onCyt

Microbial process monitoring by online flow cytometry

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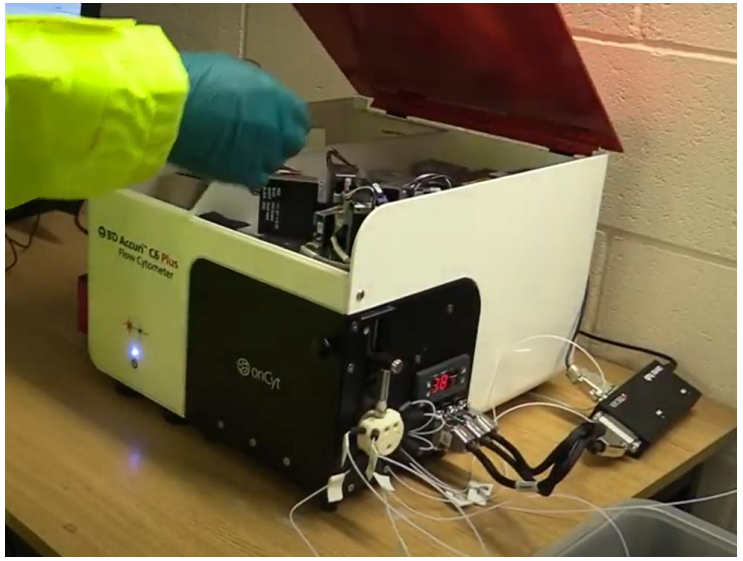
onCyt Microbiology

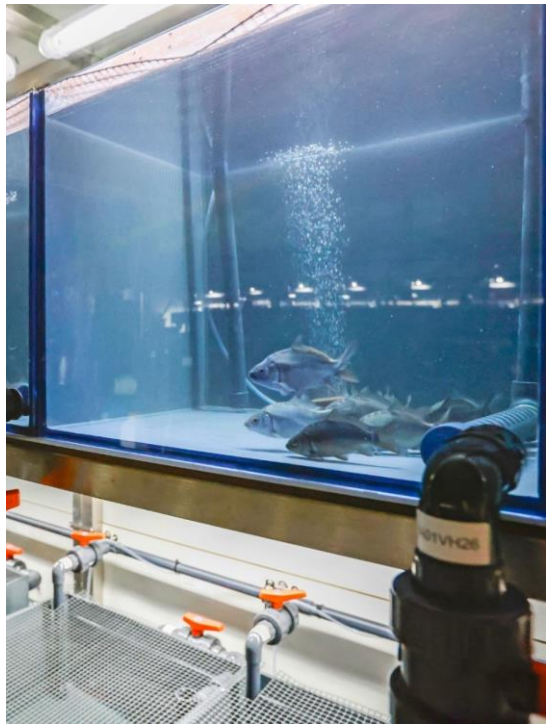
- Company founded in 2017
- Spin-off ETH Zurich / Aquatic research EAWAG
- Online | real-time | in process monitoring of microbes
- Team with strong microbiology expertise
- Since 2020 industrial applications

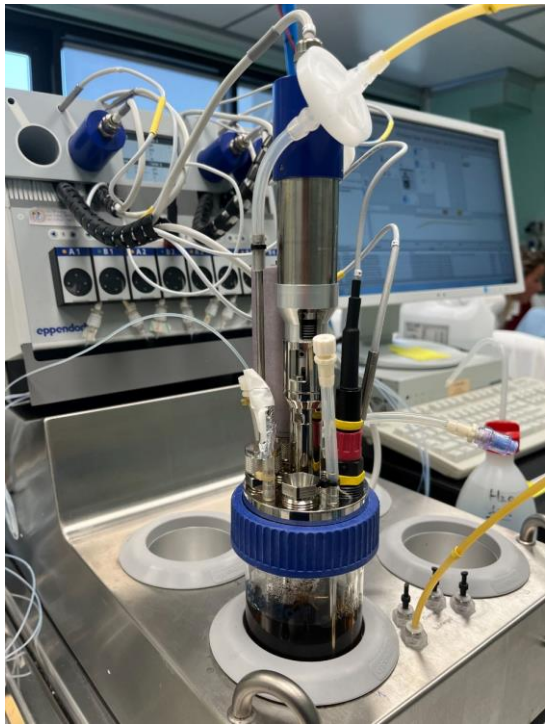
Scottish Water
Trusted to serve Scotland



