

## Growing and Harvesting of Bacteria



To understand the role of some genes in mutation rates and bacterial evolution, the INSERM Unit U571 of the Necker medical university in Paris, France, specialized in bacterial genetics, performs a competition application between wild type and genetically modified bacteria (E.Coli). These bacteria are cultivated on LB medium and exposed to stress from 3 days to one week and their growth is measured everyday by counting their colonies on Petri dishes.

Chemostats are used for growing and harvesting the bacteria. The flow of growth medium and culture are kept constant in order to run a controlled experiment with a known and well-defined population dynamic.

To obtain a constant flow rate, Mr Mosser, assistant research engineer, uses the Minipuls evolution. The pump constantly brings the medium for 3 to 7 days, at 400µL/min to 3 chemostats through silicone tubing fitted on the MF4 pump head of the Minipuls evolution. At the end of the application, this pump is also used for cleaning and rinsing the vessels.

*“The Minipuls evolution is easy to use: from its large keypad to the possibility of replacing tubing even while in operation, everything is simple and quick to do with this pump... If more chemostats have to be fed, it will be convenient to add another pump head to the Minipuls evolution.”*

Mr MOSSER, assistant research engineer,  
Necker medical university, Paris, France.



Required Minipuls evolution products	Reference
Minipuls evolution - speed control module	F110701
MF4 pump head	F110706
Silicone tubing, 1.0mm internal diameter	F1825112

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