

International Technology Promoters

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What is the ITP Programme?

A DTI-funded network of Technology Transfer specialists providing UK companies access to technology developments in the world's major R&D investor countries.

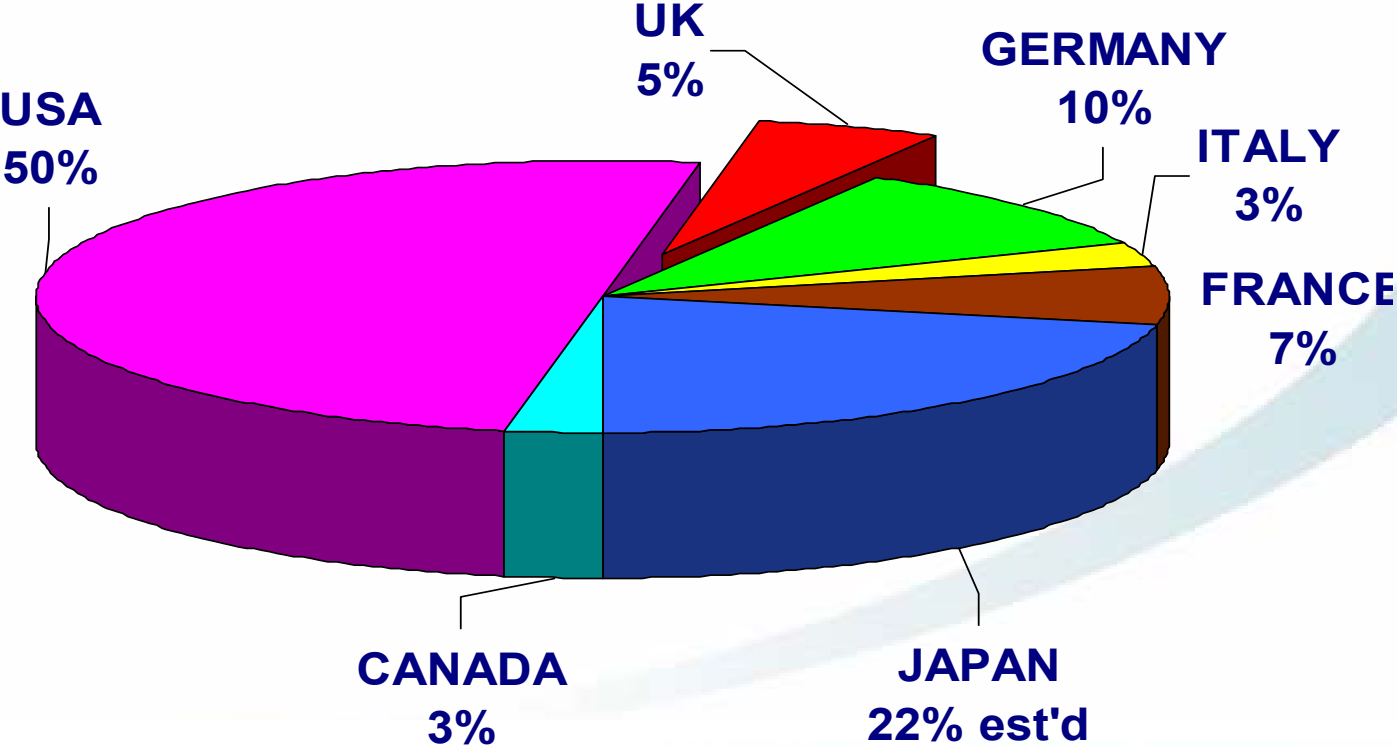


Associated ITS Programmes

- **Overseas Secondments**
- **ITS Missions**
- ***Globalwatchonline.com* Website**
- ***GlobalWatch* - Monthly magazine**



Why Overseas Technology?



Sector/Technology Focus

- **Life Sciences**
- **High Performance Engineering**
- **Environment & sustainable energy**
- **ICT**
 - **Materials, Nanotech & MEMS**
 - **IT, Digital Media & Telecomms**
 - **Electronics & Photonics**



How Do ITPs Operate?

- **In the UK**
 - **Directly with UK companies**
 - **Other Government Departments**
 - **Trade Associations**
 - **Business Support Organisations**
- **Overseas Networks**
 - **Directly with companies**
 - **Embassies & Consulates**
 - **Universities & Research Centres**
 - **State & Local Representatives**
 - **Trade Associations**



Specific Activities

- **Finding Contacts**
- **Information & Desk Research**
- **Inward Missions**
- **ITS Missions**
- **Trade Missions**
- **Conferences and Exhibitions**
- **Company Profiles - Matching**



Partner Matching

- **Receive briefing from client company in UK**
- **Produce company profile detailing partnership objectives**
- **Circulate profile to potential overseas partners**
- **Introduce both parties**
- **Create a platform for negotiations**
- **Step back, but not away**



Company Profile

Celltech Therapeutics Ltd



CONTACT

FOR FURTHER INFORMATION
PLEASE CONTACT:

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The Company

Celltech is a research-based pharmaceutical company engaged in the discovery and development of novel therapeutic products. The company's drug discovery efforts are concentrated on new approaches to treat cancer, autoimmune diseases and inflammatory disorders.

