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Cancer Research Uk and Astrazeneca to accelerate biomarker research

Birmingham, Monday 5th October, 2009 --- AstraZeneca is to double its investment in Cancer Research UK's biomarker research in an effort to better understand how drugs behave in early stage clinical trials.

This announcement coincides with a presentation at the NCRI Cancer Conference in Birmingham by Professor Caroline Dive from Cancer Research UK's Paterson Institute for Cancer Research at the University of Manchester*, who will lead this biomarker** research programme.

The programme will enable the charity to step-up its capacity to undertake both biomarker discovery research and evaluate biomarkers in a range of AstraZeneca clinical trials through a commitment to process up to 30,000 biomarker assays a year over the next 3 years. This will rise from the 14,000 a year currently undertaken.

The biomarkers studied in this programme help to determine whether new AstraZeneca drugs kill tumour cells and/or prevent angiogenesis – the growth of new blood vessels to supply tumour cells with nutrients and oxygen.

This partnership between Cancer Research UK, the Paterson Institute and AstraZeneca is based on the development of 'proof of concept' biomarkers***. It has been facilitated by Cancer Research Technology (CRT) – Cancer Research UK's development and commercialisation arm - after AstraZeneca completed a scoping exercise to decide where to base their collaborative biomarker research efforts.

Cancer Research UK and AstraZeneca will also boost their scientific expertise to make use of biomarker technologies by creating additional Clinical Pharmacology Fellowship awards and a new Radiation Fellowship post. These follow the success of the Cancer Research UK/AstraZeneca Clinical Pharmacology Programme to date, under which six Clinical Pharmacology Fellowships have been supported since it began in 2006. These scientists will support the research programme already underway and explore further the use of biomarkers in radiotherapy and/or chemotherapy clinical trials.

It is expected the programme will help doctors conducting clinical trials to establish the right dose to give patients and to predict the effect the drug could have. It will also set the parameters of how to measure a drug's effectiveness.

Professor Dive will present new biomarker data at the NCRI Cancer Conference revealing that circulating tumour cells (CTCs) can be used to measure the effects of cancer drugs currently used to treat lung cancer. Her team measured the number of CTCs in blood samples taken from patients with lung cancer and showed that their frequency was higher among the patients whose cancer had spread. The number of CTCs dropped following chemotherapy treatment, suggesting that CTCs could be used as a biomarker in clinical trials of new drugs to help doctors treat patients with this type of cancer more effectively.

Professor Caroline Dive, clinical and experimental pharmacology group leader at the Paterson Institute, said: "Most people in the cancer field have bought into the notion that biomarker research is key to the successful development of new treatments, but very few have really followed through with the thorough investigations and investment necessary for biomarkers to pay off. This deal will enable us to advance our understanding of how biomarker research contributes to drug development and patient care whilst building on the know-how we have gained so far. Everyone stands to gain."

Professor Andrew Hughes, AstraZeneca's early phase clinical development head, said: "We are continually investing in potential new treatments and are delighted to be expanding this collaboration with Cancer Research UK to develop biomarkers. Before starting a clinical trial, it's crucial that we understand as much as possible about how the drug will behave so we can decide which patients are most likely to gain from it, and how strong to make the dose in order for it to have the most beneficial effect - this research aims deliver just that."

Dr Phil L'Huillier, CRT's director of business management, said: "This increased investment is a significant step forward in our commitment to develop this research and improve cancer treatments. By working collaboratively with academia and our commercial partners we are continuing to ensure that we progress these important advances and develop new drugs to treat cancer patients in the fastest possible time."

Dr Peter Sneddon, Cancer Research UK's executive director of clinical and translational research funding, added: "Biomarkers are fundamental to the development of more targeted medicines and Cancer Research UK has strongly supported this area of research, so we are delighted that AstraZeneca have chosen to invest in our programme in Manchester. It has taken a lot of work to get to a point where biomarkers can reliably be used in clinical trials and as today's presentation illustrates, new evidence is increasingly showing their worth.

