

3 November 2016

Big science celebration returning in 2017

World Science Festival Brisbane will showcase the latest scientific innovations and discoveries from Australia and around the world when it returns to Queensland Museum from 22-26 March 2017.

Unveiling the program yesterday, Queensland Museum CEO and Director Professor Suzanne Miller said the 2017 festival would include a mix of free and ticketed performances, debates and demonstrations.

“The World Science Festival Brisbane is so successful because it takes science out of the labs and into the streets, connecting and inspiring people of all ages,” she said.

“Following the success of our regional program in 2016, World Science Festival Brisbane will again visit Chinchilla and Townsville, with new programs in Gladstone and Toowoomba.”

World Science Festival co-founder, Professor Brian Greene will again host a mainstage event direct from the New York festival, *Gravitational Waves: A New Era of Astronomy Begins*.

The stellar panel for this event, which includes former director of the Laser Interferometer Gravitational-Wave Observatory (LIGO) Barry Barish, will discuss the ground-breaking 2015 discovery that heralded a new era of astronomy and finally confirmed Albert Einstein’s century-old prediction.

From gravitational waves to waves of a different kind, *Ocean Action* will delve into the downward spiral of our oceans since the industrial revolution and how science can save them.

We Don’t Know What We Don’t Know: Big Science, Big Rewards will welcome science luminaries to discuss the risks, rewards, discoveries and challenges of a long-term approach to investment in scientific endeavour.

From the present day to a glimpse into our future, *Towards 2050: Renewing Energy Expectations* looks at if and how the world could be powered entirely by renewable energy within the coming decades, while *The Future Is In Good Hands* showcases four of the brightest teenage minds in the world.

Introduced by Australia’s Nobel Laureate Professor Brian Schmidt, these extraordinary young people will come together for the first time to discuss their science of tomorrow and their hopes for humanity.

Provocative and fast-paced, World Science Festival Brisbane will also benefit from a guest curator for the first time in 2017.

The University of Queensland Provost, Professor Aidan Byrne, will draw on his experience as a renowned physicist and CEO of the Australian Research Council to advise on the 2017 program, which will continue to be announced over the coming months.

“I am very excited about my role as Guest Curator for next year’s program,” said Professor Byrne.

“Science typically happens behind closed doors, and we scientists often forget how vital it is to tell people about the important work we’re doing.

“Queensland scientists are world leaders in many areas, and this wonderful event will provide many opportunities for them to wow us with their interesting and impactful research.”

World Science Festival Brisbane is presented by Queensland Museum with generous support of our partners including Tourism Events Queensland, Brisbane Marketing, Department of Science, Information Technology and Innovation, Griffith University, Queensland University of Technology.

Additional partners include The University of Queensland, Queensland Performing Arts Centre, QGC, Arup, C&K, Department of Environment and Heritage Protection, Queensland Art Gallery and Gallery of Modern Art, QIMR Berghofer, Queensland Theatre, South Bank Parklands and Translational Research Institute.

Program details below. The first release of tickets to the 2017 World Science Festival Brisbane is now on sale. Visit www.worldsciencefestival.com.au to purchase.

Highlights of the 2017 World Science Festival now on sale:

Gravitational Waves: A New Era of Astronomy Begins

On 14 September 2015, a ripple in the fabric of space, created by the violent collision of two distant black holes over a billion years ago, washed across the Earth.

As it did, two laser-based detectors, 50 years in the making - one in Louisiana and the other in Washington State - momentarily twitched, confirming a century-old prediction by Albert Einstein and marking the opening of a new era in astronomy.

Join some of the very scientists responsible for this most anticipated discovery of our age and see how gravitational waves will be used to explore the universe like never before.

We Don’t Know What We Don’t Know: Big Science, Big Rewards

“What we know is a drop, what we don’t know is an ocean.” Isaac Newton

Long before Newton was a boy and since, scientists have worked tirelessly to expand the frontiers of human capacity and understanding. But science’s contributions to a productive economy, healthy population and sustainable world often take decades to play out and are difficult to price into tight funding budgets.

