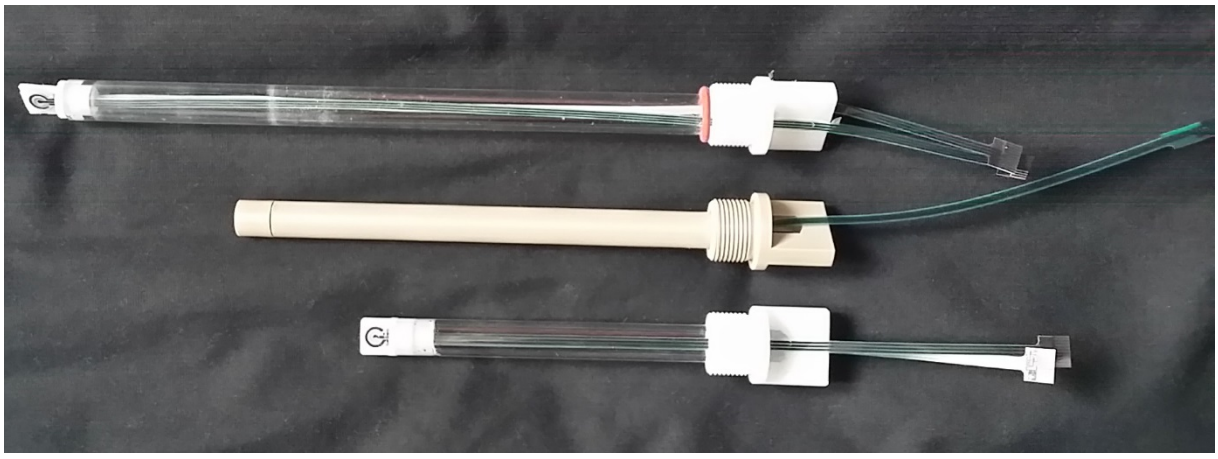
glucoCell™ project

Development, prototype manufacturing and testing of cost-effective single-use sensors for on-line measuring of glucose and lactate in bioreactors for cultivation of eukaryotic cells such as human and mammalian cells.

The vision of this project, **glucoCELL**, is to:

- develop and produce series of small foot-print Single-Use-Bioreactors capable of obtaining extreme high cell densities >1x10E+08 cells/ml over >30 days cultivation. The bioreactor does not contain extractables or leachables, and able to demonstrate minimum 20-50 times higher productivity of safe biologics than state-of-the-art techniques and products using suspension cells.
- develop a Single-Use-Sensors in standard PG13.5 size capable of measuring on-line the highly important process parameter; glucose and lactate

Most biopharmaceutical productions involving products facing cyclic demands, such as vaccines, as well as most CMOs, contract manufacturing organizations, with the need for flexible production of different biologics with quick turnarounds, are heavily transitioning from production in fixed glass/steel reactors to production using disposable bags in an effort to address capacity bottlenecks as well as eliminate extensive regulatory work associated with cleaning and sterilization.
The pharmaceutical process industries uses of sensors are vastly dominated by the use of standard PG13.5 dimension re-usable sensors suitable for SIP, CIP and autoclavable. A single-use PG13.5 dimension glucose and lactate sensor does simply not exist.



Project partners:

- Stobbe Tech, Denmark – www.stobbe.com
- C-CIT, Switzerland - www.c-cit.ch
- Zurich University of Applied Sciences, Switzerland - www.ibt.zhaw.ch

Title: “Single-use glucose sensors for bioreactor”

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www.eurostars-eureka.eu

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