

# NATIONAL RESEARCH FOUNDATION PRIME MINISTER'S OFFICE SINGAPORE

## Global Young Scientists Summit (GYSS) 2024 draws highest number of young scientists to Singapore

Opportunities to engage with esteemed scientists and multidisciplinary approach to Science and Technology distinguish the GYSS

SINGAPORE: The values of science which promote collaboration and teamwork is celebrated once again at the GYSS 2024. Despite global uncertainties, the brightest researchers and eminent scientists will converge in Singapore from 8 to 12 January 2024.

This year, over 350 young scientists from about 35 countries will be participating in the five-day Summit, the highest number of participants in a decade. Year on year, interest in the Summit has grown on average by 10 per cent. For 2024, the number of participants from Singapore increased by nearly 70 per cent, from a steady state of 58 since 2020<sup>1</sup> to around 100 in 2024.

#### **More Opportunities for Young Scientists**

- Organised by the National Research Foundation (NRF), the GYSS this year provides more opportunities for young scientists to engage with established researchers, venture capitalists, corporates, and technopreneurs. These include 16 esteemed scientists who are recipients of the Nobel Prize, Fields Medal, Millennium Prize, Turing Award and the President's Science and Technology Award<sup>2</sup>.
- The Young Scientists Poster session, where young scientists share their research, has almost doubled from 60 in 2023 to 115 this year. The GYSS Young Scientists Quickfire Pitch session has broadened to accommodate 16 scientists this year, up from 10 in 2023. Additionally, there are more small group sessions, from 20 in 2023 to 28 in 2024, where young scientists can informally engage with invited scientists.
- To promote the values of science and STEM education, the esteemed scientists will also be holding talks and engagements at the Nanyang Technology University (NTU), National University of Singapore (NUS), Agency for Science, Technology and Research (A\*STAR), Singapore Science Centre, SGInnovate, as well as the 'International Science Youth Forum' (ISYF) organised by the Hwa Chong Institution.

#### Noteworthy to GYSS 2024

Of the 16 invited scientists, six will be speaking at the GYSS 2024 for the first time – Professor Adi Shamir, Dame Sue Black, Professor Martin Green, Sir Shankar Balasubramaniam, Professor Hugo Duminil-Copin and Professor Wang Rong. Esteemed representatives from the Technology Academy Finland (TAF)<sup>3</sup>, the Lindau Nobel Laureate Meetings Foundation<sup>4</sup>, and the

<sup>&</sup>lt;sup>1</sup> The GYSS was conducted virtually in 2021 and 2022 due to COVID-19, and participant profile details are unavailable.

<sup>&</sup>lt;sup>2</sup> The President's Science and Technology Awards (PSTA) are the Singapore's top honours for research scientists and engineers in Singapore.

<sup>&</sup>lt;sup>3</sup> TAF is the lead organisation behind the Millennium Technology Prize, which is Finland's tribute to innovations that promote the well-being of mankind and society. The President of the Republic of Finland is the patron of the Prize.

<sup>&</sup>lt;sup>4</sup> The Lindau Nobel Laureate Meetings Foundation was established in 2000 to promote science, research, and related societal activities.

Heidelberg Laureate Forum<sup>5</sup> will be attending the Summit. Her Royal Highness Princess Maha Chakri Sirindhorn of the Kingdom of Thailand will also be attending the opening ceremony and engaging with young Thai researchers.

- The GYSS is the only international Summit in Asia that allows young scientists to engage closely with a wide range of esteemed scientists across multiple disciplines ranging from healthcare and therapeutics to quantum technologies, forensic science and sustainable energy solutions to computer science and engineering. It was launched today by **Deputy Prime Minister**, **Coordinating Minister for Economic Policies and Chairman of the NRF, Mr Heng Swee Keat.**
- 8 Chief Executive Officer of the NRF, Mr Beh Kian Teik said, "Science today involves collaboration across disciplines to solve global challenges that affect us in various ways. The GYSS introduces young talents to new and innovative research ideas from different fields. Their engagements with esteemed scientists offer a unique insight into the efforts behind groundbreaking discoveries and inspire them to push boundaries in research and innovation in a world that is continually evolving."
- 9 DPM's speech will be issued after delivery at the Opening Ceremony on 9 January 2024. Please refer to **Annexes A to C** for quotes from speakers and participants, the complete list of speakers for GYSS 2024, and information on the Summit's sessions.

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Interviews and coverage of lectures and plenary discussions can be arranged on request.

Please reach out to the media contacts below.

#### Media Contacts

Mr Nur Amin Shah Deputy Head (Corporate Communications) National Research Foundation Prime Minister's Office

Email: nur amin@nrf.gov.sg

Ms Suzanne Walker Deputy Director (Corporate Communications) National Research Foundation Prime Minister's Office

Email: suzanne walker@nrf.gov.sg

<sup>&</sup>lt;sup>5</sup> The Heidelberg Laureate Forum is an annual networking conference that brings together young researchers with winners of prestigious awards in mathematics and computer science.

#### Quotes for GYSS 2024 speakers and youth participants

Emphasising the importance of having a multidisciplinary approach to research and science, **Professor Dame Sue Black**, one of the world's leading forensic scientists, said, "In the intricate tapestry of science and research, collaboration is the thread that weaves together diverse perspectives, forging a stronger and more vibrant fabric of innovation. It is through the convergence of ideas from different fields and cultures that we unlock the full potential of human ingenuity, turning complex ideas into groundbreaking solutions. Collaborative efforts in research not only accelerate progress but also build bridges, fostering a global community united in the pursuit of knowledge and the betterment of humanity."

