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UK – Texas Bioscience Collaboration

Computational Biology Workshop

Glasgow, Scotland 31st July 2004

Background and Aims:

A workshop focusing on Computational Biology in Biomedicine will be held in Glasgow, Scotland on July 31, 2004. The workshop will focus on computational methods to drive discovery in biomedicine.

The aims of the workshop are:

- To enable researchers from participating institutions in Texas and their colleagues from the UK to showcase relevant research activities.
- To allow researchers to network with colleagues and explore collaborative opportunities.

The overall outcomes should be:

- The development of collaborative relationships between researchers in the UK and in Texas.
- The exploration of novel opportunities for collaboration across disciplines.
- The sharing of emerging results.
- The provision of access to specialist equipment and facilities.

Computational Biology:

Saturday July 31, 2004

8.30am	Registration and Coffee
Moderator:	**Professor Bruce Luxon** **University of Texas Medical Branch, Galveston**
9.00am	Welcome, Introductions and Background to the Workshop
9.10am	"Computational Biology within Clinical Research" Professor Brad Pollock University of Texas Health Science Center, San Antonio
9.30am	“Latent Variable Modelling of Gene Expression” Dr. Mark Girolamy University of Glasgow

9.45am "Improving Conformational Searches by Geometric Screening"
Dr. Ming Zhang
UT MD Anderson Cancer Center

10.00am "Protein Modelling"
Professor Michael Sternberg
Imperial College, London

10.15am "Quantitative Analysis of Gene Expression Patterns with an Atlas of the Mouse Brain"
Dr. James Carson
Baylor College of Medicine

10.30am "Postgenomic Research in Glasgow"
Dr. Walter Kolch
University of Glasgow

10.45am Refreshment Break

11.15am "Systematically screening the cancer genome to discover new cancer genes"
Dr. Richard Wooster
Sanger Centre, Cambridge

11.30am "Effects of Hemodynamic Stresses on Flow through Intracranial Aneurysms"
Dr. Ralph Metcalfe
University of Houston

11.40am "Mathematical Modeling of the NF-kappaB Regulatory Module"
Dr. Marek Kimmel
Rice University
(To be delivered by Dr. Bruce Luxon)

11.55am "Architecture and Application of MoBIoS: A Metric-Space DBMS to Support Biological Discovery"
Professor Daniel Miranker
University of Texas at Austin

12.10pm Q&A and Panel Session

1.00pm Lunch

Moderator: Professor Jim Calvin, Texas A&M University

2.00pm	"Computational Biology and the Drug Discovery Pathway" Dr. Steven Foord Glaxo Smith Kline
2.20pm	"Text Data Mining Driven Drug Discovery" Professor Harold “Skip” Garner UT Southwestern, Dallas
2.35pm	"A summary of Bioinformatics Research at the School of Life Sciences, University of Dundee" Professor Geoff Barton University of Dundee
2.50pm	“High Throughput Drug Discovery” Professor Jack Smith UTHSC – Houston
3.05pm	Ontologies of Development Anatomy Professor Jonathan Bard University of Edinburgh
3.20pm	"Bioinformatic Tools to Identify Differentially Expressed Genes in Microarray Data and Detect Regulatory Motifs in Genome Sequences" Dr. Marina Vannucci and Dr. Sing-Hoi Sze Texas A&M University
3.35pm	Refreshment Break
4.00pm	'Structural Diversity among Ligand Binding Sites' Gareth Stockwell European Bioinformatics Institute, Cambridge
4.15pm	"Functional Class Prediction of Orphan Genes and Structures" Dr. Andrew Doig UMIST
4.30pm	"Understanding Biochips" Dr. Monte Pettitt University of Houston

4.40pm	“Systems Approach for the Discovery of Novel Diagnostics and Therapeutics” Professor Bruce Luxon University of Texas Medical Branch, Galveston
4.55pm	Q&A and Panel Discussion
5.30pm	Workshop Finishes
6.00pm	Reception at the Glasgow Science Museum
7.30pm	Informal Networking Supper at the Moat House Hotel Glasgow