onCyt Microbiology

>40 devices sold and industry projects conducted

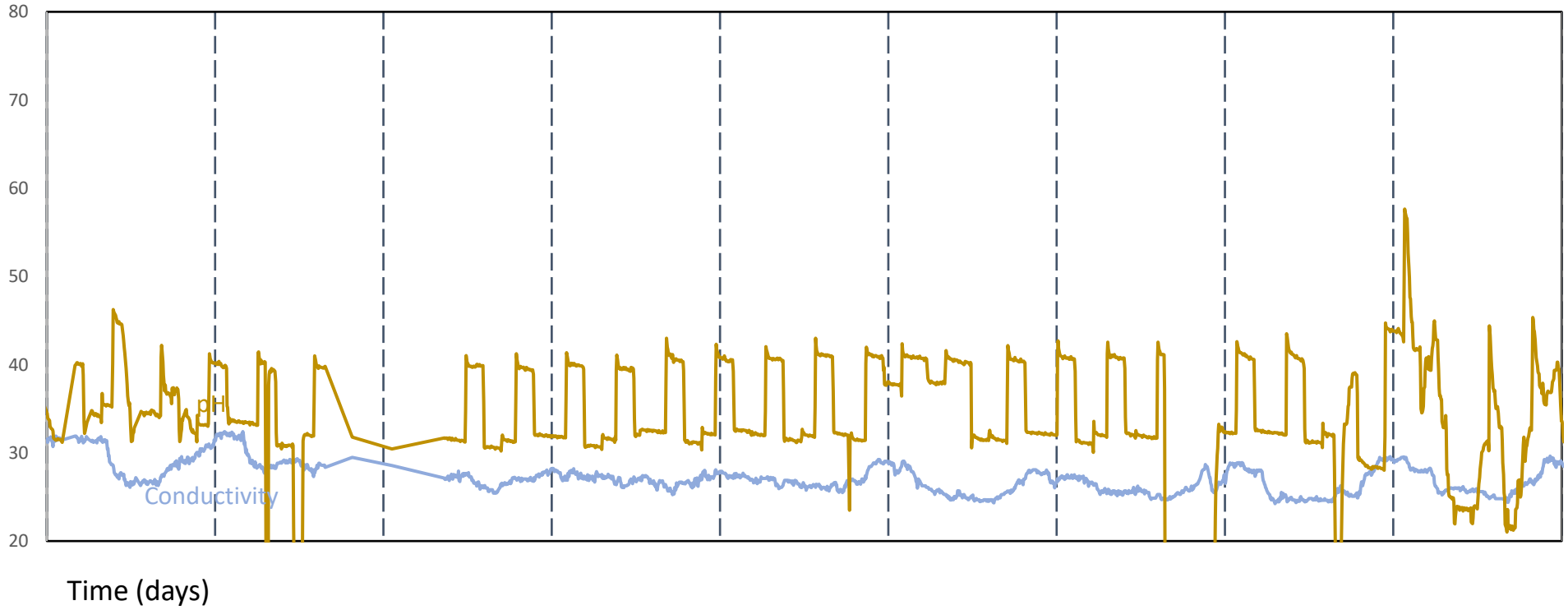




The importance of sensors

What are you already measuring online today?

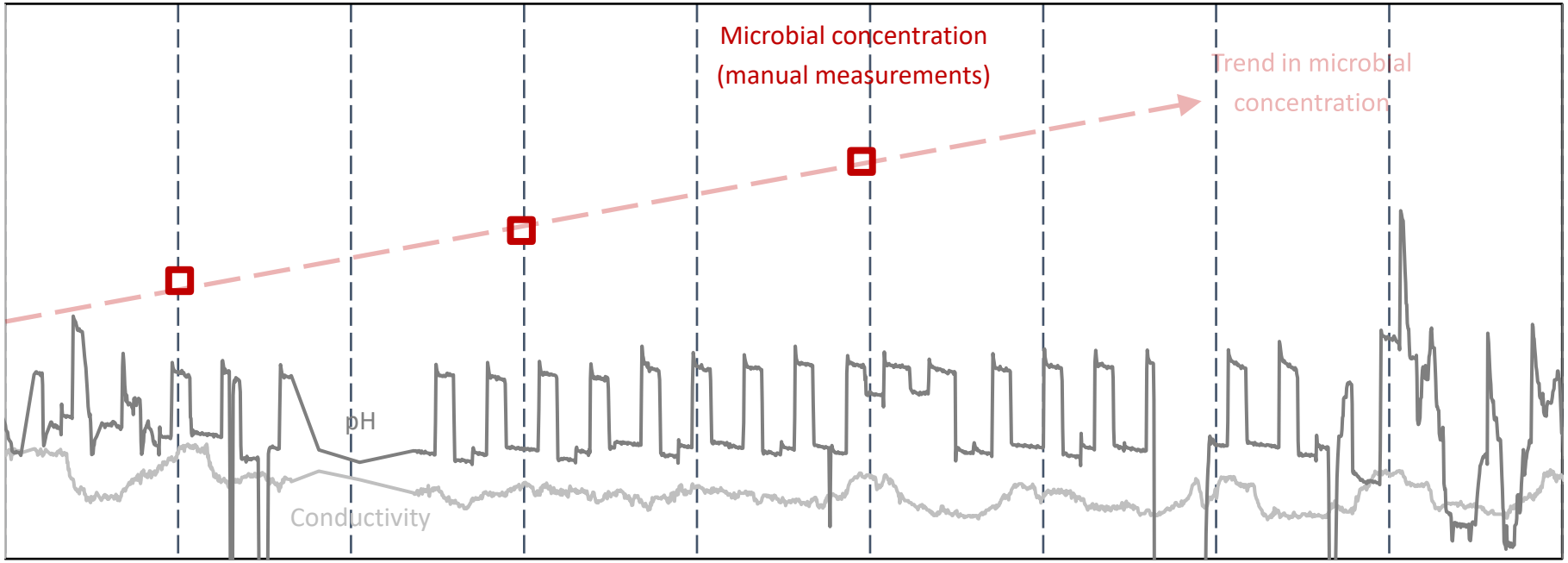
- ✓ pH
- ✓ Conductivity
- ✓ Temperature
- ✓ …



