

CRT News



Review 2005/06

News in Brief...

Clinical Development Partnerships Launched

A joint CRT and Cancer Research UK initiative to drive the clinical development of cancer therapies^[Apr06]

EMEA Approval

Approval of Temozolomide for treatment of glioblastoma multiforme in combination with radiotherapy announced by CRT licensee Schering-Plough^[Apr05]

Acquisition of KuDOS for \$210m

CRT spin-out company, KuDOS Pharmaceuticals, acquired by AstraZeneca^[Dec05]

FGFr Drug Discovery Collaboration

CRT partner with the University of Newcastle and Astex Therapeutics^[Mar06]

Chroma Raises \$53m

CRT spin-out company completes series C finance round^[Apr06]

DTI Biomarker Mission

CRT co-ordinates DTI funded cancer biomarker mission to the US^[Oct05]

TriPath Licence

CRT grants exclusive rights to biomarkers for detection of cervical cancer^[Aug05]

CRT Establishes US Subsidiary

CRT has established Cancer Research Technology Inc. ("CRT Inc."), a US subsidiary based in Boston providing CRT with a greater presence in one of the major markets^[Apr06]

CRT Inc. will provide oncology-focused technology transfer and development expertise to leading US not-for-profit research institutions on a shared-risk reward basis and also represent CRT in licensing discussions with US biopharmaceutical companies. Through partnership, academic collaborators will be able to bridge the fundamental development gap between exploratory research and industrial development of diagnostics and therapeutics in oncology. Development of academic-based cutting edge discoveries will be carried out in conjunction with biotherapeutic and drug discovery groups within CRT's Development Laboratories.

CRT has recruited Dr Larry Steranka as the MD of CRT Inc. Previously, Dr Steranka held senior positions at the technology transfer offices of Brandeis and Harvard Universities and within major pharmaceutical and biotechnology companies.

A Dynamic Year for CRT Start-ups

At the end of 2005 AstraZeneca acquired KuDOS Pharmaceuticals for \$210m^[Dec05]. CRT established the company together with Prof. Jackson and the University of Cambridge in 1997 to focus on developing innovative therapies that target DNA repair. Other M&A activity in CRT's start-ups include the acquisition of US based Aptermera by Antisoma^[Feb05] and the merger of CRT spin-out Cyclacel and Xcyte Therapies of Seattle, US^[Dec05].

A number of our start-ups also raised finance to fund further preclinical and clinical drug development programmes. Chroma Therapeutics raised over \$50m in a Series C funding round^[Apr06], Spear Therapeutics raised \$8.5m in their first funding initiative in addition to further financing at Antisoma^[Dec05] and Cyclacel^[Oct05].

Drug Discovery in CRT

In the last year CRT dramatically expanded the drug discovery and biotherapeutic groups within its development laboratories. Core competences now exist in molecular and cellular biology, assay design and HTS, medicinal chemistry and early pharmacology. In addition specialist drug discovery expertise has been secured through strategic alliances to compliment and enhance CRT's small molecule drug discovery programmes. Relationships have been formalised with Sareum^[Apr05], for computational chemistry expertise and MerLion Pharmaceuticals^[Sept05], for natural product-based drug discovery and development utilising the world's largest and most diverse natural product collection. A partnership agreement with BioFocus was also completed^[Jan06], principally focusing on additional medicinal chemistry resources to ensure CRT's programmes are advanced rapidly through early-stage development. Internally, CRT's medicinal chemistry group are also expanding our small molecule library to in excess of 80,000 compounds and establishing parallel chemistry technologies.

As the financial year closes CRT will market an exciting series of potent and selective anti-cancer protein kinase inhibitors. This programme has recently entered lead optimisation within CRT's drug discovery group and provides further evidence of our ability to bridge the gap between exploratory academic research and industrial development of potential cancer therapeutics.

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Licensing Activity: the 'Ins and Outs'

CRT has pursued a new strategy for delivery of cancer patient benefit by in-licensing and developing technologies from commercial partners, extending our more traditional focus of partnering with academic research institutions. CRT's development scientists are currently validating a novel cancer target from CellCentric^[Sept05] and are also developing Stealthyx Therapeutics' platform for tumour-targeted therapies^[Feb06]. CRT also entered into an agreement with Phogen^[Aug05] to commercialise the company's VP22 platform technology, highlighting CRT's expertise and track record in technology commercialisation in addition to technology development.

