

## **PRESS RELEASE**

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# **Cytopia nominates JAK2 clinical candidate for myeloproliferative disorders**

***Clinical study to commence late this year***

Cytopia Limited (ASX:CYT) has selected CYT387, a selective and potent JAK2 inhibitor, for formal preclinical development to treat myeloproliferative disorders (MPDs). This follows extensive laboratory experimentation and includes the recent demonstration of activity in an in-vivo model of myeloproliferative disease.

Myeloproliferative disorders are a group of diseases including myelofibrosis, polycythemia vera (PV) and essential thrombocythemia (ET) that affect over 150,000 patients in the USA and more than twice that worldwide. Over 95% of PV cases and over 50% of ET and primary and secondary myelofibrosis cases are believed to be caused by a mutation in the JAK2 kinase enzyme. This renders the kinase permanently active and leads to the overproduction of particular blood cells.

No effective treatments exist for these diseases and untreated progressive disease can lead to leukemia or myelofibrosis.

CYT387 possesses an excellent selectivity profile against a large panel of kinases and other pharmacological targets. It also has excellent pharmacokinetics including oral bioavailability and in preclinical models has a promising safety profile.

CYT387 has also recently shown utility in a well-validated in-vivo model of myeloproliferative disorders in studies in the laboratory of clinical hematologist Michael Deininger MD PhD at Oregon Health and Science University, USA. Results showed a profound resolution of clinical symptoms of MPDs in mice that were dosed orally.

Dr Deininger said, "We are highly encouraged by Cytopia's compound in this model of myeloproliferative disease which clearly indicates significant amelioration of symptoms and disease remission. The favourable data from this animal model augers well for activity of the compound in the clinic."

The compound will now be progressed into formal preclinical studies including IND-enabling toxicology studies. This program will lead to the submission of an Investigational New Drug (IND) application with the US Food and Drug Administration (FDA) in the fourth quarter of 2008. The preclinical development program has already been considered by the FDA in pre-IND reviews, including a face-to-face meeting with FDA reviewers last month.

“The accumulated data for CYT387 clearly indicates that this compound has an excellent potency and safety profile for the treatment of patients with MPDs. We are aggressively progressing this compound through formal preclinical studies with the aim of beginning clinical trials by the end of this year,” said Mr. Andrew Macdonald, CEO of Cytopia.

## About JAK2

The discovery of a specific single activating mutation in the JAK2 enzyme in MPDs in 2005 has focused attention on developing a therapy for these diseases through selective inhibition of JAK2. To successfully address these chronic diseases with a JAK2 inhibitor, the specificity and resultant tolerability profile is a key element of the product profile required for a “best in class” inhibitor.

CYT387 is a specific JAK2 inhibitor with excellent potential for safe and efficacious chronic human dosing. It has been derived from Cytopia’s knowledge of basic biology of JAK kinases, a strong structural biology program that has delivered multiple co-crystal structures of JAK2 complexed with inhibitors, and the subsequent development of an extensive chemical library of JAK2 inhibitors through an integrated computational and medicinal chemistry platform.

Cytopia is developing a suite of JAK2 inhibitors for multiple indications including the treatment of certain cancers, particularly lymphomas and solid tumours where JAK2 has been shown to be up-regulated, and for cardiovascular diseases such as pulmonary hypertension.

## About Cytopia

Cytopia Ltd is an Australian biotechnology company focused on the discovery and development of new drugs to treat cancer. Cytopia conducts its research and development via subsidiaries based in Melbourne, Australia and New York and specialises in discovering new molecules that can inhibit enzymes known as kinases, an exciting new class of drugs.

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