…and what about microbiology?

How are you measuring the microbes today?

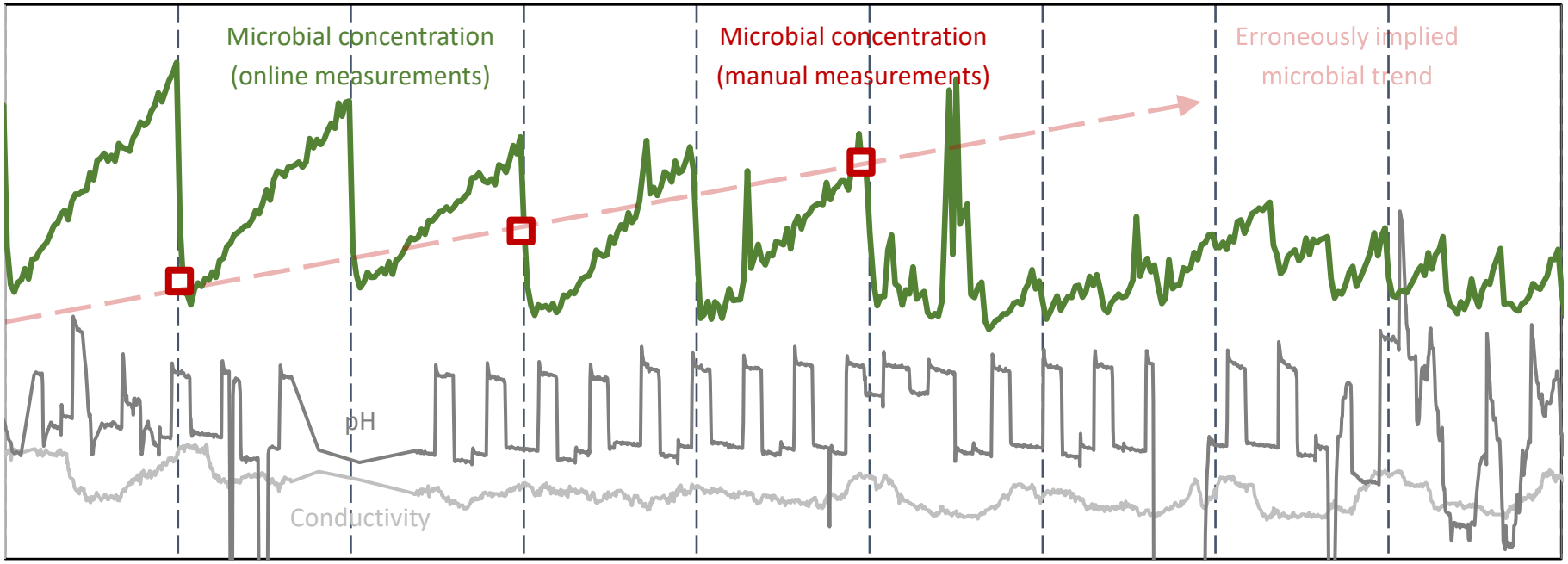
- Manual sampling?
- Plating?
- External laboratory?
- Delayed results?
- Ambiguous findings?



