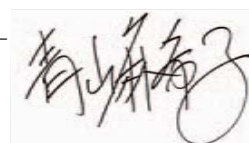


Issue Seven, June 2009:
Newsletter of the Emerging Medical Technologies Group
A project of LTN (London Technology Network) and
Enterprise Europe Network

As June comes to an end, we are in the process of finalising our statistics for the number of deals that were signed between our academic network and the private sector during the last 12 months. Despite the economic downturn, we are not seeing a significant decline in the overall number and size of deals compared to the previous five years. The network brought in over £13 million over the last 12 months, of which a quarter accounted for the Life Sciences sector. Academia continues to be a treasure trove of innovations and expertise for companies to benefit from.

In terms of the types of enquiries we receive from our corporate clients, we have noticed that (not surprisingly) more and more people ask us for information on funding! Although we are not in the position to fund and invest in opportunities ourselves, we are in the best position to find you collaboration partners for joint application of grants and for risk sharing of projects. Back by popular demand, we will also hold another "R&D Funding" event on 22 September. We hope you enjoy this issue and wish you a good productive summer ahead.



– Maki Aoyama, Business Development Manager, LTN

LTN showcase at ERBI reveals stem cell research optimism

LTN HOSTS THE THIRD DAY OF ERBI WITH AN EXTENSIVE AND REVEALING LIFE SCIENCE TECHNOLOGY SHOWCASE.

Following the remarkable success of last year's gathering, LTN held the Life Science Technology Showcase at the annual ERBI event in Cambridge, extending the theme of "Disruptive Technologies in Life Sciences".

The event on 12 June was a high energy day of networking, partnering and showcase presentations. Nearly a hundred posters were displayed making a continuous band of

orange headers around three sides of the cloisters at the Hinxtton conference centre. Hundreds of partnering meetings took place between the cream of British academia and senior industrialists from all over Europe. Over a dozen presentations took place

in the lecture theatre throughout the day.

The posters showed a truly staggering diversity of technology. From ground water contamination to bone reconstruction, automated cell detection to

ries of presentations and panel discussions were running nearly continuously throughout the day, with a constantly changing audience, as delegates dropped in an out, fitting partnering meetings around the talks.

Sessions opened with a talk on the criteria of industry academic relationships followed by a stimulating introduction to Pfizer's new regenerative medicine initiative by Dr Tim All-

sopp. Groups from a number of universities showcased their technology, bringing to the fore how it might be useful in addressing the type of problems that industry will face in this rapidly developing field. The panel session that followed in the now familiar



drug delivery systems, diamond-like carbon coatings to steerable surgical probes—it was hard to imagine an area where the academics could not make a valuable contribution to a company's R&D programme.

In the 300 seat lecture theatre, a se-

continued page 2

LTN and ERBI cont'd

... from page 1

LTN format seemed more optimistic about the valorisation of stem cell science. The private sector is now coming to terms with the technology and that it will be a commercial reality. Companies such as Pfizer and GSK are making strategic investments in the field. VCs are now accepting the idea that there is likely to be a service element in the regenerative medicine sector and are prepared to put money into good business plans, backed by strong management teams. The final talk in this session by Harry Witchel bridged from stem cell science to the next session on systems biology.

Systems biology brings together a number of disciplines that have been part of biochemistry and molecular biology for some considerable time. It allows the biologist to address the biome in a more holistic manner. Despite the obvious eclectic nature of the discipline, it is a subject that is not often showcased. The session was introduced and chaired by Dr Gerhard Engel from Accelrys. Accelrys is a company that develops products to manage the huge amounts of information that are generated in drug development and research programmes in the pharmaceutical sector. Systems biology contributes much to the complexity of this activity. Following the lively presentations the panel session drew considerable audience participation. It was proposed that systems biology and its multitude of sub disciplines is a field that lends itself well to collaboration. This is an area where organisations such as LTN can be of great assistance to potential partners—helping match capability of the individual organisations with the

needs of a nascent consortium.

