

Developing Best-in-Class Medicine, Improving Lives,*

A.P. Pharma and Merial Enter into Worldwide Agreement

September 15, 2009

- Merial to develop pain management product using A.P. Pharma's Biochronomer™ polymer technology -

REDWOOD CITY, Calif.--(BUSINESS WIRE)--Sep. 15, 2009-- A.P. Pharma (Nasdaq:APPA), a specialty pharmaceutical company, today announced that it has entered into a license and development agreement with Merial, a world leading animal health company, for a long-acting pain management product. The product, which contains an undisclosed analgesic, uses A.P. Pharma's BiochronomerTM technology to provide sustained drug levels and pain relief over several days following a single administration. The product is currently undergoing animal efficacy studies.

The license agreement announced today follows a successful research collaboration between the companies. Under the terms of the new agreement, A.P. Pharma grants Merial a worldwide, exclusive license to the product for use in treating companion animals (cats and dogs). A.P. Pharma will receive an undisclosed upfront payment, development funding and potential future milestones that are in addition to royalties following commercialization.

"A.P. Pharma's collaboration with Merial allows us to work with one of the world's leading animal health companies as we seek to expand the application of our Biochronomer technology into the field of veterinary medicine," said Ronald Prentki, A.P. Pharma's President and CEO. "We are hopeful that, through our efforts with Merial, we will not only provide veterinarians with an important new approach to managing pain in companion animals, but also that this effort will prove to be synergistic with our other pain management programs for humans."

"A.P. Pharma's Biochronomer technology provides us with an exciting opportunity to develop a new therapy for treating pain in companion animals," said Peter Selover, Merial's Vice President of Business Development. "We have high expectations for the application of this pain management product and look forward to our continued efforts with the A.P. Pharma team as we develop this program forward to commercialization."

About A.P. Pharma

A.P. Pharma is a specialty pharmaceutical company developing products using its proprietary Biochronomer[™] polymer-based drug delivery technology. The Company's primary focus is on its lead product candidate, APF530, for the prevention of CINV. The NDA for APF530 was submitted in May 2009 and accepted for review in July 2009, at which time the FDA set a Prescription Drug User Fee Act (PDUFA) date of March 18, 2010. The Company has additional clinical and preclinical stage programs in the area of pain management, all of which utilize its bioerodible injectable and implantable delivery systems. For further information, visit the Company's web site at <u>www.appharma.com</u>.

A.P. Pharma's Forward-looking Statements

This news release contains "forward-looking statements" as defined by the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve risks and uncertainties, including uncertainties associated with timely development, approval, launch and acceptance of new products, satisfactory completion of clinical studies, establishment of new corporate alliances, progress in research and development programs and other risks and uncertainties identified in the Company's filings with the Securities and Exchange Commission. We caution investors that forward-looking statements reflect our analysis only on their stated date. We do not intend to update them except as required by law.

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