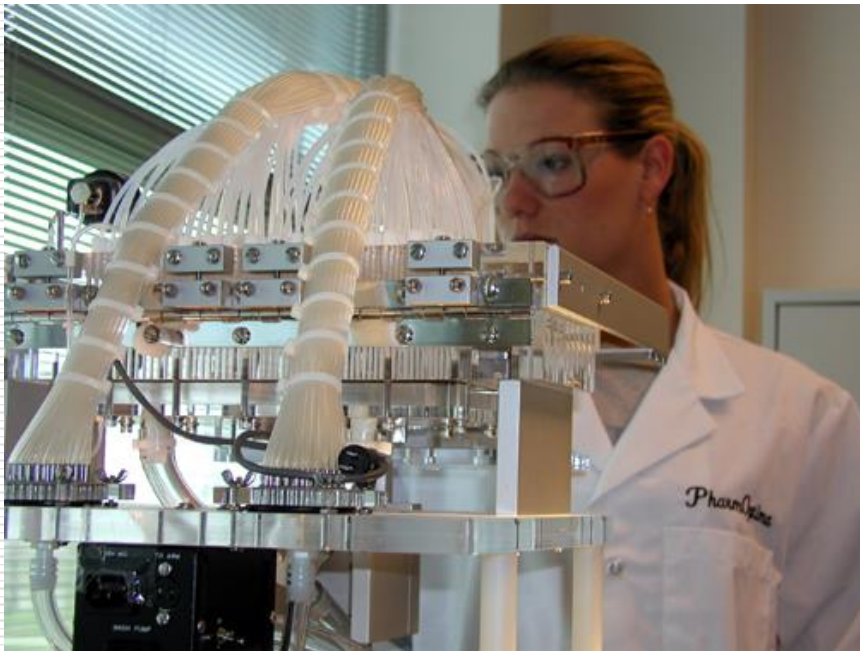


PharmOptima LLC

Value-Driven Research Services



Biomarker Capabilities

About PharmOptima LLC

- PharmOptima's proven approach to drug discovery and optimization focuses on our ability to maximize your program's success by developing customized solutions for your intellectual property problems and providing the highest quality data in a rapid timeframe to move your compound up the value chain
- Founded by scientists with broad expertise and years of pharmaceutical experience, we truly understand the value of solving the complex problems associated with drug development. Our multidisciplinary scientific team consults with you to provide research strategies to optimize your success

Company Overview

- 12,000 + square feet of laboratory space including a 7,000 square foot vivarium
- A leading CRO conducting preclinical Ocular Research
- Premier provider of Spinal Muscular Atrophy research
- *In vivo* research services
- *In vitro* research services
- Immunosorbent assays
- Biomarker Research

Biomarker Development

- Proprietary MSD based assay measuring SMN in whole blood
- LPS induced Uveitis model measuring VEGF, VEGF-C, and VEGF-D
- Cloning and Expression of proteins
 - Rabbit IL-6
 - MCP-1 (monocyte chemoattractant protein)
 - MIP-2 (macrophage inflammatory protein)
- Custom antibody and MSD based assays

Biomarkers Available for Study*

Commercially available – MSD Technology

- Alzheimer's (A β 38, A β 40, A β 42 and Tau, Total Tau)
- Proprietary SMN Protein in Whole Blood
- Metabolic markers
- Oncology markers
- Vascular markers
- Cytokines and Chemokines
- Cell signaling pathways
- Kidney Injury
- Cardiac and muscle
- Liver Injury
- Inflammation

**not a complete list, in many cases biomarkers are available from mouse, rat, non-human primate and human*

Why PharmOptima?

- Project team of scientists find optimal experimental approaches
- Experts who understand the data required to move IP up the value chain
- Consultation on best approaches to solve difficult challenges
- Scientists with broad expertise to execute your studies
- Years of experience developing, validating and executing GLP studies
- Full attention of a small company allowing rapid study start and completion and competitive pricing

Contact Us



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