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**FOR
IMMEDIATE
RELEASE**

**APHIOS AWARDED UNITED STATES PATENT FOR
POLYMER DRUG DELIVERY NANOTECHNOLOGY PLATFORM**

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Woburn, Mass. – June 23, 2010 – Aphios Corporation today announced that it was awarded United States Patent No. 7,708,915 B2 for “Polymer Microspheres/Nanospheres and Encapsulating Therapeutic Proteins Therein,” granted May 04, 2010. This invention is an improved process to formulate polymeric microspheres and nanospheres, and encapsulate therapeutic proteins or other useful substances, and a polymer microspheres/nanospheres apparatus. This invention also entails methods of purifying protein-containing polymeric microspheres/nanospheres from unused polymer and an apparatus therefore.

Conventional large-scale production of polymeric microspheres utilizing numerous processing steps and large quantities of organic solvents is very time consuming, costly and inefficient. In addition, the exposure of therapeutic agents to organic solvent adversely effects protein integrity and bioactivity. The uniformity and integrity as well as processing time and the cost associated with preparation of biodegradable polymer microspheres containing therapeutic products are greatly reduced by using supercritical fluids, critical or near-critical fluids with or without polar cosolvents [SuperFluids™].

In our process, a biodegradable polymer such as PLGA is dissolved in SuperFluids™ and mixed with the target therapeutic in solution or as a slurry of nanoparticles at operating pressures. The mixture is then decompressed through a nozzle into an aqueous solution, liquid nitrogen or an empty vessel (spray dryer). Polymer nanospheres are formed encapsulating the protein therapeutics. Alternatively, the polymer-enriched SuperFluids™ stream can be decompressed into an aqueous solution containing the target therapeutic agent. In addition to reduction or elimination of organic solvent usage, use of SuperFluids™ for making nanospheres imparts advantages of no residual toxic organic solvent and pathogen safety.

SuperFluids™ polymer nanospheres (PNS) process can be utilized to encapsulate therapeutic proteins and other molecules without utilizing organic solvents as is traditionally done. By changing nozzle design and process parameters, the process can also be utilized to manufacture polymer microspheres. SuperFluids™ PNS is a single-step process that is readily scalable. SuperFluids™ PNS can be utilized for improving the oral bioavailability of peptides and proteins, depot delivery of peptides and proteins for sustained, controlled release and the subcutaneous and/or oral delivery of sensitive vaccine antigens.

Aphios® Corporation (www.aphios.com), Woburn, MA is a “green” biotechnology company developing enabling technology platforms for improved drug discovery and manufacturing, nanotechnology drug delivery and pathogenic drug safety. Using these enabling technology platforms, Aphios and its collaborators are developing enhanced therapeutics for health maintenance, disease prevention and the treatment of certain cancers, infectious diseases and Central Nervous System (CNS) disorders.