Recipient of the 2022 Millennium Technology Prize and first time speaker at the GYSS, **Professor Martin Green**, said, "Events like GYSS can help give direction to young people early in their career – ideas of what they can, or explore further what they want to, do. Here, they can meet and talk to people like myself who have been in their shoes. In my career, much communication has been with other researchers and institutions; it is important to maintain these links and keep them alive. Communication and collaboration are essential elements to be successful in research and any careers in science and technology."

First time participant at the GYSS **Ms Tan E-Jie**, 16, a Physics student from NUS High School of Mathematics and Science, said, "As someone just beginning my research career, I hope to learn more about the aspirations and goals of researchers through meeting high-profile scientists, many of whom I've looked up to for a long time. In addition, the panel talks provided at GYSS are an invaluable opportunity to connect with knowledgeable scientists and relate my work to theirs. Lastly, I hope to meet more like-minded peers at the summit and make meaningful connections that last."

**Aleksandar Kondinski**, 34, who is one of 115 young scientists presenting his research at the Poster session said, "Attending GYSS is a unique opportunity to gain insights from some of the most influential scientists and engineers in the world. As a researcher working on an NRF-supported project overarching chemistry and Artificial Intelligence for decarbonisation, I am eager to discuss my work, hoping to explore new progressive ideas and future collaborative possibilities. The GYSS brings many talented Singaporean and international young researchers together, enabling me to engage, learn from them and expand my professional network."

#### Speakers attending the GYSS 2024

- 1. Prof Duncan Haldane
  - a. Nobel Prize for Physics (2016)
  - b. 1-D atomic magnets & 2-D semiconductors
- 2. Prof Klaus von Klitzing
  - a. Nobel Prize for Physics (1985)
  - b. Inteerger Quantum Hall Effect
- 3. Prof Sir Konstantin Novoselov
  - a. Nobel Prize for Physics (2010)
  - b. Graphene
- 4. Prof Sir Tim Hunt
  - a. Nobel Prize for Physiology/Medicine (2001)
  - b. Cell division
- 5. Prof Takaakta Kajita
  - a. Nobel Prize for Physics (2015)
  - b. Neutrinos
- 6. Prof Martin Green
  - a. Millennium Technology Prize (2002)
  - b. Solar Energy
- 7. Prof Sir Sankar Balasubramanian
  - a. Millenium Technology Prize (2020)
  - b. Next-generation sequencing
- 8. Prof Randy Schekman
  - a. Nobel Prize for Physiology/Medicine (2013)
  - b. Cell membrane vesicle trafficking
- 9. Prof Hugo Duminil-Copin
  - a. Field Media (2022)
  - b. Probability Theory
- 10. Prof Aaron Ciechanover
  - a. Nobel Prize for Chemistry (2004)
  - b. Ubiquitination
- 11. Prof Sir Richard Roberts
  - a. Nobel Prize for Physiology/Medicine (1993)
  - b. Split genes & RNA splicing
- 12. Prof Ben Feringa
  - a. Nobel Prize for Chemistry (2012)
  - b. Molecular nanotechnology
- 13. Prof Adi Shamir
  - a. Turing Award (2002)
  - b. Cryptography
- 14. Prof Dame Sue Black
  - a. Guest Speaker, Royal Christmas Lectures (2022)
  - b. Forensic Science
- 15. Prof Leslie Valiant
  - a. Turing Award (2010)
  - b. Al Memory
- 16. Prof Wang Rong
  - a. Singapore President's Technology Award (2022)
  - b. Membrane science and technology

## Annex C

## **Programme Overview of GYSS 2024**

Time	Mon, 8 Jan	Tue, 9 Jan	Wed, 10 Jan	Thu, 11 Jan	Fri, 12 Jan
0800 <b>–</b> 0900	Breakfast & Registration	Breakfast			
0900 - 1030	rvegisti alion	Opening Ceremony Plenary Lecture Martin Green	Plenary Lectures Leslie Valiant Klaus von Klitzing	Plenary Lectures Tim Hunt Randy Schekman	Panel Discussion: Innovation & Entrepreneurship in Science Shankar Balasubramanian Ben Feringa Randy Schekman Alice Chen
1030 <b>–</b> 1100		Morning Break			
1100 - 1230		<b>Plenary Lectures</b> Aaron Ciechanover Takaaki Kajita	Panel Discussion: Challenges and Strategies for Early- Career Scientists  Richard Roberts Duncan Haldane Adi Shamir Madhavi Srinivasan	Plenary Lectures Shankar Balasubramanian Wang Rong	Young Scientists Quickfire Pitches: Al & Modelling Physical Sciences – All Things Small
1230 <b>–</b> 1330		Lunch / Poster Session			
1330 – 1500	[For Participants] Site Visits	Panel Discussion: Science Communication in the Digital Age Sue Black Kostantin Novoselov Aaron Ciechanover Tim Hunt	<b>Plenary Lectures</b> Adi Shamir Ben Feringa	Young Scientists Quickfire Pitches: Life Sciences & Biomedicine	Plenary Lecture Richard Roberts
					Guest Lecture Dame Sue Black
1500 <b>–</b> 1530		Afternoon Break			
1530 – 1630		Small Group Sessions with Speakers / Talk by Lindau Foundation and Heidelberg Laureate Forum	Plenary Lectures Hugo Duminil-Copin Duncan Haldane	Panel Discussion: The Future of Sustainable Development Martin Green	Free & Easy
1630 - 1700		Young Scientists Quickfire Pitches: Sustainability		Kostantin Novoselov Wang Rong Iris Yu	
1700 <b>–</b> 1800		Small Group Sessions with Speaker / Networking	Small Group Sessions / Networking		
1800 – 1830		[For speakers and		Free & Easy	Closing Event @
1830 – 2030	[For speakers] Welcome Dinner	participants] Welcome Rooftop Garden Dinner	Free & Easy	[For speakers] Patron Dinner	Sentosa