

Sharma M, Hegde P, Aimanianda V, Beau R, Maddur MS, Sénéchal H, Poncet P, Latgé JP, Kaveri S and Bayry J. (2013). Circulating human basophils lack the features of professional antigen presenting cells. *Sci Rep.* 3: 1188.

Recent reports in mice demonstrate that basophils function as antigen presenting cells (APC). They express MHC class II and co-stimulatory molecules CD80 and CD86, capture and present soluble antigens or IgE-antigen complexes and polarize Th2 responses. Therefore, we explored whether human circulating basophils possess the features of professional APC. We found that unlike dendritic cells (DC) and monocytes, steady-state circulating human basophils did not express HLA-DR and co-stimulatory molecules CD80 and CD86. Basophils remained negative for these molecules following stimulation with soluble Asp f 1, one of the allergens of *Aspergillus fumigatus*; Bet v 1, the major birch allergen; TLR2-ligand or even upon IgE cross-linking. Unlike DC, Asp f 1-pulsed basophils did not promote Th2 responses as analyzed by the secretion of IL-4 in the basophil-CD4(+) T cell co-culture. Together, these results demonstrate the inability of circulating human basophils to function as professional APC.