

Friends
OF IMPERIAL COLLEGE

**2018-2019
Programme of events**

friendsofimperial.org.uk

“Come and hear and meet world-class scientists unveil brilliant discoveries and developments in science, medicine and technology. People from all ages and backgrounds are welcome to join in and discover thought-provoking, remarkable things amongst Friends.”

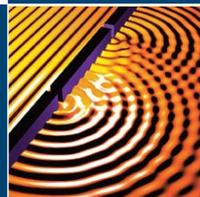
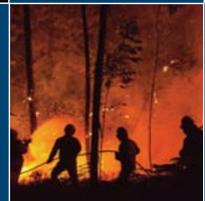
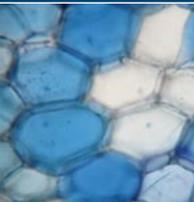
Roderick Rhys Jones, *Chairman*

For further information visit:
friendsofimperial.org.uk

OR

Contact the Administrator of
Friends of Imperial College:
admin@friendsofimperial.org.uk
020 3239 7699

Friends
OF IMPERIAL COLLEGE



**Imperial College
London**

REGISTERED CHARITY NO. 1161269

Friends 2018 – 2019 Programme of events

Our aim is to inform the public of the great scientific advances in a way that the non-specialist can understand. Our lectures receive praise for their clarity and interest - and the socialising is fun too.

SATELLITE: SCIENCE VISIT

WEDNESDAY 19 SEPTEMBER 2018, 13.00

MEMBERS
ONLY

Friends science visit @ Surrey Satellite Technology



Luis Gomes, Chief Technical Officer

The world's leading small satellite company, delivering operational space missions for a range of applications including Earth observation, science, communications, navigation, in-orbit servicing and beyond Earth infrastructure.

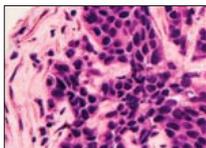
SSTL

RESEARCH SHOWCASE

WEDNESDAY 26 SEPTEMBER 2018, 9.30

Faculty of Science Research Showcase

Showcasing Imperial's innovative research from across the sciences, join us for a full day of presentations and stimulating discussions with academics and prize-winning PhD students from the Faculty of Natural Sciences.



TUSCANY: SCIENCE TOUR

TUESDAY 2 OCTOBER – SUNDAY 7 OCTOBER 2018

MEMBERS
ONLY



Science in Tuscany: ancient and modern

Prof John Burland, Prof Francesco Fidecaro and more

We are organising guided tours of interesting science sites in Tuscany including the Leaning Tower of Pisa; the European Gravitational Observatory; European Laboratory for Non-Linear Spectroscopy, Florence University; Galileo Museum.

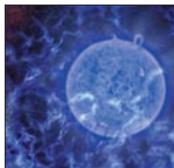
ASTROPHYSICS

TUESDAY 9 OCTOBER 2018, 19.00

First stars in the Universe

Dr Emma Chapman Royal Astronomical Society Fellow, Imperial College London

"In February 2018 we got the first glimpse of the creation of the first stars using radio telescopes and were blown away with what we saw. I will introduce what we think we know about the era of the first stars, why we already seem to have been proved wrong in a very exciting way with the first detection."



NR Fuller, NSF

Membership

Friends is a registered charity that organises public lectures and a programme of Members-only visits and social events at Imperial College London. Join Friends to take advantage of lower ticket prices and special Members-only events. To book an event, register for regular information or to become a Member visit our website.

HEALTHCARE: BEHIND-THE-SCENES

TUESDAY 16 OCTOBER 2018, TIME TBC

MEMBERS
ONLY

Behind-the-scenes @ Hamlyn Centre

Professor Guang Zhong Yang

The Hamlyn Centre was established for developing safe, effective and accessible technologies to reshape the future of health care through the use of imaging, sensing and robotics in the developing and developed world.



Imperial College London

SPACE EXPLORATION

MONDAY 5 NOVEMBER 2018, 19.00

Cassini, JUICE and beyond

Michele Dougherty FRS CBE FRAS, Professor of Space Physics, Head of Department of Physics, Imperial College London



NASA

The Cassini mission to the moons of Saturn led to the discovery of water and hydrocarbons around Enceladus. Now Prof Dougherty is planning a visit to the icy moons of Jupiter opening up new possibilities in the search for life.