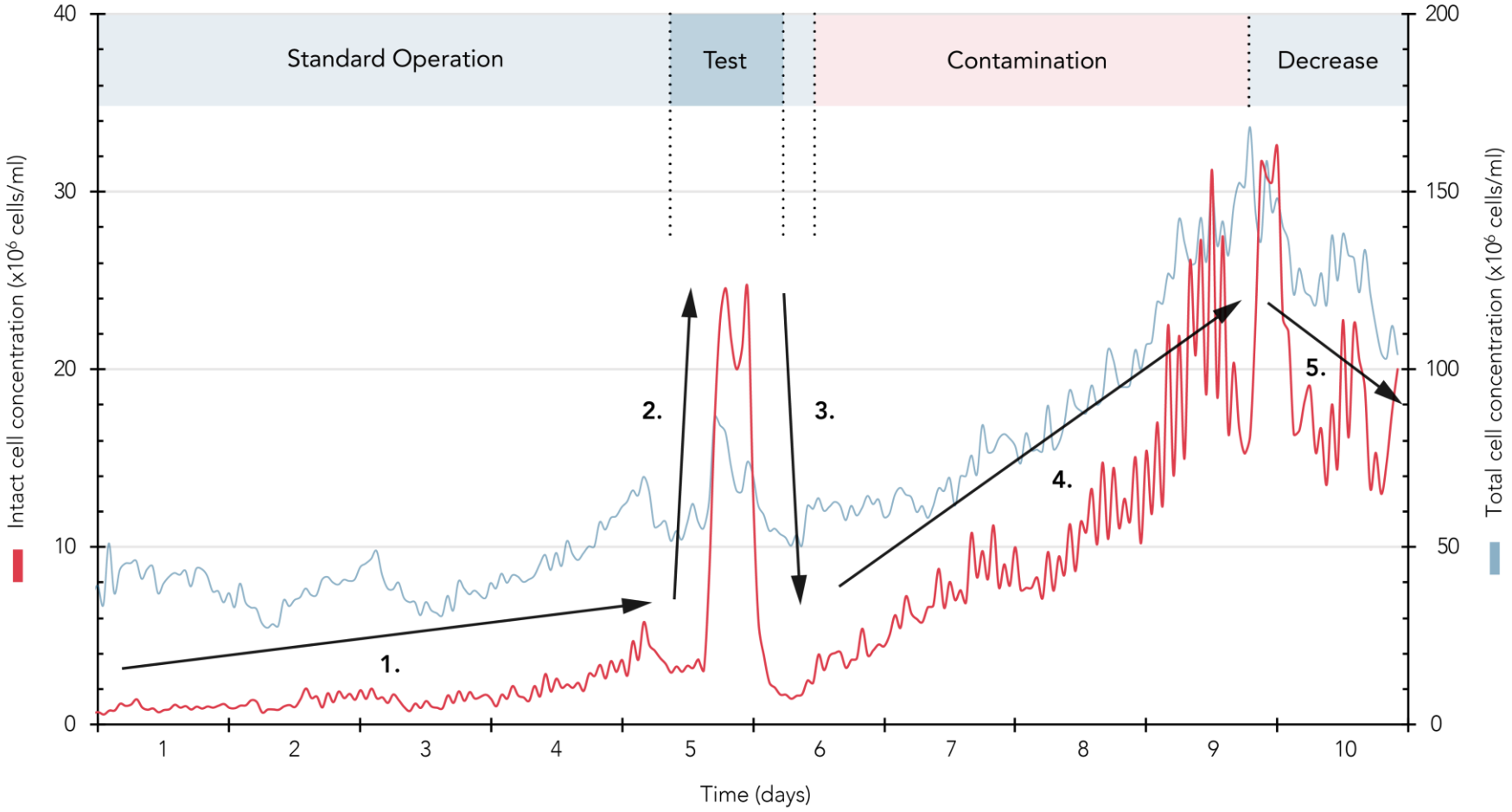
Time (days)

…and what about microbiology?

