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MEDIA RELEASE

## **MIT Technology Review shortlists 10 ‘Innovators Under 35 Asia Pacific’ for 2019**

*For the first time since its inception, Singaporean researchers were not listed*

**21 November 2018, SINGAPORE** – [MIT Technology Review](#) today announced the top 10 young Innovators under the age of 35 in the region. Close to 200 nominations from talented researchers, inventors and entrepreneurs from countries and regions including Australia, Cambodia, Hong Kong SAR, Indonesia, Malaysia, New Zealand, Philippines, Singapore, Thailand, Taiwan, and Vietnam were received. This was the first year that innovators from Hong Kong SAR were able to apply and received recognition on the list.

The 10 honourees are selected from a pool of nominees who are either citizens or current residents of the countries and regions listed above. This year’s entrepreneurs and researchers represent Australia, Hong Kong SAR, New Zealand, Singapore and Vietnam. These honourees are recognised for their research and innovations in the fields of quantum technologies, blockchain, deep-learning and computer-vision technology, nanosensors, computational biology, biofilm research, biomedical engineering and biotechnology.

“Innovators Under 35 is one of the most important awards for deep tech in Asia. It celebrates the exceptional talent of young scientists whose work could have global impact,” said Steve Leonard, Founding CEO, SGInnovate. “Throughout history, science has always formed the foundation of important new technologies. As the deep tech partner of EmTech Asia, we are thrilled to support these young scientists by celebrating their achievements and highlighting the value of their work.

2019's Innovators Under 35 Asia Pacific are:



**Jonathan Hall, 32, Australia**  
**Life Whisperer**

*Using machine learning to identify healthy embryos during IVF to improve pregnancy outcomes*

Jonathan Hall is Cofounder and Director of Life Whisperer, which uses deep-learning and computer-vision technology to identify viable human embryos in IVF to help couples have children. Trials showed selection performance improvement of 50% and can identify genetic disorders such as Down’s Syndrome. Life Whisperer made the finals at TechCrunch Startup Battlefield Australia and was awarded ‘Global Winner - One to Watch’ at Talent Unleashed 2017, which was judged by Richard Branson and Steve Wozniak.



**Katharina Richter, 31, Australia**  
**University of Adelaide, The Queen Elizabeth Hospital**

*Developing innovative treatments against antibiotic-resistant bacteria, showing life-changing impact by improving healthcare for infections*

Katharina Richter is an enthusiastic biomedical scientist, dedicated to improving therapies against antibiotic-resistant bacteria. Joining the war on superbugs she developed and patented two novel treatments and

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translated them from bench to bedside. With a background in pharmaceutical sciences and a PhD in medicine and applied microbiology, Katharina collaborates with scientists, clinicians and industry partners to ensure real life impact of her work. She initiated two clinical trials in Adelaide, Australia, actively improving public healthcare. Katharina has been recognised by peers, the public and the media as evidenced by 29 awards/prizes, numerous public outreach activities and media engagements around the world.



**Nana Liu, 30, Australia**

**John Hopcroft Center for Computer Science, Shanghai Jiao Tong University**

*Making quantum computing more trustworthy in a future quantum internet*  
 Nana Liu is currently an Assistant Professor at the John Hopcroft Center for Computer Science in Shanghai Jiao Tong University. She received her doctorate in 2016 from the University of Oxford as a Clarendon Scholar and was a Postdoctoral Research Fellow at the Centre for Quantum Technologies in the National University of Singapore and the Singapore University for Technology and Design. Her focus is on employing quantum resources for both quantum computation and quantum sensing. Her research also lies at the interface between quantum computing, security and machine learning, which will be useful in building a future quantum internet.



**Wenyue Zou, 30, Australia**

**Ian Potter NanoBioSensing Facility, RMIT University**

*Low-cost personalised wearable UV sensor offering real-time sun exposure monitoring*

Wenyue Zou is a postdoctoral researcher at RMIT University, Australia and a Cofounder of NexGen NanoSensors Pty Ltd. Her research focuses on the innovative use of light-active materials to make colour-based sensors. She has developed and patented a personalised wearable UV sensor technology that allows real-time monitoring of sun exposure for people with different skin colours. This technology has been featured in more than 130 global media outlets. She is confident that her low-cost UV sensor will create a major social impact by addressing the UN Sustainable Development Goal of Good Health and Well Being for All.