"Today's presentation about a new biomarker for lung cancer is very welcome because it is vitally important that we improve treatment for this disease - a form of cancer that has not seen the same progress as many others in terms of survival rates."

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For media enquiries, please contact Josie Gray in the Cancer Research Technology press office on 07918 608 599 or, out of hours, the duty press officer on 07050 264 059

***Professor Caroline Dive's presentation will be on Monday 5 October 2009 on the Utility of Circulating Tumour Cells (CTCs) in drug development for lung cancer. You can read the abstract here: http://www.ncri.org.uk/ncriconference/programme/speakerAbstracts/2009Symp_Caroline_Dive.asp**

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**Biomarkers can be used to measure and help monitor how a disease is developing or whether a treatment is working. They are generally based on samples taken from blood or urine. Biomarkers can help reduce the number of biopsies needed to measure how a drug is working. They are especially important for cancer because taking biopsy sample is an invasive procedure - reducing the number of these would benefit patients and doctors.

Biomarkers can also be used to separate patients, by tumour type, into groups that are most likely to respond to a treatment.

***'Proof of mechanism' biomarkers show if the drug hits the desired target, while 'proof of concept' studies indicate if the drug will have the desired effect. This programme will help doctors to work out the correct dose and schedule and will also set the parameters of how to measure and predict a drug's effectiveness. AstraZeneca will continue its 'proof of mechanism' studies in-house and out source its 'proof of concept' studies through this scheme.

About the Paterson Institute for Cancer Research

The Paterson Institute for Cancer Research is a leading cancer research institute within The University of Manchester, core funded by Cancer Research UK, the largest independent cancer research organisation in the world. Find out more by visiting the Institute's website **http://www.paterson.man.ac.uk/.**

About Cancer Research Technology

Cancer Research Technology Limited (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 wholly owned by Cancer Research UK, the largest independent funder of cancer research in the world.

Cancer Research UK

- Cancer Research UK is the world's leading charity dedicated to beating cancer through research.
- The charity's groundbreaking work into the prevention, diagnosis and treatment of cancer has helped save millions of lives. This work is funded entirely by the public.
- Cancer Research UK has been at the heart of the progress that has already seen survival rates double in the last thirty years.
- Cancer Research UK supports research into all aspects of cancer through the work of more than 4,800 scientists, doctors and nurses.
- Together with its partners and supporters, Cancer Research UK's vision is to beat cancer.
- For further information about Cancer Research UK's work or to find out how to support the charity, please call 020 7009 8820 or visit **www.cancerresearchuk.org.uk**.

About the NCRI Cancer Conference

The National Cancer Research Institute (NCRI) Cancer Conference is the UK's major forum for showcasing the best British and international cancer research. The Conference offers unique opportunities for networking and sharing knowledge by bringing together world leading experts from all cancer research disciplines. The fifth annual NCRI Cancer Conference is taking place from the 4-7 October 2009 at the International Convention Centre in Birmingham. For more information visit **www.ncri.org.uk/ncriconference**

About the NCRI

The National Cancer Research Institute (NCRI) was established in April 2001. It is a UK-wide partnership between the government, charity and industry which promotes co-operation in cancer research among the 21 **member organisations** for the benefit of **patients**, the public and the scientific community.
For more information visit **www.ncri.org.uk**

NCRI members are: the Association of the British Pharmaceutical Industry (ABPI); Association for International Cancer Research; Biotechnology and Biological Sciences Research Council; Breakthrough Breast Cancer; Breast Cancer Campaign; Cancer Research UK; CHILDREN with LEUKAEMIA, Department of Health; Economic and Social Research Council; Leukaemia Research; Ludwig Institute for Cancer Research; Macmillan Cancer Support; Marie Curie Cancer Care; Medical Research Council; Northern Ireland Health and Social Care (Research & Development Office); Roy Castle Lung Cancer Foundation; Scottish Government Health Directorates (Chief Scientist Office); Tenovus; Welsh Assembly Government (Wales Office of Research and Development for Health & Social Care); The Wellcome Trust; and Yorkshire Cancer Research.

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