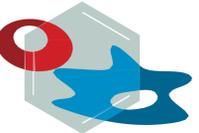


3D-Tissue/ Whole-blood Co-culture Models Combined with Multi-Analyte Profile (MAP) Analyses for *In-vivo*-like Immunopharmacology

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HOTSCREEN

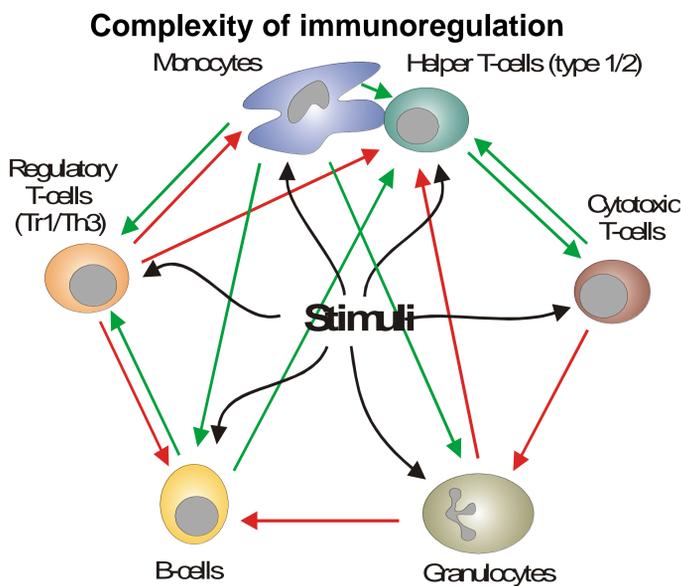
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Background

The cross talk between immune cells and tissue cells controls inflammation and is mediated by mediators such as chemokines, cytokines and others. This network of signals can be modulated therapeutically by drugs.

The effect of drugs on such complex regulation can be analysed reliably only in an environment that represents the complexity of such feedback systems. HOT Screen GmbH developed a series of proprietary human organotypic co-culture test systems combining whole-blood cultures with cultures of differentiated intestinal epithelia, 3D epidermis, bronchial epithelia, etc. These allow to study drug effects on immunoregulation even in *in-vivo*-like human inflamed tissue environments. Multiplexed Luminex® assays (MAP tests, Myriad-RBM) were used as complex readouts when testing drug effects on cell activation.



HOT-Co gut:

Co-culture of human
- intestinal epithelium
- fresh whole-blood

HOT-Co lung II:

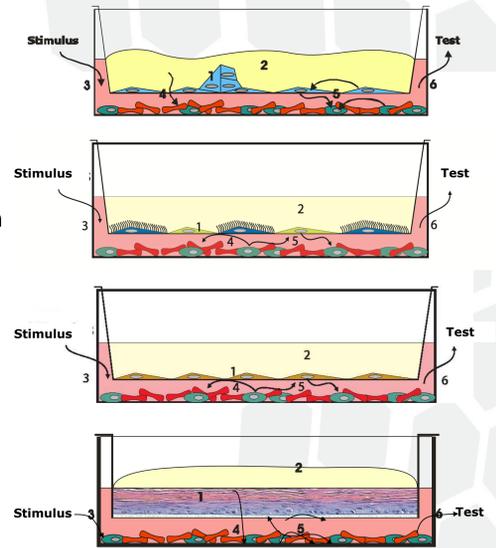
Co-culture of human
- bronchial epithelium
- fresh whole-blood

HOT-Co joint:

