Discovery
Days 2018

Thursday 11 January
13:30 – 16:45

Friday 12 January
09:00 – 16:45

University of Dundee
“It is ultimately right that the public that funds this great institute should see University projects that impact the community, the wellbeing, the hopes, the quality of life and the benefit of the whole world.”

Stephen Fry
At the inaugural University of Dundee Stephen Fry Award for Public Engagement, January 2012

Welcome to the University of Dundee’s fifteenth annual Discovery Days

Discovery Days give us a tremendous opportunity to hear from our new professors, award-winning teachers and communicators as we learn more about their discoveries and the benefits of these discoveries to everyone. This is the work that is helping us transform lives around the world, and propelling us towards our goal of becoming Scotland’s leading university.

The annual Discovery Days began in 2004, as a celebration of the work of our newly appointed leaders in research. Since then we have heard and discussed the work of 226 new Professors at the University of Dundee, as they showcase their ideas to the public and our University community. At Discovery Day 2018, we will welcome a further fifteen new Professors, talking on subjects as rich and varied as health and wellbeing, social change, the creative arts, and the post-digital age.

Discovery Days also hosts three presentations from our leading learning and teaching practitioners. They will share with us insights into new and innovative teaching methods and technology.

The achievements of our staff and students, and their work with public audiences will be recognised by a presentation from the Global Health Challenge 'Open Ears' team and the presentation of the two Stephen Fry Awards for Excellence in Public Engagement with Research.

Discovery Days 2018 promises to be a fascinating whirlwind tour through the outstanding achievements and future plans of our staff and students, and I hope very much that you will join me on what will be a voyage of discovery for us all.

I look forward to seeing you there.

Prof Sir Pete Downes,
Principal and Vice-Chancellor
Thursday 11 January 2018

Session 01: 13:30 - 15:00

Chair: Professor Sir Pete Downes, Principal and Vice-Chancellor

Welcome from the Principal

→ Developing Our Excellent Research, Innovation and Impact
  Prof John Rowan • Vice-Principal (Research, Knowledge Exchange and Wider Impact)

The University has a clear mission - to transform lives, locally and globally. We deliver this through world-class teaching and pioneering research. This presentation will discuss how the University's new Strategy 2022 enables us to build on established research excellence, promote innovation and achieve the greatest possible benefits to society.

→ Skin Disease: Shedding Light on the Matter
  Prof Sally Ibbotson • Chair of Photodermatology

Sunlight has many different effects on the skin. These include harmful effects, including causing skin cancers, and beneficial effects such as the production of Vitamin D and the use of light to diagnose and treat many common skin diseases. This talk will highlight the work that we have been doing in Dundee in developing and applying light in new ways for the diagnosis and treatment of a range of skin diseases.

→ Using Plant Roots as Underground Engineers
  Prof Glyn Bengough • Chair in Biosystems Engineering

Soil underpins our transport, communities, food and water systems. All are under pressure from severe weather. At Dundee, we aim to use plants and their root systems as natural engineers to stabilise our environment: preventing landslides, protecting flood embankments, improving crop harvests, and even potentially protecting gas mains against earthquakes.

→ Seeing Into and Seeing Through: A Reflective Practice
  Prof Mary Modeen • Chair of Interdisciplinary Art Practice

We are often intrigued by whatever is not clear or obvious. These are spectral elements: beyond the visible, the audible, the signposted, or the expected. Our modes of seeing for ourselves and sharing our perceptions with others are affected by the senses and by cultural values, which in turn are shaped by cultural memories and cultural forgetting.
Coffee break: 15:00 - 15:15

Session 02: 15:15 - 16:45
Chair: Professor Karl Leydecker, Vice-Principal (Learning and Teaching)

→ **Scotland and the Transatlantic Slave Trade**
  Prof Graham Fagen • Chair of Fine Art

‘The Slave's Lament’ a beautiful lyric by Robert Burns’ empathised with the appalling hurt of the displaced, the trafficked and the enslaved. Why then, when being taught on Burns at school, are we not told that he booked three sailings to go and live and work as an overseer of slaves on a sugar plantation in Jamaica in 1786?

→ **Open Ears**
  Alice Horton and Charlie Nicholls • Project winners in the Global Health Challenge 2016

The inaugural Global Health Challenge brought students from across the University together to design innovative solutions for tackling inequities in health and wellbeing. Our team worked with Deaf Links, an organisation that provides services for deaf, hard of hearing and sensory impaired people. This session explains the development of the Open Ears toolkit and our achievements to date.

→ **Putting the Student at the Centre**
  Nikki Doig • Winner of Most Inspirational Teaching – Student-Led Teaching Award

What lessons from the primary school classroom can inform the way we teach at university level? This talk looks at how, through learner empowerment and putting the student back at the centre, Nikki Doig brought the passion back into teaching and learning.

