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Nobel laureates explore AIâ??s role in scientific discovery at Singapore summit

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Five Nobel laureates joined researchers, industry leaders and young scientists to examine how AI can accelerate discovery while preserving human curiosity and judgement.



From 5 to 7 October, the 2026 Nobel Prizes in Physiology or Medicine, Physics and Chemistry were announced in succession. As global attention turned towards the Nobel Prize, five Nobel laureates gathered in Singapore for the Nobel Heroes & AI4SCI Summit Singapore 2026 to examine a question that is transforming the way scientific research is conducted: Can artificial intelligence accelerate the next scientific revolution?

The Summit welcomed Professor Omar M. Yaghi, 2025 Nobel Laureate in Chemistry; Dr Fred Ramsdell, 2025 Nobel Laureate in Physiology or Medicine; Professor Benjamin List, 2021 Nobel Laureate in Chemistry; Sir Konstantin Novoselov, 2010 Nobel Laureate in Physics; and Sir Christopher A. Pissarides, 2010 Nobel Laureate in Economic Sciences.

The two-day Summit, held on 5–6 October at NTU, SMU and other venues in Singapore, welcomed around 500 participants and featured seven Nobel Laureate roundtables and dialogues. Across these sessions, the five laureates exchanged ideas with guests from academia, industry and other fields on topics spanning AI for Science, scientific discovery, health and longevity, the future of work and sustainable urban development.

The Summit was jointly organised by Laureates City Holdings Limited and Symbiosis Science, with the Lindau Nobel Laureate Meetings serving as Host and Advaita Lab and HER SYMBIOSIS as Supporting Partners.

The 2026 Nobel Prizes: Great Discoveries Begin with Bold Questions

This year’s three scientific Nobel Prizes once again demonstrated the enduring value of fundamental research.

The 2026 Nobel Prize in Physiology or Medicine was awarded to Karl Deisseroth, Peter Hegemann and Georg Nagel for their pioneering discoveries relating to light-gated ion channels and optogenetics. Beginning with the fundamental question of how green algae sense light, their work ultimately contributed to the development of techniques that use light to control

neural activity, opening new pathways for understanding how the brain functions.

The Nobel Prize in Physics was awarded to Francis Halzen for his decisive contributions to the IceCube Neutrino Observatory and the discovery of high-energy neutrinos of astrophysical origin. The bold idea of transforming the deep Antarctic ice into an immense observatory of the universe required years of research and international collaboration. It ultimately opened a new window through which scientists can explore the high-energy universe.

The Nobel Prize in Chemistry was awarded to Henri B. Kagan and Kenso Soai for their discoveries of nonlinear effects and autocatalysis in asymmetric organic synthesis. Their research deepened our understanding of molecular chirality and how it emerges, while also providing important scientific insights into the asymmetry of molecular structures within living systems.

From neuroscience and the exploration of the universe to molecular chemistry, these discoveries span very different disciplines but share a common starting point: an important scientific question, followed by the sustained commitment required to find an answer.

As artificial intelligence enters the laboratory, scientists are now confronting a new question: Could discoveries that once required decades of accumulated research happen more quickly in the future?

Five Nobel Laureates in Singapore: AI Is Changing Scientific Discovery, but Humans Must Still Ask the Questions

At the Nobel Heroes & AI4SCI Summit in Singapore, five Nobel laureates drew upon their respective fields to discuss in depth how AI is transforming science.

Among them, 2025 Nobel Laureate in Chemistry Professor Omar M. Yaghi expressed optimism about the potential applications of AI. Sharing examples of how AI is accelerating materials research, he observed:

“AI is not just a new tool, it’s a new environment that we are being dropped into.”

In his view, AI is changing how scientists explore materials, design experiments and advance discoveries.

Notably, the asymmetric synthesis research recognised by the 2026 Nobel Prize in Chemistry also resonates with the field of Professor Benjamin List, who received the 2021 Nobel Prize in Chemistry for his work on asymmetric organocatalysis.

Speaking in Singapore, List once again emphasised the importance of bold imagination in achieving scientific breakthroughs:

“A necessary condition for a revolutionary discovery is what feels like a crazy idea.”

Sir Konstantin Novoselov, 2010 Nobel Laureate in Physics, similarly underscored the importance of humanity’s ability to ask the right questions. Even when AI can accelerate computation, analysis and experimentation, deciding which questions are genuinely worth pursuing remains one of the central challenges of scientific discovery.

