POSTERS IN PARLIAMENT 2017

TODAY’S PROGRAMME
THE JUBILEE ROOM

12:30 - 13:30 - Exhibition one
14:00 - 15:00 - Exhibition two
15:30 - 16:00 - Speeches and prize giving
Welcome to the fifth Posters in Parliament exhibition of research undertaken by undergraduate students from across the country. These students represent the next generation of innovators and academics.

Their discoveries are already helping to further our understanding of the big challenges facing the world today. This event is part of the British Conference of Undergraduate Research (BCUR), an open coalition of universities dedicated to encouraging a national culture of undergraduate research. BCUR grows every year, giving more and more undergraduate students the opportunity to experience real research at the cutting edge of their field. Many of them go on to publish their work in highly-rated journals and then develop their research even further as postgraduate research students.

Every year we award prizes for the best posters. Each university has been asked to nominate a student for the second exhibition, which is where judging will take place. The judging panel is comprised of leaders in the higher education and research fields. I am very grateful to everyone who has participated in the judging process, and to our sponsors Keir Starmer, MP for Holborn and St Pancras, Chuka Umuna, MP for Streatham, and Naomi Saint, Houses of Parliament Universities Programme Manager.

2017 marks the first time the University of Central Lancashire has passed the organising and facilitation torch. This year’s event would not be possible without the support of UCL.

Professor Stuart Hampton-Reeves
Chair of the British Conference of Undergraduate Research

It brings me great pleasure that UCL is sponsoring Posters in Parliament this year. This celebratory exhibition offers a window into the important and valued research taking place at UK universities and colleges at the undergraduate level.

At UCL we recognise the critically important role of research in students’ education. In our twenty-year plan we have committed to ensuring every student learns through research and enquiry and has opportunities to connect with the institution’s research profile. In short, through our Connected Curriculum initiative, UCL students will have a research-based education.

It is through recognising the role of research in education and ensuring students have opportunities to make connections between both, that higher education providers can offer a valued student experience. UCL is not alone in this pursuit, as we can see here today. Please enjoy the wonderful selection of student research from a range of institutions, who are all embedding undergraduate research into the undergraduate curriculum.

Congratulations to all students who are here representing their institution – an accomplishment deserving much praise. I have no doubt the work in this room represents the most innovative research conducted by a cohort of future leaders who are at the beginning of very successful careers. It is through continuing these enquiries that this next generation of researchers will be able to find solutions to the challenges the world faces.

Professor Michael Arthur,
President and Provost, UCL
POSTERS IN PARLIAMENT 2017

EXHIBITION BACKGROUND

Posters in Parliament is an exhibition inspired by the US Posters on the Hill event in which the best students are sent by their universities to present their work to the House of Representatives and the Senate. This gives the opportunity for legislators and policy makers to see first-hand some of the innovative research taking place around the country. Posters in Parliament was established by the University of Central Lancashire and initially co-funded by a grant from HEFCE’s Catalyst Fund.

From its inception through its first four iterations, the event was coordinated and hosted by the University of Central Lancashire where the Chairman of BCUR, Professor Stuart Hampton-Reeves, is Director of Research in the College of Business, Law and Applied Social Sciences. From 2017 sponsorship will rotate around the steering group, with UCL first up.

BCUR was founded in 2010 by a coalition of universities from across the sector and held its first conference at the University of Central Lancashire in Preston in April 2011. The conference meets annually, bringing together students from across the UK to present their work. In 2017, the conference will be hosted by Bournemouth University.

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The exhibitions and prize giving will be in the Jubilee Room.
BLACKPOOL AND FLYDE COLLEGE
Charlotte Bamber • EXHIBITION ONE
What Influences Careers in PM?
Establishes the main influences on Project Management career choices, as well as establishing existing issues within the PM profession, providing recommendations for future recruitment within PM.

Francesca McKenna • EXHIBITION TWO
What is the language of Project Management?
Commonality of language within the project management profession and how this can be used.

BOURNEMOUTH UNIVERSITY
Jordan Ezra • EXHIBITION ONE
The Gradual Dissolution of Human Rights by Governments and Intelligence agencies
Research into the gradually worsening violations of human rights over the last twenty years.

Georgia Robertson • EXHIBITION TWO
Lead Generation Email Campaigns: Influencers of their success
By investigating which email campaign characteristics influence email open, click through and unsubscribe rates, emails can potentially be optimised for business purposes.