→ **Heart Disease – Go with the Flow**
  Prof Faisel Khan • Chair in Cardiovascular Sciences

Disease of the heart and blood vessels (cardiovascular disease) can begin early in life, well before the development of clinical signs, such as a heart attack or stroke. Prevention of cardiovascular disease is of great importance and a major challenge in achieving this is our understanding of the underlying biology involved in development of the disease.
Over the past twenty years, the relationship between universities, government and business has grown ever closer. Working together they have delivered many benefits both commercial and societal. However, little attention has been placed on what are the best form of organisations to deliver impact. A new hybrid organisation may enable needs-driven research.

Leadership in Nursing
Prof Lynn Kilbride • Chair of Nursing

A nurse by background, Prof Lynn Kilbride believes passionately that nurses and midwives improve the lives of the people they engage with. Her clinical research is centred on diabetes and brain tumours, however she has a long and successful experience in developing education packages for the next generation of healthcare workers, at home and overseas. In this talk she will discuss how effective leadership in research and education can improve the lives of others.

Boosting Our Natural Defences for Cancer Prevention
Prof Albena Dinkova-Kostova • Chair of Chemical Biology

Broccoli is a source of compounds that could help fight cancer. The compound sulphoraphane was isolated from broccoli, with young broccoli sprouts containing 10-100 times sulphoraphane than the mature vegetable. Work in Dundee and around the world has shown that sulphoraphane reduces cancer in laboratory animals and has protective effects in humans. But how does it work? Join us for this detective story on a potential new cancer prevention strategy.
### Session 04: 11:15 - 12:30

**Chair:** Prof John Rowan, Vice-Principal (Research, Knowledge Exchange and Wider Impact)

*### From Deprivation to Integration and Aspiration*

**Tom McConnachie and Jacqueline Eccles • Honorary Graduates’ Award for Inclusive Practice**

This talk follows the school pupils, who live in areas of high deprivation in Tayside and Fife, who became immersed in the undergraduate Nursing programme for a day. Just over 10% of student nurses are male, which leads to an imbalance in the nurses that qualify. The #MenDoCare campaign uses creative ways of addressing the gender imbalance in nursing student recruitment.

*### Dealing with Mass Atrocities*

**Prof Kurt Mills • Chair of International Relations and Human Rights**

The international community has developed many laws, norms and institutions to address violent conflict and violations of human rights. Yet, concrete action to protect people in war zones and conflicts frequently fails to live up expectations. This talk draws on years of study of humanitarian action, military intervention and international criminal justice to explore this failure.

*### Relationships and Secrets in a Post-Digital Age*

**Prof Wendy Moncur • Interdisciplinary Chair of Digital Living**

We are now living in a post-digital age, where the online and offline aspects of many people’s lives and identities are intertwined. This talk will illustrate how this is happening across a range of human experiences, such as growing up and growing old, falling in and out of love, and keeping secrets from people that we know.

Coffee break: 10:45 - 11:15
Residential Care and Allegations of Historical Abuse

Prof Mark Smith • Chair of Social Work

In contemporary therapeutic culture, adults brought up in residential care can be encouraged to interpret or reinterpret their experiences there as abusive. This can lead to false allegations of abuse that may erode faith in the care sector, the justice system, and stop genuine victims being taken seriously. This presentation will draw on Professor Smith's current research interests including responses to allegations of abuse.

Exploring Architecture

Jamie Brown • Winner of Best Advisor or Personal Tutor– Student-Led Teaching Award

Like many subjects, architecture has the potential to be (over) complicated. Jamie Brown overcomes this by engaging in clear and simple methods of exploration and communication with students he advises. He is interested in exploring the richness of architecture and the ways in which great architecture can introduce beauty and delight to ordinary, everyday situations.

Ageing and Technology: Harnessing Potential and Avoiding Pitfalls

Prof Judith Sixsmith • Chair of Health Related Research

To help older people stay in their own homes for as long as possible we need to create new solutions to support healthy, active ageing. Using technologies such as robots or sensor systems can help enormously. However, many promising technologies are developed only to fail and never reach the market. By involving older people as partners, decision makers and co-producers we can create solutions which are more likely to be used by older people themselves.

Session 05: 13:30 - 14:45

Chair: Wendy Alexander, Vice-Principal (International)

Lunch break: 12:30 - 13:30
Coffee break: 14:45 - 15:15

Session 06: 15:15 - 16:45

Chair: Professor Sir Pete Downes, Principal and Vice-Chancellor

Tailoring Antibodies for Action - The Ys and Wherefores
Prof Jenny Woof • Chair of Biology

Antibodies, long recognised as key players in the body’s response to infection, are increasingly used as effective treatments for various cancers and inflammatory diseases. This talk will reveal how a better understanding of the antibody’s Y-shaped structure is enabling scientists to fine tune these versatile molecules to deliver new medical treatments.

Comics, Partnerships and Collaboration
Prof Chris Murray • Chair of Comic Studies

This talk will explore the work being done in Comics Studies that relates to partnerships and collaboration in teaching, research and social enterprise activities. The emphasis will be on interdisciplinary work with comics between Schools in the University, as well as working with external partners, and our engagement with the creative economies.

Presentation of the Stephen Fry Awards for Excellence in Public Engagement with Research

• Public Engagement Project of the Year
• Engaged Researcher of the Year

Wine Reception follows