Ex Vivo - Prediction analysis

MODEL DESCRIPTON

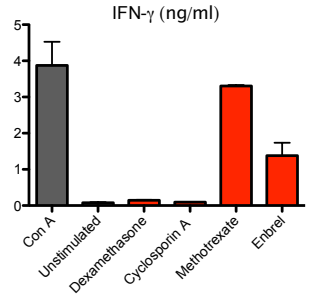
The ex vivo model is an experimental model for evaluation of autoreactive T cells, affected by an investigational new drug, to predict efficacy and provide initial insight of immunological mechanism of the drug.

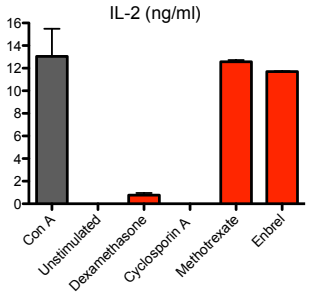
CHARACTERISTICS

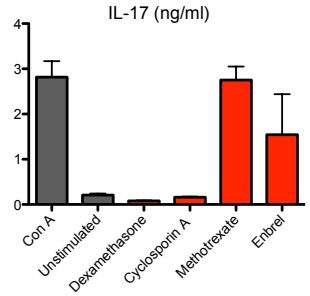
In the ex vivo model, autoreactive primary cells from lymphoid organs from rats with induced autoimmunity, i.e. arthritis, are isolated and analysed ex vivo in cell cultures. The immunological effects on autoreactive T cells are studied by stimulation with concanavalin A in presence of analysed small molecules, antibodies or other drug agents.

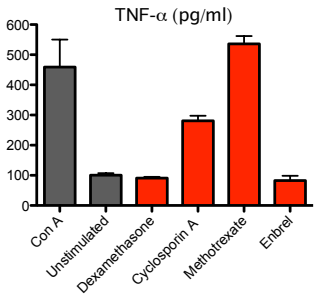
The ex vivo model enable studies on the immune system without concerns of bioavailability and formulation of the drugs. In this model it is possible to control the concentration of the compounds. Therefore, this method represents an efficient way to improve the medicinal chemistry of the new drugs to optimise and selected the most promising drugs for validation in animal models of autoimmunity.

The ex vivo system prpvide rapid analyses of effect on cytokines, chemokines and other biomarkers by the drug using ELISA, Luminex or Flow cytometry.









EXPERIMENTAL OUTLINE

Induction:	Experimental Arthritis in rats
Duration:	25 days (including analysis)
Strain:	DA (other strains possible)
Type of cells:	Spleenocytes
Cell culturing:	48 hours
Stimulation:	ConA
Controls:	A panel of commercial antiinflammatory drugs
Readout:	Panel of 23 cytokines and chemokines

READ MORE

- Cytokine Gene Activation in Synovial Membrane, Regional Lymph Nodes, and Spleen during the Course of Rat Adjuvant Arthritis. Schmidt- Weber et al. Cellular Immunology 1999

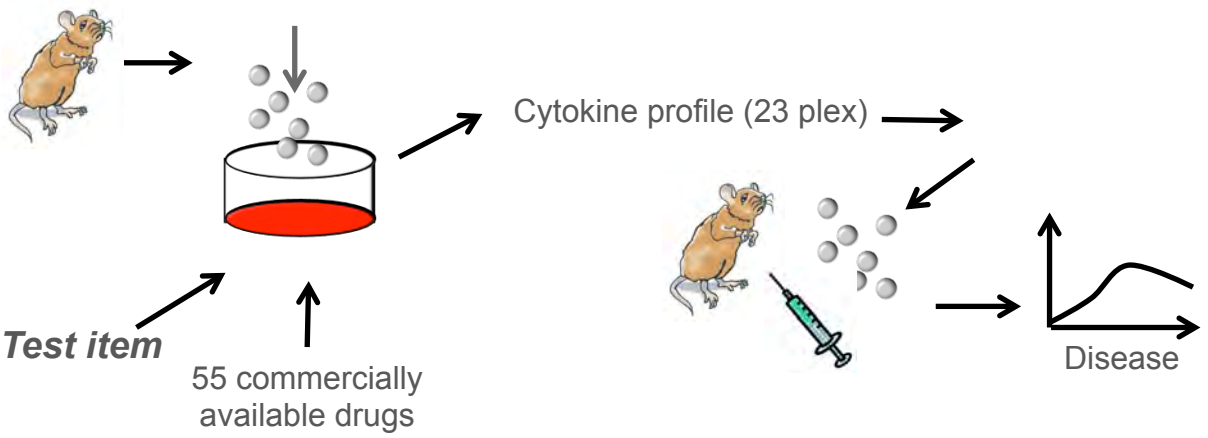
redoxis
www.redoxis.com
service@redoxis.com

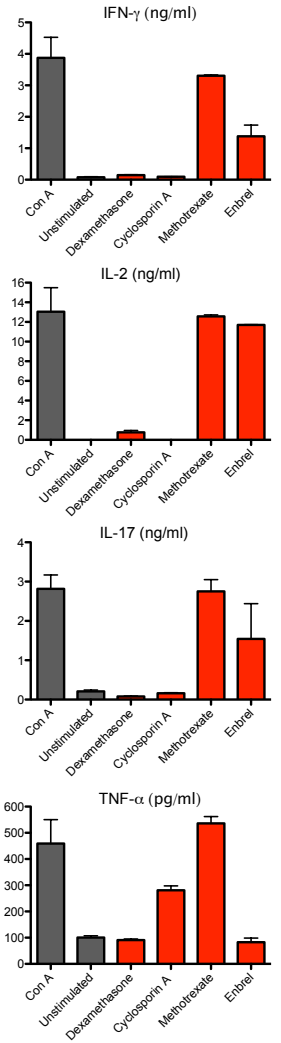
Ex Vivo – Prediction of drug efficacy

The ex vivo model is an experimental model for evaluation of autoreactive T cells, affected by an investigational new drug, to predict efficacy and provide initial insight of immunological mechanism of the drug.

