Concanavalin A (Con A) is a typical and well established model for investigating T-cell and macrophage dependent liver injury in mice. The Con A induces liver damage mediated by activation of CD4+ T cells, NKT cells and Kupffer cells releasing IFN-gamma and TNF-alpha. In the Con A model, the serum level of many cytokines relevant to inflammation change dramatically, which is favorable for the study of the pathogenic mechanisms of autoimmune hepatitis (AIH).

Furthermore, besides AIH, Con A animal models with different parameters are adaptable to many clinical diseases, such as fulminant hepatitis, virus hepatitis, hepatotoxic and alcoholic liver diseases.

Models Available:

- Concanavalin A (Con A) induced cytokine production in Lewis Rats
- Concanavalin A (Con A) induced cytokine secretion in Mice
Validation Data: Concanavalin A (Con A) Induced Cytokine Production in Lewis Rats

Study Protocol

![Study Protocol Diagram]

Results

i. Compound suppresses IL-2 and IFN-γ secretion

![Results Graph]

One-way ANOVA, ***p<0.001 vs. Vehicle
Validation Data: Concanavalin A (Con A) Induced Cytokine Production in Mice

Study Protocol

Results

i. Compound suppresses IL-2 and IFN-γ secretion

One-way ANOVA, *p<0.05, **p<0.01, ***p<0.001 vs. Vehicle
BioDuro Pharmacology

The BioDuro Advantage

BioDuro’s pharmacology team has extensive drug discovery and development experience in the pharmaceutical industry enabling us to support fully integrated programs, including study design and data interpretation. Special expertise in metabolic and inflammatory diseases is coupled with a commitment to working with clients to develop customized models for rare diseases.

Our team has successfully collaborated with 9 of the top 20 large pharmaceutical companies and numerous small companies. The success of these collaborations is highlighted by the quality data provided that have informed key project decisions and regulatory filings. Beyond providing analysis, our senior team’s expertise allows for the development of a consulting relationship with client partners.

The Pharmacology Team

- **Dr. Yong Qi**, Director of Pharmacology, has over 16 years of experience in leading and advancing drug discovery projects in metabolic and other disease areas at several pharmaceutical companies, including GlaxoSmithKline
- Group leader-level scientists with strong background and training in metabolic diseases
- A team of 20 well-trained bench scientists focused on in vitro and in vivo metabolic disease drug discovery services. They are skilled in different animal models/assays and excel in problem-solving and trouble-shooting

Services

- Translational research
- Biomarker discovery & development
- Compound efficacy evaluation
- Consultation

Therapeutic Focus

- CNS
- Inflammation and Immunology Disease
- Metabolic Disease