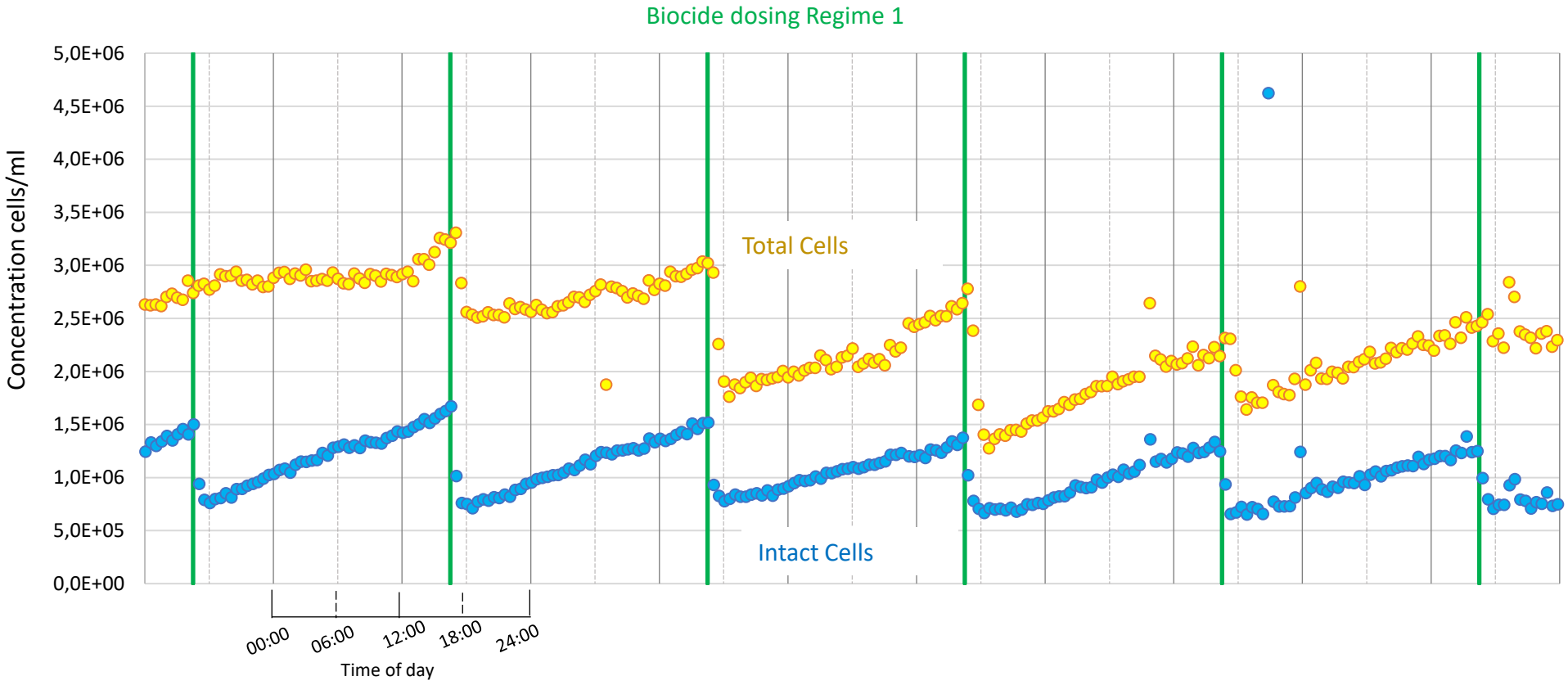
onCyt provides continuous microbial measurements – comparable to data from other sensors.



