

MIB Newsletter

May 2010

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More news and information about the MIB can be found on our website:

<http://www.mib.ac.uk/>

and in the [MIB brochure](#) available online



Special Event

Biological Catalysis – A gateway to Industrial Biotechnology

June 11th 2010

One day discussion event with speakers from Industry, academia and gov. bodies. Confirmed speakers: Alan Pettman (Pfizer), John Sime (Biosciences KTN), Toni Glieder (IMBT), Amy Peace (Chemicals NW), Christopher Dowle (CPI), Kai Baldenius (BASF), Carol Boyer-Spooner (CIKTN), Surinder Chahal (Croda), Stuart West (Biocatalysts), Nick Turner (MIB), Nigel Scrutton (MIB), Jon Lloyd (University of Manchester), Clare Bumphrey (EPSRC) and James Phillips (BBSRC).

To register for the event please [Click Here](#)

Full program [Click Here](#).

If you would like to present a poster please contact [Ros](#)

Research News

Awards

Chemical Northwest Service Provider Award 2010 Sponsored by [Business Link Northwest](#)



The MIB based CoEBio3 (Centre of Excellence for Biocatalysis, Biotransformations and Biocatalytic Manufacture) took the Chemical Northwest prize for top service provider which was announced at a special award dinner on 20th May. This award was presented to “a company or organisation that excelled in providing a key service/support function to a chemical manufacturing site”. The winning entry demonstrated how it had delivered value to its customers whilst enhancing its own business and reputation.



Paul Goddard (far left) was presented with the award at the dinner, accompanied by Ian Rowles and Kirk Malone.

Professor J'unichi Tsujii (NaCTeM) has been awarded the prestigious medal of honour with purple ribbon by the government of Japan for his academic contributions to the field of natural language processing, machine translation and biomedical text mining. The Japanese government bestows these medals in recognition for achievements in academia, arts and sports.



General News

MIB Football tournament

The time has come to dig out those football boots, get together a team and take part in the MIB 5 aside footy tournament, the tournament will take place on **Friday 2nd July** from 2pm at Powerleague central.

Places are limited so it'll be first come first served, and the teams have to have at least one girl on the pitch at all times.

So if you want to take part in the fun filled, action packed event of the year, email me
hayley.bennett@manchester.ac.uk or ring me on x65816



Marie Curie cake break



BLOOMING GREAT TEA PARTY

To raise some money for Marie Curie Cancer Care.

21st June – 15.00-15.30 MIB Atrium area

Cakes will be on sale from 15.00.

Bring a mug for a free cup of Tea!

Or buy an MIB one!

If you are interested in making cakes and helping with this event please contact [Claire Evers](#)



Raising funds in aid of



Charity reg no. 207994 (England and Wales), SC038731 (Scotland)

DTC for Integrative Systems Biology

The fourth cohort of students for the Doctoral training Center for Integrative Systems Biology will give the final presentation for their first rotation project on Friday 4th June 2010. The presentations will start at 9.30 at the MIB Lecture Theatre. From 2.00 pm in the afternoon there will be the poster session in the Atrium. There will be 5 presentations 20 min+10 of discussion and there will be a coffee break at 11.00.

9.30 Matthew Norris: Systems biology approaches for identifying missing links in metabolic networks. Supervisors: N Swainston , N Malys

10.00 Angela Pisco: Cancer, Attractors and Epigenetic Landscapes: a Systems Biology approach to Gene Regulatory Networks, Supervisor: K Smallbone

10.30 David Morgan: The control by glucose transport; cells toggling between Life and death? Supervisors: M Verma, M Nardelli, H westerhoff

11.00 Coffee break

10.30 Yujiang Wang, Barbora Trubenova, Kyle Davies: Circadian Clocks: Modelling and

Analysis. Supervisors: D Broomhead, H Piggins.

11.00 Simon Mitchell, Kathryn Blount, Feng Xue: Analyzing and modelling the control properties of a novel component of the eukaryotic translation machinery. Supervisors: J McCarthy, P Mendes

Everybody is welcome to attend

News Stand News!

IKON has upgraded their News Stand in the Interface Café to include a TV screen running LifeScience TV. To view the screen contents log onto www.lifescience.tv. 10 UK Universities currently have the ungraded News Stand so if you wish to advertise your event or Facility please email Christopher Cowan. (christpher.cowan@manchester.ac.uk)

Safety News

Safety first..!

