

## Pharmaceutical processes control

### KEYWORDS

- On-line monitoring
- Process performance analysis
- Real-time follow-up
- Real-time optimisation

### Technology Market

The technology market to be addressed covers all the aspects of **pharmaceutical processes** including in particular **crystallization** and **bioconversion**.

### The UCL Background

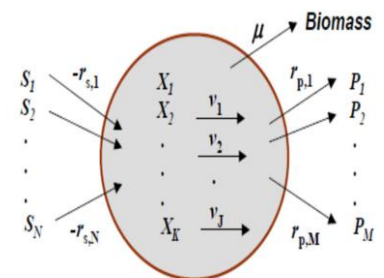
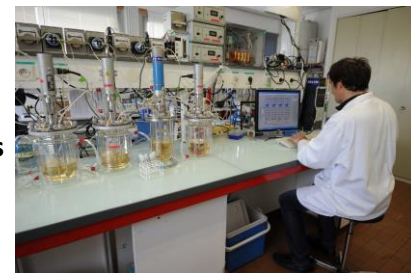
The process control group has over 30 years experience in the **modelling, monitoring** and **control of biological systems**, in particular in the pharmaceutical industry with application related to **animal cell culture** or **vaccine production** but also related to **crystallization**.

As a matter of example, metabolic engineering tools are considered to emphasize the key elementary fluxes within animal cells, while the control of vaccine production has been achieved via a process control tool whose design takes advantage of the inherent behaviour of the underlying biological process.

### The UCL collaboration offer

The process control group proposes the development of

- **process performance analysis tools** via the use of fully validated predictive process models,
- **on-line monitoring** adapted to provide a **real-time follow-up** of key process components that are not available for on-line measurement
- **real-time optimisation** of the plant and the different processes involved in the plant.



A general representation of reactions considered in a metabolic network.

### Technology Status

**TRL 5 : technology validation in relevant environment**

### Preferred partnership

Collaborative projects

Development of the technology



**INTERESTED TO COLLABORATE AND CO-DEVELOP THIS TECHNOLOGY?**

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