HULL COLLEGE GROUP
Christopher Jordan • EXHIBITION ONE
Transformations in Music 1400–1865
A narrative telling the story how English and Scottish folk music merged with African Music to create the early Blues and Gospel and describes which historical events acted as catalysts for these changes.

Lauren Saunders • EXHIBITION TWO
A Picture of Health: A multidisciplinary examination into the role of Art within meaningful Mental Health Recovery
Drawing on both original and existing research, this recovery-orientated and person-centered discussion explores the relationships between Mental Health and the Visual Arts, applied both in and outside of the clinical environment.

LANCASTER UNIVERSITY
Emily Siddall • EXHIBITION ONE
Islamophobia and Islamic State: Does Islamophobia play into the hands of the ISIS Narrative?
This project displays evidence of a rise in Islamophobia across twitter, and will evaluate whether this increasing Islamophobia is translating to the real world, whilst analysing to what extent the affects of Islamophobia both on and offline, tempt Muslims into the hands of ISIS.
Morgan Saunders • EXHIBITION TWO
Rule or Ruled? Rethinking the Reputation of King Henry VI of England and France
A historical re-evaluation of King Henry VI's foreign and domestic policy.

LONDON METROPOLITAN UNIVERSITY
Elena Luca • EXHIBITION ONE
The Effect of Cognitive Task on Star Excursion Balance Test Performance of Muay Thai Fighters
The purpose of this study was to compare the dynamic balance between advanced and beginners Muay Thai fighters. It was also investigated if a cognitive task added to the balance test had an effect on the athletes' balance.

Jorge Miguel Moreira • EXHIBITION TWO
Measure and comparison of cholinesterase inhibition and toxicity of 22 compounds synthesized based on a biologically active ring system (pyrrolo[1,2-a] quinoxaline).

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE
Yash Salunkhe and Shirley Wang • EXHIBITION ONE
Equitable Growth, a Paradox? UK's North-South Divide
Boosting economic growth in North UK through appropriate policy prescriptions can complement higher overall UK growth as against the mutually exclusive ideas of higher growth vs regionally equitable growth that is often debated as the idea of “North-South Divide.”

Ellie Heatherill • EXHIBITION TWO
The role of political factors in explaining the relationship between commodity prices and the real exchange rate
This paper uses case studies to explore how political factors explain why the Australian Dollar co-moves with commodity prices whilst the Norwegian Krone does not which is contrary to economic theory.

NEWCASTLE COLLEGE
David Lewis • EXHIBITION ONE
Synchronous Belt Lifetime Optimisation
This research explores how changes to belt lifetime and running temperatures can be interpreted into new design guidelines to ensure maximum efficiency.
Philip McBride • EXHIBITION TWO
Metabolic Syndrome in young adults aged 18–15
This research identifies the need for Metabolic Syndrome primary prevention programmes which specifically target young adults.

NOTTINGHAM TRENT UNIVERSITY
Jasmin Stevenson & Lindsay Thurston • EXHIBITION ONE
An Examination of Statistics Anxiety among Psychology Students
The purpose of this research is to investigate the phenomenon among undergraduate psychology students and to explore variables that may predict statistics anxiety and to target these within teaching practice.

Robert Clark & Christopher Galvin • EXHIBITION TWO
Entrepreneurship in the Informal Economy: The Role of Migrant Communities
Research exploring the entrepreneurial and occupational behaviour of marginalised migrants operating within the informal economy.

OXFORD BROOKES UNIVERSITY
Georgia Shortman • EXHIBITION ONE
Women’s Gendered Experiences in the Wine Trade
As an historically male-dominated industry, the wine trade offers opportunities to investigate the experiences of women as a minority group through the lens of gender.

Olenza Zyelyentsova • EXHIBITION TWO
What is the role of the West in the development of the Ukraine crisis?
Ukraine crisis has developed into a major international issue and seen an involvement of many actors; this research will examine who is best to blame for such rapid development of the crisis - Western world, Russia, or just Ukraine itself.

PLYMOUTH UNIVERSITY
Charlotte Stone, Chloe Slee, Toby Mather, Allegra Cattani & Caroline Floccia • EXHIBITION ONE
Learning a Second Language Using a Tablet
Investigating the most successful word-learning condition, using an interactive game, tangible objects and parent-child interaction with three and five-year-olds.

