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Research interest: Epigenetic mechanism, biomarker, and treatment of autoimmune skin diseases.

Dr. Ming Zhao is a professor in the Department of Dermatology in the Second Xiangya Hospital of Central South University and vice-director of the Hunan Key Laboratory of Medical Epigenomics. He has served as vice-director of the Experimental Chapter of the Chinese Society of Dermatology since 2016. His research focuses on the epigenetic mechanism and biomarkers of autoimmune skin diseases. Dr. Zhao is a recipient of the Excellent Youth Investigator Fund and the general grant fund of the National Science Foundation. He published 30 papers as first author or corresponding author in the peer-reviewed academic journals, including *Nature Communications*, *Journal of Clinical Investigation*, and *Annals of the Rheumatic Diseases*. He is a recipient of the second prize of the National Science and Technology Progress Award in 2017 and two first prizes of Hunan Science and Technology Progress Awards.

Selected publications

1. Huang C, Yi X, Long H, Zhang G, Wu H, **Zhao M***, Lu Q. Disordered cutaneous microbiota in systemic lupus erythematosus. *J Autoimmun.* 2020 Mar; 108: 102391.
2. Feng H, Wu R, Zhang S, Kong Y, Liu Z, Wu H, Wang H, Su Y, **Zhao M***, Lu Q. Topical administration of nanocarrier miRNA-210 antisense ameliorates imiquimod-induced psoriasis-like dermatitis in mice. *J Dermatol.* 2020 Feb;47(2):147-154.
3. Jia S, Yang S, Du P, Gao K, Cao Y, Yao B, Guo R, **Zhao M***. Regulatory Factor X1 Downregulation Contributes to Monocyte Chemoattractant Protein-1 Overexpression in CD14+ Monocytes via Epigenetic Mechanisms in Coronary Heart Disease. *Front Genet.* 2019 Nov 1; 10:1098.
4. Zeng L, Wu JL, Liu LM, Jiang JQ, Wu HJ, **Zhao M***, Lu QJ. Serum miRNA-371b-5p and miRNA-5100 act as biomarkers for systemic lupus erythematosus. *Clin Immunol.* 2018 Nov; 196:103-109.
5. Wang Z, Long H, Chang C, **Zhao M***, Lu Q. Crosstalk between metabolism and epigenetic modifications in autoimmune diseases: a comprehensive overview. *Cell Mol Life Sci.* 2018 Sep;75(18): 3353-3369.
6. Wu R, Zeng J, Yuan J, Deng X, Huang Y, Chen L, Zhang P, Feng H, Liu Z, Wang Z, Gao X, Wu H, Wang H, Su Y, **Zhao M***, Lu Q. MicroRNA-210 overexpression promotes psoriasis-like inflammation by inducing Th1 and Th17 cell differentiation. *J Clin Invest.* 2018 Jun 1;128(6):2551-2568.
7. **Zhao M***, Tan Y, Peng Q, Huang C, Guo Y, Liang G, Zhu B, Huang Y, Liu A, Wang Z, Li M, Gao X, Wu R, Wu H, Long H, Lu Q. IL-6/STAT3 pathway induced deficiency of RFX1 contributes to Th17-dependent autoimmune diseases via epigenetic regulation. *Nat Commun.* 2018 Feb 8;9(1):583.
8. Liu X, Zhang W, **Zhao M**, Fu L, Liu L, Wu J, Luo S, Wang L, Wang Z, Lin L, Liu Y, Wang S, Yang Y, Luo L, Jiang J, Wang X, Tan Y, Li T, Zhu B, Zhao Y, Gao X, Wan Z, Huang C, Fang M, Li Q, Peng H, Liao X, Chen J, Li F, Ling G, Zhao H, Luo H, Xiang Z, Liao J, Liu Y, Yin H, Long H, Wu H, Yang H, Wang J, Lu Q. T cell receptor β repertoires as novel diagnostic markers for systemic lupus erythematosus and rheumatoid arthritis. *Ann Rheum Dis.* 2019 Aug;78(8):1070-1078.
9. **Zhao M**, Zhou Y, Zhu B, Wan M, Jiang T, Tan Q, Liu Y, Jiang J, Luo S, Tan Y, Wu H, Renauer P, Del Mar Ayala Gutiérrez M, Castillo Palma MJ, Ortega Castro R, Fernández-Roldán C, Raya E, Faria R, Carvalho C, Alarcón-Riquelme ME, Xiang Z, Chen J, Li F, Ling G, Zhao H, Liao X, Lin Y, Sawalha AH, Lu Q. IFI44L promoter methylation as a blood biomarker for systemic lupus erythematosus. *Ann Rheum Dis.* 2016 Nov;75(11):1998-2006.
10. **Zhao M**, Wang J, Liao W, Li D, Li M, Wu H, Zhang Y, Gershwin ME, Lu Q. Increased 5-hydroxymethylcytosine in CD4(+) T cells in systemic lupus erythematosus. *J Autoimmun.* 2016 May; 69:64-73.