STDU safety training courses

STDU H&S courses are run in the Sackville Street Building, close to MIB. They are available, free of charge, to all staff and research students. To book any of the courses, see:

<http://www.staffnet.manchester.ac.uk/employment/training/courses/>

Date	Course code	Course title
08/06/10	HS2	Manual Handling
09/06/10	HS67	Risk assessment workshop – for lab-based staff
14/06/10	HS42	Laser training
14/06/10	HS98	Laser safety awareness
07/07/10	HS7, HS7A and HS&B	Gas safety and regulators course
21/07/10	HS15	Principles of risk assessment

Funding News

BBSRC and NSF joint workshop

Call - BBSRC and NSF join together to promote new ideas to enhance photosynthesis
Expressions of interest deadline: 15 June 2010, 4pm (submitter's local time)

BBSRC and the US National Science Foundation (NSF) have announced an intensive week long workshop - an "Ideas Lab" - in California between the 13-17 September 2010, to bring together leading researchers across all disciplines to foster new ideas, collaborations and proposals on novel mechanisms to enhance photosynthesis. Together BBSRC and NSF will make a total of up to \$8M available to fund proposals from the workshop.

We welcome participants at any stage of their research career; however they must be eligible to apply for funding from either BBSRC or the NSF. For more information on eligibility and how to apply visit: <http://www.bbsrc.ac.uk/funding/opportunities/2010/photosynthesis-ideas-lab.aspx>

BBSRC strategy panel vacancies

Appointments to BBSRC Strategy Panels, Pool of Experts: Peer Review and Training Awards Committee. We are looking to appoint high calibre, committed individuals from academic and industrial sectors to fill a number of vacancies on our Strategy Panels, Pool of Experts: Peer Review and Training Awards Committee. The Panels play leading roles in the development and implementation of the Council's policies and priorities. The Pool of Experts: Peer Review and

Training Awards Committee play key roles in delivering BBSRC's Mission by carrying out peer review of research grant proposals, the awarding of studentships and fellowships and assessing final reports on funded proposals. Appointments will commence in January 2011 for one year initially, with anticipated extension for a further two years.

Further details, including role of the Panels, Pool of Experts: Peer Review and the Training Awards Committee, Person Specification and Expression of Interest Form can be found at: <http://www.bbsrc.ac.uk/media/news/2010/100430-appointments-panels-committees.aspx>

BBSRC strategy panel vacancies

Joint Meeting - Microsoft Research Cambridge (MSRC), BSI (Mathematical modelling affinity group) and the BBSRC MATSYB network I2M. 11th of June 2010 at Microsoft Research Campus, Cambridge. Details can be found at the [web site](#). To register, please use the website [registration](#). Note that there is a registration fee of £10 for non BSI members.

Lifelong Health and Wellbeing Program

RCUK/DoH (NIHR) have announced details of Phase 3 of their Lifelong Health and Wellbeing Program. Outline applications for Research Grants (£300k - £2.5m) are required by 30 June and applications for Pilot Studies (circa£250k) are required by 15 September. Further details are available at <http://www.mrc.ac.uk/Fundingopportunities/Calls/LLHWPhase3/index.htm> Please note that the Research Advisory Panel for the program has as a member James Nazroo (Director of the Cathie Marsh Centre in the School of Social Sciences).

Biotechnology YES competition 2010

Competition - Biotechnology Young Entrepreneurs Scheme competition 2010: Raising awareness of commercialisation in postgraduate and postdoctoral scientists. Biotechnology YES aims to raise awareness of the commercialisation of bioscience research amongst postgraduate and postdoctoral researchers. Participants compete in teams to develop a hypothetical business idea with the help of expert mentors from the biotechnology sector. Workshops are held throughout the UK, feeding into a National Final with a prize of £1000 for the winning team. The 2010 YES Competition has been launched with a closing date for entries of **18 June 2010**. The workshops will take place in September, October and November with the Final scheduled for December 2010. Sponsorship has been secured from various industries. For more information and an entry form visit: <http://www.biotechnologyYES.co.uk> or, contact Anuj Bhatt, Email: anuj.bhatt@bbsrc.ac.uk, Tel: 01793 413390

Wellcome Trust funding opportunities seminar

'Funding Opportunities at the Wellcome Trust' Roger Blake, External Liaison Manger, Wellcome Trust **Tuesday 15 June 2010, 11:30** Michael Smith Seminar Room, Smith Building

Funding Deadlines & Links

NERC Research, consortium, and partnership Grants 10th June <http://www.nerc.ac.uk/>

EPSRC <http://www.epsrc.ac.uk/default.htm>

BBSRC Responsive mode –14th April 2010 <http://www.bbsrc.ac.uk/funding/index.html>

