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## News in Brief...

### New CEO

Keith Blundy succeeds Harpal Kumar as CEO of CRT Ltd.

### Phase 3 Developments

Stimuvax<sup>®</sup>[Jan07] and Trovax<sup>®</sup>[Nov06] enter Phase 3 trials.

### AS1404 Deal

Antisoma license AS1404 to Novartis<sup>[Apr07]</sup> for Phase 3 trials.

### Fox Chase Collaboration

New collaborative drug discovery programme established by CRT Inc.<sup>[Mar07]</sup>

### Waypharm License

Evaluation of Thioplatin, a hypoxia-responsive therapeutic.<sup>[Feb07]</sup>

### CHK1 Drug Discovery

Sareum announce progress in collaboration with CRT and ICR.<sup>[Feb07]</sup>

### CRI Opening

Opportunities for CRT at the new Cancer Research UK Cambridge Research Institute.

## Exclusive Commercialisation Partner of Australian Cooperative Enterprise Dedicated to Cancer

Seven of Australia's leading research organisations, together with CRT, Bionomics Limited (Australia) and Millipore/Chemicon (Australia), have been awarded A\$37.6 million from the Australian Federal Government to establish the Cooperative Research Centre for Cancer Therapeutics (CRC-CT)<sup>[Jan07]</sup>. Including contributions from the participants, a total of A\$148 million will fund the creation of a world-class translational research organisation. Headquartered at the Walter and Eliza Hall Institute, Biotechnology Centre, Melbourne, Victoria, CRC-CT will be dedicated to the discovery and development of novel small molecules for targeted cancer therapies.

CRC-CT is funded for seven years and brings together Australia's foremost expertise in cancer biology, drug discovery and translational oncology to produce high-quality novel drug candidates for further development and commercialisation. The consortium will draw on significant investments already made in drug discovery infrastructure in Victoria, Queensland and South Australia and engage broadly with Australian public sector research organisations and companies. Translational development will focus on targeting angiogenesis, metastasis, side effects of chemo- and radio-therapies and chemotherapy resistance of tumours. CRT will provide CRC-CT with a strong route to market through our extensive experience in commercialisation with academic researchers. We will ensure the best of Australian cancer research is developed through CRT for the benefit of cancer patients around the world.

## Orphan Drug Designation for Fenretinide Secured on Behalf of Cancer Research UK

Cancer Research UK has received orphan drug designation for use of fenretinide in the treatment of Ewing's Sarcoma Family of Tumours (ESFT) from the Food and Drug Administration (FDA) and for the treatment of soft tissue sarcomas and malignant bone tumours from the European Medicines Agency (EMA), following an application submitted by CRT<sup>[Feb07]</sup>. The submission was based on studies, led by Dr Sue Burchill at Cancer Research UK's Clinical Centre in Leeds, that have shown promising results following application of fenretinide in experimental models of the Ewing's Sarcoma Family of Tumours. Proof of concept studies have demonstrated that fenretinide significantly delays tumour growth in models of bony Ewing's sarcoma and soft tissue peripheral primitive neuroectodermal tumour (pPNET). In addition, *in vitro* investigations have shown that ESFT are particularly sensitive to the death inducing activity of fenretinide.

Fenretinide is a vitamin A analogue and has been tested in Phase I trials in children and adults. The drug was originally developed for the treatment of breast cancer, but did not receive marketing authorisation in this indication and is now off-patent. European orphan drug designation will support the clinical development of fenretinide in soft tissue sarcomas and malignant bone tumours by providing Cancer Research UK, CRT and any future development partners with guidance from the FDA and the EMA, together with fee reductions, accelerated approval and 7 and 10 years of market exclusivity within the US and the EU, respectively. CRT will be seeking a licensing and co-development partner to further develop fenretinide for the treatment of ESFT. In childhood indications such as ESFT, where the market is small, designation of orphan drug status is vital in securing resources for the development of new treatments.

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# CRT News

## New CEO to Spearhead Lab Expansion

Keith Blundy has been named as the new Chief Executive of CRT Ltd<sup>[Apr07]</sup>. Dr Blundy joined CRT in 1998 and has been the company's Chief Operating Officer since November 2003. He will oversee an expansion of our drug discovery and biotherapeutic development teams. The expansion from around 45 to 90 scientists will be phased, and will first focus on the current facilities at the Wolfson Institute for Biomedical Research at University College London. It will incorporate plans to bring CRT's expertise to Cancer Research UK institutes in Cambridge, Manchester and Glasgow, integrating CRT drug discovery activity with the charity's basic research. Additionally, the expanded facilities will enable increased activities with leading cancer research institutes worldwide, driven through interactions with our US subsidiary, CRT Inc., and the new Cooperative Research Centre for Cancer Therapeutics in Australia.