Enter Big Science: the commitment of millions of dollars to expensive and often long-term research projects whose potential benefits to science and society cannot be guaranteed. Who should be investing in science and how much risk is acceptable? Join our panel of distinguished scientific leaders, including Australia’s Chief Scientist Dr Alan Finkel, as they dissect these challenges facing scientific discovery and the ongoing quest to find out what we don’t know.

The Future is in Good Hands

Take a glimpse into the future of scientific innovation from the perspective of those whose lives will directly depend on it. Four of the brightest young scientific minds from around the world (14 year-old Maxwell Loughan and 16 year-old Hannah Herbst from the USA; 17 year-old Taj Pabari from Australia; and 15 year-old Tristan Pang from New Zealand) are taking on global challenges with enthusiasm, innovation and maturity as they prepare to accept the baton from our current international experts.

Join renowned Australian Nobel laureate Professor Brian Schmidt in conversation with these young thought leaders as they discuss the role of science and technology in overcoming some of the major challenges facing humanity.

The Hatchery: Showcasing and Supporting Turtle Conservation

One of The World Science Festival Brisbane's most popular events returns to the Queensland Museum for the 2017 Program.

Visitors will once again have the opportunity to view baby Loggerhead Turtles hatching from eggs that are incubated onsite and timed to emerge during the Festival. Our Reptile Curator, Patrick Couper, will be on hand to oversee this project which is designed in collaboration with Dr Colin Limpus, an internationally renowned turtle biologist.

Following the festival, the Loggerhead hatchlings will be transported to the Sunshine Coast and released 20 km offshore. There will also be post-hatchling Flatback Turtles which will later be fitted with transmitters to track their early life movements. This once in a lifetime opportunity is presented by Queensland Museum, Department of Environment and Heritage Protection and SEA LIFE Mooloolaba.

Ocean Action: How Can Science Save This Precious Global Resource?

As the impact of human industrialisation flows into our ocean, what action can humanity take to counter our own devastating environmental effect?

Whether the solution to ocean preservation is increasing marine reserves, managing fisheries, or reforming environmental accountability, advancing technologies will empower our actions with unprecedented geographical, environmental and social reach.

But, is it too little too late? Join our world class panel of marine experts as they examine how human ingenuity and innovation could hold the key to saving our oceans... and ourselves in the process.

Towards 2050: Renewing Energy Expectations

Can we achieve global carbon neutrality by 2050 and what will it take to get there?

As revolutionary technology makes renewables more reliable, accessible and affordable, global investment in clean energy continues to hit record levels. The transition to renewable energy is gathering speed worldwide and more nations are reporting fossil fuel-free energy days.

What are the common challenges in achieving the ultimate power shift and how can we come together as a global community to meet them? Will markets forge our future in renewable energy or will public policy lead the way?

Extreme Moments in Science: With Dr Karl

Dr Karl will take you on a rollercoaster ride through the 'badlands' of science where you'll discover the answers to questions you never knew existed.

The universe is a strange and wonderful place and in his *Extreme Moments*, Dr Karl has scaled the highest peaks and turned over the tiniest pebbles to reveal what's underneath.

Prepare to be amused and amazed as Australia's favourite science guru takes you on an excursion around a scientific landscape from the sublime moments of deep thought to the arcane and bizarre.

World Science Festival Brisbane 2017 Special Event: Collision: A Walk Through The World of Hadron

Explore the Large Hadron Collider, the world's biggest and most powerful particle accelerator, operated by the CERN consortium in Geneva, Switzerland. Join us for a special event featuring a discussion by a panel of international guests including Dr Harry Cliff, particle physicist and in-house physicist and curator of the Hadron Collider exhibition, Science Museum, London.

