



PRESS RELEASE

Particle Sciences Develops Wax Nanoparticles that Enhance Immune Response to Antigens

BETHLEHEM, PA Dec 22, 2010 Particle Sciences Inc. (PSI), a leading pharmaceutical CRO has formulated a series of wax nanoparticles that, when coupled with an antigen, enhanced its immunogenicity, increasing both systemic and the mucosal immune response. The work is described in *Vaccine*, 2010 Dec 8 in an article titled “Carnauba wax nanoparticles enhance strong systemic and mucosal cellular and humoral immune responses to HIV-gp140 antigen”.

In the paper, it is shown that by charge coupling the antigen with the wax nanoparticles, intradermal vaccination resulted in high levels of specific IgG response equal or greater than that of traditional adjuvants. Additionally, intranasal vaccination with antigen coupled wax nanoparticles induced a significant mucosal response. By themselves the wax nanoparticles are non-inflammatory.

The experimental work was performed at the Division of Clinical Sciences, St Georges University, London and lead by Dr. Mauricio Arias.

According to Dr. Andrew Loxley, Particle Sciences Director of New Technologies, “While these are preliminary experiments, the data is very encouraging and we are hopeful this approach can be exploited in the creation of more effective and affordable vaccines”. Dr. Loxley also notes, “The wax nanoparticles are stable to storage and easily and affordably produced”.

Particle Sciences is an integrated provider of drug development services. Particle Sciences focuses on emulsions, gels, nano and micro-particulates and drug/device combination products with a focus on API's with difficult solubility profiles. Through a full range of formulation, analytic, and manufacturing services, Particle Sciences provides pharmaceutical companies with a complete and seamless development solution that minimizes the time and risk between discovery and the clinic. The company was founded in 1991 and is headquartered in Bethlehem, Pennsylvania. Visit www.particlesciences.com, email info@particlesciences.com or contact us at (610) 861- 4701 for information.

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