

BUSINESS ENGAGEMENT **CASE STUDY**

ASTRAZENECA

Drawing on our combined strengths to deliver safe and effective medicines and improve outcomes for patients.

Our collaboration with AstraZeneca has grown from a number of informal contacts and small projects in the area of oncology into a strong, mutually beneficial partnership with a shared vision of delivering excellent science and applied research across a range of disciplines.

In 2006, the University of Manchester (UoM) and AstraZeneca formed a Strategic Alliance, one of only three such collaborations in Europe, designed to establish closer working relationships in research, education, the application of scientific knowledge and recruitment activities. The two organisations signed a Memorandum of Understanding that formalised this co-operation across the broad areas of chemistry, biology and engineering.

As well as building on its original oncology research, the partnership now covers joint research, staff and student support, and knowledge and resource sharing across a number of areas including:

- * Inflammation
- * Diabetes and obesity
- * Bioinformatics
- * Systems biology
- * Computational chemistry
- * Synthetic chemistry
- * Analytical science
- * Imaging (clinical and pre-clinical)
- * Pharmaceuticals and process engineering

JOINT RESEARCH

Research into cancer, particularly lung cancer, is a major part of our work with AstraZeneca. Through the Manchester Cancer Research Centre (MCRC) - a collaboration between UoM, the Christie NHS Foundation Trust, Cancer Research UK and the Paterson Institute for Cancer Research - AstraZeneca supports several research strands looking at how cancer develops and applying that research to new diagnostic tests, treatments and ways of predicting and preventing cancer.

These include groundbreaking research into blood borne biomarkers and how understanding these can improve drug development, cancer imaging, radiation and chemotherapy research, and early phase clinical trials. AstraZeneca has also been instrumental in developing the MCRC Biobank, Greater Manchester's human cancer tissue collection, which holds over 2,600 samples available for cancer studies.

In 2011, UoM and AstraZeneca, in partnership with GlaxoSmithKline, launched the Manchester Collaborative Centre for Inflammation Research (MCCIR), aimed at establishing a world-leading translational centre for inflammatory diseases - more details overleaf.

STAFF AND STUDENT SUPPORT

Using its network of alliances, AstraZeneca has helped to bring several international clinicians to the MCRC as part of a staff exchange scheme, and is involved in reciprocal training programmes with partner organisations. There are also two joint appointments in clinical oncology and imaging science, both linked to the MCRC. The company has shown its commitment to supporting the next generation of researchers by awarding bursaries to students on the MRes in Translational Medicine: Pharmaceutical Cancer programme, offering research placements and providing industry input to the course.

KNOWLEDGE AND RESOURCE SHARING

AstraZeneca provides MCRC researchers with access to its entire catalogue of drug compounds. These drugs have often been discontinued in clinical trials for particular cancer types, but may still have therapeutic use for other cancers. Access to these compounds allows researchers to investigate how different drugs, or combinations of drugs might affect a range of cancer types.

WHAT DOES ASTRAZENECA GET FROM THE PARTNERSHIP?

- * SCIENTIFIC INPUT FROM WORLD-LEADING RESEARCHERS
- * SHARED USE OF ADVANCED EQUIPMENT, MATERIALS AND FACILITIES
- * ACCESS TO NEW TECHNIQUES, SKILLS AND MODELS
- * ABILITY TO DRAW ON A WIDE SCIENTIFIC NETWORK, INCLUDING NON-UOM SPECIALISTS
- * INDUSTRY RELEVANT EDUCATION AND TRAINING.

WHAT DO WE GET FROM THE PARTNERSHIP?

- * POTENTIAL TO TRANSLATE CUTTING-EDGE SCIENCE INTO HEALTH AND COMMERCIAL BENEFITS
- * SHARED USE OF ADVANCED EQUIPMENT, MATERIALS AND FACILITIES
- * GUIDANCE ON EDUCATION AND PROFESSIONAL DEVELOPMENT PROGRAMMES
- * GREATER UNDERSTANDING OF INDUSTRY-SPECIFIC KNOWLEDGE AND PRACTICES
- * FUNDING FOR SCIENTIFIC SUPPORT POSTS AND CLINICAL FELLOWSHIPS.

The creation of the new Centre is indicative of a new era of pre-competitive sharing within the pharmaceutical sector and with academic scientists, to bring our learning together to ensure the faster delivery of effective medicines to patients.

DR MENELAS PANGALOS,
EXECUTIVE VICE-PRESIDENT INNOVATIVE MEDICINES,
ASTRAZENECA

MANCHESTER COLLABORATIVE CENTRE FOR INFLAMMATION RESEARCH

THE BACKGROUND

Inflammatory diseases affect millions of people worldwide, leading to pain, disability and, in some cases, premature death. To be able to treat these diseases, researchers and drug companies need to understand the reasons why inflammation, one of the body's normal beneficial healing mechanisms, can become chronic, leading to cellular damage, tissue destruction and painful symptoms throughout the body.

THE CHALLENGE

To translate basic research discoveries into new and improved treatments that could potentially benefit the millions of people worldwide affected by diseases associated with chronic inflammation, such as asthma, chronic obstructive pulmonary disease, rheumatoid arthritis and inflammatory bowel disease.

THE SOLUTION

The opening of the Manchester Collaborative Centre for Inflammation Research (MCCIR), a unique £15 million collaboration between the University of Manchester and two leading UK pharmaceutical companies, that aims to bring together scientists from industry and academia to work collaboratively on inflammation research and translational medicine.

The partnership with AstraZeneca and GlaxoSmithKline (GSK) allows us to combine our own fundamental biomedical research with the drug discovery, development and commercialisation expertise within the pharmaceutical industry to ensure the faster delivery of effective medicines to patients across the world.

THE IMPACT

ON ASTRAZENECA:

Reduced research costs through buying into treatment pathways at the beginning of the process rather than simply testing end stage products; first refusal on licensing any innovations that develop as part of the partnership; opening up opportunities for new collaborations with UoM and GSK.

ON THE UNIVERSITY:

Giving our scientific research a clinical output, allowing us to contribute to the development of new therapies and improve patient outcomes; positioning UoM at the forefront of innovative and enterprising research into inflammatory diseases.

ON SOCIETY:

The acceleration of new drug developments which could reduce the instance of potentially fatal inflammatory diseases worldwide.

