

Chemical Engineering Newsletter

October 2012

Achievements and Awards

At the [Euromembrane 2012](#) conference at the end of September, PhD student James Campbell won one of four available prizes for best presentation for his talk 'The Effect of Concentration Polarisation on Organic Solvent Nanofiltration Crystallisation Processes'. James took home €500, a diploma and free membership to the European Membrane Society.

Departmental Research fellow and member of the [Digital Economy Lab](#) Koen Van Dam has had a book, "Agent-Based Modelling of Socio-Technical Systems", [published by Springer](#).

Second year Undergraduates Liam Bale and Lucy Chi have both been awarded [Rio Tinto scholarships](#)



Andrew announces prize winners at Commemoration Day

Wednesday 24th October was Commemoration Day, when more than 2,400 undergraduate students and guest take part in Imperial College's graduation ceremonies at the Royal Albert Hall. We hosted a very successful and well attended reception for our graduates in the Departmental Design Rooms. You can see a selection of photographs [on our website](#), along with a full list of prize winners. A slide show of some of the best pictures from the day is also available on-line [here](#).

News in Brief

Claire Adjiman delivered a plenary lecture ('Structure optimisation: Crystals, molecules and processes') at [EQUIFASE 2012](#), which took in Puerto Varas, Chile on the 8th and 9th October. Also speaking at the conference were Erich Müller ('SAFT force fields for coarse-grained MD simulations') and the Head of the Chilean Ministry for Education.

Paul Fennell has been in the news recently, firstly in an interview for Radio Tees in early September about the potential for deployment of Carbon Capture and Storage in the region. He was also contacted by BBC Brazil for his opinion on new 'petrol from air' technology (covered in the [Telegraph](#) here). If your Portuguese is up to scratch, you can read the BBC article [here](#).

Andrew Livingston and his team are profiled in the latest edition of *Pioneer*, the magazine of the Engineering and Physical Sciences Research Council. You can read the article on-line [here](#) (pages 30-31)

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Blackboard Learn – Self Enrolment

As you may be aware, the College recently switched to a new version of its virtual learning environment, [Blackboard Learn](#). Research staff and PhD students who want access to learning materials from our taught modules can now enroll themselves on modules of their choice. Please see [here](#) for a step by step guide on how to do this.

Dates for your diary:

Friday 9th November, 3pm, C615 RODH – CPSE Seminar: [Modelling Drops on Micropatterned Surfaces](#), Professor Julia Yeomans (University of Oxford)

Friday 30th November, 3pm, C615 RODH – CPSE Seminar: [Automatic Control and Biological Systems: a Long Quiet River?](#), Professor Denis Dochain (Université Catholique de Louvain)

Thursday 6th December, 5.30pm, Lecture Theatre 1
The Nineteenth Professor Roger W. H. Sargent
Lecture: [Optimization under Lack of Knowledge - the Key to Operational Excellence](#), Professor Sebastian Engell (Technische Universität Dortmund)

Tuesday 18th December - Departmental Christmas Party

Opportunities for Public Engagement

Media Training

The College's Communications and Development team are able to offer media training courses for researchers at any stage of their career wishing to develop skills in getting the ideas behind their science across to the media and various publics. If you would be interested in finding out more, please do [get in touch](#).

Imperial Fringe Events

The first of Imperial's new Fringe Events, linked closely with last year's very successful Imperial Festival, [took place on the 25th October](#). These events are an excellent opportunity for demonstrating research and engaging with the public, and it would be fantastic to get Chemical Engineering staff or PhD students involved in future. November's Fringe event is themed around [bones](#), and December's will be around food. If you think that your work could be (even vaguely) related to these topics, would like to get some exposure for your work or just want to learn a bit more about this, then please do not hesitate to [drop Rayner an email](#).

If you have any news, events or suggestions for features you would like including in next month's newsletter, please get in touch with [Rayner Simpson](#)

Keep up to date with news and events via the [Chemical Engineering website](#)

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Departmental Publications - every quarter a list of recent publications from Departmental researchers will appear in the newsletter. Data taken from [Symplectic](#).

- Goddard B., Nold A., Sawa N., Grigorios, P. & Kalliadasis, S. (2012) **General Dynamical Density Functional Theory for Classical Fluids**. *Physical Review Letters*. 109 (12). ([doi](#))
- Koumpouras GC., Kontoravdi C., (2012) **Dynamic Optimization of Bioprocesses**, Applied Mathematics
- Betney R, de Silva E, Mertens C, Knox Y, Krishnan J & Stansfield I (2012) **A Translational Negative Feedback Loop: a Systems Analysis**, RNA
- Massai D, Soloperto G, Gallo D, Xu XY, Morbiducci U, **Shear-induced platelet activation and its relationship with blood flow topology in a numerical model of stenosed carotid bifurcation**, EUROPEAN JOURNAL OF MECHANICS B-FLUIDS, 2012, Vol:35, Pages:92-101, ISSN:0997-7546([doi](#))

Recent Grant Awards

	Title	Sponsor	Value	Investigator(s)
August	Predicting the need for intervention in Type B Aortic Dissection	Imperial College Healthcare NHS Trust	£70,000	Yun Xu
	Ambulatory Bio Artificial Lung	CEC	£920,000	Sakis Mantalaris & Julia Polak
	Manufacture of Cenospheres from Biomass Ash by Spray Drying	Imperial College (FoE Kickstart)	£10,000	Jerry Heng
September	Multiscale Exploration of MultiPhase Physics in Flows (MEMPHIS)	EPSRC	£3,440,000	Omar Matar & Geoff Hewitt
	Energy Efficient Heat Exchange and Catalysis	Unicat Ltd.	£2,460,000	George Jackson, Sergei Kazarian, Sandro Macchietto, Christos Markides, Omar Matar & Marcos Millan-Agorio
	Hub for UK Centre for Carbon Capture and Storage	EPSRC	£200,000	Paul Fennell, Nilay Shah & Martin Trusler
October	RAE Research Fellowship for Ruth Misener – Towards Rational Chemotherapy Strategies: A Hybrid Computational/Experimental Approach	Royal Academy of Engineering	£670,000	Stratos Pistikopoulos & Sakis Mantalaris
	Membranes for Selective Flow Purification	MIT	£709,000	Andrew Livingston
	Energy Systems Engineering	CEC	£250,000	Stratos Pistikopoulos
	Fundamental research applied to carbonate reservoirs and seals (management)	Qatar Petroleum	£1,750,000	Geoff Maitland
	Thermal Hydraulics for Boiling and Passive Systems	EPSRC	£10,000	Geoff Hewitt
	Translation of Programme Data, Models and Concepts to Enable Field-Scale Application	Qatar Petroleum	£3,000,000	Geoff Maitland & Edo Boek