



UNIVERSITY OF  
LIVERPOOL

LIVERPOOL WOMEN IN  
SCIENCE AND ENGINEERING

## Liverpool Women in Science and Engineering Society Newsletter

September 2016

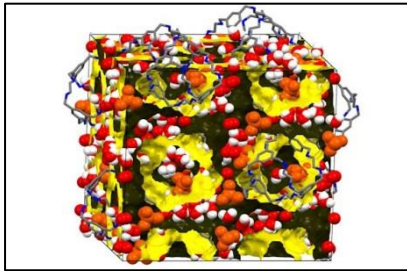
Hello and welcome to the September 2016 LivWiSE Newsletter. It's the start of a new academic year and we're really looking forward to the year ahead. Watch a short welcome video for new members (*click on the image below*):



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](mailto:livwise@liv.ac.uk).

- Science News Roundup
- Women in STEMM News
- Upcoming Events
- Courses
- Job vacancies

## Science News Roundup



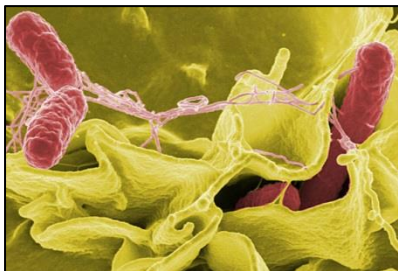
**Proton diffusion discovery a boost for fuel cell technologies**



**Yellow or black, large or small? Ant colour and body size respond strongly to the environment**



**Next stop Nevada for ARION2**



**New types of African Salmonella associated with lethal infection**



**Success for 'WOW Science Liverpool' event**



**University hosts Headstart into Engineering programme**



**University research leads to international guidelines change**



**Wildlife-friendly farming shown to benefit UK moths**



**T2K reports on Charge Parity (CP) violation search**



**Creating bigger, better and more joined-up habitat networks**



**Promising Alzheimer's research takes a step forward**



**University HIV smartphone app receives international award**



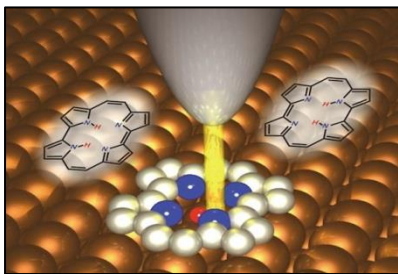
**Hot desert storms increase risk of bacterial meningitis in Africa**



**Corneal transplants – men and women don't see eye to eye**



**Drugs could stop HIV transmission**



**Chemists show new way to operate a single molecular switch**



**Viruses turbo-charge bacterial evolution in cystic fibrosis infections**



**Caribbean Sea acts like a whistle which can be 'heard' from space**

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## Women in STEMM News

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### Researcher receives national eye and vision award



Rosalind Stewart, an honorary clinical fellow at the University's Institute of Ageing and Chronic Disease, has received a national award for her research in ophthalmology from The Royal College of Ophthalmologists (RCOphth) and Fight for Sight.

[Read Article HERE](#)

### Postcard: Meeting the 'Father of DNA' in New York



"My recent trip to attend a synthetic biology course at the Cold Spring Harbor Laboratory in the USA turned out to be quite an inspirational journey."

Dr Linda D'Amore is a postdoctoral researcher in the Institute of Integrative Biology.

[Read Article HERE](#)

### Postcard: Measuring magnetic rocks in Siberia



"I was invited to join a fieldwork expedition to the Sette-Daban mountain range in Eastern Siberia. I started my trip by travelling to Moscow to visit their geomagnetic lab and meet with the head of the lab, Vladimir Pavlov, whom I would be travelling with.

Louise Hawkins from Environmental Sciences has recently returned from field work for her PhD in Siberia

[Read Article HERE](#)

### Postcard: Lagoons and estuaries in Mexico



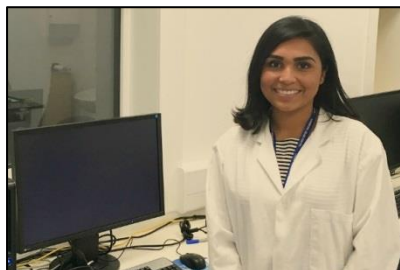
"We couldn't believe our luck when we were offered the opportunity to travel to Puerto Morelos, Mexico, to take part in a two week course on the hydrodynamics of estuaries and lagoons.

Ben Phillips and Charlotte Lyddon are PhD candidates in the Department of Geography and Planning.

[Read Article HERE](#)



### **Becoming an Expert: MRI imaging on therapeutics in drug induced liver injury**



“Medicine has come a long way in its diagnostic testing and treatment for diseases. From biomarkers to biopsies, we continue to advance methods used for patient care. In light of this situation, imaging has become a major frontier in science in the twenty first century.”

Abigail Chahil is a PhD student in the Department of Clinical Molecular Pharmacology.