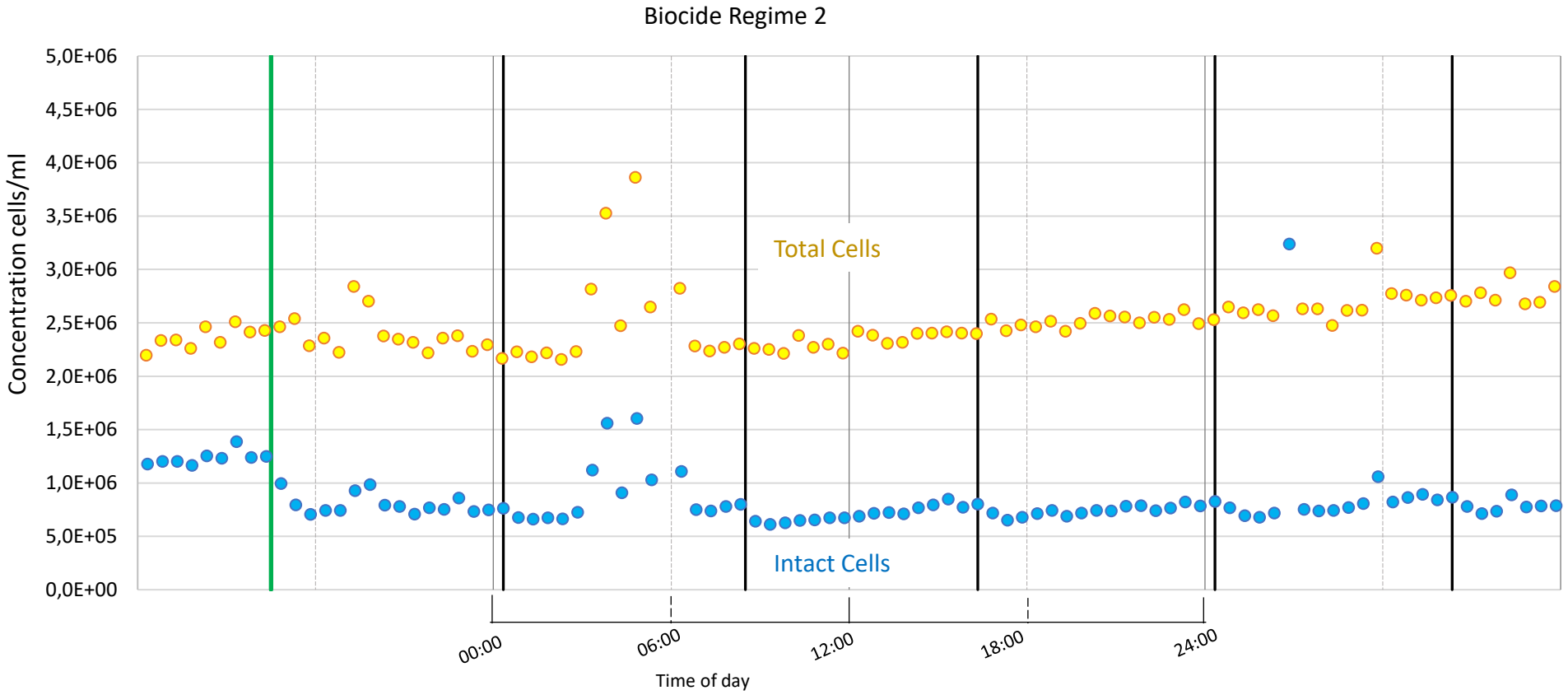
Customer example Pulp & Paper



Customer example Cooling water



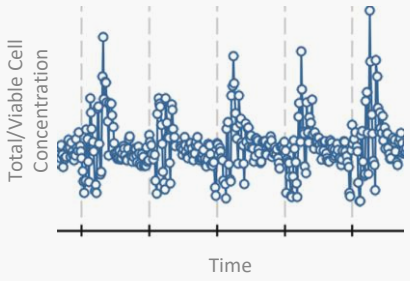
Customer example Cooling water



Detection principle: automated flow cytometry

Critical control point

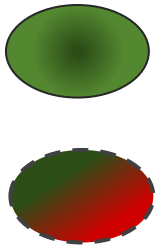
YOUR SHORTCUT

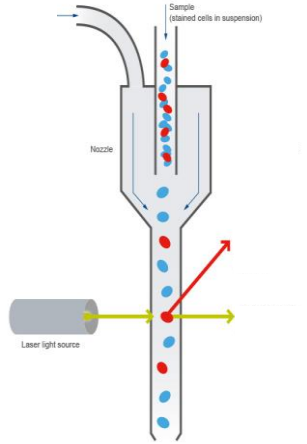


Actionable information

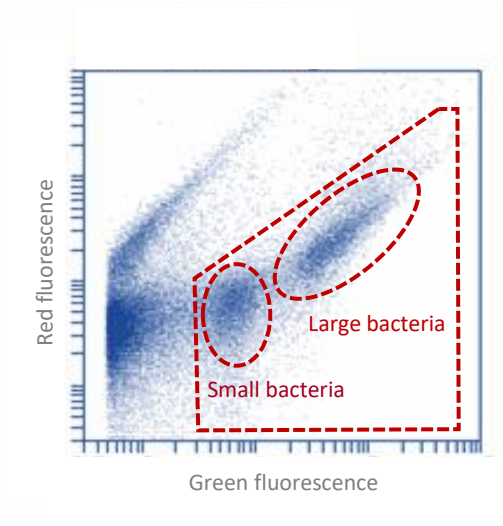
Frequent sampling

Automated marking of cells





Rapid detection



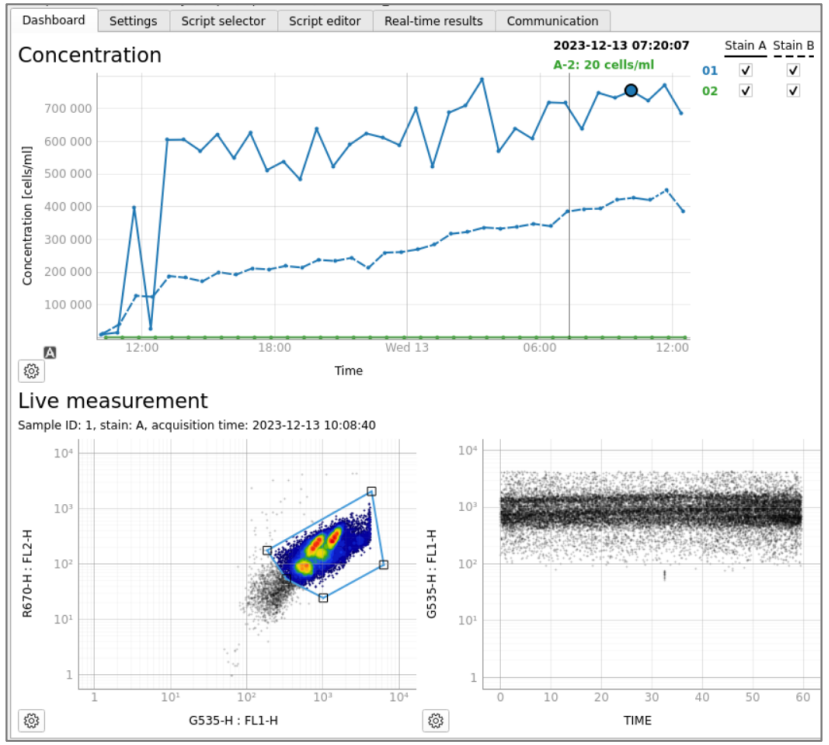
Standardised data analysis

Our products

OC-300 Automation add-on

