conferenceseries.com

9th Molecular Immunology & Immunogenetics Congress

March 08-09, 2018 | London, UK

Hydroxychloroquine regulating T cell response by modulating dendritic cell function

Yuan Liu and Guixiu Shi The First Affiliated Hospital of Xiamen University, China

H ydroxychloroquine (HCQ) is an antimalarial drug that has been used for treating a large variety of diseases for many years. However, its specific mechanism is still not well demonstrated. In this study, we investigated the effects of HCQ on regulating dendritic cells (DC) function. The surface molecule expression, secretion of inflammatory cytokines and ability in promoting naïve CD4+ T cells proliferation and differentiation of bone marrow-derived DCs (BMDCs) were investigated after HCQ treatment. We found that HCQ treatment could significantly reduce the expression level of MHC II, CD86 and CD40. HCQ could also inhibit the production of cytokines including IL-1 β , IL-6, IL-23 and TNF- α by LPS (Lipopolysaccharide) stimulated DC. Additionally, the ability of DC in promoting naïve CD4+ T cells proliferation and Th17 cells differentiation was decreased by HCQ. The effect of HCQ on DC may be partly associated to inhibition of phosphorylation of ERK1/2 and p38 MAP kinase proteins. These findings provided new understanding about the mechanism of HCQ in immune regulation.



Recent Publications

- 1. Dashan Wang, Yuan Liu, Yan Li, Yan He, Jiyun Zhang, and Guixiu Shi (2017) Gαq Regulates the development of rheumatoid arthritis by modulating th1 differentiation. Mediators of Inflammation. 2017:1-9.
- 2. Yuan Liu, Shiju Chen, Yuechi Sun, Qingyan Lin, Xining Liao et al. (2016) Clinical characteristics of immune thrombocytopenia associated with autoimmune disease: A retrospective study. Medicine. 95(50): 1-6.
- 3. Yuan Liu, Dashan Wang, Fang Li, Guixiu Shi (2015) Galphaq controls rheumatoid arthritis *via* regulation of Th17 differentiation. Immunol Cell Bio. 93(7): 616-624.
- 4. Xiaomin Cen, Yuan Liu, Geng Yin, Min Yang and Qi Xie (2015) Association between serum 25-hydroxyvitamin d level and rheumatoid arthritis. BioMed Research International. 2015: 913804.
- 5. Yuan Liu, Liping Dai, Weihong Liu, Guixiu Shi, Jianying, Zhang (2015) Autoantibody to MDM2: a potential serological marker of systemic lupus erythematosus. Journal of Immunology Research. 2015: 963568-96356.

Biography

Yuan Liu has her expertise in research of pathogenesis mechanism of autoimmune diseases and using proteomic approaches to identify biomarkers in autoimmune diseases.

liuyuancuto@163.com