Anna Y. Kharko & Matthew E. Roser • EXHIBITION TWO
Effects of Repetitive Transcranial Magnetic Stimulation on Visual Sequential Statistical Learning in Adults
Can one modulate the subconscious learning of a complex hidden pattern? Our project researched this while concurrently delivering brain stimulation. The data unveiled unexpected results.
QUEEN MARY
Samuel Matthews • EXHIBITION ONE
Characterisation of Saturn’s F Ring using Cassini ISS Images
I hope to observe and study how gravitational and dynamical processes, including the effect of the moon Prometheus, as well as, impacts from nearby objects, can determine the structure and behaviour of the F ring of Saturn.

Angelica Hill • EXHIBITION TWO
Shakespeare. Nationalism and Failure - the understudied Henry VI trilogy: The “Other”
How Shakespeare glorified the 17th Century concept of “Englishness,” in contrast to foreigners, women and Catholics. I argue that Shakespeare, largely failed in his popularist aspiration - undone by his humanism.

SOUTHAMPTON SOLENT UNIVERSITY
Lara Thomas • EXHIBITION ONE
Applied Research on Nanotechnology: A TV series
This is an applied research project undertaken in support of the development of a TV series called “BlackTech.”

Charlotte Stuart • EXHIBITION TWO
May the force be with you! Male vs. Female fatigue responses to Lumbar Extension exercise
The purpose of this study is to consider differences in fatigue resulting from dynamic isolated lumbar extension exercise to muscular failure using lighter- and heavier - loads (50% and 80% MViT, respectively) in both males and female participants.

STAFFORDSHIRE UNIVERSITY
Christine Kelly • EXHIBITION TWO
Optimising Biological Evidence Recovery from Female Sexual Offence Victims
Use of a new specimen capture device to reduce contamination during the recovery of evidence from sexual offences, in comparison to the speculum.

TEESIDE UNIVERSITY
Aroosa Sajjad • EXHIBITION ONE
The effect of substance and needs of product description on attitudes towards the product and purchasing behaviour
This study wants to investigate what factors affect the attitude towards products and the decision to purchase the product.
Hannah Erdem & Pippa Adams • EXHIBITION TWO
Investigating patients’ experiences of accessing mental health facilities
A qualitative research project exploring patients’ experiences of accessing local mental health services in the North East of England.

UNIVERSITY OF ABERDEEN
Sam (Chenhao) Ma • EXHIBITION ONE
Do Weight Loss Diets reduce Mortality, Cancers and Heart Disease in Obese Adults? A Systematic Review and Meta-analysis of Randomised Clinical Trials
Using randomised studies which compares weight loss diets with control treatments in obese patients, to assesses the effects on major clinical events including death, cancer development and cardiovascular disease development, as well as weight changes.

UNIVERSITY OF CENTRAL LANCASHIRE
Melissa Barker • EXHIBITION ONE
Examining the relationship between short-term memory and inner-speech
This project aimed to investigate the role of motor planning in verbal serial short-term memory. Evidence found provides support for theories that ascribe a role to motor planning in verbal serial short-term memory.

Yasemin Gulseven • EXHIBITION TWO
Investigation of some aspects influencing the invasive success of the slug Arion Flagellus
The invasive slug Arion flagellus has hybridised with the native Arion ater, producing offspring that are highly fecund and resistant to current biocontrol measures and threatening food security.

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Evangeline Chai • EXHIBITION TWO
Evaluating the Biological Activity of Synthetic Heparin Analologues
This study compares the anticoagulant effect of two synthetic heparin analogues made using a chemoenzymatic method against fondaparinux, a synthetic drug clinically used to treat thrombotic disorders.

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Amna Khan • EXHIBITION TWO
A review of the potential challenges to physical activity for older adults in South Asian communities.
My project explored the potential challenges to physical activity for older adults in South Asian communities. Our study recruited caucasian participants which led us to investigate why people with South Asian background don’t engage in physical activity.

UNIVERSITY OF EAST LONDON
Joanne Afful • EXHIBITION ONE
The Impact of Speech Bubbles on Practitioners, Teaching Assistants and School Cultures
This research study aimed to identify the impact of Speech Bubbles, a story-drama intervention for KS1 pupils with communication difficulties, on those that support delivery of the project and its wider implications in schools.

Dianne Gunawardena • EXHIBITION TWO
Climate Proofing Housing Landscapes using SuDS
Investigating the impact of retrofitting SuDs features in urban landscapes to tackle climate change.

UNIVERSITY OF EXETER
Patrick Burns • EXHIBITION ONE
Disposable Sleeping Mat: Design focused to provide a sleeping solution to the homeless community
My project researched the design and production process for a cheap, inexpensive mattress, providing a short term sleeping solution for the homeless community, and other similar applications.

