NEWS RELEASE

Novation and Cancer Therapeutics Establish Collaboration For the Discovery and Development of New Cancer Therapies

FOR IMMEDIATE RELEASE

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Vancouver, Canada and Melbourne, Australia: Novation Pharmaceuticals Inc, Vancouver, Canada and Cancer Therapeutics CRC Pty Ltd Melbourne, Australia, (CTx) today announced a joint collaboration to identify potent small-molecule compounds for two very important, but highly intractable oncology targets, c-myc and hSSB1.

The collaboration will involve the use of Novation's novel *Quest* drug discovery platform technology alongside CTx's small-molecule compound library and high-throughput screening capabilities. The results of the collaboration will be a series of potent and selective small-molecule compounds with excellent potential for development into novel cancer drugs from both targets. Novation will have ownership of compounds that are active against c-myc and CTx will have ownership of compounds that are active against hSSB1.

The oncology targets

c-myc codes for a protein known as a transcription factor that activates expression of a number of genes and plays an important role in cell growth and proliferation. When c-myc is aberrantly over-expressed the protein does not bind correctly, leading to unregulated expression of many genes that can give rise to different cancers. Down-regulation of faulty c-myc over-expression has been shown to bring about tumour regression in models of cancer.

hSSB1 is a protein that signals to other proteins that damage has occurred to the DNA in a cell and brings about important cellular responses to stimulate repair of the DNA and prevent cell death. Cells that are deficient in hSSB1 become hypersensitive to DNA damage and die rapidly. Therefore inhibition of hSSB1 could represent a novel approach to the enhancement of other therapies, such as radio-therapy and chemo-therapy, which seek to destroy cancer cells.

About Novation and the Quest Technology

Novation is a product focused Company using *Quest*, a breakthrough drug-discovery technology, harnessing a natural cellular control function, mRNA modulation, to identify new therapeutics for a broad range of diseases. Novation founding scientists were the first to report that it is possible to impact the stability (half-life) of mRNA with small molecules, which observation led to the development of *Quest*.







Messenger RNA (mRNA) links gene activity and subsequent protein expression and is thus an ideal target for therapeutic intervention. In normal cells, regulation of the abundance and stability of mRNA is a key mechanism that determines which proteins get made, how much is produced and for how long. The cell is able to exercise this effect through impacting specific Stability Control Elements (SCEs) present within each individual mRNA. Novation scientists are able to identify the SCEs responsible for regulating the stability (half-life) of any target mRNA and extract and clone these into a high-throughput reporter gene assay system (the *Quest* technology).

Quest can identify both inhibitory and stimulatory small molecule compounds. Compounds that are able to inhibit the stability of a target mRNA, thus causing a downregulation of a protein are targeted for those diseases where there are inappropriately high levels of certain proteins (e.g. cancer, chronic inflammation, etc). Similarly, **Quest** can identify compounds that will bring about an increase in stability of a target mRNA, resulting in production of a protein in those conditions where lack of an essential protein is causing disease (e.g. Parkinson's disease, cystic fibrosis etc).

Importantly, *Quest* can be applied to currently considered intractable or "non-drugable" targets, which have been estimated to make up almost 90% of known therapeutic targets. The *Quest* technology has already been successfully used to identify potent and selective compounds for previously intractable targets in the areas of cancer and diabetes

Novation has available a wide-range of *Quest* drug-discovery assays for a number of disease targets in cancer, inflammation, metabolism and neurodegeneration, with other important areas in development. Novation is able to undertake drug discovery programs on behalf of partners, based on disease targets of interest (including non-drugable targets) and deliver potent and selective small molecule compounds which may become major new therapeutics.

The *Quest* technology provides a completely new approach to drug discovery and opens up the possibility of finding new therapeutics for many diseases currently considered to be intractable. Novation has strong intellectual property related to this approach and believes that it is a leader in the field.

About Cancer Therapeutics

Cancer Therapeutics is a cancer focused Company headquartered in Melbourne, Australia at the Walter & Eliza Hall Institute's Biotechnology Centre. It was formed by a number of Australia's leading cancer Research Institutes, together with Cancer Research Technology of the UK and funded largely through a seven-year grant from the Australian government's CRC scheme.

CTx brings together Australia's foremost expertise in cancer biology, translational oncology and drug discovery in one of the largest translational research organisations in the world dedicated solely to cancer. CTx seeks to bridge the gap between cutting edge



research in cancer biology and the discovery and early development of new drugs for the treatment of cancer.

Professor Ian Street, Chief Science Officer of CTx Therapeutics said today: "We are very excited by the opportunity to use the Novation technology as a way of attacking 'non-drugable' targets. hSSB1 is certainly one of a number of targets where the biology is very compelling, but has, so far, proved difficult to inhibit with conventional techniques."

Ian McBeath, CEO of Novation also said: "The establishment of this collaboration is a significant opportunity to translate the power of the **Quest** technology into important new disease modifying oral therapeutics which can offer new hope for cancer patients. We are especially thrilled to be working with such an eminent group as CTx Therapeutics and its associated colleagues within the international oncology community."

This news release contains certain forward-looking statements. Actual results may differ materially from the statements made as a result of various factors, including, but not limited to, the inherent risks associated with drug discovery, research and development, difficulties or delays in development testing, changes in regulatory affairs, lack of therapeutic efficacy, unacceptable side-effects, the dependence on partners, the inability to raise sufficient finance, the appearance of competitors and other risks generally associated with the biopharmaceutical industry.

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