PHOSPHAGENICS

15 April 2005

The Manager
Company Announcements Office
The Australian Stock Exchange

Dear Sir

re : **Phosphagenics Limited**

Animal trials show new patented drug significantly reduces the leading cause of heart disease

The Board of Directors is pleased to announce the successful completion of an animal trial demonstrating that the Company's new patented drug, APA-01, can greatly slow or prevent the development of atherosclerosis, the leading cause of heart disease in the western world.

Attached for release to the market as part of this announcement is a copy of a media release to be made by the Company.

For further information contact:

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Yours sincerely
Phosphagenics Limited

per Mourice Garbutt
Company Secretary
p\asx\animal trials

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For immediate release

15 April 2005

Animal trial shows new patented drug significantly reduces the leading cause of heart disease

ASX and AIM listed Phosphagenics Limited ("Phosphagenics") today announced the successful completion of an animal trial demonstrating that its new patented drug, APA-01, can greatly slow or prevent the development of atherosclerosis, the leading cause of heart disease in the western world.

Atherosclerosis is a common and progressive disease of the arteries, especially the aorta, that leads to the formation of plaque and consequently to diseases such as angina, heart attack (myocardial infarction), stroke and dementia.

The findings in the animal study are a significant milestone in the development of the drug APA-01 as a treatment for heart disease. It is the first indication that the extremely positive results previously obtained by Phosphagenics in extensive *in vitro* trials can be duplicated in an animal model.

The study forms the first arm of multi-national research collaboration currently under way in Switzerland, USA, and Australia. These studies, being conducted by Phosphagenics, are headed up by Professors Angelo Azzi, (University of Berne and Tufts University, Boston) and Ishwalal Jialal (University of U. C. Davis, Sacramento).

The multi-national animal trial comprises three arms.

The first arm, now completed, was designed to determine whether APA-01 could prevent the development of atherosclerosis. The second arm will investigate whether the drug can reduce and treat existing atherosclerotic plaques, initially in animals and then in humans.

The third arm of the animal study will focus on the ability of APA-01 to improve the absorption and efficacy of statins. Statins, which reduce cholesterol and thereby the risk of cardiac disease, are the world's largest selling drugs with sales exceeding US $26 billion annually. However, most statins are poorly absorbed by the body.

The first arm of the multi-national study examined the ability of APA-01 to prevent the development of atherosclerosis in rabbits. Rabbits were divided into two groups and fed a very high cholesterol diet for four weeks.

One of the groups was administered APA-01 on a daily basis from the commencement of the study while the second group did not receive the drug.

Rabbits administered the Phosphagenics drug had about 60% fewer plaque lesions in their arteries compared to the rabbits that were not given the drug. Additionally the rabbits that were given APA-01 had a 30 % reduction in the expression of CD 36 receptors. These receptors are responsible for lipid uptake and deposition of cholesterol in arteries.

Dr Esra Ogru, Vice President Research & Development, said, "the reduction in the expression of the CD 36 receptor is an important finding as it indicates that the drug may have application for many diseases that are caused by inflammation."

Dr Ogru added, "Good results achieved in *in vitro* studies, do not necessarily translate into similar results in animals. The fact that the results obtained in a well established animal model commonly used in atherosclerosis studies were so impressive bodes well for human studies that are aimed to commence later this year".

The second arm of the study is well underway. The third arm has also commenced.

"We do not expect the various arms of the study to be completed before the end of the third quarter of 2005. With the good results that we have obtained, the trial has been extended several times to look at different variables." said Dr Ogru.

The third arm of the study potentially has great commercial significance for Phosphagenics. Several of the largest selling statins will shortly be coming off patent. As such many of the drug companies are seeking extensions of their patents and perceive that this may be achieved by combining them with other drugs.

The combination of statins with APA-01 falls into this category. "Based on the correlation between the laboratory results and the animal trial, we are very optimistic about the third arm of our study", said Dr Ogru.

"APA-01, when mixed with a well known statin produced laboratory *in vitro* results that indicate a substantial enhancement of the effectiveness of the statin."

In the US alone, an estimated 14 million people are diagnosed with heart disease, the majority of which suffer from atherosclerosis. Around a million of those die from heart attacks each year with annual costs associated with that disease estimated to be around US $100 billion.

In Australia, estimated costs of heart disease amount to $4 billion. There are no commercially available drugs that treat atherosclerosis directly, with most drugs designed to treat the risk factors associated with heart disease, such as lowering cholesterol or blood pressure, rather than the disease itself. APA-01, a unique anti-inflammatory agent, will treat atherosclerosis directly.

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For further information, contact Dr Esra Ogru, Vice-President Research and Development on 61 3 9605 5900 or 0402 080 846