Celltech was established in 1990 and employs over 200 staff in R&D, including 81 post-doctoral and 60 graduate scientists. Celltech's research strengths are based upon a series of state-of-the-art technologies which are being applied across the drug discovery process, ranging from the identification of novel gene targets through to the development of innovative therapeutic products. Celltech is a leader in the design and construction of engineered human antibodies. It also possesses a substantial medicinal chemistry activity, including sophisticated drug design and combinatorial synthesis capabilities.

Celltech's current product development partners include American Home Products, Merck & Co, Schering-Plough and Zeneca. Celltech also receives a royalty stream from licensing of its antibody engineering patents for several therapeutic antibody products including Centocor's ReoPro™.

Platform Technologies

Antibody Production ○ Celltech has developed methods for high yield production of antibody fragments in prokaryotic fermentation systems, resulting in a substantially reduced cost of goods for therapeutic antibodies. An antibody produced in Celltech's high yield bacterial expression system is currently entering human trials. Celltech has a broad portfolio of patents covering antibody engineering and production.

Antibody Humanisation ○ Humanisation of antibodies, by the replacement of non-essential amino acids with equivalent human residues, is used to prevent the occurrence of patient immune response to the administration of therapeutic antibodies, an event which can compromise therapeutic efficacy. Celltech is a leader in antibody humanisation, with a substantial intellectual property platform including the granted Adair patent.

Target Discovery ○ Celltech is using genetic technology combined with its expertise in antibody generation to identify and validate therapeutic targets for its ongoing NCE discovery programmes.

Medicinal Chemistry ○ A concerted programme of discovery, medicinal and combinatorial chemistry directed at the generation of novel chemical entities active against specific therapeutic targets.

Gene Therapy Targeting ○ Antibody-targeted delivery of genes incorporating novel antibody-liposome structures, lipids, DNA packaging systems, and cell penetration aids.

AREAS FOR POTENTIAL COLLABORATION

▼ Technology Licensing

- Methods for generating recombinant antibody fragments suitable for high yield expression in bacterial systems, including chimeric and humanized forms. Licences are available to Celltech's patents and intellectual property surrounding this technology
- Licences are available to the Adair and Winter patents which cover production of humanised (CDR-grafted) antibodies and fragments
- Licences are available to the Celltech Boss and Neuberger patents which cover the production of recombinant antibodies and fragments (including: chimeric, humanised, bi-specific, and antibody fusion proteins) in transformed cell lines. Over 40 product licences have been granted for this technology
- Antibody-targeted liposomal delivery of therapeutic genes

▼ Drug Discovery and Development Programs

- TNF α program. CDP571 and CDP870 are clinical phase antibody therapeutic products under development for treatment of Crohn's disease and rheumatoid arthritis. CDP870 is produced in Celltech's proprietary bacterial expression system. A partner for late stage development and marketing is sought
- Oral VLA-4 antagonist development program for asthma. Collaboration with a pharma partner is under consideration to help expedite drug candidate selection and development
- PDGF receptor antagonist program. CDP860 is an antibody based therapeutic product directed at prevention of coronary restenosis. CDP860 is produced in Celltech's proprietary bacterial expression system and is entering clinical development
- Protein kinase inhibitors. A large library of small molecules with demonstrated tyrosine and serine/threonine kinase inhibitor activity is available for discovery programs in all therapeutic areas

KEY WORDS

- ◆ Antibody
- ◆ Bacterial Expression
- ◆ Humanization
- ◆ Boss
- ◆ Adair
- ◆ Winter
- ◆ Gene Therapy
- ◆ Targeted Delivery
- ◆ PDGF
- ◆ TNF
- ◆ VLA-4
- ◆ Tyrosine Kinases

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www.biopartneruk.com

Global Watch
ONLINE

What Type of Partnerships?

- **Research collaboration**
- **Technology licensing**
- **Product / Process development**
- **Investment**
- **Joint venture**



What Type of Partnerships?

- **Research collaboration - eg EU CRAFT**
- **Product / Process development - eg IT projects combining hardware/software and digital content**
- **Technology licensing - a University spin-out company has successfully mass produced a medical diagnostic kit after licensing in an enzyme production technology from a US university**



What Type of Partnerships?

- **Investment - eg UK electronics firms presented at the Global Venture Forum in Japan**
- **Joint venture - A UK engineering company formed a joint venture in the USA to design and build high technology projects onsite at the NASA/Johnson Space Center and now facilitates UK company access to NASA machining technology**

Results 2001/02

- **2000 'new' UK firms contacted**
- **1000+ overseas contacts recorded**
- **800 UK firms taking action**
- **85 overseas visits made**
- **500 'validated' Partnering meetings**
- **40 Partnership 'deals'**



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www.globalwatchonline.com

