Welcome to the February 2016 LivWiSE Newsletter. You will find our usual round up of news, events and opportunities. Remember if you would no longer like to be on our mailing list, or you would like to contribute to the LivWiSE newsletter/Facebook/Twitter then please get in touch at livwise@liv.ac.uk.

- Science News Roundup
- LivWiSE News
- Women in STEMM News
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- Grants, Prizes, Competitions
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Science News Roundup

Scientists bridge different materials by design
Materials Innovation Factory ‘tops out’
Viewpoint: Sexual transmission of Zika virus

Lego Robots celebrate Space Science at World Museum
Two thirds of cattle attacks on people involve dogs, new study finds
Protein discovery could be key to preventing heart complications of sepsis
Do empty plates mean larger waists?

Study reveals link between food advertising and child food consumption

Research award for life saving device for women in childbirth

Scientists to study role of zinc in the open ocean

Your dog can help you to lose weight

Mathematicians reveal new way to slice pizza equally

Viewpoint: Mark Zuckerberg’s personal challenge to build an AI butler

Study shows Ebola treatment to be safe but ineffective

Researchers reveal how alcohol affects food consumption

Study finds ‘frictional heat’ as a new trigger for explosive eruptions

HIV identified as leading risk factor for stroke in young African adults

Face cream ingredient found to mimic life-extending effects of a calorie restriction diet
Great Turnout at Christmas Lecture 2015

Over 200 came along to the 2nd Annual LivWiSE Christmas Lecture which featured 6 speakers on topics as diverse as Moore’s Law, Bugs, the maths behind insurance, invisible physics, and virus’s.

Missed it? Watch the lectures HERE

LivWiSE commended at Celebrating Success Awards

LivWiSE was nominated in the ‘Good Practice in Equality’ category at the University’s Celebrating Success Awards in December.

Unfortunately we didn’t win, but we were commended for our work in promoting science, engineering and technology to women, girls and the wider public.

LivWiSE Promotional Films exceed 13,000 views

Last year we launched our ‘Ignite your passion for science and engineering’ films promoting the opportunities available in engineering, electronics, computer science, chemistry, physics, and earth science. Since their publication in May/June they have had over 13,000 combined views on our websites and YouTube.

Watch the Films HERE.
Becoming an Expert: Weihong Ni on bonus-malus systems for car insurance

Weihong Ni is a PhD candidate in Department of Mathematical Sciences:

“After by UG Degree I stayed on as a PhD student within the Institute for Financial and Actuarial Mathematics (IFAM) working with Bonus-Malus (BM) systems for car insurance. Under the supervision of Dr. Corina Constantinescu, my project is dedicated to searching for optimal pricing strategies as well as assessing risks for BM systems in insurance portfolios”.

Read Article HERE

Professor becomes Dame in New Year Honours

Professor Margaret Whitehead, Head of the University of Liverpool’s Department of Public Health and Policy, has been awarded a damehood in the New Year Honours List for services to Public Health

Read Article HERE

Becoming an Expert: Liuying Li on developing controls for wind turbines

My PhD is an industrial led collaborative project funded by the Centre for Global Eco-innovation and a local company, Gencoa Ltd. The project aims to develop a controller to improve the efficiency of wind turbines.

Read Article HERE

Becoming an Expert: Hannah Whitby on the biogeochemistry of the oceans

Hannah is a PhD student in Earth, Ocean and Ecological Sciences: “The Natural Environment Research Council (NERC) funds my PhD in marine biogeochemistry, which my friends like to call ‘oceans and potions’. The title of my project is ‘the relationship between iron, copper and humic substances’.

Read Article HERE
Postcard: Genomics (and margaritas) in San Diego

Dr Laura Gardiner is a postdoctoral researcher at the University’s Institute of Integrative Biology. “I recently visited the Plant and Animal Genome XXIV Conference (PAG), held in San Diego, California. During my visit I presented a poster on our recent work that led to the creation of the first map of the wheat epigenome.”

Read Article HERE

Viewpoint: Merseyside and World Cancer Day

Professor Sarah Coupland, is the lead of the Liverpool Ocular Oncology Research Group (LOORG) - “Because of the chronic high incidence and mortality rates of cancer in Liverpool-Merseyside over the last decade, the city has the dubious honour of being crowned the “Cancer Capital of Europe”.