[Read Article HERE](#)

### **Becoming an Expert: Gail Chapman on mosquito-borne disease in horses**



“My research focuses on the future risk to horses from mosquito-borne viral diseases. Biting insects are known to play a role in the transmission of diseases such as West Nile and African horse sickness viruses”.

Gail Chapman is a PhD student at the Institute of Infection and Global Health.

[Read Article HERE](#)

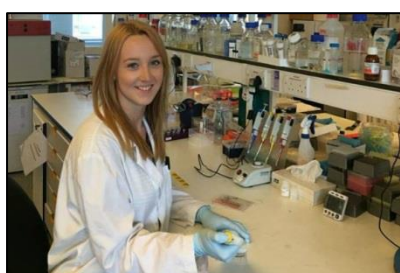
### **University Lecturer awarded Italian national prize**



Dr Nicoletta Leonardi from the School of Environmental Sciences has been awarded an Italian National Academy of Sciences Award for her study of the hydrodynamic and morphodynamic of lagoons, and coastal areas.

[Read Article HERE](#)

### **Becoming an Expert: Amy Ball on personalising medicine**



“Male, female, old, young, short, tall, we’re all different. The majority of these differences are predetermined in our own, unique DNA. Until recently however, differences in a person’s DNA have not been taken into account when they require medical treatment”. Amy Ball is a PhD student at the Centre for Drug Safety Science..

[Read Article HERE](#)

## Upcoming Events

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- **Catch up**

### Fame, Academe and Gender with Mary Beard



Acclaimed historian Professor Mary Beard was awarded an Honorary Degree from the University of Liverpool in July.

Whilst she was here she gave a public lecture on **Fame, Academe and Gender**. Missed it? Watch now on:

- [YouTube](#)
- [LivWiSE Website](#)

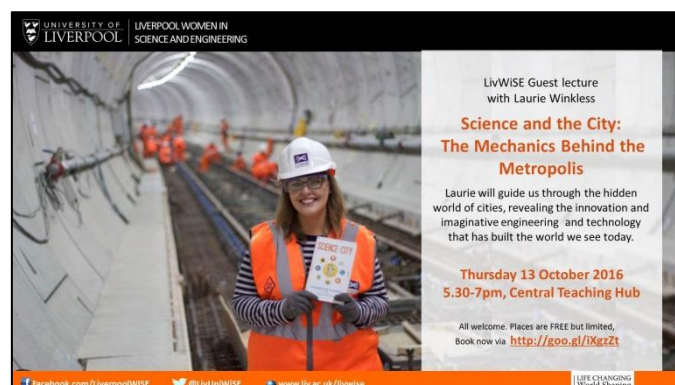
- **LivWiSE Events**

### LivWiSE Social and Networking event

All new staff and students are invited to our first meet and greet of the year as part of the welcome week activities. This will be a great chance to meet other students/staff and find out more about LivWiSE. No booking required just turn up.

- Tuesday, 27th September 2016 from 17:00 to 19:00

### Lecture: Science and the City: The Mechanics Behind the Metropolis



LivWiSE is proud to welcome physicist and writer Laurie Winkless who will take us through a tour of the world of science and technology that keep a modern city working. Based on her book 'Science and the City The Mechanics Behind the Metropolis' Laurie will explore how innovation and imaginative engineering have built the world we see today.

- Thursday 13<sup>th</sup> October 2016 from 17:30 to 19:30
- [Full details and booking page](#)

- **Other Events**

## **Lecture: Could Artificial Intelligence Become a Threat to Mankind?**

Stephen Hawking has recently stated that “the development of full artificial intelligence could spell the end of the human race.” This provoked a spirited reaction from computer scientists who were unable to reach a consensus on whether it would indeed be possible to build a machine that outperformed humanity to such an extent that we created a life-form that could make ourselves extinct. This public debate will feature Professor Simon Maskell, University of Liverpool, Joanna Bryson, University of Bath, Sir Robin Saxby, former CEO and chairman of ARM Holdings and Keith Hitchman, River in the City.

- Wednesday 21<sup>st</sup> September from 17:30 to 18:30
- City of Liverpool College
- [Full details and booking page](#)



## **Science Jamboree Launch**

**CALLING ALL UoL STUDENTS:** The Central Teaching Laboratory will host a Science Jamboree for 300 Cubs, Beavers and Brownies on Saturday 26th November 2016. To make this happen we need your help! We'd like teams of students to work together to create and deliver hands-on activities so the young people can gain their science and science related badges at the Science Jamboree.

Interested? Come along to this launch event to find out more.

- Wednesday 5<sup>th</sup> October 2016 from 13:30
- GFLEX, Central Teaching Hub
- [Full details and booking page](#)

## **Lecture: Why is investing in science and higher education essential for civil society? - a Science and Society Lecture**

Professor Dame Goodfellow will discuss the societal benefits for investing in science and higher education. She will outline the case for such investment for an economically and intellectually rich modern society.

