

Oral Presentation

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Expression of soluble and membrane proteins in *E. coli*

A James Link*, Ki-Jun Jeong and George Georgiou

Address: Institute for Molecular and Cell Biology and Department of Chemical Engineering, University of Texas, Austin, TX 78712, USA

* Corresponding author

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Our lab has developed a number of tools for enhancing the expression of soluble secreted protein as well as membrane proteins in bacteria. Specifically: (1) We have explored mutagenesis/screening and also host cell engineering strategies for the expression of mammalian and prokaryotic membrane proteins. This work has led to the development of simple approaches that can be used to obtain significantly increased yields of membrane proteins in *E. coli*. (2) Developed a high through strategy relying on flow cytometry for the isolation of mutant proteins exhibiting enhanced expression from combinatorial libraries. This latter technology has been used for the expression maturation of scFv and FAB antibody fragments.

Representative results illustrating the power of these methods will be discussed.