonymous protein (BoTRAP2) from *Babesia orientalis*. Parasites & Vectors. 2019, 12:200.
- (12) Zhan X., Yu L., An X., Liu Q., Li M., Nie Z., Zhao Y., Wang S., Ao Y., Tian Y., <u>He L</u>.*, Zhao J. Evaluation of Babesia gibsoni GPI-anchored protein 47 (BgGPI47-WH) as a potential diagnostic antigen by Enzyme-linked immunosorbent assay. Frontiers Vet. Sci. 2019; 6, 333.
- (13) Sun Y., Liu Q., Zhang Y., He L., Yu L., Zhao J*. Prevalence of piroplasma in ticks collected from dogs and cattle in Guangxi, South China determined by reverse line blot hybridization assay. J. Parasitol. 2019, 105 (4): 651-658.
- (14) Guo J, Miao X, He P, Li M, Wang S, Cui J, Huang C, **He L.**, Zhao J*. Babesia gibsoni endemic to Wuhan, China: mitochondrial genome sequencing, annotation, and comparison with apicomplexan parasites. Parasitol Res. 2019. 118: 235-243.
- (15) Cui J., Zhao Y., Sun Y., Yu L., Liu Q., Zhan X., Li M., He L.*, Zhao J. Detection of Babesia gibsoni in dogs by combining recombinase polymerase amplification (RPA) with lateral flow (LF) dipstick. Parasitology Research. 2018; 117(12):3945-3951.
- (16) He L., He P., Luo X., Li M., Yu L., Guo J., Zhan X., Zhu G., Zhao J*. The MEP pathway in Babesia orientalis apicoplast, a potential target for anti-babesiosis drug development. Parasites & Vectors. 2018; 11:452.
- (17) Guo J., Li M., Sun Y., Yu L., He P., Nie Z., Zhan X., Zhao Y., Luo X., Wang S., Aoyang S., Liu Q., Huang C., <u>He L.</u>*, Zhao J. Characterization of a novel secretory spherical body protein in Babesia orientalis and Babesia orientalis-infected erythrocytes. Parasites & Vectors. 2018; 11:433.
- (18) Guo J., Hu J., Sun Y., Yu L., He J., He P., Nie Z., Li M., Zhan X., Zhao Y., Luo X., Liu J., He L.*, Zhao

- J. A novel Babesia orientalis 135-kilodalton spherical body protein like: identification of its secretion into cytoplasm of infected erythrocytes. Parasites & Vectors. 2018; 11:205.
- (19) Yu L., Liu Q., Zhan X., Huang Y., Sun Y., Nie Z., Zhao Y., An X., Li M., Wang S., Ao Y., Huang C., He L., Zhao J*. Identification and molecular characterization of a novel Babesia orientalis thrombospondin-related anonymous protein (BoTRAP1). Parasites & Vectors. 2018, 11(1): 667.
- (20) Abraham A, Brasov I, Thekkiniath J, Kilian N, Lawres L, Gao R, DeBus K, **He L**, Yu X, Zhu G, Graham M, Liu X, Molestina R, Ben Mamoun C*. Establishment of a continuous *in vitro* culture of *Babesia duncani* in human erythrocytes reveals unusually high tolerance to recommended therapies. J Biol Chem. 2018, 293 (52): 19974-19981.