

**P002** High-throughput system for protein expression and purification in insect cells  
**Kathryn Loomis, Keith Yaeger, Alla Zilberman, Robert Novy**  
*Merck Biosciences, 441 Charmany Drive, Madison WI, USA*  
53719

Researchers dealing with high-throughput (HT) expression screening face the fundamental challenge of trying to rapidly identify the appropriate expression system for many targets in parallel. The focus has traditionally not involved insect expression systems due to their complexity and time-consuming protocols. However, insect cell systems provide an efficient means for expressing proteins that require specific post-translational modifications to retain solubility and activity. To facilitate rapid expression and purification in *Spodoptera* insect cells (Sf9, Sf21), we developed the InsectDirect™ System which is comprised of transient expression vectors, a high efficiency insect cell transfection reagent, and automation-compatible fusion protein purification system.