- Tuesday 11<sup>th</sup> October from 17:30 to 18:30
- [Full details and booking page](#)

## **LJMU Athena Lecture Series**

Liverpool John Moore's University annual Athena SWAN lecture will feature 3 different speakers. Professor Laura Serrant (Sheffield) will talk about "Lifting as you climb: Enabling others and celebrating self"; Poet and Academic Dr Sandeep Parmar (University of Liverpool) will share her research experiences, building a credible research portfolio and walking your way through obstacles on the path of progress; and Dr Isabelle De Groote (LJMU) will talk about "There and back again: an anthropologist's journey". Q&A and networking opportunities available.

- Wednesday 2<sup>nd</sup> November 2016 from 13:00 to 15:30
- [Full details and booking page](#)

## **Reproductive technologies: Choices and changing families?**

Since 1978, the beginning of assisted reproductive technologies (ARTs) has changed the lives of many people who have been enabled to choose to have children whom 'nature' might have denied them. Gamete donation and surrogacy has opened the door to new ways of founding and shaping families. Children may be born with two or three mothers, two fathers, or simply one single parent.

The law has struggled to keep up with medical science and the extension of choices in reproduction has not met with universal approval. Should the law focus on the welfare of the child to be born? And what legal changes should be made in the way that family law responds to reproductive choices?

Professor Brazier (Manchester) will examine and discuss how reproductive medicine has changed families, for good or for ill.

- Tuesday 15<sup>th</sup> November 2016 from 17:30 to 18:30
- [Full details and booking page](#)



## Courses

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### Energy: Thermodynamics in Everyday Life

FREE online course. Energy is essential to life at many levels and its transformation from one form to another – whether in the cells of our bodies or the machines that enable modern society – is governed by the laws of thermodynamics.

This free online course provides you with an introduction to these laws, and the application of thermodynamics to both everyday examples and issues of global concern.

The course is aimed at anyone with a need or desire to learn more about the laws governing energy. Some knowledge of physics and mathematics will be assumed.

- Starts 3<sup>rd</sup> October 2016 (for 3 weeks)
- [Full details and register](#)



### The Musculoskeletal System: the Science of Staying Active into Old Age

Free online course. With the wealth of seemingly contradictory information in the media about healthy living, sport and ageing, this free online course will demystify the ageing process and show you how our everyday behaviours and choices affect our long-term musculoskeletal health.

This course is designed for patients, carers and people who lead active lives and would appreciate knowing how their lifestyle is likely to affect their long-term health.

It may also inspire you to study or research musculoskeletal ageing. No previous biological experience is needed.

- Starts 3<sup>rd</sup> October 2016 (for 3 weeks)
- [Full details and register](#)



### Science Short/Evening Course

Each year the Continuing Education Department runs a number of evening and weekend courses and classes. A number of science and technology related courses are running in 2016/17 including: A First Course in Calculus, An Intro to Astronomy, An Intro to Forensic Psychology, Einstein and the Development of General Relativity, Forensic Geoscience, Intro to Volcanology and The Theory of Everything. Start dates, times and cost (£) vary. Please see the programme/website for full details.

- [PDF Programme \(2016-2017\)](#)
- [Enrolment Webpage](#)

## Job Vacancies

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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

- Estimating Energy Efficiency of Applications on HPC Resources
- Burnup credit calculations for BWR spent fuels assemblies
- Development of integrated rectennas for wireless energy harvesting and power transmission
- Designing, responsive, injectable nanocomposites for sustained drug delivery
- Soft actuators for safe patient rehabilitation
- Radiation Effects in Bulk Metallic Glasses and High Entropy Alloys
- Improving Productivity in Process Industries

<https://www.liverpool.ac.uk/working/jobvacancies/studentships/>

### Technicians

- Mechanical Design Engineer in Particle Physics
- Technical Support Officer (4 Posts)

<http://www.liv.ac.uk/working/jobvacancies/currentvacancies/technical/>

### Postdoctoral Researchers

- Pure Mathematics
- Examining precursors to alcohol-related aggression
- Research Co-Ordinator in Cockcroft Institute
- Biofilm Decontamination Using Cold Plasma
- Quantitative Ocean Biogeochemistry
- Medical Microbiology

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

### Academics

- Lecturer/Senior Lecturer in Equine Anaesthesia
- Clinical Psychology Fellow in Oncology
- Lecturer in Orthoptics
- University Teacher in Urban Design (Maternity Cover)

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

### Professors and Heads of Departments

- Senior appointments in Industrial Design (2 posts)
- Head of the Institute of Life & Human Sciences

- Head of the School of Life Science
- Head of the School of Psychology
- Chair in Aerospace Engineering
- Professor and Head of the Department of Civil Engineering and Industrial Design
- Professor and Head of the Department of Mechanical, Aerospace and Materials Engineering

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

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