Minutes of the 28th iGeM meeting 17/09/2010

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Supervisors: Andy Oates

A short meeting during which the financial situation was clarified and some aspects of hexanoyl-ACP production and detection were discussed

Organisation:

- 1. Next meeting Monday, September 20 at 16:30, MPI
- 2. The working financial scheme was clarified to us by Andy, eliminating some recent reasons for concern among IGEM members. The reason for some ambiguities was in no case the unwillingness to support our project (even the opposite) but rather some technical issues. Conclusion: the team can spend the amount of money it needs, of course within reasonable limits.
- 3. Thanks to Andy now we got an invitation for staying longer in US and having the opportunity to visit some more places

Project:

1. The approaches for acyl-ACP synthesis and detection were discussed. Regarding the synthesis enough kinetic data and parameters (cofactors, ph, incubation times) are available in the literature from which we would be able to design the conditions for our reaction.

As a first detection approach to monitor the success of the reaction it was proposed to use the enhanced migration abilities of acylated derivatives of ACP versus apo-ACP during SDS-PAGE (this is due to increased SDS binding to the hydrophobic acyl group). This can be done in parallel with running a native gel where the migration pattern in this case will depend on the mass. Other quantitative detection methods might be applied in addition (HPLC combined with absorption measurements, mass spectrometry). Another approach to test the system would be to combine it with the recombinant LuxI protein. Synthesis of AHL would prove that both the protein is functional and the acyl-ACP has been synthesized. For more details see the document sent around to the mailing list.