**Cathy N.P. Lui, 31, Hong Kong SAR**

**OPER Technology Limited**

*Autologous neural stem cell harvest technology for an ultimate and novel cure of neurological diseases*

Cathy N.P. Lui is the Cofounder of OPER Technology Limited, a biotechnology start-up company that spun off from Hong Kong Baptist University. She is also the inventor of the patented technology, *Autologous neural stem cell harvest*. Cathy graduated with a PhD in Neuroscience from Hong Kong Baptist University and she was granted a postdoctoral fellowship from the American Parkinson's Disease Association. Under Cathy's leadership, OPER Technology Limited has gained public recognition and won more than 30 industrial and technological awards.



**Ruibang Luo, 29, Hong Kong SAR**  
**The University of Hong Kong, L3 Bioinformatics Limited**

*Speed up precision medicine with algorithms and AI*

Ruibang Luo is an Assistant Professor in Computer Science at the University of Hong Kong. He received his B.E. degree in bio-engineering from the South China University of Technology in 2010 and his PhD degree in computational biology from the University of Hong Kong in 2015. He was a postdoctoral fellow in the Center of Computational Biology, Johns Hopkins University School of Medicine. He works on bioinformatics and precision medicine. His interdisciplinary research results have been published in Nature, Nature Biotechnology, and Bioinformatics. His research covers a diversity of topics in computational biology, from technique-driven developments to hypothesis-driven investigations.



**Jason Gui, 27, New Zealand**  
**Vigo Technologies Inc.**

*Vigo is the world's first Bluetooth headset to help drivers stay awake at the wheel*

Jason Gui is the Cofounder of Vigo Technologies. The company is known for its two products: Vigo, a Bluetooth headset that helps drivers stay alert while driving, and Vue, a pair of smart glasses built for everyday use. Vigo allows fleets to track the status of their drivers to reduce drowsiness-related accidents and is used in over 40 countries globally. Vue is known for raising a \$2.2 million Kickstarter and becoming the top selling smart glasses of all time. Jason holds degrees in Mechanical Engineering from the University of Pennsylvania School of Engineering and Marketing and Operations Management from the Wharton School. In 2017, Jason was named on the Forbes 30 Under 30 Asia list.



**Robert Bedington, 33, Singapore**  
**Centre for Quantum Technologies**

*Delivering uncrackable encryption keys from space using quantum key distribution*

Robert Bedington leads a team of quantum satellite-builders at the Centre for Quantum Technologies at the National University of Singapore. In 2019, they will launch the nanosatellite SpooQy-1 to demonstrate quantum entanglement in space. In collaboration with the UK's RAL Space, the team will advance to delivering quantum encryption keys from space. Robert is also CTO-designate at S15 Space Systems, a start-up that aims to build a constellation of quantum key distributing satellites. Robert received his PhD from University College London and worked at the Japan aerospace exploration agency on space-weather instrumentation and elsewhere on instruments for astronomical telescopes.



**Loi Luu, 27, Singapore**  
**Kyber Network**

*Building a more secure, scalable and usable public blockchain infrastructure*

Loi Luu is CEO and Cofounder of Kyber Network, a major decentralised on-chain liquidity protocol that powers different applications including decentralised exchanges, funds and other financial applications. He earned his PhD from National University of Singapore, where he worked to improve

the base technical layers, namely decentralisation, scalability and security for the public blockchain infrastructure. To date, there are 572 follow up papers citing his published academic work. Most importantly, there are more than 20 blockchain companies and projects that benefit from his work and collectively these companies are worth more than tens of billions of US dollars.



**Thanh Duc Nguyen, 34, Vietnam**  
**University of Connecticut**

*Transforming biodegradable surgical-suture polymers into special forms/shapes with “smart” functions for medical applications*

Thanh Duc Nguyen is an Assistant Professor in the Departments of Mechanical Engineering and Biomedical Engineering at University of Connecticut (UConn, USA). His research is highly interdisciplinary and at the interface of biomedicine, materials and nano/micro technology. He has invented a platform technology which can create 3D microstructures of biodegradable polymers for applications in vaccine/drug delivery and medical implants. Recently, he has worked on a novel biodegradable piezoelectric polymer which can be used for monitoring biophysiological pressures and stimulating tissue growth. Nguyen’s works have been published in prestigious journals (e.g. *Science*, *PNAS* etc.) and highlighted in major media (e.g. *The New York Times*, *The Guardian*, *BBC News* etc.). He received several prestigious awards including the NIH Trailblazer Award for Young and Early Investigators, and the SME Outstanding Young Manufacturing Engineer Award.