Read Article HERE

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Upcoming Events


XMaS Science Gala

The Gala will be an evening extravaganza highlighting inspiring careers and exciting science. Get to hear about loads of opportunities and activities to get involved with and explore hands-on demos. Speak to professors, staff and students at the University as well as go on a virtual tour of ATLAS at CERN!

- Wednesday, 10 February 2016, 18:00-21:00
- Full details and booking HERE

International Day of Women and Girls in Science

Last December, the United Nations Member States adopted a resolution to establish an annual International Day to recognize the critical role women and girls play in science and technology communities.

- Thursday, 11 February 2016
- Further details about this day

IEEE Student/Researcher Event

Join the IEEE and the University of Liverpool as they host a unique event for Engineering, Computing and Technology Students, PostGrads and Researchers at the University.

- Monday, 22 February 2016 from 11:00 to 13:00
- Full details and booking HERE

Geoscience Frontiers 2016 - The Annual Herdman Symposium

Full day symposium featuring guest talks on subjects including Deep Earth Geophysics, Why did the Dinosaurs go extinct? what is Salt and why should we care? What drilling holes in Ocean floors can tell us about Volcanoes. £10 Standard, £5 Student.

- Saturday, 27 February 2016 from 09:30 to 17:00
- Full details and booking HERE
“Now that it is becoming clear that cancer is not a genetic problem; how can we re-engage the other sciences?”

In this talk Professor Jeff Holly (University of Bristol) will review how recent technological advances have provided some explanations for the limited progress may in cancer survival rates. He will also review the growing evidence indicating that clinical cancers are more affected by our lifestyles than by our genes and hence may be preventable.

The Fröhlich Lectures are presentations by research leaders which are intended to be accessible to a general audience at the advanced undergraduate level.

- Wednesday, 2 March 2016 from 15:30 to 16:30
- Full details and booking HERE

Chasing a comet - ESA's Rosetta mission: why, where and what now?

Dr Matt Taylor, Project Scientist, Rosetta Project, European Space Agency (ESA) will talk you through the journey of the Rosetta Mission, the third cornerstone mission of the ESA programme Horizon 2000.

- Wednesday, 2 March from 18.00
- Full details and booking HERE

International Women’s Day

International Women’s Day (March 8) is a global day celebrating the social, economic, cultural and political achievements of women. The day also marks a call to action for accelerating gender parity.

University events are to be confirmed soon.

- Tuesday, 8 March 2016
- Further details about this day

Postgraduate Open Day

Whether you want to progress your career, pursue your interests or move in to research and academia, we can help you to get there!

- Wednesday, 9 March 2016 from 14:00 to 17.30pm
- Full details and booking HERE

Liverpool Spring Careers Fair

This is event has been developed to give Liverpool students a head start in their job search. You can expect to find around 50 exhibitors offering internship, placement and graduate opportunities for 2016 and 2017.

- Wednesday, 9 March 2016 from 10:30 to 15:00
- Full details and booking HERE
**Evaluation of risk: How much is too much?**

Professor Montserrat Guillen (University of Barcelona) will discuss how risk is defined and measured and will look at the concept of risk aversion and highlight how insurance companies’ calculate the price of a policy based on risk evaluations. She will then move onto the impact of digital information, such as: personalised ratemaking and GPS data analysis which allows the creation of usage-based motor insurance and aim to convey that too much information may challenge the limits of risk-sharing, which constitutes the basis of insurance agreements.

- Tuesday, 15 March 2016 from 17:30 to 18:30
- [Full details and booking HERE](#)

**Changing profession: Evolving work and the future of engineering education**

The Digital revolution is driving the most profound change ever to engineering profession with software performing complex manipulations which until recently represented the day job for most structural engineers. As this profession enters a new and creative era, education must change quickly if it is to supply appropriately educated graduates.

- Tuesday, 17 May 2016 from 17:30 to 18:30
- [Full details and booking HERE](#)

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**Grants, Scholarship, Competitions and Prizes**

**School/College Student Competitions**

- **The National Science + Engineering Competition (2016/17)**

The National Science + Engineering Competition is open to all 11-18 year olds living in the UK and in full-time education. The Competition aims to recognise and reward young people’s achievements in all areas of science, technology, engineering and mathematics (STEM).