The final session of the day was on personalised medicine - a subject very much in the news recently. This is now a commercial reality driven by regulation to reduce the adverse events associ-

ated with drugs and drive down cost through unnecessary medical intervention. The interdisciplinary nature of the industry makes it a fruitful area of collaboration between the public and privately funded research organisations. The bringing together of biomarker research, biomics, diagnostics and all aspects of drug development, then applying this to the challenge of optimising treatment for the individual in a highly heterogeneous population, is a monumental challenge. However it is one that also delivers obvious patient benefit and considerable opportunity for commercial return. The

session was opened by an energetic presentation from Professor Tony Turner of Cranfield University. It was clear that there is an enormous amount of untapped potential in the UK's universities and research institutes that could be applied to the challenges faced by the private sector. However in personalised medicine, because of its input from so diverse a range of disciplines, the identification of the optimum partner is a fundamental problem. Networks play an important role in assisting with this process.

– Dr. Jolyon White,
Technology Consultant, LTN



Upcoming LTN Events

Identifying novel therapies for the prevention and treatment of gender specific oncology

7 July 2009

The Royal Society, London

Optimising funding opportunities for collaborative R&D projects

22 September 2009

The Royal Geographical Society, London

Addressing bottlenecks in drug discovery

21 October 2009

Wellcome Collection, London

LTN events have restricted access. To learn more phone 0870 730 8688 visit www.LTNNetwork.org/events or email e.graham@LTNNetwork.org

Upcoming External Events

BioGuide London Symposium

London, UK

6 July 2009

e: bioguide@londonfirst.co.uk

eHealth 2009

Istanbul, Turkey

23–25 September 2009

www.electronic-health.org

EuroBio 2009

Lille, France

23–25 September 2009

www.eurobio-event.com

17th Annual Bio-Partnering Europe

London, UK

11–14 October 2009

www.techvision.com/bpe/overview

International symposium on food technology

Murcia, Spain

26–27 October 2009

e: victoria.diaz@info.carm.es



Business Support on Your Doorstep

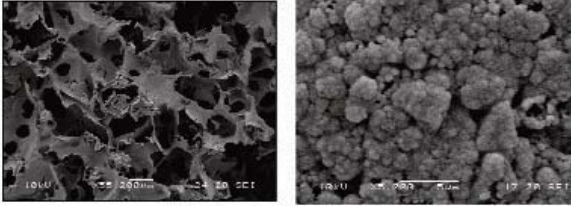

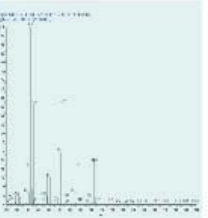
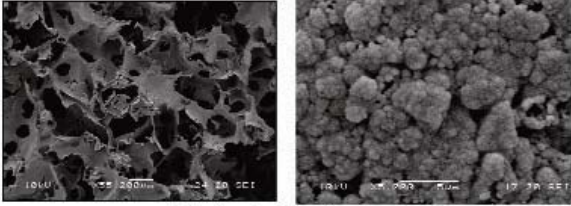
LTN posters at ERBI

LTN proudly re-prints two notable posters from the ERBI showcase event.



School of Biosciences
 Contact: Miriam Dwek
m.v.dwek@westminster.ac.uk

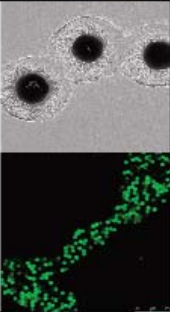
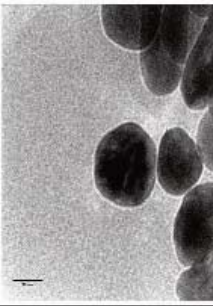
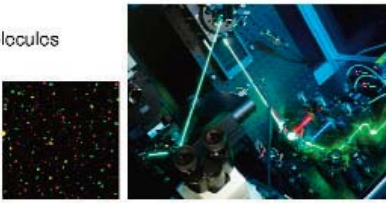


