

Awarded Projects 2008-2009 Competition



VLP Express: a novel, high-throughput technology to accelerate the discovery and development of new vaccine antigens based on Virus-Like Particles (VLPs)

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Breakthroughs in technology as well as increased interest and funding are spurring a boom in vaccine research and development. The emergence of new technologies based on Virus-Like Particles (VLPs) is paving the way for a new generation of vaccines with improved efficacy and greater potential to address unmet medical needs.

The primary goals of the VLP Express project are: 1) to accelerate the vaccine discovery process and 2) to increase efficacy of vaccine candidates. These goals will be achieved by developing a platform to rapidly express, purify and test vaccine antigens presented as VLPs. This research project will be carried out in partnership between two private companies and two university-based research groups. It will combine: the advantages of a transient expression technology to rapidly express and produce target VLPs (Medicago) with expertise in process automation (SNC-Lavalin Pharma), VLP purification (Laval University) and pre-clinical evaluation (McGill University).

The deliverable of this project is a fully operational discovery platform that can accelerate vaccine development by reducing time and costs to screen and validate candidate antigens. This platform will also improve vaccine efficacy through the optimization of their presentation using VLPs.

Co-investigators :

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