

Session Chairs



Professor Alan North FRS
Vice-President and Dean of the Faculty of Life Sciences



Bob Ford
Professor of Structural Biology, Faculty of Life Sciences



Professor John Perkins FEng
Vice-President and Dean of the Faculty of Engineering and Physical Sciences



Hans Westerhoff
Professor of Systems Biology, School of Chemical Engineering and Analytical Science



Peter Fielden
Professor of Analytical Science, School of Chemical Engineering and Analytical Science



Roy Goodacre
Professor of Biological Chemistry, School of Chemistry

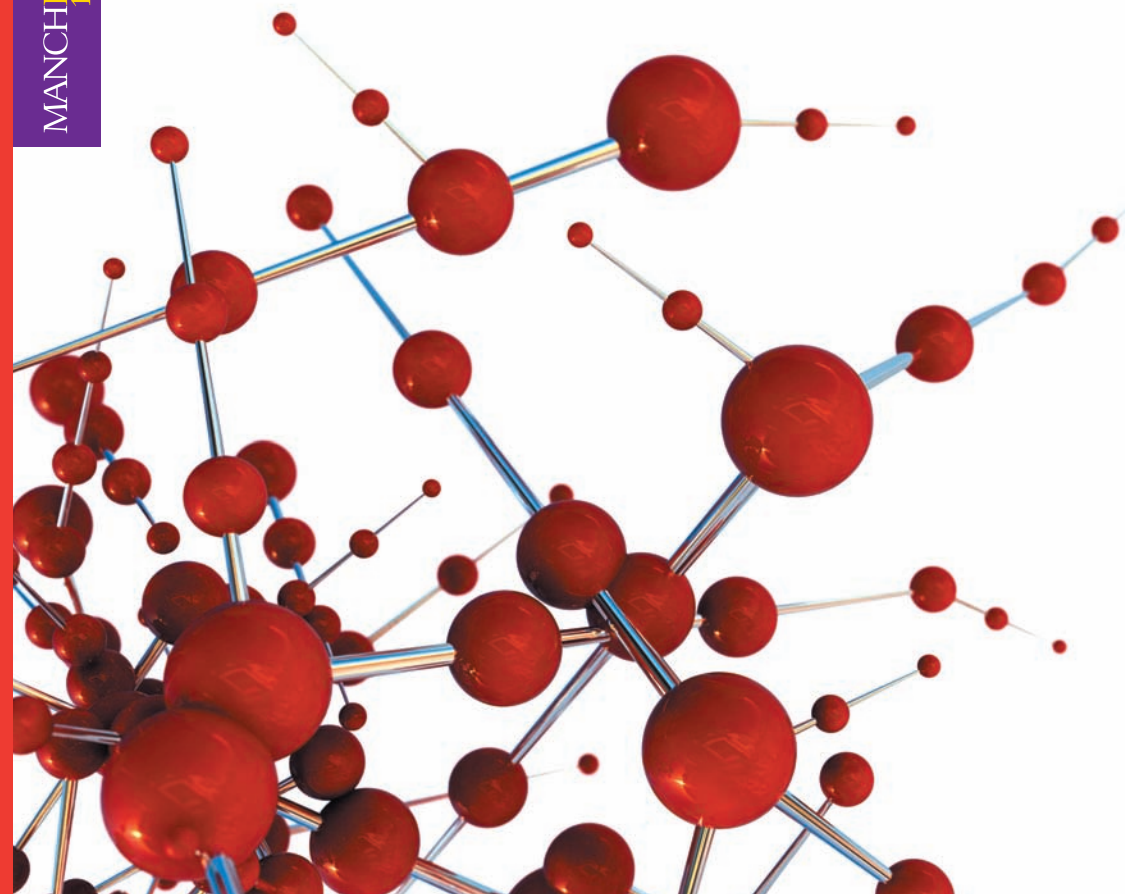
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The University of Manchester
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Manchester Interdisciplinary Biocentre Symposium

A Diversity of Approaches to Quantitative Bioscience

26th October 2006

Programme

26th October 2006 - MIB Symposium

8.50 – 9.00 Introduction

Session 1: Biomolecular Machines

Chair: Alan North

9.00 – 9.35 John Walker (MRC Dunn Human Nutrition Unit, Cambridge)
Biomolecular rotary motors

9.35 – 10.10 Yoshi Nakamura (Tokyo University, Japan)
Aptamer as RNA-made super antibody for basic and therapeutic applications

10.10 – 10.35 John McCarthy (MIB; School of Chemical Engineering & Analytical Science and
Faculty of Life Sciences)
Molecular mechanisms underlying posttranscriptional gene expression

10.35 – 11.00 Refreshment Break

Session 2: Biomolecular Structure and Dynamics

Chair: Bob Ford

11.00 – 11.35 Alan Fersht (MRC Centre for Protein Engineering, Cambridge)
Structure and Stability of the Tumour Suppressor p53

11.35 – 12.10 Gerhard Wagner (Harvard Medical School, USA)
NMR studies of protein interactions regulating gene expression

12.10 – 12.35 Stefan Weber (Freie Universität Berlin)
Aspects and Prospects of Modern Electron Paramagnetic Resonance Spectroscopy

12.40 - 13.40 LUNCH

Session 3: Systems & Information

Chair: John Perkins

13.45 – 14.20 Greg Stephanopoulos (MIT, Cambridge MA, USA)
Promise and Challenges of System Biology in Advancing Biotechnology and Biomedical Research

14.20 – 14.45 Douglas Kell (MIB; School of Chemistry)
Systems Biology - why and how

14.45 – 15.20 Jean Beggs (Wellcome Trust Centre for Cell Biology, Edinburgh University)
Messenger RNA processing - a complex system

15.20 – 15.45 Jun'ichi Tsujii (MIB; School of Computer Science)
Linking text with knowledge - Challenges in Text Mining for Biology

15.45 – 16.10 Refreshment break

Session 4: Biocatalysis

Chair: Hans Westerhoff

16.10 – 16.35 Nigel Scrutton (MIB; Faculty of Life Sciences)
'Squeezing' barriers – a dynamical view of enzyme catalysis

16.35 – 17.00 Gill Stephens (MIB; School of Chemical Engineering and Analytical Sciences)
Redox biocatalysis - the next generation of enzymes for manufacturing
pharmaceutical intermediates and specialty chemicals

Session 5: Bionanoscience/engineering

Chair: Peter Fielden

17.00 – 17.35 Joseph Wang (Arizona State University, USA)
Nanomaterials for monitoring and controlling biomolecular interactions

17.35 – 18.00 Milan Stojanovich (Columbia University Medical School, NY, USA)
Deoxyribozyme-based Devices

Session 6: Postgenomic Analytical Technologies

Chair: Roy Goodacre

18.00 – 18.35 Ruedi Aebersold (ETH, Zurich)
Quantitative Proteomics and Systems Biology

18.35 – 19.00 Simon Gaskell (MIB; School of Chemistry)
New analytical science in proteomics and metabolomics

19.00 – 19.10 Concluding Remarks

Speakers' Dinner

