

TECHNOLOGY TRANSFER REPORT 2006

The Institute and The Royal Marsden work with commercial partners so that research findings can be developed and manufactured for the benefit of patients worldwide. The Director of Enterprise outlines the highlights of this technology transfer activity during 2006.



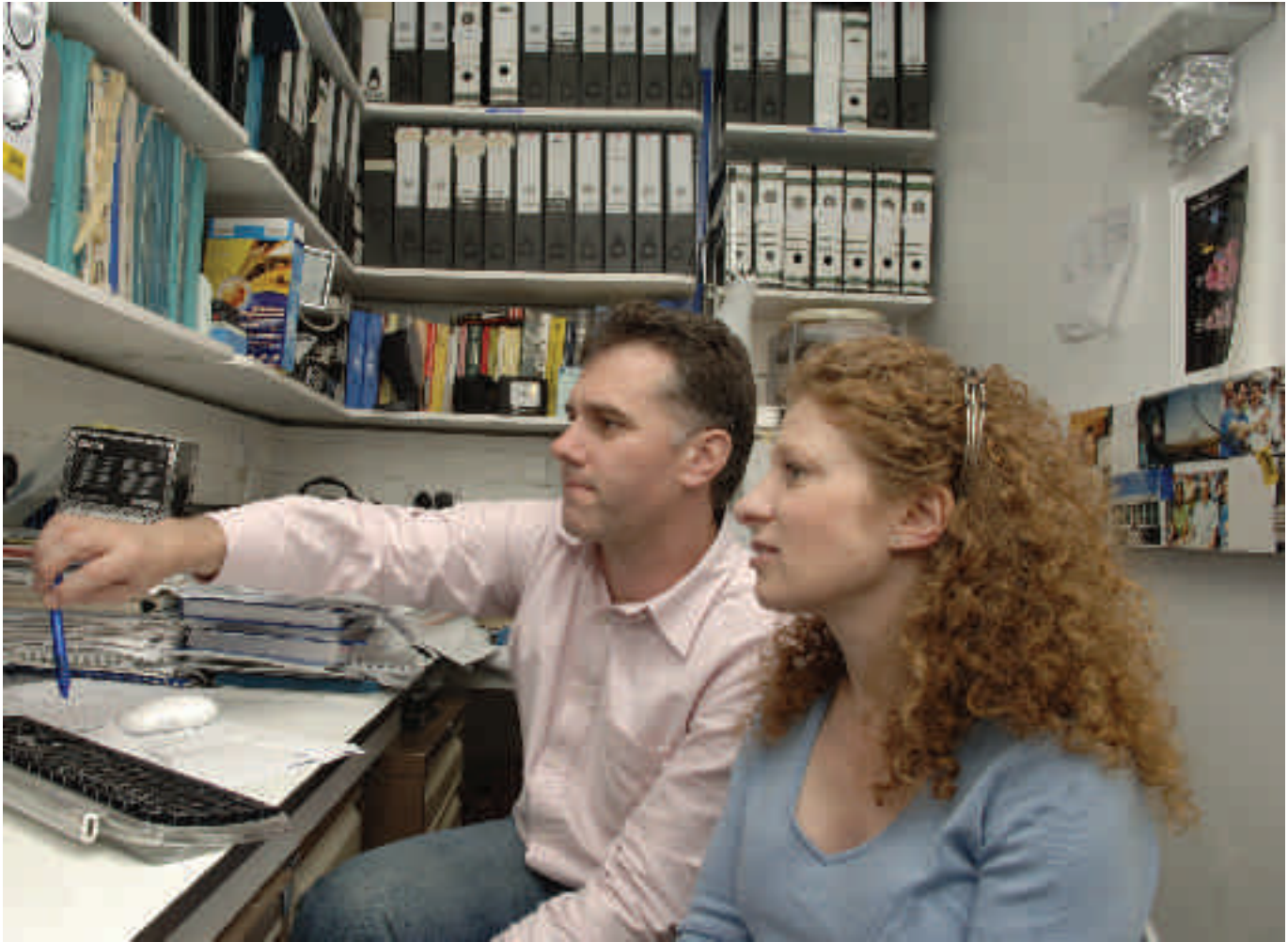
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The Enterprise Unit at The Institute, working together with The Royal Marsden, has again had a busy and successful year. The objective of the Unit continues to be to facilitate the development of research ideas using commercial resources, thus ensuring that inventions are disseminated for the benefit of patients worldwide. The commercial route varies from project to project and is chosen as appropriate to achieve this objective. Income is a welcome additional result of this technology transfer effort. The Unit continues to work in partnership, where suitable, with other technology transfer organisations such as Cancer Research Technology Ltd (CRT), British Technology Group (BTG) and The Wellcome Trust technology transfer division.

Domainex Ltd

In 2002, The Institute played a key role in establishing the new spin-out company Domainex together with its partners, UCL and Birkbeck. Professor Laurence Pearl and Dr Chris Prodromou were The Institute's founder scientists. The Director of Enterprise was a Domainex board member from 2002 until 2006. Domainex was established to exploit a novel technology that enables rapid analysis of the structure and function of complex proteins and which can be applied to a wide range of oncology targets.

