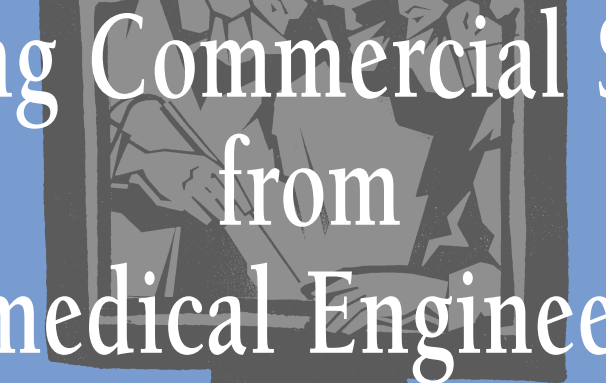


UK Focus for  
Biomedical Engineering



ROYAL  
ACADEMY  
of  
ENGINEERING



Creating Commercial Success  
from  
Biomedical Engineering

FROM TECHNOLOGY TRANSFER TO FLOTATION

*A CONFERENCE*

*AT*

THE ROYAL SOCIETY OF MEDICINE  
1 WIMPOLE STREET LONDON W1

MONDAY 29th APRIL 2002



# Creating Commercial Success from Biomedical Engineering

FROM TECHNOLOGY TRANSFER TO FLOTATION

The number of high technology spin-outs or start-ups in the biotechnology sector has risen very sharply in the UK in the last decade. A significant proportion of these have been in the biomedical engineering area, where engineering principles and techniques are applied to solve medical problems. In the last few years, new companies have been set up to exploit new engineering technology for needleless injection, biocompatible coronary stents, novel optical sensors, automated analysis of medical images and telemedicine. This conference will explore why the commercialisation of biomedical engineering research is very active in the UK at the moment, whether lessons have been learnt from the past, how to go from the development of intellectual property to successful flotation and whether more can be done to stimulate further commercial exploitation of biomedical engineering.

Speakers at the Conference will represent every stage of the technology transfer process, from investors to users of the output of the process via academics, engineers and senior managers in industry. The Conference should appeal to anyone involved in biomedical engineering R&D or with an interest in its exploitation for wealth creation and/or improving patient care. At the end of each session, there will be an opportunity for comments and questions from the Conference delegates. The Conference will end with a round-table discussion which will involve all the speakers and seek to identify how and where further opportunities may arise in this sector. The Royal Academy of Engineering intends to publish the Proceedings of this conference and these will include a summary of the discussions.

## UK FOCUS FOR BIOMEDICAL ENGINEERING

09.30 Registration

09.55 **Chairman's Introduction**  
**Professor Peter Wells FEng**  
Bristol University

### OVERVIEW

10.00 **Engineering Technologies and the NHS**  
**Sir Michael Peckham FEng**  
Chairman, Foresight Healthcare Panel

As the first Director of R&D for the NHS and DoH from 1991 to 1995, Sir Michael was responsible for devising and implementing a research and development strategy for the NHS.

10.25 **How to make Successful Medical Systems**  
**Professor Will Stewart FEng**  
Chief Scientist, Marconi plc

- Review of technology for imaging and sensing
- Example of GEC/Marconi medical imaging products from the last 10 years
- The impact of IT and communications and other strong trends

10.50 **New Biomedical Materials Companies – A Foresight Study**  
**Professor Graham Davies FEng**  
Chairman, Foresight Materials Panel

- Materials Foresight study on new start-up companies
- Lessons learnt for successful exploitation
- Potential pitfalls

11.15 Discussion

11.30 COFFEE

### INVESTMENT

**Chairman: Professor John Mann**  
Trellick Ltd

11.45 **University Spin-outs: How to do it?**  
**Dr Ederyn Williams**  
Warwick Ventures, University of Warwick

- University spin outs now exceeding 200 a year
- "Production line" now running in major universities
- IP management, business planning and seed capital are becoming predictable
- Major funding is improving but still elusive

# Creating Commercial Success from Biomedical Engineering

## 12.10 **Venture Capital – What it can do for you**

**Dr Sue Foden**

Merlin Ventures

- Building vision and planning
- Contacts, door-opening and networks
- Cash and more cash
- Shaping commercial strategies and exits

## 12.35 **IP – Foundation for Growth and Shareholder Value**

**Mr Ian Harvey**

BTG Ltd

- The need for strong intellectual property protection
- For new ventures, choosing between internal development, partnership and licensing
- Is there too great a focus on UK university venture creation?
- Convergence of technologies requires patenting business processes

13.00 Discussion

13.15 LUNCH

## GROWTH

**Chairman: Professor Richard Kitney OBE FEng**

Imperial College of Science, Technology and Medicine

## 14.00 **Growth through Private Placements**

**Dr Tom Harris**

Cardionetics Ltd

- Background: university & business angels
- Investment: maintaining founder share
- Medical funding: timescales & approval process
- Exit strategies

## 14.25 **Entrepreneurship in Biomedical Engineering at Imperial College**

**Dr Tidu Maini**

Sema Group

- The opportunity
- The necessary environment
- The future
- Two examples of spin-out companies

## 14.50 **Barriers to Growth in a Start-Up Company**

**Mrs Pam Liversidge FEng**

MeDis Diagnostics Ltd

- Finance, regulatory and early barriers
- Marketing and legal issues
- How to overcome these barriers