EVALUATION AND OUTPUT

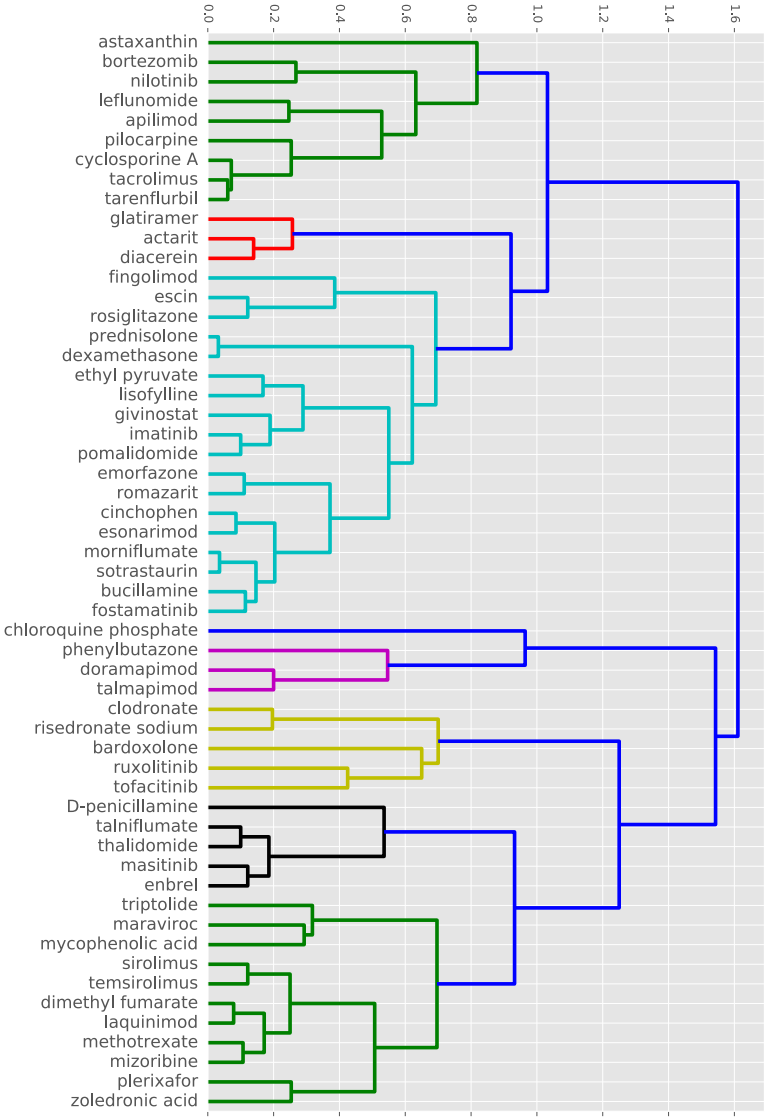
Induction:	Autoimmunity
Duration:	25 days
Type of cells:	T cell spleenocytes
Cell culturing:	48 hours
Stimulation:	ConA or antigen
Controls:	Panel of 54 drugs
Readout:	Luminex – 23 cytokines

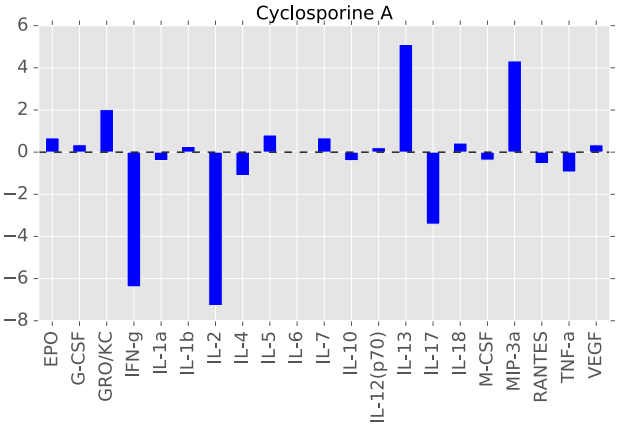


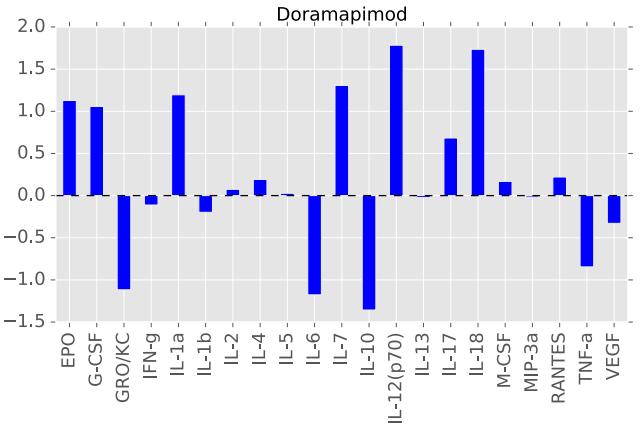


redoxis
www.redoxis.com

Analysis to benchmark to known drugs







redoxis
www.redoxis.com