

Microbial Fermentation

From strain development to large scale production of biobased materials.



STRAIN DEVELOPMENT

Bioinformatics

①

Strain construction,
Metabolic engineering

②

PROCESS DEVELOPMENT

Fermentation,
DSP Development

③

Process design,
Industrialization

④

PRODUCTION

Pilot Scale

⑤

Commercial-Scale
Manufacturing

⑥

One-stop-shop for your development and manufacturing needs

- Over 40 years of experience in fermentation and bioconversion
- Expertise in biomaterials, bio-polymers, cosmetics, collagens, proteins, APIs, amino acid derivatives and advanced food ingredients
- Western-centric fermentation asset footprint
- 4000 m³ global CDMO fermentation capacity with fermentors of up to 250 m³ with expansion possibilities

North and South America



Europe



Lafayette, IN, USA

Tippecanoe Labs

- 2500 m³ fermentation capacity
- 70 m³, 140 m³, 250 m³ reactors
- cGMP
- Dedicated DSP

Slovenská Ľupča, Slovakia

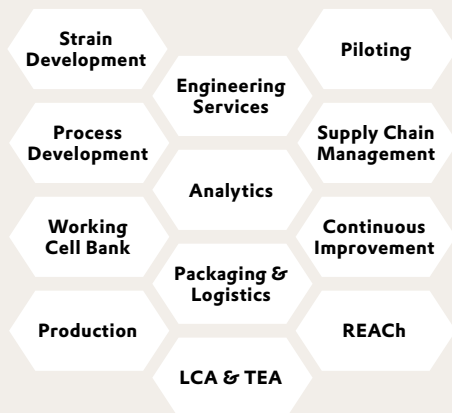
Evonik Fermas

- 1200 m³ fermentation capacity
- 2 L, 40 L, 5 m³, 50 m³ reactors
- GMP, FSSC 22000, FAMI QS, ISO, Kosher, Halal, Food Certified
- Flexible DSP, including protein purification

● Research & Development sites
● Microbial fermentation/DSP production sites

Wide range of organisms used in strain development and fermentation

1	Bacteria	2	Yeast	3	Algae	4	Fungi
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- Evonik offers services along the whole value chain: starting from the product idea to large-scale commercial manufacturing
- Deep understanding of "Time-to-Market"
- Competence and capabilities of a global player with the agility of a start-up
- High-throughput screening for strain development
- Unique combination of fermentation and chemical modifications up to HPAPI
- Flexible business models: CDMO, joint-venture, joint-development, distribution
- Prioritizing sustainability through process improvements, energy-efficient technologies, and green utilities, such as hydropower

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Evonik Operations GmbH
Health Care Business Line

healthcare@evonik.com
www.evonik.com/healthcare