# CRT AND BIOINVENT EXPAND COLLABORATION WITH UNIVERSITY OF SOUTHAMPTON SCIENTISTS TO DEVELOP NEW IMMUNOTHERAPY TREATMENTS FOR CANCER

CANCER RESEARCH TECHNOLOGY (CRT), the commercialization and development arm of Cancer Research UK and BioInvent International (OMXS: BINV) today announce the start of a two-year research collaboration with leading antibody researchers at the University of Southampton.

The program aims to develop new immunotherapy treatments for cancer based on preclinical work by the Southampton group showing the potential to treat cancer using antibodies targeting OX40 and 4-1BB – known 'co-receptors' that help stimulate the production of killer T-cells during an immune response.

One of the ways that tumour cells avoid detection is by suppressing immune responses to stop functional tumour specific T-cells from being produced. The team aims to develop antibodies that can reverse this process to stimulate the immune system to fight the cancer.

Terms of the collaboration were not disclosed, however, BioInvent has the option to take out a license to commercialise any promising results, with the parties receiving milestone payments and a share of potential revenues.

The first phase of the project aims to identify and then validate the effectiveness of the best class of antibodies to target OX40 and 4-1BB. This work will be carried out in Lund, Sweden, and Southampton, UK, using highly specialised assays and expertise developed through a prior long-standing collaboration between BioInvent and the University of Southampton.

Professor Martin Glennie, who is leading the team in Southampton, said: "Immunotherapy is an extremely exciting field to be working in at the moment. Some of the most promising findings so far have involved drugs that block the signals cancers produce to dampen down the immune system. We're taking a slightly different approach by engineering antibodies that effectively boost the immune system to recognise and fight the cancer. This research

collaboration will develop and refine that approach, paving the way for the first patient trials to begin within the next few years."

Björn Frendéus, PhD, Chief Scientific Officer of BioInvent and honorary Professor at the University of Southampton, said: "The field of Immuno-oncology is rapidly expanding and offers new hope in the treatment of cancers. We will increase the likelihood of identifying successful clinical candidates against OX40 and 4-1BB by accessing unique and complementary preclinical models, and by screening existing preclinical leads as well as generating new leads with our antibody discovery platform F.I.R.S.T.™ together with the team at Southampton."

Dr Keith Blundy, chief executive of Cancer Research Technology, said: "We're pleased to be extending our ongoing relationship with BioInvent, whose cutting-edge antibody technologies will be an asset to this project. This is a prime example of how pooling resources and expertise from both industry and academia makes it possible to bring potential new treatments to patients that may otherwise have taken years to reach the clinic."

#### **ENDS**

For Cancer Research UK\CRT press media enquiries please contact Ailsa Stevens on +44 203 469 8300 or, out-of-hours, the duty press officer on +44 7050 264 059.

For BioInvent media enquiries please contact Michael Oredsson, President and CEO, on +46 (0)46 286 85 67, +46 (0)707 16 89 30 or michael.oredsson@bioinvent.com.

### Notes to editors:

# About OX40 and 41BB

4-1BB and OX40 are members of the TNF receptor superfamily.

4-1BB is expressed on a range of different immune cells including T cells. 4-1BB signalling is a stimulatory signal that enhances T cells. In pre-clinical studies agonistic anti- 4-1BB antibodies stimulate the expansion of antigen-specific CD8 T cells, reverses CD8 T cell

energy, prevents suppression by regulatory T cells, boosts memory CD8 T cell expansion and anti-tumour immunity.

OX40 is expressed on activated CD4 and CD8 T cells, regulatory CD4 T cells, memory CD4 T cells and NKT cells. OX40 signalling is critical for the survival of antigen-primed CD4 T cells and CD4 T cell memory. It plays a role in enhancing survival and effector cell differentiation of CD8 T cells during priming, and is important for T cell expansion during secondary responses. In mouse models of cancer, anti-OX40 antibodies promote anti-tumour immunity through activation of CD8 T cells and the inhibition of regulatory CD4 T cell function within the tumour.

#### About BioInvent

BioInvent International AB is a research-based pharmaceutical company focused on the discovery and development of innovative antibody-based drugs against cancer.

The company has unique expertise in antibody drug development from initial concept to late clinical phase. The screening tool, F.I.R.S.T.TM, and the antibody library, n-CoDeR®, are two patented tools that enable identification of relevant human antibodies and disease targets during the discovery phase. BioInvent has also considerable experience in and a facility for process development and production of antibodies for clinical studies. The scope and strength of this platform is also used to develop antibody-based drugs in collaboration with partners who finance the development of the new drug, and provide BioInvent with the right to milestone payments and royalties on sales. These partners include Bayer Pharma, Daiichi Sankyo, Mitsubishi Tanabe Pharma, Servier and Xoma. More information is available at www.bioinvent.com.

# **About University of Southampton**

Through world-leading research and enterprise activities, the University of Southampton connects with businesses to create real-world solutions to global issues. Through its educational offering, it works with partners around the world to offer relevant, flexible education, which trains students for jobs not even thought of. This connectivity is what sets Southampton apart from the rest; we make connections and change the world.

http://www.southampton.ac.uk/

## The cure for cancer? You're it

The University of Southampton has launched a campaign to raise £25m to open the UK's first dedicated Centre for Cancer Immunology at Southampton. Find out more about it at <a href="https://www.southampton.ac.uk/youreit">www.southampton.ac.uk/youreit</a>

# **About Cancer Research Technology**

Cancer Research Technology (CRT) is a specialist commercialisation and development company, which aims to develop new discoveries in cancer research for the benefit of cancer patients. CRT works closely with leading international cancer scientists and their institutes to protect intellectual property arising from their research and to establish links with commercial partners. CRT facilitates the discovery, development and marketing of new cancer therapeutics, vaccines, diagnostics and enabling technologies. CRT is a wholly owned subsidiary of Cancer Research UK, the world's leading cancer charity dedicated to saving lives through research. Further information about CRT can be found at www.cancertechnology.com.

# **About Cancer Research UK**

- Cancer Research UK is the world's leading cancer charity dedicated to saving lives through research.
- Cancer Research UK's pioneering work into the prevention, diagnosis and treatment of cancer has helped save millions of lives.
- Cancer Research UK receives no government funding for its life-saving research. Every step it makes towards beating cancer relies on every pound donated.
- Cancer Research UK has been at the heart of the progress that has already seen survival rates in the UK double in the last forty years.
- Today, 2 in 4 people survive cancer. Cancer Research UK's ambition is to accelerate progress so that 3 in 4 people will survive cancer within the next 20 years.
- Cancer Research UK supports research into all aspects of cancer through the work of over 4,000 scientists, doctors and nurses.
- Together with its partners and supporters, Cancer Research UK's vision is to bring forward the day when all cancers are cured.

For further information about Cancer Research UK's work or to find out how to support the charity, please call 0300 123 1022 or visit <a href="www.cancerresearchuk.org">www.cancerresearchuk.org</a>. Follow us on <a href="Twitter">Twitter</a> and <a href="Facebook">Facebook</a>...

The press release contains statements about the future, consisting of subjective assumptions and forecasts for future scenarios. Predictions for the future only apply as the date they are made and are, by their very nature, in the same was as research and development work in the biotech segment, associated with risk and uncertainty. With this in mind, the actual outcome may deviate significantly from the scenarios described in this press release.

Information disclosed in this press release is provided herein pursuant to the Swedish Financial Instruments Trading Act. The information was submitted for publication at 8.30 a.m. CET, on 30 March, 2015.