Discovery Days 2020

Wednesday 8 January
15:00 – 16:30

Thursday 9 January
13:45 – 16:30

Friday 10 January
09:00 – 16:30

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 seventeenth 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 they bring to us all. 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 256 new Professors at the University of Dundee, as they showcase their ideas to the public and our University community. At Discovery Days 2020, we will welcome a further twelve new Professors, talking on subjects as rich and varied as health and wellbeing, helping the environment, and ground breaking science.

Discovery Days also hosts presentations from our leading learning and teaching practitioners. They will share with us insights into new and innovative teaching methods and how they support student welfare.

The achievements of our staff and students, and their work with the public will be recognised by a presentation from the Global Health Challenge team who partnered with Parkinson’s UK and the presentation of the Stephen Fry Awards for Excellence in Public Engagement.

For the second time, Discovery Days opens with a public session of our governing body, the University’s Court, with a chance to hear from members of the University Court, and ask them your questions.

Discovery Days 2020 promises to be a fascinating 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.

Professor John Rowan
Vice-Principal (Research, Knowledge Exchange and Wider Impact)
Wednesday 8 January 2020

Session 01: 15:00 – 16:30

Chair: Ronnie Bowie,
Chair of University Court
Annual Public Stakeholder meeting of University Court
Ronnie Bowie • Chair of University Court

This session will see the University’s Court hold its second annual public stakeholder meeting, with representatives of the governing body present to give a review from University Court and answer questions.

Ronnie Bowie, the Chair of Court, will give an overview of the role of the Court and its business over the last year, along with an account of the University’s performance and achievements over the same period, and share with you some of our ambitious plans for the future. There will also be related presentations from the University Secretary & Chief Operating Officer, Dr Jim McGeorge, and the President of the Dundee University Students’ Association, Mr Josh Connor.

Drinks Reception follows
Thursday 9 January 2020

Session 02: 13:45 – 15:00
Coffee break: 15:00 – 15:15

Chair: Professor John Rowan, Vice-Principal (Research, Knowledge Exchange & Wider Impact)
Dundee – A Great Place to Study!

Professor Blair Grubb • Vice-Principal for Education

The University of Dundee has a national and international reputation for learning and teaching that attracts students from Scotland, the rest of the United Kingdom and across the globe, to our great city. Students rate the Dundee experience as truly excellent which has resulted in this University being named as University of the Year for Student Experience by The Times Good University Guide, a truly remarkable achievement.

Why Preventing Type 2 Diabetes is More Difficult Than We Thought

Professor Calum Sutherland • Chair of Molecular Medicine

The number of people with Type 2 diabetes continues to grow, with over 2 million people in the UK now living with the disease. We are constantly reminded that Type 2 diabetes is closely associated with obesity and ‘unhealthy lifestyle’, and this fuels the public perception that it is a self-inflicted, easily preventable disease. However, this is not correct as nearly half of people are not obese when they first get their diagnosis of Type 2 diabetes.

Our work focuses on identifying the causes of Type 2 diabetes, to improve prevention strategies and develop effective treatments.

Supporting Student Welfare

Jackie Malcolm • Winner of Outstanding Commitment to Student Welfare award – Student-Led Teaching Awards

Today's society has seen a growing trend of health conditions, driven by a variety of societal causes. This has resulted in universities supporting a growing number of students suffering from a range of health conditions. This may be related to mental health conditions, however there can be cases where an extreme event has impacted on a student's ability to perform and cope with their studies.

Jackie Malcolm, proud recipient of the Student-Led Teaching Award for Student Welfare, will discuss this growing need for us to respond to such situations.
Thursday 9 January 2020

Session 03: 15:15 – 16:30
A Doctor from Day One
Professor Rory McCrimmon • Dean of Medicine

In this talk Rory McCrimmon will give an overview of the School of Medicine in Dundee and the role we play in training the next generation of doctors and scientists. The School also supports the continued training of health care professionals using some of the unique resources and expertise we have developed. Come and hear more about the research we do and the impact it is having around the world.

Improving Care and Reducing Inequality for Mothers and Babies
Professor Alison McFadden • Chair of Mother and Infant Public Health

Poor quality care is a major factor in the high number of women and babies who die or experience illness during pregnancy, childbirth or soon after. While most of the deaths and severe ill health occur in low and middle income countries, there are also stark differences in pregnancy outcomes in high income countries. Our research suggests that all women and babies, wherever they live, need access to high quality midwifery care that meets their needs and expectations. This requires a shift from care that is focussed on identifying complications to skilled, supportive care for all.

Parkinson’s Disease – A Perspective Into The Future
Professor Miratul Muqit • Chair of Experimental Neurology

Parkinson’s disease is a degenerative brain disorder which particularly affects the elderly. The disease was first described over 200 years ago, and there is still no cure or treatment that can slow down the disease.

