



ZASYA
Life Sciences



Zasya Life Sciences is a fast-growing CRO/CDMO, specializing in Medicinal, Synthetic, and Organic Chemistry R&D, with robust manufacturing capabilities for small molecules. Our comprehensive solutions span the Pharmaceutical Value Chain, catering to the synthesis/manufacturing of custom small molecules, peptides, and oligonucleotides ranging from grams to multi-metric tons.

Discovery Services: Target Validation, Hit to Lead Generation, Lead Optimization

Synthetic Chemistry Services: Route Design, Synthesis, Route Scouting, Fit-For-Purpose Development, Process Development, Process Optimization, Impurity Synthesis and Characterization, API Development

SMALL-SCALE SPECIALTY CHEMISTRIES

- Synthetic peptides
- Carbohydrates
- Macromolecules
- Nucleotide monomers
- Oligonucleotides
- Steroids
- Photosensitives
- Phthalocyanines
- Electronic materials
- Protacs
- Di- & triglycerides

BUSINESS MODELS:

Full Time Equivalent (FTE)
Fee For Service (FFS)

SCALE-UP & COMMERCIAL MANUFACTURING CAPABILITIES

Phase 1	100 g to 10 kg	Reactor: 20 L to 300 L
Phase 2/3	10 kg to 100 kg	Reactor: 150 L to 5 KL
Commercial	100 kg to metric tons	Reactor: 1 KL to 5 KL

KEY TECHNOLOGIES

- Electrochemistry and Photochemistry
- Experienced with Chiral synthesis and Chiral resolutions
- Manufacturing of complex APIs & API intermediates
- High-pressure reactor & hydrogenators
- Distillations on scale
- Handling of organometallic reactions

COMMERCIAL CAPABILITIES

- Dryers - VTD, FBD, ATD
- Class 100,000 clean rooms
- Dedicated HVAC systems
- Operating temperatures: -10°C to 240°C

Peptide Synthesis

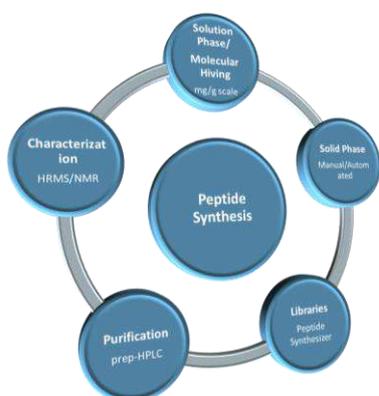
Quick synthesis/delivery of diverse peptides from mg to multigram scale

Peptides are increasingly valued in therapeutics, acknowledged for their selectivity, effectiveness, and favourable tolerance. Dating back to the 1920s with the introduction of insulin for diabetes management, peptides have served as medicinal agents. Since then, numerous peptides have been engineered to address various medical conditions, underscoring their versatility in drug development.

Zasya Life Sciences has extensive experience across peptide synthesis, purification and characterization and leverages this experience to accelerate its clients' peptide drug discovery programmes.

Peptide Synthesis at Zasya Life Sciences

Zasya Life Sciences provides a range of services for quick synthesis of peptides, catering to scales ranging from milligrams to multi grams using solution, solid-phase, and molecular Hiving techniques employing both automated and manual methodologies as appropriate.



Expertise

- Linear peptides and cyclic peptides
- N-terminal modifications, *eg.* Biotinylation, Acylation, FITC labelling, Acetylation
- C-terminal modifications
- Cyclic peptides including multiple disulfide bridges
- Synthesis of unnatural amino acids
- Incorporation of unnatural amino acids into peptide sequence

Infrastructure

- Fully automated parallel synthesizer (Aapptech Focus XC 2 RV) capable of synthesizing 2 peptides in parallel
- Support for gram scale synthesis: manual peptide synthesizers (100 mL to 5L reaction vessels)

Purification & Characterization

Zasya's synthetic capabilities are supported by strong purification and analytical characterization platforms

- Purification using prep HPLCs (Shimadzu)
- Analytical equipment available includes
 - Jeol (400 MHz), *Bruker (500 MHz)
 - Waters UPLC-Synapt G2s for LC-MS
- Multiple Waters HPLC (PDA, TUV, ELSD) instruments for analysis
- Access to CD spectrometer and MALDI-TOF*
- Lyophilizers
- UV-Vis spectrophotometers

For more information contact: info@zasya.in

* third party access