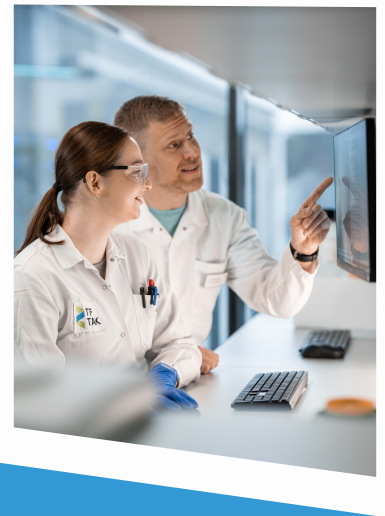
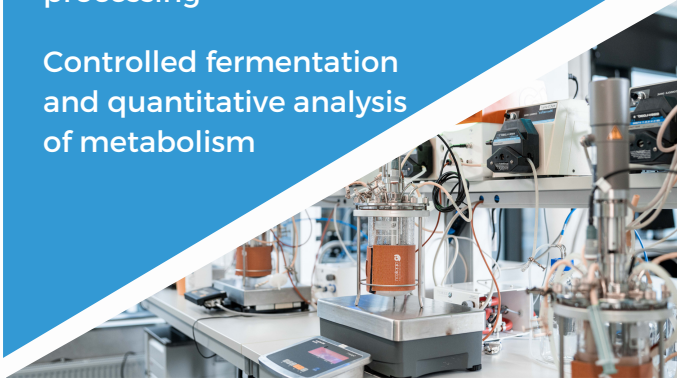




BIOPROCESS RESEARCH

Design, develop, and troubleshoot microbial processes – cell cultivation and downstream processing

Controlled fermentation and quantitative analysis of metabolism



WHY COOPERATE?

- Detailed analysis of metabolism – fermentation, quantitative analytics and metabolic modelling working seamlessly together
- Methods and equipment in-house that allow to work fast and achieve high quality of services
- Flexibility makes it possible to find the best solution to any microbial bioprocess issue

TECHNOLOGIES AND EQUIPMENT

- Genome annotation, auxotrophy analysis, metabolic modelling
- BSL-2 lab and Anaerobic chamber
- Growth environment screening in 2 mL scale using isothermal microcalorimetry
- 1L and 7L bioreactors: batch, fed-batch, and continuous cultivation
- Downstream processing: concentration, lyophilization, spray-drying
- Recombinant DNA technologies for various species and applications
- Comprehensive list of quantitative substrate and metabolite analysis (in house)
- Laboratory evolution and in house NG-sequencing: whole genome sequencing and 16S metagenomics

EXPERIENCE

- Collaborations in the fields of dairy and plant-based starter culture and next-generation probiotics manufacturing, laboratory evolution, metabolite production (bioconversion) optimization, metabolic modelling
- Development of biomass production of filamentous fungi for fish alternatives and production technology of meat alternatives based on fungi

FIELDS OF EXPERTISE



FOOD RESEARCH
BIOPROCESS OPTIMIZATION
ANALYTICS
AGILE PRODUCT DEVELOPMENT



Idea Problem



Development at lab scale



Testing at pilot scale



Testing at production

CONTACT

"The knowledge of metabolism & quantitatively reliable data is the backbone of our success and quality of work. We solve complex problems in a fast and reliable manner"

Ranno Nahku, PhD
Director of Bioprocess Research



ranno@tftak.eu
tftak.eu
Tallinn, ESTONIA

Developing innovative solutions for the food and biotechnology industry!

TFTAK - CENTER OF FOOD AND FERMENTATION TECHNOLOGIES