DAY 1 Wednesday 23 February 2005, 1400-1700  Carrick Room, Level 1

1.1 What future for 'big pharma’  Big pharma’ faces a formidable range of challenges. Development costs of new drugs are rising steadily, associated investment risk is rising, whilst fewer innovative products are emerging from company pipelines. How will 'big pharma’ evolve to deal with the changing environment?

14.00  David Wield  (Chair), Co-director, Innogen  Introduction

14.00-14.30  Ian Ragan, Executive Director, Neuroscience Research and Scientific Affairs Europe, Eli Lilly  How is Europe responding?  European pharmaceutical companies are collaborating on the identification of bottlenecks to drug discovery and are defining a Strategic Research Agenda to engage European scientists in pre-competitive research supported by the EC Framework Programmes. The intention is to create a European Technology Platform for Innovative Medicines for Europe which will re-invigorate European pharma R&D and benefit the patient through better medicines, lower costs and shorter development times.

14.30-15.00  Christopher Paul Milne, Assistant Director of the Tufts Center for the Study of Drug Development, TUFTS University, Boston, USA  Fixing Pharma: Where to start?  Big pharma needs to be fixed. But before we can strategize how best to do that, we must identify where the weaknesses are, and prioritise which ones need to be fixed first. We examine these questions and provide a framework for discussing possible solutions.

15.00-15.30  Coffee

15.30-16.00  Mariana Mazzucato, Senior Lecturer in Economics and Director of the Centre for Economic Research (CFER), The Open University, UK  Firm growth, innovation and market structure in the pharmaceutical industry  The co-evolution of firm growth, stock prices and innovation in the pharmaceutical industry is examined. Comparisons are made with various high- and low-tech industries. The long term aim of the study is to help industrial economists and business practitioners better understand the innovation conditions under which certain theoretical properties of firm growth rates and stock prices apply, and policy makers to better understand the implications of the evolution of science and technology for the dynamics of firm growth and industry structure.

16.00-16.30  Andrew Webster, Director, Science and Technology Studies Unit (SATSU), University of York, UK  Genomics, public health and innovation  We discuss the implications of genomics developments for UK public health, both in public health innovation and public health policy, and how the articulation of both of these will shape the future role of pharmaceutical sector in the diffusion of genomics-based technologies.

16.30-17.00  Question and answer session  Session Organizer: D. Wield

DAY 2 Thursday 24 February 2005, 1000-1300  Carrick Room, Level 1

1.2 Strategic alliances in biopharmaceuticals  Strategic alliances are being driven by the multiple challenges facing the pharmaceuticals sector. What are the economic, legal and industry views on these trends and what are their implications for innovation?

10.00  James Mittra  (Chair), Research Fellow, Innogen  Introduction

10.00-10.40  John Hagedoorn, Professor of Strategy and International Business, University of Maastricht, The Netherlands  Pharmaceutical biotechnology: trends, patterns and networks  Main topics:- General trends in R&D partnerships since 1975- Modes of cooperation- The structure of inter-firm R&D networks - Network evolution- Major players

10.40-11.20  David Stretton, Solicitor, IP & Technology, Maclay, Murray & Spens, UK  Legal aspects of alliance  Looking at the reasons why large and small companies seek to enter into alliances with third parties and, once that decision has been reached, what preliminary issues need to be addressed, what legal and practical issues need to be considered for the deal structure and how the deals are put in place.

11.20-11.50  Coffee

11.50-12.30  Miriam Mendez, Research Fellow, Innovation, Knowledge and Organisational Networks (IKON) Warwick, Business School, University of Warwick, UK  Translation in interdisciplinary contexts  This presentation aims to disseminate our findings following extensive semi-structured interviewing of key stakeholders in networked innovation processes in interdisciplinary settings. The focus is on understanding barriers and enablers of the initial steps of University-Industry Technology Transfer processes comparing the UK and the US contexts.