The Competition is open for entries from Jan - October each year, through either heats at selected Big Bang Near Me Fairs or our online heats. The chosen Finalists will be invited to showcase their work to thousands of people at The Big Bang Fair 2017.

Entry is now open for the ***2016/17*** Competition.

[Full details can be found HERE](#)
University of Liverpool Student Competitions

- Join the Solar Challenge

The EPSRC Centre for Doctoral Training in New and Sustainable Photovoltaics (CDT-PV) and LivWiSE would like to invite interested students to join the ‘Solar Challenge’ organized by the Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA).

The challenge is designed to give mechanical and multi-disciplinary students an opportunity to create new designs that harness the sun’s energy and prove the viability of solar powered flight.

We aim to set up a competition team to design, build and fly a model scale aircraft over a 100m figure of eight course. The winner in each age group will set an official world record!

This competition will be of particular interest to students studying science, engineering, and technology subjects, however people interested in project planning, social media and marketing are also welcome.

If you are interested in taking part, contact Dr. Robert Treharne at R.Treharne@liverpool.ac.uk no later than the 29th February or come along to the briefing on Wednesday 24th February at 2pm in the Stephenson Institute coffee room.

Background information HERE

Staff Grants

- University public engagement awards scheme

The University has launched a new public engagement with research awards scheme, offering grants of up to £2,000 in support of projects by members of UoL staff that engage the community with Liverpool research. Full details HERE

- L'Oréal UK and Ireland Fellowships For Women in Science

The L'Oréal-UNESCO UK and Ireland Fellowships For Women in Science are awards to promote, enhance and encourage the contribution of women pursuing their research careers in the UK or Ireland in the fields of the life and physical sciences.

Five Fellowships will be awarded in 2016 to outstanding women scientists in the early stages of their career to enable and/or facilitate promising scientific research. The Fellowships are tenable at any UK or Irish university or research institute to support a 12-month period of postdoctoral research in any area of life, physical and computer sciences, engineering and mathematics.

Applications are now open, and the deadline is Friday 11th March.

Full details and criteria HERE

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Job Vacancies

There are a number of career opportunities currently being advertised at the University of Liverpool. A list of examples is below, for full details please visit the website.

**PhD Studentships**
- Musculoskeletal tissues ageing: The role of microRNAs and biological clocks
- Social psychology
- The role of children’s developing lexicon in syntactic development
- Organic Chemistry and Catalysis Versatile chiral building blocks by catalytic C-H and C-C activation
- Breaking the Voltage Barrier for CdTe Solar Cells
- Photodynamic Cancer Therapy Using Gold Nanoparticles
- Investigating human locomotion outside the laboratory

[http://www.liv.ac.uk/working/jobvacancies/currentvacancies/studentships/](http://www.liv.ac.uk/working/jobvacancies/currentvacancies/studentships/)

**Technicians**
- Patient Care Veterinary Nurse
- Veterinary Nurse specialising in Cardiology
- Imaging Technician

[http://www.liv.ac.uk/working/jobvacancies/currentvacancies/technical/](http://www.liv.ac.uk/working/jobvacancies/currentvacancies/technical/)

**Postdoctoral Researchers**
- Clinical Research Fellowship in IBD and Systems Biology
- Applied Mechanics
- Statistical Epidemiology and Modelling
- Measurement of New Inorganic Materials
- Mass Spectrometry/Proteomics
- Nuclear Physics
- Molecular Microbiology of Salmonella from Africa
- Encephalitis

http://www.liv.ac.uk/working/jobvacancies/currentvacancies/research/

**Academics**
- Resident in Small Animal Internal Medicine
- Lectureships in Materials Research (up to 10 posts)
- Lecturer/Senior Lecturer in Geomechanics
- Lecturer in Quantitative Sedimentary
- Lecturer in Experimental Particle Physics
- Lecturer (Clinical) in Paediatric Dentistry
- Lecturer in Psychology - Epidemiology, Health Behaviors and Genetic Factors

http://www.liv.ac.uk/working/jobvacancies/currentvacancies/academic/

**Professors and Heads of Departments**
- Chair and Lectureships in Materials Research (up to 10 posts)
- Chair in Uncertainty in Engineering

http://www.liv.ac.uk/working/jobvacancies/currentvacancies/professorial/