MRC <http://www.mrc.ac.uk/index.htm>

Wellcome Trust <http://www.wellcome.ac.uk/Funding/Biomedical-science/index.htm>

ESRC <http://www.esrc.ac.uk/ESRCInfoCentre/index.aspx>

Congratulations

[TOP](#)

Recent Grant Awards

Jason Micklefield has been awarded £210K by the Technology Strategy Board for his research on "Biotransformations in Ionic Liquid"

Xue-Feng Yuan (with Anthony Heagerty, FMHS Cardiovascular Medicine) has received a MRC discipline hopping award for his project "Development of an Integrated Platform for Quantitative Analysis of Haemodynamics in Small Blood Vessels" worth approx £100K.

Hans Westerhoff (PI) has received funding for three projects from the BBSRC for his research "Modelling carbon core mechanisms in *bacillus subtilis* - Exploring the contribution of protein complexes in core carbon and nitrogen metabolism" Total value £340K.

"The systems biology of network stress based on data generated from in vitro differentiated hepatocytes from individual-specific human iPS cells" value £330K

"Comparative systems biology of lactic acid bacteria (**J Snoep** Co I, SYSMOLAB2: Teusink-Westerhoff) worth approx £220K

Seminars

[TOP](#)

MIB Research Forum Talks 12.00 MIB LT

3rd June - **Mike Sutcliffe** (*title tbc*), **Paul Sims** - *Applications of Quantitative Proteomics*

8th July - **Nigel Scrutton** and **Jon Waltho**

Free Lunch to follow

MIB International Seminar Series 12.00pm MIB LT

Thursday 17th June 2010 – **Professor Dek Woolfson**, University of Bristol

If you would like to meet with any of the visiting speakers please contact [Ros Le Feuvre](#)
[Full seminar list](#)

MIB Internal Seminar series 11.30 MIB LT

(Please note earlier start time = earlier lunch!)

Wednesday 2nd June

Farid Khan - *New tools and reagents for protein and enzyme research*

Brett Fielden Lab/AZ - *Microfluidics in Pharmaceutical Drug Discovery*

Emma Gillaspay (Vitae) *A talk discussing the role of Vitae in the development of researchers in higher education*

Free Lunch sponsored by Licor

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Biosciences

Special Seminars

MIB Lecture Theatre on Wednesday, 9 June 2010 at 12.30pm

Seminar by **Ion Petre**, Abo Akademi University, Finland

Control strategies for the regulation of the eukaryotic heat shock response

Abstract: Elevated temperatures cause proteins in living cells to misfold. They start forming larger and larger aggregates that can eventually lead to the cell's death. The heat shock response is an evolutionary well conserved cellular response to massive protein misfolding and it is driven by the need to keep the level of misfolded proteins under control. We consider in this talk a recently proposed new molecular model for the heat shock response in eukaryotes, consisting of a temperature-induced activation mechanism, chaperoning of misfolded proteins and self-regulation of the chaperon synthesis. We take in this paper a control driven approach to studying this regulatory network. We modularize the network by identifying its main functional modules. We distinguish three main feedback loops. The main question we are addressing is why is this level of

complexity needed for implementing what could in principle also be achieved with an open-loop design. We answer the question by comparing the numerical behaviour of various knockdown mutants where one or more feedback loops are missing. We also discuss the fine-tuning of the heat shock response through protein phosphorylation and acetylation.

Patents: Avoiding the Pitfalls

UMIC, UMIP and Harrison Goddard Foote invite you to attend a seminar:

Date: 24th June 2010 Time: 9:30 to 1:00 (including lunch and refreshments)

Location: Core Technology Facility, Grafton Street, Manchester



This is an opportunity to meet intellectual property experts for an interactive seminar to help you develop an optimum patent strategy whilst minimising potential risks. With reference to real life examples, the seminar will cover:

- ownership and inventorship
- invention spotting
- patent filing strategies and portfolio management
- freedom to operate
- due diligence

This is an opportunity to learn about both the potential pitfalls and best practice to make the best of your patent portfolio! You will also be able to book a free 1:1 consultation with a patent attorney following the seminar. **Who should attend?** Anyone with an interest in intellectual property within academia, start ups, SME's, licensing or technology transfer. RSVP to Alison.Warren@umic.co.uk

Seminars throughout the University

can be found at:

- [Faculty of Life Sciences](#)