The 10 ‘Innovators Under 35’ are given tribute annually at MIT Technology Review’s EmTech Asia conference which will be held on 22 and 23 January 2019 at the Marina Bay Sands Expo and Convention Centre. The list recognises the development of new technology or the creative application of existing technologies to solve global problems in industries such as biotechnology, materials, computer hardware, energy, transportation, communications, and the Internet.

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## NOTES TO EDITORS

1. Images and Biographies: Low-resolution images and biographies/synopses of the finalists may be downloaded [here](#).
2. The MIT Technology Review’s Innovators Under 35 nominations were judged this year by the jury panel listed [here](#).

### About Innovators Under 35:

Since 1999, MIT Technology Review has identified the top young innovators under the age of 35. [Innovators Under 35](#) honourees are recognised annually for their contribution in transforming the nature of technology in industries such as biotechnology, materials, computer hardware, energy, transportation, communications, and the Internet. Our goal is to recognise the development of new technology or the creative application of existing technologies to solve the world’s biggest problems. We reward ingenious and elegant work that matters to the world at large—not just to peers in a particular field or industry. In 2010, we expanded our search for the most promising innovators by organising regional editions of the list. There are regional versions in Latin America, Europe, China, India, and Southeast Asia/Oceania. The winners of the regional lists are automatically considered for the global list. Past global Innovators Under 35 honourees include Facebook’s Mark Zuckerberg, Google’s Sergey Brin and Larry Page, Tumblr’s David Karp and Spotify’s Daniel Ek among others.

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**About MIT Technology Review:**

Founded at the [Massachusetts Institute of Technology](#) in 1899, [MIT Technology Review](#) is a digitally oriented global media company whose news analysis, business reports, photo essays, reviews, interactive digital experiences, and [live events](#) explain the commercial, social, and political impact of new technologies. MIT Technology Review's audience is anyone, anywhere, who believes that technology can solve hard problems, grow prosperity, and expand human possibilities—a global audience of business and thought leaders, innovators and early adopters, entrepreneurs and investors. Every day, [we provide an intelligent, lucid, and authoritative filter](#) for the overwhelming flood of information about technology. Our mission is to equip our audiences with the intelligence to understand and contribute to a world shaped by technology. Accuracy and independence are our highest priorities: our coverage is independent of any influence, including our ownership by MIT. [Subscribe](#). Follow us: [Twitter](#), [Facebook](#), [LinkedIn](#), [Google+](#).

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EmTech Asia is where technology, business, and culture converge. It is the showcase for emerging technologies with the greatest potential to change our lives and an access point to the most innovative people and companies in the world. Most of all, it is a place of inspiration — an opportunity to glimpse the future and begin to understand the technologies that matter and how they will change the face of business and drive the new global economy. For more information, please visit [www.emtechasia.com](http://www.emtechasia.com)

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**About Koelnmesse:**

Koelnmesse is one of the world's largest trade fair companies. Its more than 70 trade fairs and exhibitions have the broadest international scope in the industry, as 60 percent of the exhibitors and 40 percent of the visitors come from outside Germany. The Koelnmesse events include the leading global trade fairs for 25 sectors, such as [imm cologne](#), [Anuga](#), [IDS](#), [INTERMOT](#), [Interzum Cologne](#), [Photokina](#), [Gamescom](#) and the [International Hardware Fair Cologne](#). Koelnmesse is MIT Technology Review's co-organiser for EmTech Asia and Innovators Under 35 Asia Pacific. For more information, please visit [www.koelnmesse.com.sg/](http://www.koelnmesse.com.sg/)

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**About SGInnovate:**

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At SGInnovate, we believe that Singapore has all the resources and capabilities needed to tackle 'hard problems' that matter to people around the world. As a part of our Deep Tech Nexus Strategy, we are focused on adding tangible value to the Singapore deep tech startup ecosystem in two key areas – development of Human Capital and deployment of Investment Capital. With the support of our partners and co-investors, we back deeply-technical founders through equity-based investments, access to talent, and support in building customer traction. Our efforts are prioritised around transformational technologies such as Artificial Intelligence, Blockchain and MedTech, which represent impactful and scalable answers to global challenges. SGInnovate is a private-limited company wholly owned by the Singapore Government. For more information, please visit [www.sginnovate.com](http://www.sginnovate.com)

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