ImmunoTools IT-Box-139 Award 2013

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Identification of the Human CXCL14 Receptor and the Immune Cell Subsets upon which it is Expressed

CXCL14 (also known as Breast and Kidney-expressed Chemokine, BRAK) is a homeostatic chemokine which is prominently expressed in healthy human peripheral tissues including skin, lung and gut, where it has been shown to have antimicrobial activity, as well as stimulate migration of monocytes and natural killer (NK) cells in to these tissues. However, CXCL14 represents probably the least understood of all the human chemokines, largely because its receptor has not yet been identified.

The aim of my PhD project is to study the expression of the putative human CXCL14 receptor on blood immune cells. The function of CXCL14 remains controversial, therefore all blood immune cells will be investigated for responsiveness to CXCL14, including monocytes, neutrophils, NK cells, T cells, B cells, immature circulating DCs and γδ T cells. Since research has also shown that healthy human skin harbours high levels of CXCL14, healthy skin samples from human donors will also be tested for CXCL14 receptor-expressing cells including resident DCs, fibroblasts etc.

If I were to be awarded the *IT-Box-139*, the 100 fluorochrome-conjugated antibodies to human CD antigens would be invaluable in my research to identify the cell subsets expressing the CXCL14 receptor. Identification of the CXCL14 receptor has the potential to pave the way for new therapeutic strategies for application in humans.

ImmunoTools *IT-Box-139.3* for **Paul Collins** includes 100 antibodies

FITC - conjugated anti-human CD1a, CD2, CD3, CD4, CD5, CD6, CD7, CD8, CD9, CD11a, CD11b, CD14, CD15, CD16, CD18, CD19, CD21, CD25, CD29, CD36, CD41a, CD43, CD45, CD45RA, CD46, CD52, CD53, CD54, CD58, CD62p, CD63, CD69, CD71, CD80, CD86, CD95, CD235a, HLA-ABC, HLA-DR, IL-6, Control-IgG1, Control-IgG2a, Control-IgG2b, Annexin V

PE - conjugated anti-human CD2, CD3, CD4, CD8, CD11b, CD14, CD15, CD18, CD19, CD20, CD21, CD22, CD27, CD33, CD34, CD37, CD38, CD40, CD42b, CD45, CD45RB,

CD50, CD72, CD95, CD105, CD147, CD177, Control-IgG1, Control-IgG2a, Control-IgG2b, Annexin V

PE/Dy647 -tandem conjugated anti-human CD45

APC -conjugated anti-human CD3, CD4, CD7, CD8, CD10, CD11c, CD14, CD16, CD19, CD27, CD37, CD40, CD44, CD56, CD59, CD61, CD62L, CD62P, CD69, IL-6, Control-IgG1, Control-IgG2a, Control-IgG2b, Annexin V DETAILS

plus CD49d-FITC, CD14-PE/Dy647