Pharmacy <http://www.pharmacy.manchester.ac.uk/aboutus/events/seminars2010/>

School of Chemical Engineering and Analytical Science <http://www.ceas.manchester.ac.uk/research/seminar/>

School of Chemistry <http://www.chemistry.manchester.ac.uk/research/seminars/>

School of Computer Science <http://www.cs.manchester.ac.uk/research/seminars/school/>

School of Materials <http://www.materials.manchester.ac.uk/aboutus/events/>

School of Mathematics <http://www.mims.manchester.ac.uk/events/>

School of Physics and Astronomy <http://www.physics.manchester.ac.uk/aboutus/events/>

School of Mechanical, Aerospace and Civil Engineering <http://www.mace.manchester.ac.uk/>

School of Electrical and Electronic Engineering <http://www.eee.manchester.ac.uk/aboutus/news/>

School of Earth, Atmospheric and Environmental Sciences <http://www.seaes.manchester.ac.uk/aboutus/events/>

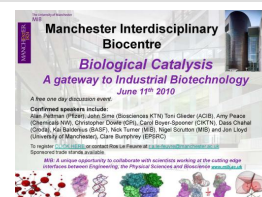
Events/Symposia/Meetings

Biological Catalysis – A gateway to Industrial Biotechnology

June 11th 2010 One day discussion event with speakers from Industry, academia and gov. bodies. *Please put this date in your diaries!*

Full program [Click Here](#)

To register for the event please [Click Here](#)



Publications

Publications

Jarvis RM, Rowe W, Yaffe NR, O'Connor R, Knowles JD, Blanch EW, Goodacre R.

Multiobjective evolutionary optimisation for surface-enhanced Raman scattering. Anal Bioanal Chem. 2010 May 4. [Epub ahead of print] [Abstract](#)

Xu Y, Cheung W, Winder CL, Goodacre R. VOC-based metabolic profiling for food spoilage detection with the application to detecting Salmonella typhimurium-contaminated pork. Anal Bioanal Chem. 2010 May 16. [Abstract](#)

Jarvis RM, Rowe W, Yaffe NR, O'Connor R, Knowles JD, Blanch EW, Goodacre R. Multiobjective evolutionary optimisation for surface-enhanced Raman scattering. Anal Bioanal Chem. 2010 May 4. [Abstract](#)

Brown BC, McKenna SP, Solomon M, Wilburn J, McGrouther DA, Bayat A. The patient-reported impact of scars measure: development and validation. Plast Reconstr Surg. 2010 May;125(5):1439-49. [Abstract](#)

Dunn RV, Munro AW, Turner NJ, Rigby SE, Scrutton NS. Tyrosyl Radical Formation and Propagation in Flavin Dependent Monoamine Oxidases. Chembiochem. 2010 May 17. [Paper](#)

Shaik MS, Liem SY, Popelier PL. Properties of liquid water from a systematic refinement of a high-rank multipolar electrostatic potential. J Chem Phys. 2010 May 7;132(17):174504. [Abstract](#)

Villéger AC, Pettifer SR, Kell DB. Arcadia: a visualization tool for metabolic pathways. Bioinformatics. 2010 May 7. [Abstract](#)

Taylor EJ, Campbell SG, Griffiths CD, Reid PJ, Slaven JW, Harrison RJ, **Sims PF**, Pavitt GD, Delneri D, Ashe MP. Fusel Alcohols Regulate Translation Initiation by Inhibiting eIF2B to Reduce Ternary Complex in a Mechanism That May Involve Altering the Integrity and Dynamics of the eIF2B body. Mol Biol Cell. 2010 May 5. [Abstract](#)

Solano CJ, Pendás AM, Francisco E, Blanco MA, Popelier PL. Convergence of the multipole expansion for 1,2 Coulomb interactions: The modified multipole shifting algorithm. J Chem Phys. 2010 May 21;132(19):194110. [Abstract](#)

Thomas AN, Riazanskaia S, Cheung W, Xu Y, Goodacre R, Thomas CL, Baguneid MS, Bayat A. Novel noninvasive identification of biomarkers by analytical profiling of chronic wounds using volatile organic compounds. Wound Repair Regen. 2010 May 11. [Abstract](#)

Kumar D, Karamzadeh B, Sastry GN, de Visser SP. What Factors Influence the Rate Constant of Substrate Epoxidation by Compound I of Cytochrome P450 and Analogous Iron(IV)-Oxo Oxidants? J Am Chem Soc. 2010 May 18. [Abstract](#)

Please send comments and items for inclusion in this newsletter to:
[Ros Le Feuvre](#) (Next edition deadline 28th June)