



The Institute of Materials, Minerals & Mining

## **INDUSTRY & TECHNOLOGY POLICY BOARD BIOMEDICAL MATERIALS APPLICATIONS DIVISION ANNUAL REPORT FOR 2007**

### **1. Board membership**

Chairman Dr Serena M Best, University of Cambridge  
Secretary Ms Sue Dunkerton, TWI/Health Technologies KTN

Professor Sandra Downes, University of Manchester  
Dr Minoo Esat, Director, Furlong Foundation  
Dr David Gooch, Materials Science and Technology Board  
Professor Paul Hatton, Department of Dentistry, University of Sheffield  
Dr Andrew Jackson, Smith & Nephew plc  
Mr Brian Kent, Independent  
Mr Brian Knott, IOM3  
Dr Andrew Lewis, Biocompatibles UK plc  
Professor Andrew Lloyd, School of Pharmacy & Biomolecular Sciences,  
University of Brighton  
Professor Brian Meenan, Nanotechnology & Integrated Bio-Engineering  
Centre, University of Ulster  
Professor John Nicholson, University of Greenwich  
Dr Allan Ritchie, DePuy Johnson and Johnson  
Professor Neil Rushton, Orthopaedic Research Unit, Addenbrooke's  
Hospital, Cambridge  
Professor Elizabeth Tanner, University of Glasgow,  
Dr Irene Turner, University of Bath  
Dr. Matteo Santin, School of Pharmacy & Biomolecular Sciences,  
University of Brighton

#### **New Board Members:**

Professor Pankaj Vadgama, Director, Biomedical Materials IRC, Queen  
Mary University of London  
Dr Julian Jones, Imperial College  
Mr Justin Cobb, Imperial College  
Dr Lucy Di Silvio, Kings College London (President of UKSB)  
Dr Julian Braybrook, LGC  
Dr Elsie Damien, MHRA  
Prof David Lee, Queen Mary University of London (and representative of  
TCES)

#### **Immediate Past Chairman:**

Professor Bill Bonfield, University of Cambridge

Retired Board Members:

Professor James Courtney, Bioengineering Unit, University of Strathclyde

Dr Andrew Crosbie, MDA

Dr Jan Czernuszka, Department of Materials, University of Oxford

Professor Peter Marquis, Dental School, University of Birmingham

Professor Gavin Pearson, Department of Materials in Relation to  
Dentistry, Queen Mary University of London

Professor Peter Revell, Royal Free Hospital, University College London

Professor David Williams, Department of Clinical Engineering, University  
of Liverpool

## **2. Board meetings**

11 January 2007      11 attendees

17 May 2007        18 attendees

25 September 2007   15 attendees

## **3. Opportunities for growth of Division Community or constraints**

The Division has worked to expand and reactivate its membership and collaborations through new Board members from the other active universities, and also from MHRA (main regulatory body for medical devices) and LGC. It continues to work closely alongside the UK Society of Biomaterials and the European Society of Biomaterials with two successful events this year, and in particular the ESB meeting in Brighton organised by Division members. The Division is a member of AIME (Association of Institutions concerned with Medical Engineering) and met with them in September to ensure better collaboration between Professional Institutions.

Two key components of the Division strategy have been education and design. A paper was prepared in 2006 on education which was linked into a similar paper by the Institution of Mechanical Engineers, and subsequently presented at the Royal Academy of Engineering (for full paper see:

<http://www.raeng.org.uk/policy/ukfocus/publications.htm>

In 2007, this paper has been reviewed and discussions initiated with the IOM3 Group examining education in materials for younger people. Further, the Education Working Group of the Division has discussed involvement with the wider orthopaedics community in terms of input into, for example, the FRCS(Orth) training courses for clinicians. The common factor is identified as the need for standardisation of syllabi for training courses both in the orthopaedic community and at undergraduate level.

Dr Bernie Rickinson has introduced the Materials and Design Exchange (MADE) to the Division and consideration of design in biomedical materials is ongoing.

## 4 Technical programme

### Events in last 12 months

Event	Location	Date	Division role	Comments
RSC Biomaterials Chemistry Group	London	16 January	Co-sponsored by Division	Successful meeting engaging chemists with materials scientists
Engineers and Surgeons Joined at the Hip	IMechE, London	19-21 April	Co-sponsored by Division	
UKSB meeting	Kings College, London	5-6 July	Co-sponsored by Division	150 registrants – successful meeting which targets young researchers
RSC Materials Chemistry Forum	UCL, London	7-8 July	Keynote by Division Chair	Several hundred delegates and perceived as successful meeting
ESB	Univ of Brighton, Brighton	9-13 September	Organised by Division members from the University of Brighton	Large attendance (>500 from 38 countries) and highly successful event with excellent scientific programme
IMechE: Incontinence – the Engineering Challenge	IMechE, London	14-15 November	Co-sponsored by Division	100 delegates and successful mix of industry, academia, clinical and patients

### Events in next 12 months

Event	Location	Date	Division role
RSC Biomaterials Chemistry	Manchester	15 January	Co-sponsored by Division

Group			
UKSB meeting	Liverpool	26-27 June	Co-sponsored by Division
Materials Congress	Grantham	13-15 May	Organised by IoMMM, masterclass by Smith&Nephew
IMechE/IOM3 meeting on Bearing Surfaces	London	November	Co-organiser with IMechE

## 5 Foresight / Innovation and Growth

Members of the Division are active with the national materials initiative (chaired by Prof George Smith) to expand and exploit relationships with China. A specific action is going forward on Biomaterials, with matched membership between China and the UK. The aims are to lobby for funding from UK institutions and to initiate exchange visits and greater collaboration between UK and Chinese scientists.

The Division has strong links with the Health Technologies Knowledge Transfer Network (KTN) with 4 Division members being partners within this KTN. Also, Dr Julian Braybrook has strong links with the Department of Innovation, Universities and Skills (DIUS).

## 6 Professional membership developments

The Education Working Group of the Division is exploring how to ensure the high quality of university courses involving biomaterials as well as looking to support the work of the IOM3 in encouraging young researchers into the field.

The Division is considering potential ‘Captains of Industry’ to nominate for Fellowship of the IOM3.

## 7 National and international linkages with other Societies /Institutes

The Board provides cross-membership of a number of committees within a variety of institutions:

- Association of Institutions concerned with Medical Engineering (AIME)
- Institution of Mechanical Engineering (IMechE)
- Royal Society of Chemistry (RSC)
- UK Society for Biomaterials (UKSB)
- Institute of Physics and Engineering in Medicine (IPEM)

- European Society for Biomaterials (ESB)
- Tissue and Cell Engineering Society (TCES)
- Royal Academy of Engineering UK Focus for Biomedical Engineering

## **8 Government interfaces**

Health Technologies KTN, and via this the Technology Strategy Board

Board members have strong links into EPSRC.

## **9 Publications**

Website and features within Materials World.

## **10 Awards/prizes**

The Dennis Chapman medal has been established by the Institute as a premier award for excellence in the specific field of biomaterials that has reached a successful exploitation. This award commemorates the distinctive contribution of Professor Chapman, both as a biomaterials scientist and as an entrepreneur who founded Biocompatibles UK plc. The winner for 2006 presented in 2007 was Professor David Williams of Liverpool University.

## **11 Other matters**

There were no other matters in 2007.

