

iGEM report week 8-12/09

September 12, 2008

1 Wet Lab

A lot of progress has been made:

- the input device has been assembled
- the output device has been assembled
- input and output have been put together on one plasmid
- more ligations have been done (see

There were some very good results. The output device resulted in fluorescent colonies. Even more, the colonies provided with tagged GFP showed—at first sight—less fluorescent colonies compared to the non-tagged ones. This hints towards a working LVA tag.

There also were some bad results. The bacteria with the input–output part is supposed to show no fluorescence, as the input represses the output, and fluorescence should occur when anhydrotetracyclin (aTc) is added. However, FACS (http://2008.igem.org/Team:KULeuven/11_September_2008) showed fluorescence, and aTc induction showed no shift in fluorescence intensity. Obviously, something is wrong.

- The fluorescence in absence of aTc could be explained by the delayed production of Tet repressor compared to the production of GFP. This could be overcome by using a stronger RBS in the input part: **BBa_B0034** (relative efficiency 1) instead of **BBa_B0032** (relative efficiency 0,3).
- The absence of reaction to aTc could be explained by an mistake in the input part. It is, for instance, impossible to see whether there is a promoter actually ligated to that part only using gel electrophoresis. A sequence analysis should give certainty about this.

Also, the T7 RNA polymerase with UmuD-derived tag just won't work. All PCR's up to now gave bad and/or wrong result.

2 Dry lab

2.1 Human Practice

More working on Human Practice and Ethics. A draft for a complete text is almost finished, we will continue working on it, there is no hurry for this.

2.2 Wiki

Wiki layout and css stuff are now finished. IE fixes have been done, enjoy to look around and do not hesitate to write something in the Guestbook (<http://2008.igem.org/Team:KULeuven/Guestbook>).

3 Modeling

Two interesting toolboxes have been made. They are both based on the Symbiology Toolbox of MatLab and freely available on our wiki. They are made to be idiot-proof and have a GUI. We hope be in the running for a Bronze/Silver/Gold Mousepad for this work.

3.1 Multi-cell Toolbox

A toolbox for working with multi-cell models. Download and documentation on <http://2008.igem.org/Team:KULeuven/Software/MultiCell>.

3.2 Symbiology2LaTeX Toolbox

A toolbox for exporting ODE's from the MatLab Symbiology Toolbox to \LaTeX -code. Download and documentation on <http://2008.igem.org/Team:KULeuven/Software/Simbiology2LaTeX>