- ✓ Automation add-on for use with lab flow-cytometer
- ✓ High-flexibility and configurability

Software suite



OC-400 MicroQuant

- ✓ Fully integrated system
- ✓ Automated and easy to use
- ✓ 15min sampling
- ✓ Multiple samples in parallel

onCyt

Thank you for your time and interest!

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UFZ HELMHOLTZ Centre for Environmental Research

PROMICON

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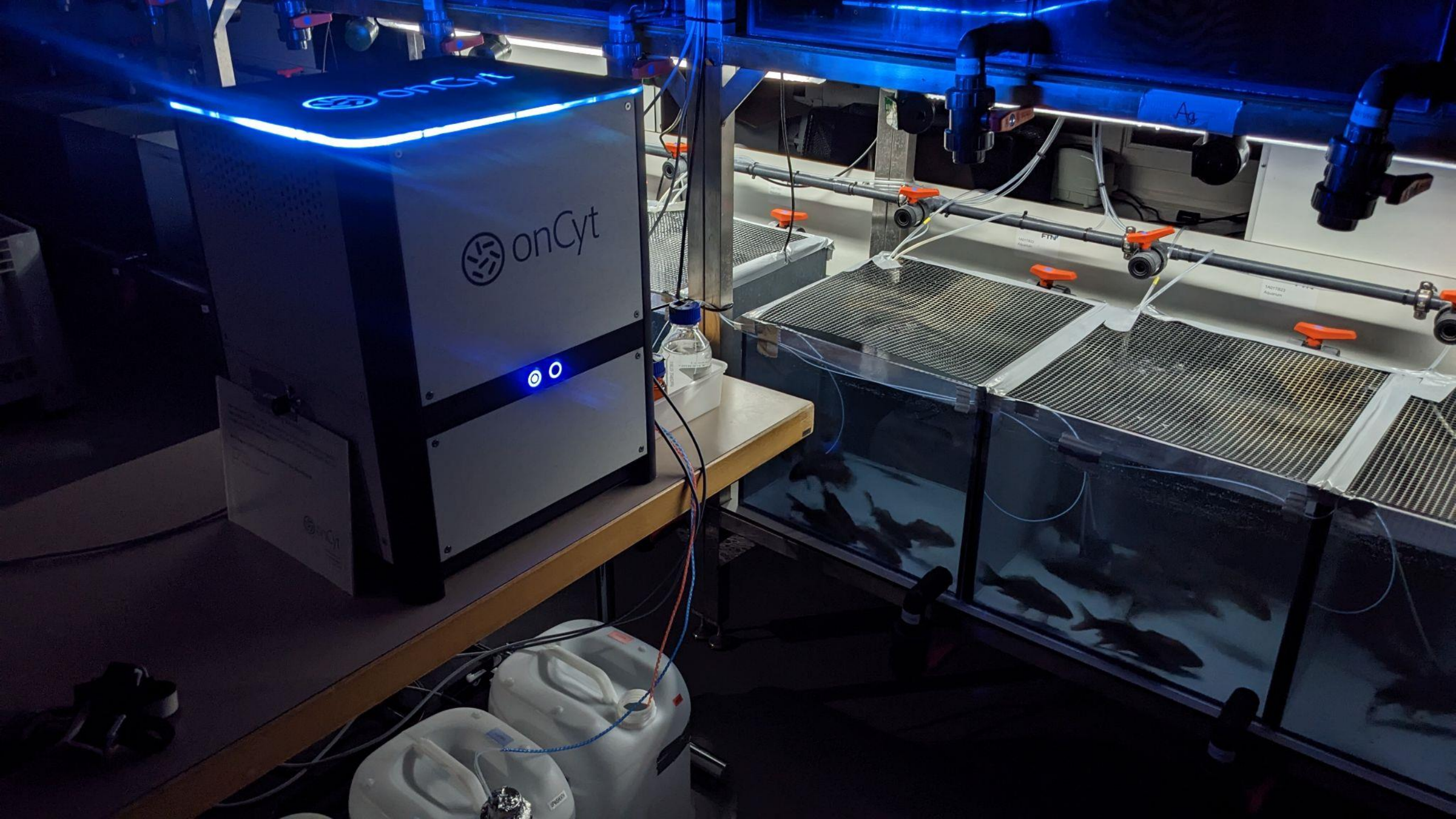
Development of an Automated Online Flow Cytometry Method to Quantify Cell Density and Fingerprint Bacterial Communities