ENERGY: SOIRÉE

THURSDAY 15 NOVEMBER 2018, 18.15

MEMBERS
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Democratic energy systems

Dr Cathy McClay, Head of Commercial Operations, National Grid, Alumnus

Accelerating the UK transition to a decarbonised, decentralised and democratic energy system will have implications for all.



Run By The Sun Ltd

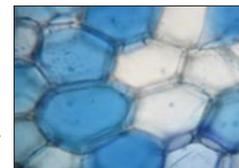
QUANTUM BIOLOGY

THURSDAY 22 NOVEMBER 2018, 18.00 AGM, 19.00 LECTURE

Life on the edge: quantum biology

Johnjo McFadden, Professor of Molecular Genetics, Surrey University, Alumnus

Even in this age of cloning and synthetic biology, the remarkable truth remains: nobody has ever made anything living entirely out of dead material. What is missing?



PLEASE CONFIRM TIMES, DATES AND VENUES OF EVENTS WHEN BOOKING ONLINE AT FRIENDSOFIMPERIAL.

Support

Friends of Imperial College is very grateful to all those who have joined as members and particularly those who have made donations particularly Azad Ayub for his great generosity in continuing to support our mission of taking science to the public.

AERONAUTICS: BEHIND-THE-SCENES

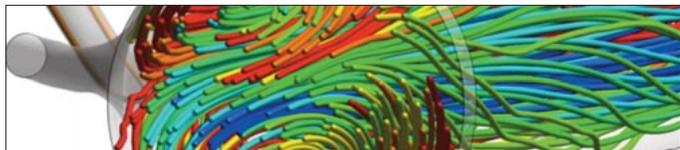
TUESDAY 27 NOVEMBER 2018, 16.00

MEMBERS
ONLY

Behind-the-scenes @ Department of Aeronautics

Dr Nigel MacCarthy Experimental Services and Wind Tunnel Manager

Visit the wind tunnel facilities, flight simulator, fluid mechanics and drone testing areas



CLIMATE CHANGE

THURSDAY 6 DECEMBER 2018, 19.00

Meeting the challenge of climate change

*Professor Sir Brian Hoskins CBE FRS
Chair of the Grantham Institute -
Climate Change & the Environment*

Distinguished climate warrior Sir Brian spells out the challenges and proposes technological and political solutions.



Imperial College London

BIOLOGY: SCIENCE VISIT

WEDNESDAY 16 JANUARY 2019, 18.00

MEMBERS
ONLY

Flies and mosquitos @ Natural History Museum

*Dr Tim Littlewood Head
Department Life Sciences, Dr Erica
McAlister Senior Curator Diptera*

A visit behind-the-scenes to the flies and mosquito collections and an insight into the research work being done.



Natural
History
Museum

FIRE

WEDNESDAY 23 JANUARY 2019, 19.00

Fire: its secret life

Guillermo Rein Professor of Fire Science

Fire is a good servant but a bad master. What can be done to mitigate the risks of fire in an ever more crowded world where its effects on the natural and built environment are increasing.



Welcome

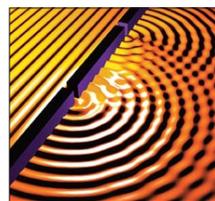
If you would like to meet a lively-minded friendly group of people interested in all aspects of science, then Friends of Imperial College is for you. You will be very welcome.

Roderick Rhys Jones, *Chairman*

QUANTUM PHYSICS

WEDNESDAY 6 FEBRUARY 2019, 19.00

Welcome to the quantum world



Russell Kightley

*Dr Simon Foster and students from the
Controlled Quantum Dynamics Group*

Post Graduate students will be presenting their take on the next big challenge of the quantum world: developing real world technologies from research. It is just starting to happen. In the next five years technologies will be leaping out of the lab.

COMPUTING: BEHIND-THE-SCENES

WEDNESDAY 13 FEBRUARY 2019 18.15 TBC

MEMBERS
ONLY

Behind-the-scenes @ Alan Turing Institute

Professor Mark Girolami FRSE

The last decade has seen a dramatic rise in computer power, an explosion in data and scientific break-through, as in deep learning and neural networks. Together, these advances have led to the emergence of data science and the resurgence of artificial intelligence – as imagined in Alan Turing's landmark research paper published in 1950, Computing Machinery and Intelligence.



NEUROSCIENCE

TUESDAY 5 MARCH 2019, 19.00

Eye catching: light and biological time



*Russell Foster CBE FRS Professor of Circadian
Neuroscience, Oxford University*

Embedded within our genes, and almost all life on Earth, are the instructions for a biological clock that marks the passage of approximately 24 hours. A third kind of photoreceptor in the eye reacting to light and dark help us synchronize this inner clock with the outside world.

