



# PARTICLE SCIENCES

DRUG DEVELOPMENT SERVICES

## PRESS RELEASE

### **Particle Sciences Develops Zero-Order-Release Combination Device Technology**

*Bethlehem, PA, August 26, 2008* -- Particle Sciences Inc. today announced the development of their "Microreservoir" technology enabling the manufacture of drug-eluting polymer medical devices that release drugs at constant rates over 30 days or more. This technology has already been used by Particle Sciences to develop drug eluting vaginal rings. "Drug release from polymeric materials often follows a burst/first-order kinetic profile which may not be clinically desired," explained Andrew Loxley, Director of New Technologies. "Traditionally the burst effect has been reduced by confining the API to a reservoir within the device, but this adds complexity and cost to production," he added. In their approach, Particle Sciences' scientists first encapsulate the drug in polymer microparticles before blending with the polymer used to make the final product. Robert Lee, VP of Pharmaceutical Development commented, "Microencapsulating the drug enabled the use of simple molding processes to fabricate devices containing tens of thousands of "microreservoirs", and the devices exhibit constant drug release profiles equivalent to traditional reservoir devices. This approach greatly simplifies production and adds tremendous flexibility to both single and multi-drug devices". Particle Sciences sees broad utility for this proprietary technology, which is applicable to polymer devices, films, coatings and other polymeric structures from which drugs or other materials are to be released at a constant rate. For more information on Particle Sciences, visit [www.particlesciences.com](http://www.particlesciences.com).

*Particle Sciences is an integrated provider of drug development services. Particle Sciences focuses on emulsions, gels, particulates and drug/device combination products with additional specialized capabilities in topical and mucosal drug delivery. 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.*

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