12.30-13.00  Michael Hopkins, SPRU, University of Sussex  From genes to drugs? Expectations and cautionary tales from the integration of genomics in leading pharmaceutical firms  We explore the experiences of large pharmaceutical firms in adopting and exploiting genomics, the strategies firms have adopted to access genomics, the challenges they have faced, and the impact genomics has had on their R&D programmes.  Session Organizer: J. Mittra
1.3 Pharmacogenetics, industry strategies and the promise of personalised medicine

Targeted treatment according to individual genetic variation could give improved patient benefits and health care delivery. Industry strategies in pharmaceuticals and diagnostics and the outcomes for personalised medicines are to some extent internally driven and also depend on the actions of regulators and policy makers.

15.00-15.05 Graham Lewis (Chair), Science and Technology Studies Unit (SATSU), University of York, UK

Introduction

15.05-15.40 Ruth March, Research and Development Genetics, AstraZeneca, UK

Pharmacogenetics: an industry perspective
Pharmaceutical drug development is a lengthy and inefficient process with new drugs failing to reach the market due to issues with efficacy, safety and pharmacokinetics. Pharmacogenetics can be used throughout the drug discovery and development process to help increase efficiency and bring new, improved drugs to patients.

15.40-15.15 Stephen Little, Chief Executive Officer, DxS, UK

Pharmacodiagnostics - from clinical trial to clinical practice
Personalized Medicine involves targeting drugs safely to individuals likely to respond well and it seems inevitable that in the future more medicines will be sold in this way. We outline the drivers and review the technical, clinical, regulatory and commercial requirements of personalized medicine.

16.15-16.30 Coffee

16.30-17.05 Paul Martin, Deputy Director, IGBiS, University of Nottingham, UK

Firm strategies for the commercialisation of pharmacogenetics: from vision to reality?

17.05-17.40 Adam Hedgecoe, Lecturer, Department of Sociology, University of Sussex, UK

Taking the high ground
Supporters of pharmacogenetics, from industry and academic science, have addressed the social and ethical issues surrounding pharmacogenetics, setting the agenda when it comes to these debates, as a way of promoting this technology.

17.40-18.00 Discussion

Session Organizer: G. Lewis

DAY 3 Friday 25 February 2005, 1000-1300

1.4 The development of genetics and medicine: expectations and reality

How can we assess progress towards delivery on contemporary expectations of genetic medicine and what are the implications of the gap between high hopes and the slow processes of creating new drugs and services?

10.00 Paul Martin (Chair), Deputy Director, IGBiS, University of Nottingham, UK, Introduction

10.00-10.35 Peter Greenaway, Horus Research Management Ltd, Salisbury, UK

Genetic medicine: smoke and mirrors
New genetic knowledge will introduce a paradigm shift in the way health services are provided in the future. Capitalising on these benefits will require a full appreciation of the costs and benefits of developed genetic technologies and an understanding of the barriers to their adoption.

10.35-11.00 Harry Rothman*, Visiting Professor, Nottingham University Business School, UK and Alison Kraft, IGBiS, University of Nottingham, UK

Adaptation and diversification: the evolution of business strategy in the genomics sector
We examine what has happened since the initial high expectations of genomics, focusing specifically on the evolution of business models within the genomics sector, the impact of genomics on pharmaceutical innovation, and the changing dynamics between the genomics and pharmaceutical industries, as together they pursue a vision of genomics-based drugs.

11.10-11.30 Coffee

11.30-12.05 Carlos Novas, BIOS Centre, London School of Economics, UK

Managing genomic expectations
Some of the ways in which biotechnology firms and disease advocacy organisations are involved in managing expectations genomic medicine will be considered.

12.05-12.40 Chris Henshall, PVC External Relations, University of York, UK

Health Technology Assessment: a tool to support decisions about the development and adoption of new health care interventions
Health Technology Assessment (HTA) draws on the clinical, evaluative and social sciences to help decision makers understand the effectiveness, costs and wider impact of new treatments.

12.40-13.00 Discussion

Session Organizer: P. Martin