

Programme of the 3rd P4EU meeting at the EMBL Heidelberg

Wednesday, 12 December 2012 (optional):

19.00 or later Hot wine at the Christmas market in Heidelberg

Thursday, 13 December 2012:

12.00 - 13.00 Lunch at the EMBL canteen

13.00 - 13.20 Welcome address *Hüseyin Besir*

13.20 - 13.45 Parallel Construction of multi-tag vectors for expression
screening in E. coli *Louise Bird*

13.45 - 14.10 Increasing screening throughput: small scale expression
in E.coli to crystal hits *Nicola Burgess-Brown*

14.10 - 14.35 Cold-expression of cool proteins *Gro Bjerga*

14.35 - 15.00 Optimization of protein expression by small scale
expression screening *Arie Geerlof*

15.00 - 15.25 HTP protein production with HTP protein-protein protein-
peptide or protein-DNA interaction studies *Renaud Vincentelli*

15.30-16.00 **Coffee break**

16.00 - 16.25 HCD fermentation and SLIC cloning *Sabine Suppmann*

16.25 - 16.50 VIB FastScreen technology for parallel expression of
proteins in Escherichia coli and more *Jurgen Hastraete*

16.50 - 17.15 The production of a protease catalytic domain for
selection of a therapeutic antibody *Andreas Hein*

17.15 - 17.40 Refolding of NK cell lectin receptors: successes, failures *Ondrej Vanek*

17.40 – 18.05 Co-translational expression of difficult proteins in
presence of stabilizers *Frank Bernhard*

~19.00 – 21.30 **Dinner on ATC roof-top lounge**

Friday, 14 December 2012:

9.00-11.00 Open discussion, part I

HTP methods for production in E. coli (costs, challenges, one system for all or individual solutions?)
Case studies of difficult protein expression and how it was overcome with regard to protein complexes.
Synthetic genes or gene optimization - is it worth it ?
Selection of strains,
Alternative tags,
Membrane protein expression and purification: a routine service?
Periplasmic secretion
Related to prokaryotic expression: aeration of cultures, production medium, incubation vs fermentation, strains, vectors, refolding, ...
HTP cloning and expression
Quality control (SLS-SEC, DLS),
Benchmarking
HTP automated purification systems (Atoll, PhyTips, etc.)
Optimizing cleavage by TEV
Co-expression systems for E. coli
Phage contaminations
difficult protein - overcome case study
refolding case study (a home-made screen was compared to i-fold)
New protocols, products (instruments, reagents) tested

11.00 - 11.30 Coffee break

11.30 - 13.00 Open discussion, part II

Topics see above...

13.00 - 14.00 Lunch break

14.00 - 15.00 Wrap-up, future plans, End of meeting