

Novalyst Discovery is a chemistry-based CRO with in-depth expertise in **organic synthesis** and **classical medicinal chemistry** along with know-how in **structure-based approaches** of drug discovery.



Services offered include **chemistry outsourcing solutions** such as:

- R&D support and custom synthesis,
- medicinal chemistry contract research,
- innovative chemical scaffold supply,
- protein structure-based drug design.

## Chemistry R&D Support & custom synthesis

The Novalyst scientific team has earned its reputation showing **problem-solving skills** as well as out of the box thinking when coping with challenging chemistry. Novalyst can assist you with the **creativity**, the **experience** and skills of its chemists to expand your own R&D efforts.

**Research & Development Support** services include:

- Reaction optimization
- Synthetic route development
- Patent exemplification for IP build-up
- Feasibility analysis of synthetic pathways
- Methodology studies for process development
- Exploratory studies for original compound synthesis
- Total synthesis of natural compounds (20 steps, 10mg)
- Production of series of analogs/ scaffolds/building blocks

This offer is proposed on a FTE contract base. This model is especially suitable in projects where emerging information often requires immediate redirection of synthetic efforts.

**Custom Synthesis** services include the synthesis of:

- Impurities
- Building blocks
- Reference compounds
- Reaction intermediates
- Pharmaceutical reference standards

...from mg to subkilogram scale.



This offer is proposed on a fee for service base. This model is appropriate for single projects (i.e. per compound). In this model Novalyst responds to specific requests with independent proposals.

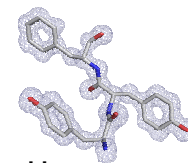


## Medicinal Chemistry Contract Research

Novalyst can support you on the iterative process of optimizing compounds through medicinal chemistry.

Classical Medicinal Chemistry services include **drug discovery services** such as:

- Hit to lead
- Lead optimization
- Patent exemplification work
- Development of back-up series
- Design and synthesis of analogs for SAR studies
- Computational drug design:
  - structure-based virtual screening
  - ligand-based virtual screening



This offer is proposed on a FTE contract base.

NEW

## Innovative Chemical Scaffolds

Novalyst offers structurally original building blocks prepared following creative synthetic strategies.

These unpublished novel scaffolds present at least two orthogonal functional groups that can be readily derivatized and suitably "decorated" to generate drug-like compound libraries with valuable IP potential. Upon request, our chemists can generate focused libraries and perform customized scaffolding.



- ✓ heterocyclic
- ✓ low molecular weight
- ✓ 2 orthogonal anchoring functions
- ✓ validated derivatization
- ✓ readily available as 1g-10g batches
- ✓ no SciFinder® hit

## Protein Structure-Based Drug Design

The protein structure-based approach to drug discovery relies on the knowledge of 3D structure of proteins and their interaction with potential drugs.

With its affiliate AliX Pharma, Novalyst offers integrated services for **fragment-based drug discovery** (FBDD).

AliX is specialized in protein structure determination by X-Ray crystallography and provides an innovative ligand screening platform using non-covalent mass spectrometry.

AliX uses its MS-platform to identify hits or fragments, and then Novalyst optimizes these compounds into potential drug candidate using its medicinal chemistry capabilities.

## Working with Us

Novalyst takes a **client-oriented approach** to determine and deliver cost-effective solutions to support your chemistry research and development efforts.

### Flexibility

Novalyst operates according to clients' SOPs.

### Transparency

We pride ourselves in delivering high-end services with transparent interactions, i.e. designated point person, weekly contacts, progress meetings and regular written reports.

### Confidentiality

Work is conducted according to clients' confidentiality standards. We use secured equipments and communication means.

### Intellectual property

All R&D undertaken for our clients is the sole property of the client and Novalyst retains no rights whatsoever to any discoveries, inventions, or information gathered in the course of the work.



## State-of-the-Art Facilities

Novalyst is located in the BioParc, a science cluster in Illkirch, about 15 minutes from downtown Strasbourg and Entzheim-Strasbourg airport. In January 2007, Novalyst moved into a state-of-the-art infrastructure, specifically designed and equipped for organic synthesis. These 1,000 square meter premises have been set up to comply with the latest standards of safety regulations.

Our equipment include analytical instrumentations for process controlling and batch analysis (NMR, HPLCs, LC-MS, GC, GC-MS) and enabling tools for synthesis & purification (heavy wall glassware, CEM microwave, Parr autoclave, ISCO & Biotage flash-chromatography systems with Büchi glass preparative columns, Varian preparative HPLC, semi-preparative Gilson HPLC...).

## Outsourcing Chemistry

Chiral compounds	
Carbohydrates	Problem-solving
Heterocycles	
Nucleotides	Know-how
Peptides	
Lipids	Expertise
Dyes	

## Highlights

Established	November 2002
Legal status	SAS / private CRO
PhD / R&D staff	22/36
Field of activity	Research service provider
Expertise	Synthetic chemistry Medicinal chemistry Fragment-Based Drug Discovery

## Contact

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