Rhoda Frost • EXHIBITION TWO
Increased aortic stiffness is linked to increased pulsatility in cerebral arteries
My research confirmed the strong, positive correlation between artery stiffness and pulsatility of blood flow in the brain, which can increase the risk of dementia and stroke in affected populations.

UNIVERSITY OF HUDDERSFIELD
Kopano Mapesa • EXHIBITION TWO
Synthesis of Ureas in the Bio-alternative Solvent Cyrene
Synthesis for a diverse range of unsymmetrical ureas from secondary amines and isocyanates in Cyrene.
UNIVERSITY OF LEEDS
Claire Turner • EXHIBITION ONE
Female Expertise in Eighteenth-Century Medicine
Our project combines the question of authorship and ownership with the role of women and their increasing expertise in eighteenth-century domestic medical literature.

Stefano Vrizzi • EXHIBITION TWO
Probabilistic framework simulating artificially-induced neural plasticity by a bidirectional Brain-Computer-Spinal Cord Interface
We used a computer model to predict how a cutting-edge neural device can strengthen the connections between neurons in the brain and in the spinal cord, either in healthy or injured conditions.

UNIVERSITY OF READING
Francesca McPeanne • EXHIBITION ONE
Are children who speak English as an additional language better at learning new words they encounter in text?
This project aimed to explore whether children who speak English as an additional language are better at learning new words when reading.

Hamza Abu-Elmagd • EXHIBITION TWO
Evaluating stakeholder experiences of pharmacists in General Practice clinics
An NHS pilot aims to recruit pharmacists in GP clinics across England; this project examined the views of stakeholders in six clinics where pharmacists are already integrated within general practice.

UNIVERSITY OF SHEFFIELD
Han Ding • EXHIBITION ONE
Population, Growth, and Energy Demand: A Look at Scaling Effects and Agglomeration in the Northern Powerhouse
The project investigated the suitability of city scaling law for different regions across the Northern Powerhouse and how this would help us to develop future regional development strategy.

Florence Gaughan (Blake) • EXHIBITION TWO
Breast or bottle? A qualitative inquiry into what influences infant feeding choices in the UK
A qualitative inquiry into what influences a mother to breastfeed her baby beyond three months in the U.K.

UNIVERSITY OF SUSSEX
Lisa Wootton • EXHIBITION ONE
The Effects of Changing Halides in Perovskite Quantum Dots
On changing the chemical composition, the properties of perovskite quantum dots were analysed using a variety of methods.
Robert Tempelaar • EXHIBITION TWO
Researching the Alzheimer’s risk gene APOE4 using the CRISPR/Cas9 gene editing system
Because the APOE3 gene, which is not associated with Alzheimers, differs by 1 letter (nucleotide) from APOE4, we aim to edit the APOE4 gene into APOE3 in cell culture, thereby effectively inducing a genotype switch.

UNIVERSITY OF WALES TRINITY SAINT DAVID
Kathryn Jones • EXHIBITION ONE
What is Dyspraxia?
An overview into the causes and effects of dyspraxia in children and young people and possible treatments to alleviate symptoms.

Lynsey Lewis • EXHIBITION TWO
Sensory Processing Disorder
Aimed at raising awareness of the issue that impacts child development.

UNIVERSITY OF WARWICK
Priyesh Patel • EXHIBITION ONE
‘Can We Die Well? A critical evaluation of Seneca’s philosophy and its everyday application’
I will analyse Seneca’s letters on conceptualizing the idea of death through spiritual exercises and pursuit of the good life and philosophy, and the practical findings from a group of people who applied these ideas (short and long-term).

Rebecca Fletcher • EXHIBITION TWO
Palestine: A Gendered Perspective on Youth under Israeli Occupation
This project examines the social, economic, psychological, physical, spatial, and gendered impacts of Israeli occupation upon the lives of Palestinian young people, with a particular focus on students in Nablus.

UNIVERSITY OF YORK
Caroline Appleton • EXHIBITION ONE
The Disadvantages of Teaching as a Career Choice as Perceived by Undergraduate Students: A Factor Analysis
With reference to the current teacher shortage, why are undergraduate students not entering the teaching profession.

Joshua Stubbs • EXHIBITION TWO
Education, Young People and Political Participation: Democratic Disillusionment?
Exploring the potential causes of decline in political participation among young people.

Photo credit: Architectural research and design by second-year UCL undergraduate student, Thomas Chu, 2016 (BSc Unit 9)
Posters in Parliament 2017 planning committee: Dr Brent Carnell, Lauren Hawkridge and Fiona Wilkie