Speaking from a life-sciences perspective, 2025 Nobel Laureate in Physiology or Medicine Dr Fred Ramsdell noted that many aspects of complex biological systems remain unknown. High-quality data and a deeper understanding of biological mechanisms will be essential if AI is to deliver meaningful breakthroughs in the life sciences.

Sir Christopher A. Pissarides, 2010 Nobel Laureate in Economic Sciences, extended the conversation to the economic and societal implications of AI. His focus was not only on advancing technological capabilities, but also on whether AI can generate applications with tangible value—and how these changes may affect employment, productivity and the future of society.

Although the five Nobel laureates did not share identical views, their perspectives collectively revealed a defining question for scientific research in the age of AI:

As machines become increasingly capable of finding answers, the human ability to ask important questions may become even more valuable.

The Next Generation of Scientists: When Young Talent Meets AI

If the five Nobel laureates represent scientific discoveries that have already changed the world, the next generation of researchers may determine where the defining breakthroughs of the AI era will emerge.

The Summit therefore looked beyond established scientific achievement, placing the development of young talent and interdisciplinary collaboration among its central themes.

On the afternoon of 5 October, the Summit hosted an AI for Science forum at Nanyang Technological University. Representatives from universities, artificial intelligence research organisations and technology companies around the world gathered to discuss how AI can accelerate scientific discovery and interdisciplinary innovation.

During the young scientists' showcase that afternoon, the inaugural cohort of the Rising Minds — AI4SCI Young Talent Program was recognised. Three young researchers presented their frontier research and became the first recipients of the AI4SCI Rising Stars 100 distinction.

Jointly initiated by the AI² Science Foundation, Symbiosis Science, Advaita Lab, AuraSci, Avinasi Labs and Cit Labs, the programme aims to support the next generation of scientists working in AI for Science, helping promising research talent gain greater visibility and access to development opportunities.

Also that afternoon, Advaita Lab shared its frontier AI research directions, while HER SYMBIOSIS convened a women's leadership roundtable to examine the future of artificial intelligence and social innovation from a range of perspectives.

On 6 October, the Summit continued at Singapore Management University. Professor Alan Chan, Provost of SMU, and Nikolaus Turner, Executive Director of the Foundation Lindau Nobel Laureate Meetings, delivered opening remarks, followed by a framing keynote from Dr Cheong Wei Yang, SMU Vice Provost for Strategic Research Partnerships.

Three Nobel Laureate dialogues then explored health and longevity, urban sustainability and the future of work in the age of AI.

From fundamental research to industrial applications, and from established scientists to emerging researchers, AI for Science is becoming an increasingly important force connecting disciplines, generations and different sources of innovation.

From Singapore to the World: Building Long-Term Support for Scientific Discovery

Beyond academic discussion, the Nobel Heroes & AI4SCI Summit Singapore 2026 brought together representatives from government, international organisations, technology companies and the investment community to explore opportunities for collaboration between scientific research, long-term capital and industrial resources.

The Gala Dinner held on 5 October welcomed more than 150 international guests. Michael Ong, Chairman of Laureates City Holdings Limited; Kamala Zhu, Founder of Symbiosis Science; and Nikolaus Turner, Executive Director of the Foundation Lindau Nobel Laureate Meetings, delivered remarks outlining their shared vision for advancing international scientific exchange, cross-sector collaboration and sustained support for innovation.

Scientific engagement also extended beyond the conference venues and into the city's public spaces.

On 6 October, German photographer Peter Badge's Nobel Laureates Portrait Exhibition Singapore 2026 opened at Gardens by the Bay. Featuring portraits of 35 Nobel laureates, the exhibition was open to the public free of charge from 6 to 11 October.

Through photography, outdoor presentation and digital interaction, the exhibition offered the public an opportunity to encounter the individuals behind some of the world's greatest discoveries—and enabled more young people to experience the appeal and human dimension of science.

The Summit was concerned not only with how quickly AI can accelerate scientific research, but also with how important scientific questions, exceptional young talent and long-term systems of support can be brought together at an earlier stage.

Beginning in Singapore, Laureates City and Symbiosis Science will continue working with international academic institutions, technology companies and global partners to advance sustained exchange among science, artificial intelligence, industry and capital.

Nobel Prize Week 2026 has once again reminded the world that the breakthroughs capable of changing humanity’s future often begin with questions that initially appear modest or overlooked.

In the age of AI, the next scientific revolution may depend not only on how many answers machines can provide, but also on whether humans can continue to ask the questions that are truly worth exploring.