

## Biocatalysis

Delivering greener and selective processes using Biocatalysis

**The Biocatalysis team at Sai Life Sciences optimises processes from screening to scale-up with ready access to a large enzyme library and an experienced team with a fully equipped lab.**

### Highlights

- Proven success in technical problem solving for leading global pharma innovators
  - Developed process with Novozyme-435 to achieve desired chiral purity from gm to multi-Kg scale
  - Process development for asymmetric reduction of ketone using keto reductase enzyme and demonstrated from lab to plant scale (150Kg).
  - Multiple plant scale campaign using transaminase enzyme
  - Recovery, recycle and reuse of Lipase-TL
  - Trans-glycosylation on Nucleosides
  - Regio-selective acylation of sugar diol
- Flow biocatalysis
- Team includes PhDs with 5-10 yrs of experience and network with all leading enzyme developers and manufacturers

### Capabilities and niche offerings

- Greener approach with capabilities encompassing screening, lab development, pilot and manufacturing
- Biotransformation screening in conjunction with parallel experimentation capability
- Process development using jacketed reactors and plant process simulation using Dynochem, Aspen, MixIT etc.
- Ready to collaborate for enzyme screening using FTE/FFS business model.
- Develop enzyme-specific immobilisation technology
- Core processes using enzymes - screening, immobilisation, assay calculation, recovery and recycling
- Strong collaborative network with leading enzyme developers and manufacturers ensuring consistent delivery of excellence with overall process efficiency

### Infrastructure

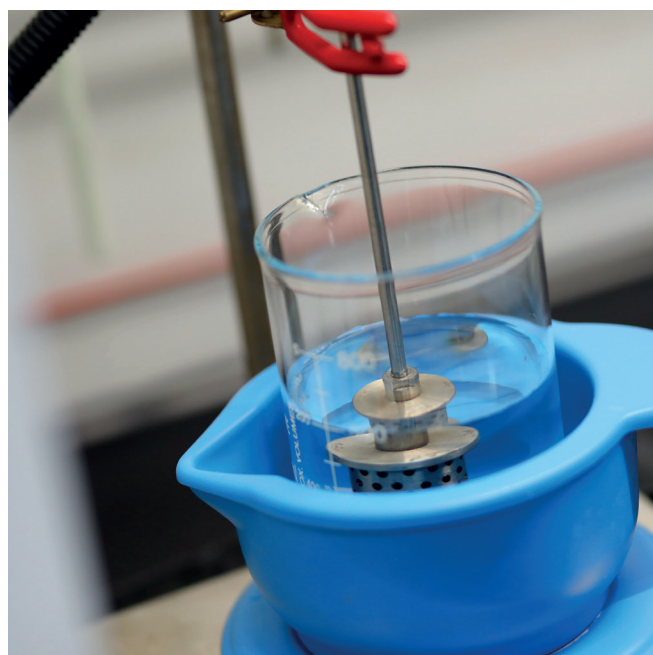
- Rotating bed reactors
- Horizontal shaker
- pH-controlled peristaltic pump
- Double-jacketed reactors
- Column oven and vortex mixer

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### Feedback from a leading European big pharma customer

“I was very impressed by how rapidly the team was able to push through the initial steps to get to the key desymmetrisation reaction. I was also happy with how rapidly the chiral screening was executed. The idea to move to the diester demonstrated good, practical problem-solving skills. The team was able to deliver the work faster than I anticipated, demonstrating agility and an ability to move rapidly.”

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