

INFLAMMATION & IMMUNOLOGY

IMMUNE CELL ASSAYS & *IN VIVO* MODELS

ChemPartner Immunologists specialize in T cell biology and other primary immune cell assays. The *in vivo* model includes rheumatoid arthritis, multiple sclerosis, asthma, inflammatory bowel disease, skin inflammatory disease, and respiratory inflammation. Our goal is to help our global biopharma partners with cancer immunotherapy and autoimmune disease drug discovery.

PRIMARY IMMUNE CELL ASSAY

- Whole blood/PBMC stimulation
- Monocyte stimulation
- DC cell differentiation and stimulation
- B cell activation
- T cells (total, CD4 +, CD8+) activation
- Th subsets differentiation (Th1/2/17/Treg)
- Antigen recall assay (CMV assay)
- Mixed Lymphocyte Reaction assay

Readouts:

- Cytokine release (ELISA/Luminex/ELISPOT)
- Flow cytometry
- Proliferation

CELL LINE ASSAYS

- Reporter assay (e.g. NF-kB-SEAP)
- THP1, Jurkat, TF-1, Raji cell cytokine release, proliferation

RESPIRATORY MODELS

- Ovalbumin-induced asthma in mice and rats
- Rapid OVA-induced pulmonary eosinophil influx model in rats
- Bleomycin-induced pulmonary fibrosis in mice
- LPS-induced pulmonary neutrophilia in mice and rats
- IL-13 induced mouse respiratory inflammation

AUTOIMMUNE DISEASE MODELS

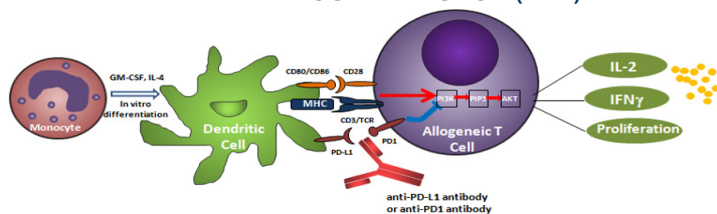
- Collagen-Induced Arthritis (CIA) in rats and mice
- Adjuvant induced arthritis (AIA) in rats and mice
- Experimental Autoimmune Encephalomyelitis (EAE) in mice (under optimization)
- DSS-induced Inflammatory bowel disease (IBD) in mice

IN VIVO PHARMACODYNAMIC MODELS

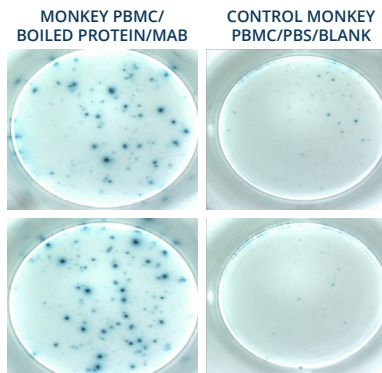
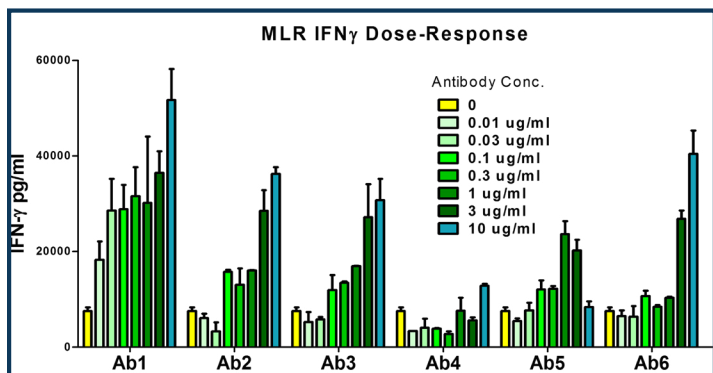
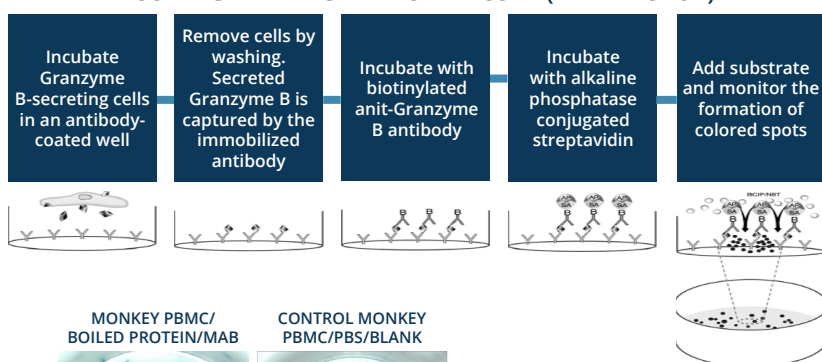
- LPS-induced TNF- α release in rats and mice
- LPS-induced lung neutrophilia (mouse)
- Oxazolone induced Delayed Type Hypersensitivity (DTH) in mice
- Passive cutaneous anaphylaxis
- Air pouch in mice

IN VITRO INFLAMMATION & IMMUNOLOGY ASSAYS

MIXED LYMPHOCYTE REACTION (MLR)

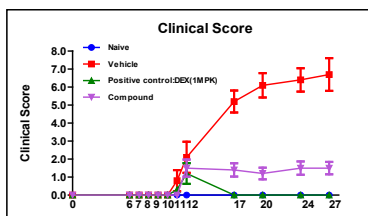
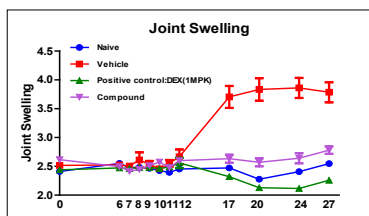
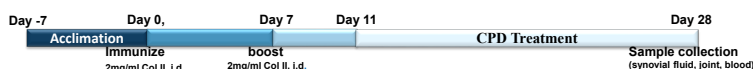


COLLAGEN ANTIGEN RECALL ASSAY (IFN γ ELISPOT)

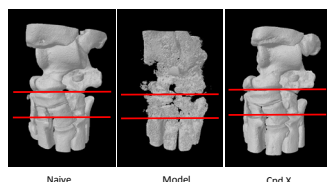
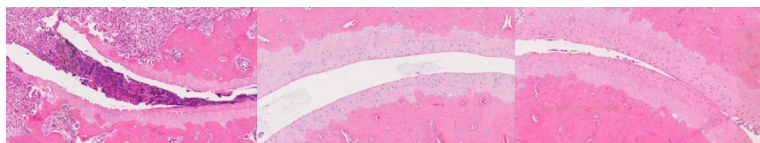
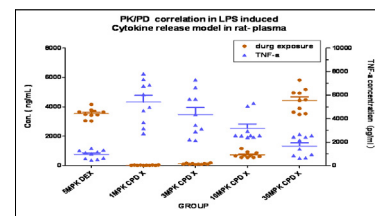
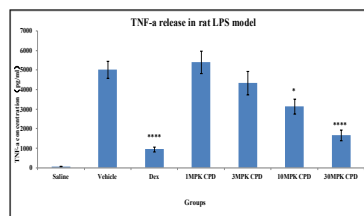


IN VIVO INFLAMMATION & IMMUNOLOGY ASSAYS

RAT COLLAGEN-INDUCED ARTHRITIS MODEL (CIA)



LPS-INDUCED TNF- α RELEASE IN RAT PD MODEL



OVALBUMIN-INDUCED ASTHMA IN MICE

