

## Biocatalysis

Cambrex is **the** small molecule company that provides drug substance, drug product and analytical services across the entire drug lifecycle. Enjoy working with our experts to accelerate your small molecule therapeutics into the market.

### Biocatalysis capabilities

Cambrex has extensive experience in developing and commercially manufacturing APIs, intermediates and bulk chemicals using biocatalysis.

Biocatalysis provides for efficient and environmentally friendly commercial scale manufacturing through enzymatic synthesis and provides pure -regio, chemo- and enantioselective compounds when compared to traditional chemical synthesis.

Our team of experts can design, optimize and provide R&D screening services using the Cambrex proprietary library of 600 enzymes.

- **Enzyme screening**
- **Enzyme development**
  - Cloning and gene discovery
  - Characterization and description of genes for different enzymes and functions
  - Using different expression systems
- **Process development & enzyme manufacture**
  - Ability to work with different organisms and enzymes
  - Process know-how for industrial enzyme production
  - Process optimization and technology transfer available

### Biocatalysis services

- Enzymes available to license for manufacturing chiral products, APIs & intermediates
- Cooperation agreements to screen for new enzymes & develop enzymatic processes
- Analytical method development

### Biocatalysis benefits

- Reagents & solvents are biodegradable
- Typical side reactions are avoided, resulting in few by-products & impurities
- High conversion, yield & enantiomeric excess
- Low enzyme & negligible cofactor costs
- Large volume of final product
- Synthetic route development & consulting in biocatalysis