

Chemical Synthesis

Our team of chemists brings unmatched experience to solving difficult synthetic routes and performing complex, multi-step syntheses of organic compounds. We specialize in the production of eicosanoids (e.g., prostaglandins and leukotrienes), fatty acids, cannabinoids, and complex heterocycles. The wide-ranging knowledge of our scientific staff has delivered on projects that include, but are not limited to, the total synthesis and scale-up of rare eicosanoids and their biologically active metabolites, specialized pro-resolving mediators and other complex fatty acids, sirofingolimod, emerging drugs of abuse, phytocannabinoids, and labeled versions thereof.

Lipid Biochemistry

- Complex Fatty Acids
- Glycerophospholipids
- Sphingolipids
- Sterols
- Lipid nanoparticle development

Compound Library Generation

- Hit-to-lead design, synthesis, and screening
- Lead optimization
- Scale-up

Drugs of Abuse

- Amphetamines
- Benzodiazepines
- Opioids
- Synthetic Cannabinoids

Specialized Synthesis

- Bioconjugation
- Phytocannabinoids
- Natural product isolation and biocatalysis
- Process scale-up (mg to 0.5 kg)
- Selective, stable isotopic labeling

Analytical Standards

- Analytical Standards
- Reference Materials
- Certified Reference Materials (ISO 17034)

GMP & Process Development

- Route exploration, development, and optimization for phase I and phase II studies
- Preclinical API synthesis and method validation
- IND, DMF, ASMF, and NDA assistance

Lipid Biochemistry

Studies consistently came in on budget, on time, and at or above the quoted chemical purity. Our research activities were significantly accelerated by not only the products that were provided in a timely fashion, but also by the insights into the projects through meetings with Cayman employees.

- **Director of Molecular Imaging**
University of Michigan



Learn more about our Chemical Synthesis Services or request a quote
at www.caymanchem.com/chemicalsynthesis

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.

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.

To learn more about Cayman Contract Services,
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