Juan López-Gálvez , Konstanze Schiessl, Michael D. Besmer, Carmen Bruckmann, Hauke Harms and Susann Müller

This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000733.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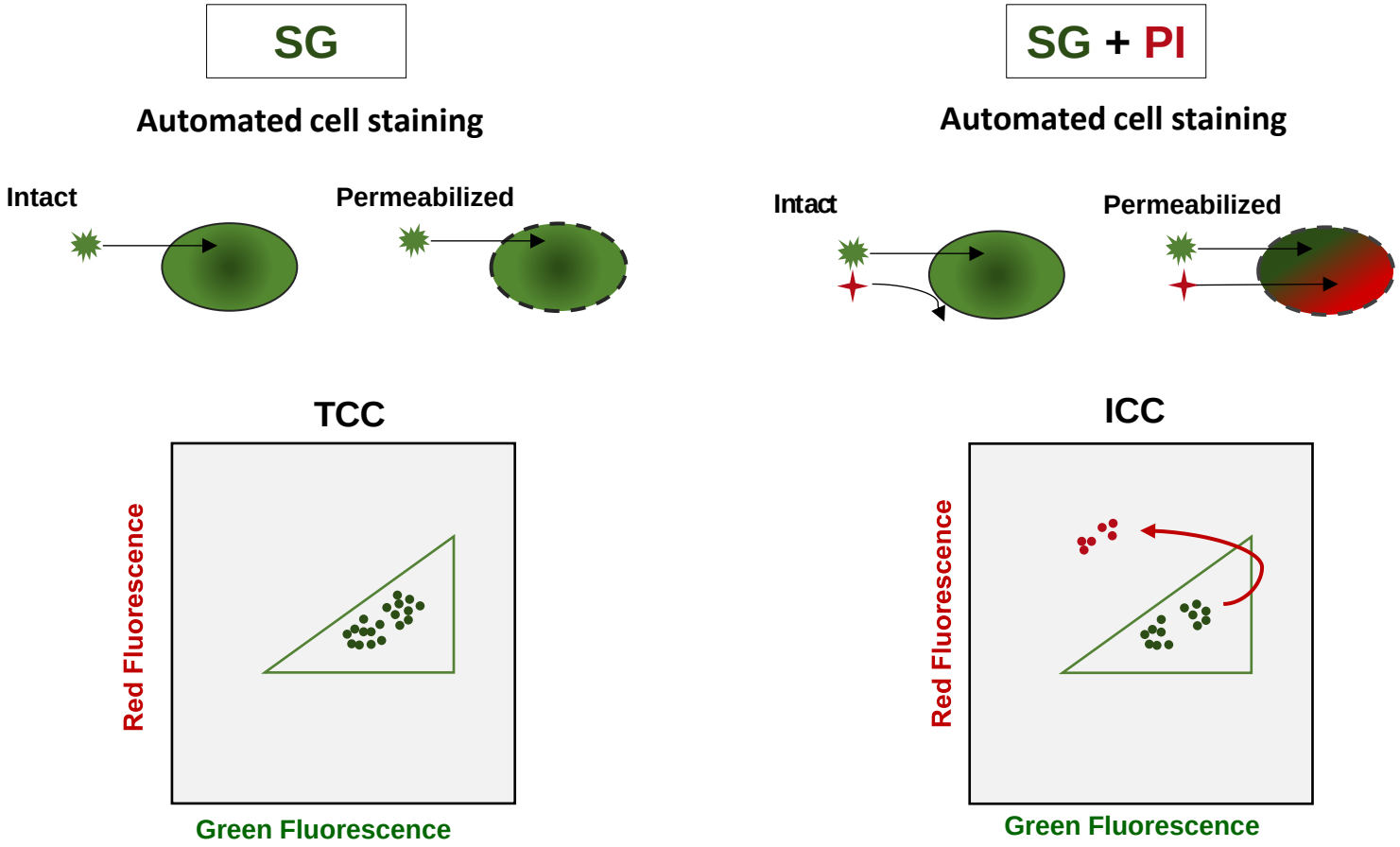
Total and Intact Cell Concentration



TCC= Total Cell Concentration (SG)

ICC= Intact Cell Concentration (SGPI)

Customer example Probiotics