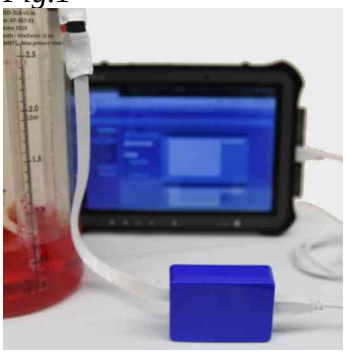
Fig.1

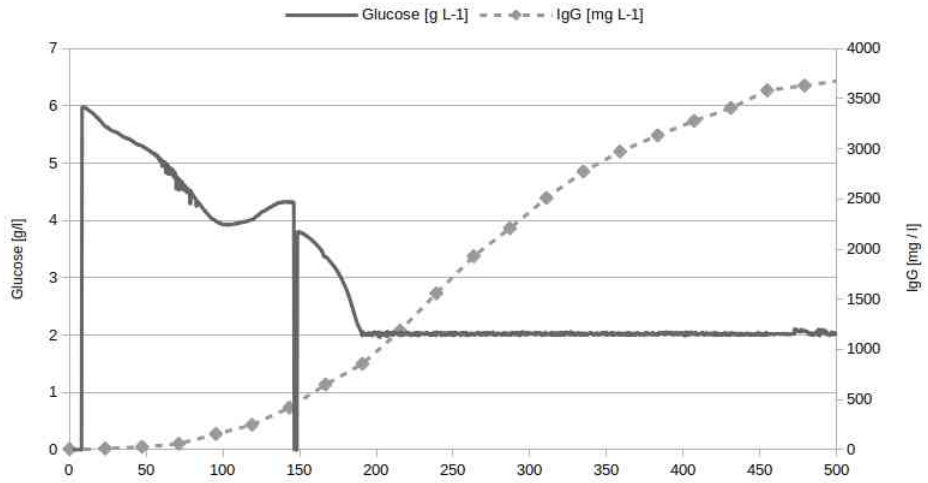


One of our customers at the Centre for Biochemical Engineering and Cell Cultivation Techniques, ZHAW in Switzerland used our in situ Glucose sensor to monitor and control a continuous IgG production process based on perfusion.

For this purpose they cultivated ExpiCHO cells in Finesse SmartGlass 3 L with 2 L working volume over a period of 21 days.
The cultivation started with 6g/L Glucose and was kept stable at 2g/L from day 7 to day 20 using our in situ Glucose sensor and the CITSens MeMo Starter Kit Full Version (Fig.1) with automated process control software.
An Ismatec peristaltic pump was used to realize the automatic feed.

As shown in Fig. 2 the IgG concentration grew steadily throughout the process.

Fig.2



Compared to previous experiments with offline monitoring on a daily base and manual feed, they did save up to 60% in personnel costs while obtaining a comparable IgG product concentration.