

Contract Services

Cayman Contract Services provides discovery and preclinical development services to the global pharmaceutical, biotechnology, and academic research markets. Our diverse suite of services leverages a team of over 150 highly skilled scientists with expertise in medicinal chemistry, structural biology, complex multi-step organic synthesis, analytical chemistry, sample analysis, and custom assay development. We offer a personalized, flexible approach that enables our clients to accelerate their drug discovery and development through a single-source partner, from novel drug design and synthesis to target identification and validation.

Bioanalysis & Assay Development

Sample Analysis

- Biomarker profiling
- Activity screening
- Lipidomic profiling
- Immunopeptidome profiling
- Proteomic profiling and PTM analysis
- Cellular metabolism and bioenergetics analysis

Custom Assay Development

- Immunoassays
- Mass spectrometry-based assays
- Enzyme activity assays
- Cell-based assays
- Reporter assays
- Protein and antibody production

Medicinal Chemistry & Structural Biology

Medicinal & Computational Chemistry

- Virtual high-throughput screening
- Parallel library generation
- Structure-activity relationship studies
- Lead optimization and development
- Route optimization and scale-up
- Pre-GMP process development

Structure-based Drug Design

- Recombinant protein production
- Biophysical characterization and screening
- Protein crystallization
- Structure determination by X-ray crystallography and cryo-EM
- *In silico* drug design/CADD

Analytical Chemistry

Qualitative & Quantitative Analysis

- HPLC, LC-MS, GC-MS, NMR, and Karl Fischer testing
- Solubility, metabolism, rate of release, and pharmacokinetics testing
- Deformulation for active ingredient, impurity limit, and stability testing
- Custom mass spectrometry-based method development

Chemical Synthesis

Multi-step, Complex Organic Synthesis

- Analytical standards
- Compound library generation
- Emerging drugs of abuse
- Process scale-up (mg to 0.5 kg)
- Stable isotopic labeling
- Natural products isolation and biocatalysis
- Lipid nanoparticle development

Our Contract Services Division provides expertise in:

01

Bioanalysis
&
Assay
Development

02

Medicinal
Chemistry
&
Structural
Biology

03

Analytical
Chemistry

04

Chemical
Synthesis

Why Cayman?

We offer comprehensive solutions to drive your projects to completion. With prompt quotations, competitive prices, quality science, and personalized customer service, our team is committed to our mission to help make research possible.

- Maintain complete control of your study with phase-based, flexible project design.
- Consult with our cross-functional team of scientists with expertise in diverse research areas and technical skill sets.
- Access our state-of-the-art laboratories with dedicated resources to support your project needs.

We have worked with the Bioanalysis group at Cayman Chemical on multiple projects. The scientists are outstanding at executing on established protocols as well as troubleshooting projects that are in an optimization/discovery stage. There is a high degree of communication throughout the process which we have found vital when projects hit a hurdle and we need to pivot from the original plan. They are a trusted resource for cellular-based assays, especially flow cytometry, and consistently provide excellent guidance and data for these types of projects.

- **Principal Scientist,**
AVITA Medical



My biotech startup company was operating with limited resources and needed a way to prioritize the synthesis of one or two members of a family of nitric oxide donors on the possibility that some of these compounds might have antiviral properties against SARS-CoV-2. I used the Medicinal Chemistry services of Cayman Chemical to do the *in silico* work needed to come up with two hits that later proved to have antiviral properties *in vitro*. This identified intellectual property and justified a much broader drug development program.

- **President and CEO,**
Coeurative, Inc.



To learn more about Cayman Contract Services,
visit www.caymanchem.com/services