SOIRÉE: MEDICAL PRACTICE

WEDNESDAY 20 MARCH 2019, 18.15

MEMBERS
ONLY

Fragile Lives: a heart surgeon reflects

Professor Stephen Westaby FRCS, Alumnus

Author and surgeon reflection on his work as a heart surgeon who has helped to develop and refine the use of heart pumps, artificial hearts and circulatory support technology. His book *Fragile Lives* will be on sale.



FLIGHT

THURSDAY 4 APRIL 2019, 19.00



Aircraft Electric Propulsion: Volting into the air

Ric Parker, previously Director of Technology, Rolls Royce, Alumnus

In the last two years over one hundred credible electric and hybrid-electric

aircraft projects have been launched. Two-seater electric aircraft are already flying. This is to ignore the multitude of small drones and electric toys which proliferate. The speaker will examine the possibilities for large, passenger aircraft, electric propulsion, considering more electric, hybrid-electric and fully electric options. He will explore the challenges, which are technological, safety-related and legislative. Fasten your seat belts for an electrifying ride!

HEART RESEARCH: BEHIND-THE-SCENES

WEDNESDAY 10 APRIL 2019, 18.00

MEMBERS ONLY

Behind-the-scenes @ British Heart Foundation

Michael Schneider British Heart Foundation Simon Marks Professor of Regenerative Medicine, Director of BHF Centre for Research Excellence



Imperial College London

“There has never been a better time to study the roots of cardiovascular disease or to pursue transformative new game-changing therapies”

PUBLIC HEALTH

THURSDAY 25 APRIL 2019, 19.00



Ollis Archives NMHM

Fighting epidemics

Stephen Riley, Professor of Infectious Disease Dynamics, School of Public Health

After the 2014 Ebola outbreak and in the centenary year of the influenza pandemic of 1918, understanding how infectious diseases spread and developing strategies to contain them is crucial.

STEM CELLS

TUESDAY 14 MAY 2019, 19.00

A life in bioscience research

Professor Melanie Welham, CEO Biotechnology and Biological Science Research Council, Imperial Alumnus

Research into molecular signalling and stem cells has led Prof Welham into to science policy and beyond.



Imperial College London

CERN: SCIENCE TOUR

THURSDAY 16 MAY – SATURDAY 18 MAY 2019

MEMBERS ONLY



Rhys Jones

Visit to CERN

Professor Sir Tejinder Virdee FRS

A visit to see the experiments at the Large Hadron Collider, CERN including the Compact Muon Solenoid whilst they are down for maintenance. The tour includes visits to the Science History Museum on the banks of Lake Geneva and scientific sites in the Old City.

BIOMEDICAL ENGINEERING: BEHIND-THE-SCENES

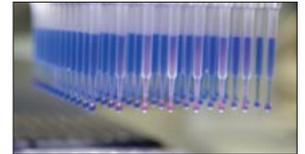
TUESDAY 22 MAY 2019, TIME TBC

MEMBERS ONLY

Behind-the-scenes @ London DNA Foundry

Richard Kitney, OBE FREng FRSE Professor of BioMedical Systems Engineering, Co-Director

A core facility at Imperial College, which specialises in the design, assembly, verification and functional characterisation of synthetic DNA for academic and industrial clients.



SPACE EXPLORATION

THURSDAY 13 JUNE 2019, 19.00



NASA

Life on Mars

Sanjeev Gupta Professor of Earth Sciences

Evidence of organic matter on Mars, changing concentrations of methane, lakes beneath the ice are all indicators that life could have been present on Mars – and may be still.

SOCIAL

JUNE 2019, DATE TBC

MEMBERS ONLY

Friends Summer Party

President of Imperial College London Alice Gast and Chair of Friends Roderick Rhys Jones

Music, fizz, wine, bites and conversation at 58 Prince's Gate an impressive Edwardian Townhouse with wonderful terrace overlooking Prince's Gardens. Join senior members of College, our speakers past and future, and other members.



SCIENCE FESTIVAL

SATURDAY 29 AND SUNDAY 30 JUNE 2019



John Cairns

Meet the science authors at Imperial Festival

Science is fun at the Imperial Festival. Come and celebrate the liveliest side of sciences. Listen to stories, hear music, watch dance and join Friends to Meet the science authors.

FRIENDS SUPPORTS THE PRESIDENT'S SCHOLARSHIP FUND