



For Immediate Release

A.P. Pharma Announces Additional Restructuring Effort

REDWOOD CITY, Calif. – May 29, 2009 -- A.P. Pharma, Inc. (Nasdaq: APPA), a specialty pharmaceutical company, today announced that it has implemented a reduction of its staff representing approximately 34% of its work force. The actions are being taken to allow the Company to provide the resources needed to continue advancing its lead program, APF530, towards regulatory approval and commercialization. APF530 is a long-acting formulation of granisetron that utilizes the Company's proprietary Biochronomer™ drug delivery system. The New Drug Application (NDA) for APF530 was submitted earlier this month for the prevention of chemotherapy-induced nausea and vomiting (CINV).

"A.P. Pharma's recent NDA submission for APF530 was the result of the dedication of our entire team, making this reduction in our work force even more difficult," said Ronald J. Prentki, A.P. Pharma's president and chief executive officer. "Considering the continuing challenges of today's economic environment, it is necessary for us to make additional reductions to our staff as we focus the Company's resources on working towards approval of APF530 in the first half of 2010. I want to extend my thanks and gratitude to our departing colleagues and wish them the very best in their future endeavors."

The Company expects one-time costs associated with this headcount reduction to be approximately \$350,000, which will be recorded in the second quarter of 2009. The headcount reduction included 11 employees and is a continuation of the organization's commitment to cash preservation, initiated last fall.

About A.P. Pharma

A.P. Pharma is a specialty pharmaceutical company developing products using our proprietary Biochronomer™ polymer-based drug delivery technology. Our primary focus is on our lead product candidate, APF530, which has completed a pivotal Phase 3 clinical trial for the prevention of CINV. An NDA for APF530 was submitted in May 2009. 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, please visit the Company's web site at www.appharma.com.

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.

Contacts

Corporate Contact:

A.P. Pharma, Inc.

John B. Whelan, Vice President, Finance and Chief Financial Officer
650-366-2626

and

Investor and Media Relations:

Corporate Communications Alliance, LLC
Edie DeVine
209-814-9564

###