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## **MEDIA RELEASE**

**21 October 2004**

### **BREAKTHROUGH FOR ALCHEMIA'S ANTIBIOTIC DRUG DISCOVERY TECHNOLOGY**

We are pleased to report Alchemia has today announced that independent test results have confirmed that its novel class of antibiotic compounds have a unique mechanism of action that could revolutionise the treatment of the most serious hospital-acquired infections.

Cytopia Limited is the largest shareholder in Alchemia with 14.2% of the company.

Mr Mathiou, Cytopia's Finance Director said, "the breakthrough is very encouraging and could prove to be a major value driver for Alchemia".

Interested parties should read Alchemia's press release (ASX code:ACL).

#### **ABOUT CYTOPIA LIMITED**

Cytopia Limited (formerly Medica Holdings Ltd) is an Australian biotechnology company focused on the discovery and development of new drugs to treat cancer, immune disorders and cardiovascular diseases.

Cytopia Limited is a registered Pooled Development Fund and conducts its research and development *via* a subsidiary company Cytopia Research Pty Ltd.

#### **Cytopia Research Pty Ltd**

Cytopia Research specialises in discovering new molecules that can inhibit enzymes known as kinases, an exciting new class of drugs.

It holds a worldwide exclusive license from the Ludwig Institute for Cancer Research to a number of these enzymes known as JAK1 and JAK2 kinases which are over-active in many inflammatory diseases and some cancers. These JAK kinases, which were discovered by Cytopia's Chief Scientific Officer Dr Andrew Wilks, are well-validated drug targets and Cytopia has developed a number of inhibitors with therapeutic potential.

Cytopia applies structure based rational drug design techniques that can accelerate the identification of active molecules and their refinement into drug candidates.

### **Cancer program**

Cytopia's candidate drug has shown efficacy in six *in vivo* animal models of various cancers, including prostate cancer, breast, lymphoma and leukaemia.

Cytopia's candidate has entered formal preclinical testing during which short and long term toxicity will be assessed and clinical grade material will be manufactured. We currently expect the Phase I human trial to be in early 2005 subject to approval by regulatory authorities.

### **Anti-Inflammatory Program**

Cytopia has generated highly specific and potent inhibitors of the JAK3 kinase which is of major interest to pharma companies for the prevention of transplant rejection and treatment of several inflammatory diseases such as asthma, dermatitis, psoriasis and eczema.

A number of pharma companies are either currently evaluating Cytopia's molecules or have expressed an interest to do so.

### **Cardiovascular Program**

Cytopia has entered into a collaborative R&D Agreement with New York-based Myomatrix to explore the use of JAK2 inhibitors to treat a number of cardiovascular problems such as heart failure and pulmonary hypertension. Myomatrix has shown that JAK 2 inhibitors are effective in an *in vivo* model of heart failure.

Cytopia and Myomatrix plan to test one or more of Cytopia's molecules in animal models of pulmonary hypertension and heart failure in calendar 2004.

### **Cytopia's other Assets**

**Xenome Limited** last month gained Investigatory New Drug approval by the US Federal Drug Administration for its novel anti-pain molecule, Xen2174 and a Phase I human trial commenced in July. (Cytopia owns 22.4% of Xenome).

**Alchemia Limited** is ahead of schedule in its development of a generic version of synthetic heparin in partnership with Dow Chemical for manufacturing, and with American Pharmaceutical Products for marketing and regulatory matters. Alchemia has negotiated a 50:50 profit share with both companies.

In addition, Alchemia's VAST™ technology platform has been applied to the discovery of drug leads for cancer and novel antibiotics. (Cytopia owns 14.2% of Alchemia).

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