2006 was a year of significant advances for Domainex. The company successfully completed several commercial contracts and demonstrated that their technology works. New investment was raised from Longbow Capital LLP. Domainex moved into its own laboratories in the London Biosciences Innovation Centre and hired additional staff. Additionally, plans are now in place for Domainex to merge with a small chemical company which will create a larger entity with the capability of developing its own products based on the in-house technologies. It was very exciting for The Enterprise Unit to watch and help this fledgling venture to develop and finally leave the nest.



Professors Richard Marais and Caroline Springer

London Genetics Ltd

In 2006 The Institute became part of London Genetics. This is an initiative funded by the London Development Agency and involves the seven top London centres of research into genetic medicine: Imperial, The Institute, King's, The London School of Hygiene and Tropical Medicine, Queen Mary, St George's and UCL. The primary role of London Genetics is to facilitate interactions between the partner institutions and healthcare companies, leading to sponsored collaborations in areas such as identifying genetic markers that predict responses to treatment or that are useful in diagnosis. Many of these collaborations will involve more than one of the partners. The Director of Enterprise will sit on the board of London Genetics and looks forward to helping the company get established during 2007.

BRAF alliance with The Wellcome Trust and GlaxoSmithKline

In 2002 The Institute began a collaboration with The Wellcome Trust and CRT to develop novel drugs to inhibit the protein BRAF. The identification of BRAF as a cancer target resulted from The Institute's involvement with The

Wellcome Trust-funded Cancer Genome Project. Professors Richard Marais and Caroline Springer are the lead Institute scientists in this collaboration; the Director of Enterprise is actively involved in the steering committees and contract negotiations. The first phase of the project went well and a novel series of compounds with great potential was identified; these have been patented and are currently being refined. In 2006 the project took on a different dynamic as a strategic alliance was set up with GlaxoSmithKline. Under the agreement, the company contributed a series of BRAF inhibitors developed from another programme, which The Institute team will build on with the objective of creating another series of BRAF inhibitors complementary to the in-house series. The Wellcome Trust provided additional funding to support the project in this new phase.

Vernalis Ltd (HSP90 collaboration)

In 2002 The Institute began a collaboration with the company now known as Vernalis to develop inhibitors of the molecular chaperone HSP90, which plays an important role in directing the function of many key intracellular 'oncogenic' proteins. The project ended its first phase in 2004 and several novel potent HSP90 inhibitors were



Crystal structure of the nucleotide-binding domain of HSP90 (cartoon), bound to CCT018159 (stick model) - the first of a new class of HSP90 ATPase inhibitors discovered at The Institute.

developed. These compounds have now been licensed to Novartis. In 2005 Novartis announced that one of the lead compounds had met the criteria to be selected as a preclinical development candidate and in 2006 a second compound was selected to go into development. This second compound is orally active and shows great potential. Milestone payments were received by The Institute when these key programme objectives were met. The lead Institute scientists on this programme were Professors Laurence Pearl and Paul Workman.

Strategic alliance with King's College London

In 2006 The Institute established a strategic alliance with King's College in the area of marketing of medical physics technologies. This initiative was funded by London University and resources have been provided (via the Higher Education Funding Council for England (HEFCE) system) for market research and technology assessment. The two colleges are working synergistically to develop best practice in this area.

MRI technology

In 2006 The Enterprise Unit continued to work successfully with Professor Martin Leach (from the Cancer Research UK Clinical Magnetic Resonance Research Group at The

Institute) to find commercialisation routes for the portfolio of novel tools that his team have developed to help in expanding the role of magnetic resonance imaging and spectroscopy in both a diagnostic and treatment setting. Several licence agreements were established and the idea of forming a spin-out company (Tryptych) has been progressed and investors are being sought.

PETRRRA Ltd

The spin out company PETRRRA was founded in 2000 to develop the novel positron emission tomography (PET) camera invented by The Institute, The Royal Marsden and the Rutherford Appleton Laboratory, based on the research of Professor Bob Ott. PETRRRA is now independent of The Institute and headquartered at the Rutherford Appleton Laboratory; The Institute and The Royal Marsden retain a shareholding. In 2006 the company achieved a further investment round led by Synergis Technologies Ltd.

Zonare Inc

In 2006 The Institute and The Royal Marsden began a collaboration with the company Zonare Inc in the field of diagnostic ultrasound imaging. The collaboration is focusing initially on measuring the elastic properties of tissues to enable a more accurate distinction between normal and cancerous tissue. The lead scientist on this project is Dr Jeff Bamber from the Joint Department of Physics at The Institute and The Royal Marsden.

Faringdon Fund

In 2006 The Institute established a proof-of-concept fund: The Faringdon Fund. The Fund, the idea of The Institute's former Chairman Lord Faringdon, provides financial resources for Institute scientists to enable them to develop innovative ideas to the proof-of-concept stage. These early development projects are not typically supported by research grants and as such The Faringdon Fund bridges the gap between research funding and full commercial funding. Thus Institute inventions are more likely to be developed and exploited. In 2006 The Faringdon Fund made its first two awards.

Patents

In 2006 11 new patents were filed by The Institute directly or in collaboration with others.

Industrial collaborations

In 2006 The Institute collaborated with a number of other industrial partners in addition to those previously mentioned. These included Novartis, Pfizer, Sareum, Bayer, Chroma, Plramed, Cougar and Elekta.