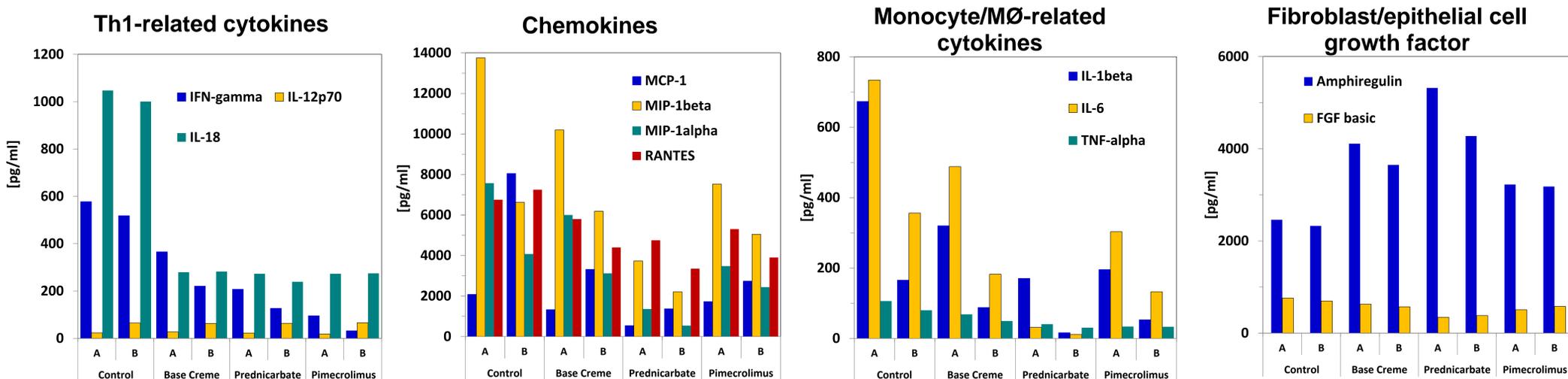
Co-culture of human
- synovial fibroblasts
- fresh whole-blood

HOT-Co skin:

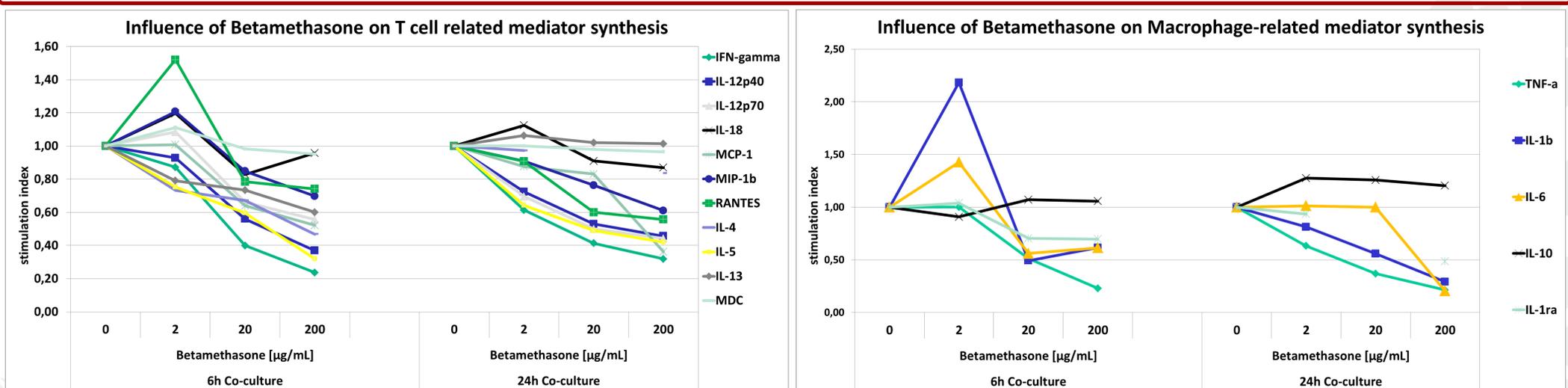
Co-culture of human
- 3D epidermis
- fresh whole-blood



HOT-Co skin (Co-culture of 3D differentiated human epidermis + human whole-blood)



HOT-Co lung II (Co-culture of human bronchial epithelia + human whole-blood)



Translational value of whole-blood / whole-blood co-cultures / whole-blood TruCulture®