Biodegradable Tissue Scaffolds	Application of Polymer to Regenerative Medicine
<p>Technology Biodegradable polymers produced as primary metabolites from bacteria including <i>Bacillus</i> species. Polymer degrades <i>in vivo</i> to 3-hydroxybutyric acid, a non-toxic product of fatty acid biosynthesis.</p> <p>The material properties of the polymer can be modulated according to the application, ranging from hard through to soft by changing bacterial growth conditions.</p> <p>Production and purification are conducted in-house.</p> <p>Applications Tissue scaffolds, non-medical applications in packaging.</p> <p>Current collaborations Material property characterisation is via Materials Science collaborations at Imperial and UCL.</p> <p>Opportunities for companies CASE studentships, KTP and funded research projects. Please contact Dr Ipsita Roy via Dr Miriam Dwek.</p>	<p>Technology At present the polymer has been modelled to allow orthopaedic applications (bone and cartilage). This is being extended to dental and craniofacial applications and soft tissue applications (lung and heart).</p> <p><i>In vivo</i> studies suggest the polymer is not immunogenic.</p> <p>Applications Orthopaedic, dental and craniofacial.</p> <p style="text-align: center;">  SEM micrographs of the polymer composites (figure on the right shows high bioactivity) </p> <p>Opportunities for companies CASE studentships, KTP and funded research projects. Please contact Dr Ipsita Roy via Dr Miriam Dwek.</p> <p>Current collaborations The work is currently undertaken in collaboration with Dr A Boccaccini, Imperial College London.</p>
 <p style="font-size: small;">Bacillus sp. - fluorescent stain shows polymer production</p>  <p style="font-size: x-small;">Mass spectrum of the methyl-ester of 3-hydroxybutyrate, obtained on polymer hydrolysis</p>	 <p style="font-size: x-small;">SEM micrographs of the polymer composites (figure on the right shows high bioactivity)</p>



Biotechnology Team
 Contact: Dr James Noble
james.noble@npl.co.uk



Innovative Technologies in Personalised Medicine	
<p style="text-align: center; background-color: #004a87; color: white; padding: 2px;">Nanoparticles for Biosensing Applications</p> <p>Technology Nanoparticles for enhanced MS, cell-based and diagnostic applications.</p> <p>Existing applications Cell-based monitoring, peptide enrichment and novel matrices for MALDI and novel tags for diagnostics.</p> <p>Opportunities for companies Collaboration on development of new measurement platforms and specific assays</p>	<p style="text-align: center; background-color: #004a87; color: white; padding: 2px;">Electrochemical Immunoassay</p> <p>Technology Silver Sol based assay system for high sensitivity diagnostic measurements</p> <p>Existing applications Rapid hand hold POC and home system that has the same sensitivity as ELISA with smaller sample volumes</p> <p>Opportunities for companies Collaboration opportunities to develop specific assays on a robust measurement platform</p>
	
	
Total Internal Reflection Fluorescence (TIRF) – Single Molecule Activity Measurement	
<p>Technology Single molecule detection is key for understanding heterogeneous behaviour and activity of molecules</p> <p>Existing applications SNP Genotyping. High sensitivity biosensors. Single molecule multiplexing</p> <p>Opportunities for companies Technology licensing in genomic sequencing. Collaboration on new application areas such as drug discovery and diagnostics.</p>	
	

Oncology event: call to industry

LTN is holding an event on Gender Specific Oncology on 7 July 2009, and there are still places available for representations from industry.

The Gender Specific Oncology event will offer the latest insights into the therapeutic and prognostic approaches for cervical, breast, testicular and prostate cancers.

The event also offers a valuable opportunity for networking.

Speakers include:

Dr Karin Hardt,
GlaxoSmithKline

Professor Diana Eccles,
University of Southampton

Dr Tom Powles,
Barts & The London School of Medicine & Dentistry

Professor Donald Newling,
AstraZeneca

This event is on a first come first



serve basis so to reserve your place now email Emma Graham at e.graham@LTNetwork.org.

Furthermore the purpose of our events is to encourage collaboration between industry and academia. You are welcome to invite people whom you think would be interested in attending this event. To refer a colleague, please email Emma with their name, company, job title and email address.

EuroBio discount

LTN clients are being offered a generous 50% discount to attend the EuroBio event, held in Lille from 23 to 25 September 2009.

EuroBio 2009 offers biotech companies a unique framework designed to identify parties from the academic world as well as the major players in industry.



The discounts for the EuroBio Pass are:

Mature Companies, Institution: €800
LTN special rate: €600 (VAT included)

Start-up Companies: €400
LTN special rate: €200

Academia: €300
LTN special rate: €150

To take advantage of this special offer contact Maki at m.aoyama@LTNetwork.org.