15.15 Discussion

15.30 TEA

## PROFIT

**Chairman: Professor Lionel Tarassenko FEng**

Oxford University

## 15.50 **Flotation**

**Mr Crispin Simon**

Biocompatibles International plc

- Opportunities of a public quotation
- Obligations of a public quotation
- Growth, profit and value in a public company

## 16.15 **Going Multinational**

**Mr George Zajicek**

Axis Shield Diagnostics

- Domination of majors for global instrument platforms
- Innovation the key to success
- Commercialisation through OEM deals
- Expansion through organic growth and M & A

## 16.40 **Dealing with the City: managing through turbulent times**

**Dr Paul Drayson**

PowderJect Pharmaceuticals

- Adapting business strategy in response to market change
- Dealing with new competitive threats
- Communicating with investors

17.05 Discussion and Summary

17.35 TEA

18.00

### EVENING LECTURE AND DINNER

**Chairman: Sir Alec Broers FRS FREng**  
President, The Royal Academy of Engineering

### MRI, Molecules, Mergers and Markets

**Sir Peter Williams CBE FRS FREng**  
Chairman, Engineering and Technology Board

- MRI – from local to global business
- The "Williams Report" – High-tech investment, in particular the role of taxation
- Role models in bioscience
- The willingness of financial partners to invest in the bio sector

18.40 Discussion

19.00 RECEPTION

19.30 DINNER

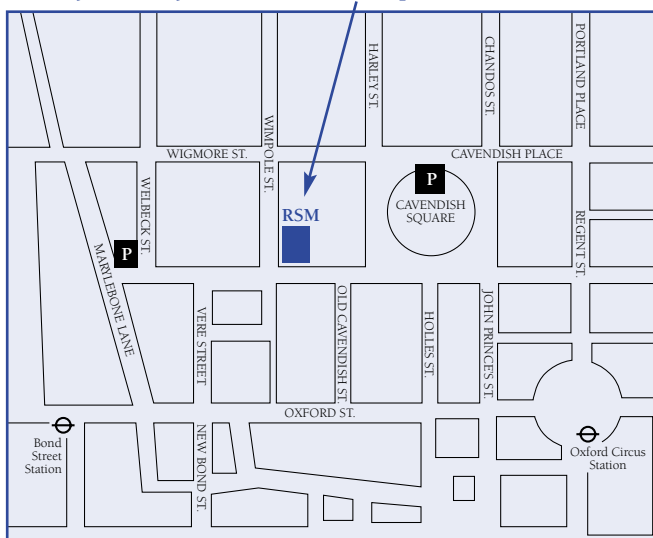
21.30 Close

## SPONSORS

The Royal Academy of Engineering wishes to acknowledge the generous support of the following organisations for this conference:



### The Royal Society of Medicine, 1 Wimpole Street, London W1



## CONDITIONS OF BOOKING

**REGISTRATION FEE:** The fee includes full participation in the conference, documentation, refreshments, lunch and the evening lecture. An additional charge of £40 per person will be made for those wishing to attend the evening reception and dinner. Confirmation of your booking, joining instructions and a VAT receipt will be forwarded to you in advance of the conference. Documentation will be available on arrival.

**CANCELLATIONS:** In the event of a delegate cancellation the full fee will be refunded providing cancellation is notified in writing by 19th April. We regret that no refund can be made for cancellations notified after that date but a substitute delegate may attend.

**CHANGES TO THE PROGRAMME:** Whilst every effort will be made to present the programme as described, the organisers reserve the right to make any changes considered necessary or as a result of circumstances beyond their control.





# UK FOCUS FOR BIOMEDICAL ENGINEERING

The UK Focus for Biomedical Engineering was established in 1993 under the auspices of The Royal Academy of Engineering. Its origins date back to 1987 when The Academy, then known as The Fellowship of Engineering, was invited to submit evidence to the House of Lords Science and Technology Committee enquiry into priorities in medical research. This led to the formation of a working party to investigate the role of engineering in medicine and launched The Academy's involvement in the field. The working party concluded that a focus for biomedical engineering in the UK was necessary to assist developments in policy and to co-ordinate activities and so the UK Focus for Biomedical Engineering came into being. Membership comprises a range of professional groups involved in the field, including the Institute of Physics and Engineering in Medicine, the Institutions of Mechanical, Electrical and Chemical Engineers, the Institute of Materials, the Departments of Health and Trade and Industry, the Engineering and Physical Sciences, Biotechnology and Biological Sciences and Medical Research Councils, medical charities and the Association of British Healthcare Industries. The Royal Academy of Engineering provides a number of representatives, including the Chairman, Professor Peter Wells FREng.

## THE ROYAL ACADEMY OF ENGINEERING

The objectives of The Royal Academy of Engineering are to pursue, encourage and maintain excellence in the whole field of engineering in order to promote the advancement of the science, art and practice of engineering for the benefit of the public.

The Academy comprises the United Kingdom's most eminent engineers of all disciplines. It is able to take advantage of their wealth of knowledge and experience which, with the interdisciplinary character of the membership, provides a unique resource with which to meet the objectives.

Its activities include an extensive education programme, research chairs and fellowships, visiting professorships, industrial secondments and international travel grants. It provides expert advice on engineering matters to government and other bodies and administers the UK's premier annual prize for innovation in engineering, The Royal Academy of Engineering MacRobert Award.

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