

## **ASX ANNOUNCEMENT**

24 March 2009

### **Structure of protein involved in immune system and cancer solved**

Cytopia Limited (ASX:CYT) today announced that the three dimensional structure of a protein involved in certain cancers and in the immune response has been solved by a group of scientists from Monash University's Protein Crystallography Unit and Cytopia, working with the Australian Synchrotron.

Further details are described in a media release from the Australian Synchrotron which is appended below and can be found online at [www.synchrotron.org.au](http://www.synchrotron.org.au).

For more information please contact:

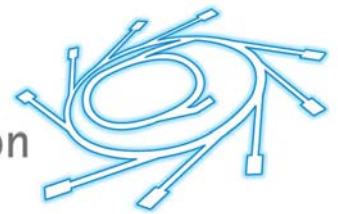
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### **About Cytopia**

Cytopia Ltd is an Australian biotechnology company focused on the discovery and development of new drugs to treat cancer and other diseases. Cytopia conducts its research and drug development through subsidiaries based in Melbourne, Australia and San Francisco, USA and specializes in developing new small molecule compounds with an improved therapeutic profile for the treatment of cancer.

The company's lead drug candidate is CYT997, a vascular disrupting agent (VDA) for the treatment of various cancers, which is currently being trialed in Phase II clinical studies. Cytopia is continuing to build on its range of JAK inhibitors and kinase expertise, with CYT387, a novel oral JAK2 inhibitor focused on the treatment of myeloproliferative disorders, expected to enter Phase I clinical studies in 2009.

Website: [www.cytopia.com.au](http://www.cytopia.com.au)



## Australian Synchrotron works with industry to unlock cancer secrets

Researchers have used the Melbourne based Australian Synchrotron to solve the structure of a crucial protein that affects the immune system and cancer cells.

The protein known as JAK1, or Janus kinase-1, is present in many cells within the body. The protein becomes activated during certain immune responses (e.g. viral infections) and is also overactive in certain cancers like Leukaemia and Lymphoma.

"Knowing the precise structure of the JAK1 protein gives researchers around the world, including ourselves, a precise view on how a drug can be designed to block this protein's activity. This work should have application in improving the properties of a number of experimental anti-cancer drugs," says Dr. Christopher Burns, whose Melbourne based drug development company, Cytopia Research Pty Ltd., collaborated with Professor Jamie Rossjohn and his team at the Protein Crystallography Unit, Monash University.

Victoria's Innovation Minister, Gavin Jennings, welcomes use of the synchrotron for cutting edge business research and development. "It's great to see industry and researchers working together at the Australian Synchrotron to help fight cancer. The Victorian Government has a proud record of forward-thinking investment in infrastructure to support innovative biotechnology industries. When we see results like these, that have such an impact on people's lives, we know we're delivering."

"It's very exciting to see mutual goals' being achieved as a result of industry engagement with researchers using the synchrotron's advanced science techniques. We look forward to seeing more and more collaboration between industry and research groups using the Australian Synchrotron," says Professor Robert Lamb, Director of the Australian Synchrotron.

This work represents one of many protein crystal structures that have been mapped at the synchrotron. This particular protein crystal, discovery by Professor Rossjohn and team, has been published online this month in the peer-reviewed scientific journal; *Journal of Molecular Biology*.

"Drug and medical research is both the largest and most important type of research conducted on the Australian Synchrotron Protein Crystallography beamline. The work allows researchers to understand and drug target proteins and the interactions of lead compounds with those proteins. In turn, this will lead to more affective medicines with less side effects and lower costs," says Dr. Julian Adams, a Principal Scientist at the Australian Synchrotron.

These types of research collaborations at the Australian Synchrotron are paving the way for advanced drug production to combat cancers such as Leukaemia. According to the Australian Leukaemia Organisation, 2009 will see around 9,792 Australians diagnosed with lymphoma, leukaemia and myeloma. That is the equivalent to at least one every hour.

"Designing better drugs to assist in decreasing the prevalence of a disease such as leukaemia, is a very exciting prospect for us. We are expanding our knowledge of how cancers develop and grow by using the advanced technologies available at the Synchrotron. We are now at the final stages of utilising the findings from work at the Australian Synchrotron and allowing a generation of JAK targeted drugs to be trialled," explains Dr. Christopher Burns.

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