For more information visit www.euro-bio-event.com.

Funding update

In April this year LTN received funding from the London Development Agency, (as part of its work on Catalyst, London's Science & Industry Council), to help more London research groups and companies form consortia to bid for R&D funding from the Technology Strategy Board (TSB), or to join consortia which are improved by these new members.

We are pleased to announce that in the last three months LTN has assisted 71 representatives from 13 academic institutions and 38 companies to find bid partners, for calls including Retrofit for the Future, Energy Generation & Supply: Carbon Abatement Technologies and Design & Decision Tools. These bid applications may include partners from across the Greater South-East.

If you would like help finding a partner for any upcoming bids, email Iain at i.watson@LTNetwork.org.



New FP7 calls

The following calls for FP7 funding are now open. For more information visit <http://cordis.europa.eu/fp7/dc/index.cfm>

Marie Curie Industry-Academia Partnerships and Pathways
Code: FP7-PEOPLE-2009-IAPP
Deadline: 27 July 2009

Marie Curie Intra-European Fellowships for Career Development (IEF)
Code: FP7-PEOPLE-2009-IEF
Deadline: 18 August 2009

Marie Curie Reintegration Grants
Code: FP7-PEOPLE-2009-RG
Deadline: 31 December 2009

Marie Curie International Incoming Fellowships (IIF)
Code: FP7-PEOPLE-2009-IIF
Deadline: 18 August 2009

Marie Curie International Outgoing Fellowships for Career Development (IOF)
Code: FP7-PEOPLE-2009-IOF
Deadline: 18 August 2009



Online technology profiles from Enterprise Europe Network



The following profiles are examples of the latest innovations available online now, at www.LTNetwork.org/services/tech-search.asp, as part of **Enterprise Europe Network** (a free service of which LTN is a key partner). If you're seeking new technologies or would like to market your own innovations to Europe, or would like to learn more about the profiles below, then email the name and profile number to Maki Aoyama at m.aoyama@LTNetwork.org.

Title	Description	Country	Type
New antiviral pharmaceutical preparation (09 HR 89GJ 3DJ3)	A Croatian technology transfer company is offering a new antiviral zeolite-based preparation for prophylaxis, therapy and pre- or post-treatment of diseases caused by the infection with Herpes Simplex virus type 1 and 2. When applied in low concentrations, they retard entry of viruses into the cell and at the same time inhibit their propagation (up to 92%).	Croatia	Offer
Knowledge and expertise in caring for the sick and elderly (09 IS 81ET 3CO4)	An Icelandic SME in consulting and software development is developing health care systems. The company is looking for a partner with knowledge and expertise in caring for the elderly to develop further a new software product.	Iceland	Request
A new stomatologic gingival gel based on non-steroid anti-inflammatory drugs (09 PL 61AK 3DOZ)	A Polish SME from medical materials sector developed a new preparation of stomatologic gel. It has been clinically evaluated for the effectiveness in the treatment of periodontal disease and now is ready for manufacture. The developer is looking for industrial partners active in the pharmaceutical sector as licensees or co-operants for manufacture of the product.	Poland	Offer
Technologies for implants for the measurement of carbon dioxide levels in human blood (09 DE 0855 3D2Y)	A German Microelectronics Research and Development Institute seeks a measurement technology to determine the carbon dioxide level in human blood. Of particular interests are technologies which can be integrated in a medical implant.	Germany	Request
A line including the establishment and cryopreservation of lymphoblastoid cell lines and total genomic DNA (08 IT 55Y2 01EB)	An Italian company created in 1989 by a group of researchers with twenty years' experience in the sector of biotechnology and bioanalysis, which operates in the biomedical, veterinary and agrarian fields, has developed a line for preparation and storage of lymphoblastoid cell lines and total genomic DNA starting from whole blood. The company is looking for commercial agreements with technical assistance.	Italy	Offer
Technology of sterilisation and packaging of bone plates made of titanium and titanium alloys for use in orthopaedics and traumatology (08 PL 62AP 01FO)	A Polish producer of specialistic implants and instruments for orthopaedics and traumatology is looking for a technology of sterilisation and packaging of bone plates made of titanium and titanium alloys for use in orthopaedic surgery and traumatology.	Poland	Offer
Blood-sugar-decreasing bread powdery mix for diabetics (08 DK 20A9 01IP)	A Danish inventor holds a patented invention relating to a bread-like product having a blood-sugar-reducing effect for diabetics. The powder mix, which upon mixing with water and vegetable oil forms dough, may be baked to a bread-like product. It contains no flour and reduces the 24-hour blood sugar level by 96% with comparison to normal intake of bread.	Denmark	Offer
Integration of standardised printing protocols into the firmware of medical devices (08 ES 25E2 27JL)	A Spanish enterprise located in the Catalonia region has wide experience on medical devices. They are working on portable devices based on a microprocessor without operating system.	Spain	Request



