twb
White Biotechnology
center of excellence

SCALE-UP OF THE MICROBIAL CULTURE PROCESS

Our strengths

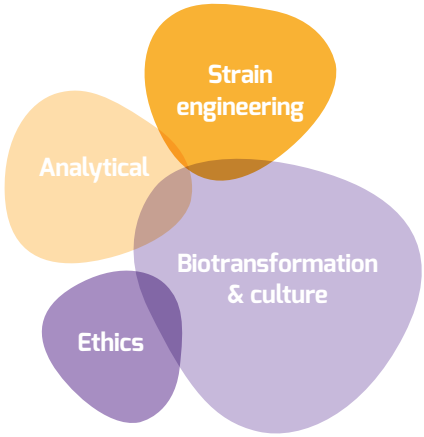
Wide range of culture volumes
from 50 mL to 200 L (working volume)

Diversity of culture modes:
batch, fed-batch, continuous process

Analytical environment:
analysis of gas outlet, specific probes (turbidity, capacitance, pCO_2)

Development of custom methodologies and processes

Multidisciplinary 6-person team



An integrated solution tailored to the needs, to accelerate the development of industrial biotechnology

Our service

- **Performing the scaling up of a laboratory scale process**
- **Process robustness study**

- Prokaryotic or eukaryotic cell, aerobic and anaerobic conditions
- Batch, fed-batch or continuous process
- Chemically defined or complex medium

Deliverables

- Process book
- Scale up conditions
- Process performance data for each scale (OUR, k_La, ...)
- Suitable industrial culture medium

Equipment

- **Culture robot, 24 instrumented mini-reactors** 50 mL working volume (Hamilton, HEL)
- **Reactors** 400 mL, 2 L, 5 L, 20 L and 200 L working volume (Applikon, Sartorius)
- **Mass spectrometer** (gas analysis)
- **Analytical equipment** (LC-MS, GC-MS, ...)

Some achievements

- **Process scale-up** with industrialisation at the client's site
- **Process validation** (batch, fed-batch, continuous)
- **Batch supply**
- **Industrialisation** of a laboratory process

Additional services

- Technological choice and optimisation of upstream and downstream processing
- Process environmental balance
- Support to transfer the process from laboratory to the company

Contact

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Customised estimate on request