The discussion will be followed by an exclusive tour of the Hadron Collider exhibition at Queensland Museum, led by our special international guests.

CONSTELLATIONS by Nick Payne – Special Event

For two evenings only, do not miss the unique opportunity to attend a performance of the critically acclaimed play, *Constellations*, accompanied by an onstage conversation between *Constellations* playwright Nick Payne and World Science Festival co-founder and physicist Professor Brian Greene.

Following the performance, Nick Payne and Professor Greene will delve into our current understanding of the multiverse, what mysteries remain, and why this theory captivated Payne's imagination in conceiving the play.

This exclusive event is a result of a collaboration between World Science Festival Brisbane and Queensland Theatre.

World Science Festival Brisbane Regional Program

The festival's regional program in 2017 will again provide Queensland communities the opportunity to get involved locally in the World Science Festival Brisbane. Programs designed to engage community members in stimulating and inspiring experiences, will be unique to each location, and will offer a selection of STEM-related activities such as discussions with leading scientists, workshops, hands-on activities or visual displays.

- Gladstone: 3 and 4 March 2017
- Toowoomba: 17 March 2017
- Townsville: 26 and 27 March 2017
- Chinchilla: 31 March and 1 April 2017.

Visit www.worldsciencefestival.com.au to view other programs on sale now.

Resources for media

- Online media hub: www.worldsciencefestival.com.au/media
- World Science Festival Brisbane 2016 images and video footage available for use at <https://www.dropbox.com/sh/i7gz1prufh8pu0h/AAATDvze-M1ZJXbLj2zNnrQza?dl=0>
Credits must accompany publication: *image courtesy of Queensland Museum.*

Media contact

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About Queensland Museum

Queensland Museum is Australia's most visited museum; in 2016 we welcomed more than 1.8 million visits to our flagship campus at South Bank. We are a museum of natural history, cultural heritage, science and human achievement that tells the changing story of Queensland. The Museum houses permanent and changing exhibitions and also provides in-depth education experiences, innovative public programs, early childhood activities and entertaining holiday activities. We aim to connect visitors to Queensland, its people and Queensland's place in the world - past, present and future, through exhibitions, displays and public programs. Behind the scenes, the Museum is home to millions of objects, specimens and artefacts that tell the changing story of Queensland.

Queensland Museum is supported by the Queensland Government through Arts Queensland.

About World Science Festival

The World Science Festival brings together great minds in science and the arts to produce live and digital content that presents the wonders of science and the drama of scientific discovery to a broad general audience.

The Festival's flagship live event, launched in 2008, is an annual weeklong celebration and exploration of science. Through gripping debates, original theatrical works, interactive explorations, musical performances, intimate salons, and major outdoor experiences, the Festival takes science out of the laboratory and into the streets, parks, museums, galleries, and premier performing arts venues of New York City. Hailed a "new cultural institution" by The New York Times, the Festival has featured scientific and cultural luminaries including Stephen Hawking, Maggie Gyllenhaal, E.O. Wilson, John Lithgow, Sir Paul Nurse, Glenn Close, Harold Varmus, Yo-Yo Ma, Steven Weinberg, Philip Glass, Eric Lander, Steven Chu, Chuck Close, Richard Leakey, Bobby McFerrin, Sylvia Earle, Anna Deavere Smith, Oliver Sacks, Liev Schreiber, Mary-Claire King, Charlie Kaufman, Bill T. Jones, John Hockenberry, and Elizabeth Vargas, among many others.

The World Science Festival is a production of the Science Festival Foundation, a 501(c)(3) non-profit organization headquartered in New York City. The Foundation's mission is to cultivate a general public informed by science, inspired by its wonder, convinced of its value, and prepared to engage with its implications for the future.

About World Science Festival Brisbane

World Science Festival Brisbane was held for the first time in 2016, presented by Queensland Museum. The Museum has secured World Science Festival Brisbane for six years in an exclusive licence agreement with World Science Festival in New York.