New partnerships with academic research institutes include a collaboration with the University of Barcelona to develop and commercialise AT514, a microbial decapeptide, as an anti-cancer agent^[Feb06]. CRT has also formed a strategic alliance with the Norwegian Radium Hospital Research Foundation^[Nov05] and will provide development and commercialisation expertise. In addition, CRT's diagnostic and research tools business has concluded an agreement granting CRT commercialisation rights to antibodies generated by the Leukaemia Research Immunodiagnostic Unit at the University of Oxford^[Feb06].

Out-licensing activities included an agreement granting TriPath Imaging^[Aug05], a world leader in molecular diagnostic products for cancer, exclusive rights to several promising cancer markers from the Minichromosome Maintenance family for the detection of cervical cancer and an exclusive option to a series of other cancers. An exclusive licence was also granted to Viragen^[May05] in relation to an anti-CD55 antibody currently in preclinical development for a broad range of cancers, which targets a mechanism of tumour immune system evasion.

Preclinical Promise

New Partnerships Support Progression of CRT's Licensed Preclinical Drug Discovery and Development Programmes

AstraZeneca and Astex announced the formation of a strategic alliance focused on novel inhibitors discovered under a joint collaborative drug discovery programme between Astex, The Institute of Cancer Research (ICR) and CRT^[July05]. The aim of the alliance is to discover, develop and commercialise novel small molecule inhibitors of the anti-cancer target Protein Kinase B (PKB; also known as Akt).

Plamed, a start-up company in part established by CRT have entered into a collaboration with Genentech for the development and commercialisation of new anti-cancer drugs licensed to Plamed by CRT, The Ludwig Institute of Cancer Research and the ICR^[Nov05]. The drugs represent a novel class of small molecules that inhibit the action of the cell signalling molecule PI 3-kinase, a target which regulates cell growth and survival and is involved in the development of a broad range of cancers.

Novartis and biotechnology company Vernalis announced the selection of a compound^[Dec05] for preclinical development

in the Hsp90 joint research and development programme. The anti-cancer target Hsp90 is a molecular chaperone that is essential for the stability and function of a number of proteins that promote tumour formation. The Hsp90 inhibitor collaboration was first established with Vernalis in 2002 through an agreement with CRT and the ICR, following studies funded by the ICR, Cancer Research UK and Wellcome Trust.

Moving to Market

Advancement of CRT's Partnered Clinical Pipeline

Several significant events in the development of Satraplatin, CRT's most advanced partnered agent in clinical trials, occurred in the last financial year. Licensed to GPC Biotech, Satraplatin is the first platinum drug to have the advantage of oral administration. Preliminary results from the phase III registrational trial of Satraplatin^[Mar05, Apr05] for the treatment of patients with hormone refractory prostate cancer were encouraging and target enrolment for the trial was reached in May. Importantly, a rolling NDA submission for this lead indication has started^[Dec05] and is expected to be completed towards the end of 2006. In addition Pharmion have entered into a co-development license agreement^[Dec05] with GPC Biotech. Pharmion has been granted commercialisation rights to Satraplatin in Europe and expects to submit for European marketing authorisation for Satraplatin in 2007 pending concurrence with the EMEA.

A second platinum-based agent, Picoplatin, a chemotherapy specifically designed to overcome drug resistance, received orphan drug designation from the FDA^[Nov05]. Picoplatin was originally licenced to Johnson Matthey and is currently being jointly developed by AnorMed and NeoRx.

Final phase II results were published for Stimuvax[®]^[Nov05], a peptide vaccine against the tumour-specific protein MUC-1 that is being developed by Biomira and Merck KGaA for the treatment of NSCLC. Stimuvax[®] is now phase III ready and is expected to join Satraplatin in phase III trials in mid 2006. Other CRT agents that entered new stages of clinical development are Picoplatin^[Jul05], which entered phase II trials for small cell lung cancer and Abiraterone^[Dec05], which Cougar Biotechnology entered into phase I/II trials for prostate cancer. Abiraterone is a small molecule inhibitor of steroid 17-alpha hydroxylase, an enzyme which regulates prostate cell growth.

Clinical Development Partnerships Established

CRT and Cancer Research UK, the largest independent funder of cancer research in the world, have established Clinical Development Partnerships (CDP)^[Apr06]. This initiative targets leading biotechnology and pharmaceutical companies with large pipelines that are forced to prioritise the agents taken into clinical development. CDP seeks to manage and support early-stage clinical trials bringing new life to deprioritised anti-cancer agents. For more information about CDP contact enquiries@clinicalpartnerships.com.