Over the last decade, ground-breaking discoveries have led to the identification of several genes that cause Parkinson’s. Understanding how these genes cause brain cell loss is likely to lead to new ideas for treatments. The Muqit laboratory has made advances on how mutations in a gene called PINK1 leads to Parkinson’s Disease.
Friday 10 January 2020

Session 04: 09:30 – 10:45
Coffee break: 09:00 – 09:30
Coffee break: 10:45 – 11:15

Chair: Wendy Alexander,
Vice-Principal (International)
A Community Embedded and Globally Informed Business School
Professor Morris Altman • Dean of Business

The University of Dundee’s School of Business brings together our long established research and teaching expertise in accountancy, business and economics. As a school we provide our students with an excellent experience through strong links to our research, and close links to the world of work both in Scotland and throughout the world.

In Dundee we are proud of the way we work between and within different disciplines, and the ways in which we have strengthened our engagement with business, stakeholders and communities.

Transforming Lives through Clinical Research
Professor Isla Mackenzie • Chair of Cardiovascular Medicine

Heart disease affects a significant proportion of our population. Major advances in patient care usually require robust new evidence from clinical trials. Our team in Dundee is leading the way in answering important clinical research questions using new approaches.

Where Will New Medicines Come From?
Professor David Gray • Chair of Translational Biology

The need for new medicines for diseases such as Alzheimer’s disease is clear. This presentation will discuss why drug discovery is simple in concept but has a high, and currently unsustainable failure rate.

Using examples from the University’s Drug Discovery Unit, Prof Gray will demonstrate the challenges and the new approaches being taken to address the fundamental issues and highlight recent successes.
Session 05: 11:15 – 12:45
Lunch break: 12:45 – 13:30

Chair: Professor Blair Grubb,
Vice-Principal (Education)
Art and Design are essential to the communication and expression of our experiences of the world, and with creativity understood to be one of the most important work skills for the 21st century, it is clearly an exciting time to be an artist or designer.

Duncan of Jordanstone College of Art and Design, facilitates the learning and development of the artists and designers of the future, and generates impactful research and extensive public engagement, that contribute to cultural, social and economic agendas.

How do we teach practical skills that may not be easily conveyed in a classroom, such as taking responsibility or working as part of a team? Each year, Jacques Hartmann prepares a group of students to participate in an international competition – a battle of words and wits. The competition requires the group to reach a high level of competence and proficiency in a new area of knowledge, all done within a very short time.

Winners of the Most Promising Idea award of the Global Health Challenge 2018, the concept of App, Box, Contact was designed by a group of students from the University of Dundee working with Parkinson’s UK.

The idea is designed to promote access to exercise as a treatment for Parkinson's Disease, while strengthening local communities and tackling social isolation in vulnerable groups. Since the Global Health Challenge, the team have continued to work and develop the project with support from several individuals and organisations in Dundee.

We are currently facing a grave climate emergency. Unless we take urgent action the increase in global temperature threatens human society and all life on our planet. It’s a daunting thought, but what can we do about it?

There are many projects where people across the world come together to monitor how our planet is changing and to test solutions. Environmental design is critical to the success of these projects, allowing us to collect data and solve environmental issues together.
Session 06: 13:30 – 14:45
Coffee break: 14:45 – 15:15

Chair: Wendy Alexander, Vice-Principal (International)
Science and Engineering - Shaping Society and Changing Lives

Professor José Fiadeiro • Dean of Science and Engineering

Science is the driving force of engineering, which applies scientific knowledge to produce technology that humans use to improve their lives. From electricity to the computer, our daily lives are literally lit up by the advents of science and engineering, be it in healthcare, transportation, entertainment, and many other areas.

Through its research, teaching and wider engagement, the School of Science and Engineering is a cross-disciplinary catalyst for innovation and delivers measurable impact for society and the economy.

Taking it up a Notch – Building the Animal Embryo

Professor Kim Dale • Chair of Developmental Molecular Biology

Our bodies and those of other animals are remarkably complex and yet all start off as a single cell. So how then do animals develop structures including limbs, backbones, heads and in some cases tails?

Kim’s lab seeks to understand how a single fertilised egg develops into the fully formed offspring where everything forms at the right time and in the right place. This process is controlled by just a handful of molecules that communicate between cells, including the Notch signalling pathway which has been the focus of research in Kim’s laboratory.

Transforming Lives though Graduate Business Degrees

Professor Bill Russell • Chair of International Business

Many graduates with non-business bachelor’s degrees find it difficult to enter the world of business, even though they may have a top degree from a prestigious university. To overcome this the University of Dundee School of Business has developed a range of ‘conversion’ degrees that have been designed for both business graduates and non-business graduates.

These degrees accept graduates from any undergraduate degree discipline and supports them to progress into careers in a range of areas in business and finance. Today’s talk focuses on the initial challenges faced by the students, our response to these challenges and how these conversion degrees transform the careers of large numbers of students.
Friday 10 January 2020

Session 07: 15:15 – 16:30

Chair: Professor John Rowan, Vice-Principal (Research, Knowledge Exchange & Wider Impact)
→ Presentation of the Stephen Fry Awards for Excellence in Public Engagement with Research
  • Engaged Early Career Researcher of the Year
  • Engaged Researcher of the Year
  • Public Engagement Project of the Year

→ Drinks Reception follows