Edinburgh International Science Festival celebrating women

Next month the Edinburgh International Science Festival will have a wide range of events for adults and children alike.

These events feature great female scientific minds or discuss women in science.

Moments in Time, Saturday 1 – Sunday 16 April, The Mound Precinct

The 2017 Scottish Year of History, Heritage and Archaeology is a time to celebrate and explore Scotland's fascinating past – our greatest figures and iconic attractions, as well as our hidden gems. At the Science Festival, we are using this opportunity to shine a spotlight on Scotland's rich scientific tradition, which has given rise to many discoveries that have changed the world.

Moments in Time is a family-friendly outdoor installation of iconic Scottish police boxes. Step inside and allow yourself to be transported back in time as we take you on a journey through some pivotal moments in Scotland's scientific history. Through a series of immersive snapshots, you will discover milestones of Scottish scientific achievement from the flowering of philosophy and science during the Enlightenment, through the rapidly mechanising world of the Industrial Revolution, to the data rich and globally connected Information Age.

The boxes will also shine a spotlight on some very special

Scottish endeavours and the scientists that have brought them to life, including how **women in science**, medical pioneers and some very important inventions have shaped our national heritage.

Part of the 2017 Year of History, Heritage and Archaeology supported by Event Scotland.

Gravitational Waves, Thursday 13 April, National Museum of Scotland

Join **Prof Sheila Rowan**, Director of the Institute of Gravitational Research and Scotland's Chief Scientific Adviser, and Prof Martin Hendry, Professor of Gravitational Astrophysics and Cosmology, as they talk about their research that led to the discovery of gravitational waves. Host Marcus Chown, science broadcaster and writer, will help describe the present and future research, as gravitational wave experiments around the world ramp up their abilities.

Science in a Post-Truth World, Wednesday 5 April, National Museum of Scotland

Post-truth, an adjective 'relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief', was the Oxford Dictionaries 2016 Word of the Year. If the world no longer values knowledge, facts and learning – the principles on which science is based – what can we do to protect the pursuit of scientific truth? Join philosopher Julian Baggini, **Prof Dame Anne Glover**, Vice-Principal of the University of Aberdeen and former Chief Scientific Adviser to the President of the European Commission, and host, editor of The List Yasmin Sulaiman, to investigate.

A Death Online, Friday 7 April, Summerhall

When we die, our physical possessions are only part of what we leave behind – there is also our diverse and data-rich online

life. But what happens to your data when you die? Do our lives continue online after we die? Join BBC presenter and social psychologist **Dr Aleks Krotoski**, Prof Wendy Moncur, Chair of Digital Living at the University of Dundee, digital death researcher Stacey Pitsillides and psychologist Dr Elaine Kasket to discuss the technical, psychological and legal issues we now face in death due to our lives being increasingly lived online.

Heart Attack: Science's Battle of the Sexes, Saturday 1 April, Summerhall

Coronary heart disease is Scotland's single biggest killer, yet often the diagnosis is overlooked in women. Why are more men than women diagnosed with a heart attack? Why are women more likely to die after a heart attack than men?

British Heart Foundation-funded research scientists and cardiologists, Prof Nick Mills and Dr Anoop Shah, are fighting for every heartbeat – whether male or female – here in Edinburgh. Join them as they pose questions and suggest answers with a panel including a female heart attack survivor and a GP.

Presented by British Heart Foundation Scotland.

Girl in the Machine, Monday 3 – Saturday 22 April, Traverse Theatre

Wildly in love and with successful careers, Polly and Owen feel ready to take on the world. It seems like life can't get much better. But when a mysterious new technology creeps into everyone's phones, their world is turned upside down. Girl in the Machine is a timely exploration of technology in a world that's falling apart. **Written by Traverse Associate Artist Stef Smith and directed by Traverse Artistic Director Orla O'Loughlin**.

Hospitals of the Future, Sunday 2 April, Summerhall

Technology is transforming our hospitals in incredible ways. **Margaret Frame, Director of the MRC Institute of Genetics and Molecular Medicine**, is joined by surgical robotics nurse Debbie Munro and Margaret Duffy from the Scottish Government to discuss what our future hospitals will look like. Hosted by healthcare journalist Pennie Taylor. Supported by Dexcom.

Food Expiry Dates: what to believe?, Thursday 6 April, Summerhall

Many supermarkets in the UK now to donate any unsold food to charity, but huge quantities of food are thrown out in homes, businesses and stores each day for being past it's sell by date. In fact as a country we produce about 10 million tonnes of food waste each year. But should we believe the dates on food labels and what can technology do to help us avoid waste? Join a panel including **Solveiga Pakstaite, inventor of a bio-reactive food expiry label, and Dr Jacqui McElhiney, Head of Food Protection Science at Food Standards Scotland**, to discuss these issues and more.

Catching the Travel Bug, Saturday 8 April, Summerhall

As our world becomes more connected, the spread of disease and viruses becomes more of an issue. Who is responsible for minimising the risks and what can be done to stop these diseases from becoming a global pandemic? Join Karen Bartlett, author of The Health of Nations, as we explore this very present issue.

Why is life so complicated? Can my computer help?, Monday 10 April, Summerhall

Computer simulations are capable of generating massive amounts of data, but this needs to be processed and analysed before it becomes useful. Computational biophysicist **Dr Sarah Harris** argues that the need to find simple mathematical and physical theories to explain our observations is even stronger now than before the advent of computation.