## Antisoma Announces Global Agreement with Novartis for AS1404

Antisoma recently announced that it has signed an exclusive global licensing agreement with Novartis for its vascular disrupting agent AS1404<sup>[Apr07]</sup>. The drug was originally discovered by researchers at the Auckland Cancer Society Research Centre in New Zealand. Cancer Research UK supported two early clinical trials of AS1404, in New Zealand and the UK, and CRT licensed the drug to Antisoma in August 2001. Novartis is now planning a Phase III trial of AS1404 in non-small cell lung cancer, expected to start in 2008.

## Fox Chase Collaboration

Fox Chase Cancer Center and CRT Inc., have initiated an oncology-focused drug discovery collaboration focusing on an undisclosed kinase<sup>[Mar07]</sup>. The collaboration builds on a series of validated hit compounds, identified by leading Fox Chase research scientists. Hit-to-lead studies to optimise potency and drug-like characteristics of the compounds will be performed in CRT's development laboratories. Novel small molecule inhibitors generated by CRT's medicinal chemists will be characterised in specialised secondary biological assays at Fox Chase. CRT Inc. will be responsible for the commercialisation of the small molecule inhibitors, whilst generated revenues will be shared between the parties.

## HSP90 Drug Development

Building on the HSP90 collaboration established between Vernalis, CRT and The Institute of Cancer Research (ICR) in March 2002, a second preclinical development candidate has now been selected by Vernalis' partner Novartis<sup>[Dec06]</sup>. This development milestone resulted in a payment to CRT and the ICR. Whilst this second agent is an orally-available compound

identified using Vernalis' fragment-based drug discovery platform, the first preclinical candidate, an intravenous compound, was derived from studies by Profs. Paul Workman and Laurence Pearl at the Cancer Research UK Centre for Cancer Therapeutics. HSP90 is a chaperone protein that is essential for the activity of many of the signalling proteins that are dysregulated in cancer cells.

## Phase 3 Vaccine Clinical Trials

Biomira and Oxford BioMedica, two of CRT's licensees, have recently advanced cancer vaccines into Phase 3 clinical trials in lung cancer and renal cancer respectively. Biomira's Stimuvax<sup>®</sup> is a liposomal peptide vaccine against the tumour-associated protein MUC1<sup>[Jan07]</sup>. The vaccine was developed by Biomira under a portfolio of patents licensed by CRT, following Cancer Research UK-funded investigations led by Prof Joyce Taylor-Papadimitriou at Guy's Hospital, London. The multinational trial is being undertaken by Biomira's co-development partner, Merck KGaA, who additionally plans to investigate the use of Stimuvax to treat other types of cancer.

TroVax<sup>®</sup>, Oxford BioMedica's gene-based therapeutic cancer vaccine that delivers the tumour-associated antigen 5T4, has also entered Phase III trials<sup>[Nov06]</sup>. The association between 5T4 antigen and cancer was identified by Cancer Research UK-funded studies led by Prof. Peter Stern at the Paterson Institute for Cancer Research, Manchester. Intellectual property rights related to the 5T4 tumour-associated antigen were licensed to Oxford BioMedica by CRT.

## Antibody and Small Molecule Licensing

French biotech Waypharm has secured rights to evaluate Thioplatin, a novel hypoxia-responsive platinum-based cancer therapy, from CRT<sup>[Feb07]</sup>. The Thioplatin programme stems from research conducted by Prof. Eberhard Amtmann of DKFZ, Heidelberg, and Dr Gerhard Schilling of the University of Heidelberg. The scientists have developed platinum compounds that display enhanced activity under the hypoxic conditions of solid tumours. Such tumour selectivity could allow the administration of higher doses of this new class of platinum drug without the usual neutropenic and neuropathological toxicities that are associated with other platinum drugs.

## CRI Officially Opens

The new £50m Cambridge Research Institute (CRI) was opened on February 2nd. The Institute is a unique partnership between the University of Cambridge and Cancer Research UK which will be dedicated to state-of-the-art research into the causes of cancer, and developing new treatments. CRT will develop and commercialise discoveries arising from the CRI, and has appointed a Business Manager to work specifically with the Institute. More than 300 scientists in up to 30 research groups will be based at the Institute, investigating cell biology to imaging and experimental medicine.