

# 3<sup>rd</sup> International Conference on Autoimmunity

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### Immune cellular compositions of peripheral blood in patients with systemic lupus erythematosus are revealed by multicolor flow cytometry

We successfully established a 14-color panel to measure circulating immune cells, including granulocytes, basophils, dendritic cells, monocytes, T cells, B cells, NK (natural killer, NK) cells, CD127<sup>+</sup>ILCs and their subsets in one tube of 1ml peripheral blood. Increased frequencies of granulocytes, HLA-DR<sup>+</sup>CD4<sup>+</sup>T cells, CD8<sup>+</sup> T cells, CD25<sup>+</sup> DN T cells, HLA-DR<sup>+</sup>DN T cells, HLA-DR<sup>+</sup>DP T cells, CD16<sup>-</sup>NK cells, CD16<sup>-</sup>CD56<sup>dim</sup> NK cells, HLA-DR<sup>+</sup>CD56<sup>dim</sup> NK cells, CD11c<sup>+</sup>CD56<sup>dim</sup>NK cells, CD25<sup>+</sup>CD56<sup>dim</sup>NK cells, HLA-DR<sup>+</sup> CD56<sup>bright</sup> NK cells, CD25<sup>+</sup> CD56<sup>bright</sup> NK cells and CD4<sup>+</sup>CD127<sup>+</sup> ILCs were observed in patients compared to healthy controls, while decreased frequencies of CD25<sup>hi</sup>B cells, T cells, CD4<sup>+</sup> T cells, T regulatory cells (Tregs), CD25<sup>+</sup>CD8<sup>+</sup> T cells, CD127<sup>+</sup>CD8<sup>+</sup> T cells, CD56<sup>+</sup>CD8<sup>+</sup> T cells, NK cells, CD16<sup>+</sup>NK cells, CD16<sup>bright</sup> CD56<sup>dim</sup> NK cells and CD127<sup>+</sup> ILCs were observed in patients compared to healthy controls. The frequencies of B cells, CD25<sup>+</sup>CD56<sup>bright</sup> NK cells, CD16<sup>+</sup> NK cells and CD16<sup>-</sup> NK cells were correlated with disease activity. There were significance differences in frequencies of B cells, CD127<sup>+</sup>CD8<sup>+</sup>T cells, basophils, DCs, HLA-DR<sup>+</sup> CD56<sup>bright</sup> NK cells, intermediate monocytes, CD25<sup>+</sup> CD56<sup>dim</sup> NK cells, CD16<sup>+</sup> CD4<sup>+</sup> T cells, CD25<sup>+</sup> CD56<sup>bright</sup> NK cells, CD11c<sup>+</sup> CD56<sup>bright</sup> NK cells, HLA-DR<sup>+</sup> CD4<sup>+</sup> T cells, HLA-DR<sup>+</sup> Tregs, CD16<sup>+</sup> CD8<sup>+</sup> T cells, CD25<sup>+</sup> CD8<sup>+</sup> T cells, CD11c<sup>+</sup> CD4<sup>+</sup> T cells, CD25<sup>+</sup> DP T cells and CD16<sup>-</sup> CD56<sup>bright</sup> NK cells between autoantibodies positive groups and autoantibodies negative groups. We observed diverse alterations in the peripheral immune cells in SLE patients and some cell subsets were related with SLE clinical variables. The immune cells may take part in the development of SLE disease.

### Biography

Xianming Mo is a Professor of Internal Medicine and acts as Director of Laboratory of Stem Cell Biology, State Key Laboratory of Biotherapy, West China Hospital, Sichuan University. He obtained his Medical Degree from North Sichuan Medical College. He was then trained in Pathology and Master of Medicine in West China University of Medical Sciences. After obtaining a PhD Degree in Peking Union Medical College, he moved to Humboldt-Universität zu Berlin and then to Medical College of Georgia as a Postdoctoral Fellow. Then, he became a Junior Faculty in Medical College of Georgia and Senior Scientist in Max Delbrück Center for Molecular Medicine. In 2006, he returned back to West China Hospital.

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