Title	Description	Country	Type
Novel topical drug product for atopic dermatitis and psoriasis (09 FI 30I2 3DTD)	A Scandinavian biotech company developed an anti-inflammatory emulsion cream for treatment of skin inflammations (atopic dermatitis, psoriasis). The product is based on a new mode of action, and it has been tested in phase 2a clinical trials.	Finland	Offer
4D visualisation technology for diagnostics and training in the medical profession (09 NL 60AF 3D26)	A Dutch SME has developed a technique to turn several sources (MRI, CT, PET, Ultrasound) into 3D movies, where objects can be manipulated and cross-sections can be made. This technique lends itself especially well to education and training in the medical profession.	The Netherlands	Request
Molecular Markers for minimally invasive diagnostics (09 DE 1170 3DH0)	A working group of a German university has identified special features of tumour cells that could constitute a basis for an improved special diagnostic investigation, in form of molecular markers for minimally invasive cancer diagnostics.	Germany	Offer
Human Vaccines at Preclinical development (09 ES 28G1 3CGB)	A Spanish biotechnology company, focused on research and development of Chimeric Virus-like Particles as therapeutic and prophylactic vaccines in human and veterinary health, is looking for a vaccine for human health in preclinical phase with strong industrial property in order to collaborate in clinical phases.	Spain	Request
Remote Monitoring of Patients with Obstructive Sleep Apnea Syndrome (08 PT 65BN 0IU1)	A Portuguese SME has developed a system that monitors patients with Obstructive Sleep Apnea Syndrome remotely which can be used for an early screening of the syndrome. This innovative system records important data during sleep, and sends it in real time to a computer or mobile device (PDA, mobile phone) in the healthcare unit, allowing the hospital to screen patients and save money in expensive polysomnography exams.	Portugal	Offer
Wrist unit monitoring vital functions of the patient at home and transmitting the data via telephone or internet to the call-centre (08 CZ 0744 0IE6)	A Czech company would like to establish a system of monitoring patients and elderly people in their homes. Thus they are looking for a device enabling distant monitoring of vital functions/breathing, one loop of ECG, pulse, body temperature and/or additionally blood glucose.	Czech Republic	Request
New enabling technology for antibody development and characterisation (09 BE 0324 2S5A)	A small Belgian SME provides Life Science companies with R&D customized services in its core business field. This proprietary technology platform is geared to develop efficient, innovative and convenient biotools which can be used for protein domain studies. This technology fits perfectly well with: antibody development, epitope mapping, protein expression.	Belgium	Offer
Technology of bioresorbable implants production (09 PL 62AP 3CWC)	A Polish producer of specialistic implants and instruments for orthopaedics and traumatology is looking for a technology of production of bioresorbable implants for use in orthopaedic surgery and traumatology.	Poland	Request
Fast and easy clinical gait analysis (09 IS 81ET 3DC0)	An Icelandic SME has developed a product that uses ordinary PC and camcorder to generate a gait report with indication on walking performance. Client groups that until the present day has not qualified for objective motion analysis now can have it. The product is applicable in many aspects of rehabilitation, for instance training after amputation, geriatrics, pediatric and/or neurological problems in general.	Iceland	Offer

Want to contribute an article?

If you have an idea for an article or would like to include an event listing in the next EMT SIG newsletter, contact Natalie at n.tamiollo@LTNetwork.org. Or if you're involved in an event you would like fellow members to know about, email Natalie and we'll include it on our website, which is updated weekly with the latest news and events, in the UK and internationally.



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