

# INSTITUTE OF ADVANCED STUDIES

NANYANG  
TECHNOLOGICAL  
UNIVERSITY

Catalyse high-impact research | Transcend disciplinary boundaries | Expand knowledge & education frontiers

## FEATURED ARTICLES

### 2022 Kavli Prize in Nanoscience: Self-Assembled Monolayers



The 2022 Kavli Prize in Nanoscience was awarded to four pioneers for their development of self-assembled monolayers on material surfaces. This groundbreaking discovery enables the unprecedented control and precise design of surface properties for diverse applications, ranging from electronic devices to medical diagnostics.

[Read more](#)

### Nobel Prize Laureate Prof Barry Marshall's Tea Session with NTU Scholars



In this tea session jointly organised with the CN Yang Scholars Programme, Prof Barry Marshall shared his academic journey, the story behind his Nobel Prize and discussed some casual topics. The interactive session was attended by around 40 scholars from various NTU scholars programmes.

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## EVENT HIGHLIGHTS

### IAS Lee Kong Chian Distinguished Professor Public Lecture by Kavli Prize Laureate Prof Virginijus Siksnys | 26 August 2022



In this lecture titled "A Treasure Trove of DNA Scissors: CRISPR-Cas and beyond", Kavli Prize Laureate Prof Virginijus Syksnys (Chief Scientist at the Institute of Biotechnology, Vilnius University) talked about DNA editing technologies which included his groundbreaking discovery of CRISPR cas9, and further improvements on it in the form of CRISPR cas12f and TnpB transposon which he considered three different-sized scissors in the CRISPR toolbox. The audience included pre-university students who asked him about his inspiring journey to reach the pinnacle of research and development in sciences.

[Read more](#)

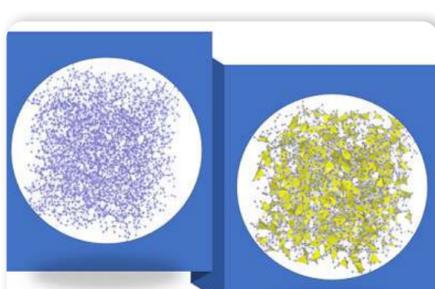
### Frontiers in Peptide Science and Drug Discovery: A Scientific Symposium in Honour of Prof James Tam | 5 August 2022



The symposium in honour of Prof James Tam's outstanding research works and lifetime achievements was held back-to-back with the 20th Anniversary celebration of the School of Biological Sciences (SBS). Prof Tam, the Founding Dean of SBS, has trained many undergraduate and post-graduate students, postdoctoral fellows, and visiting scientists in his laboratory throughout the years. The speakers repeatedly highlighted his scientific contributions, such as the discovery of ultra-stable cysteine-rich peptides from medicinal plants and their use as a therapeutic modality for disease treatment.

[Read more](#)

### IMS-IAS Public Lecture "Topological Deep Learning" by Prof Gunnar Carlsson (Stanford University) | 26 July 2022



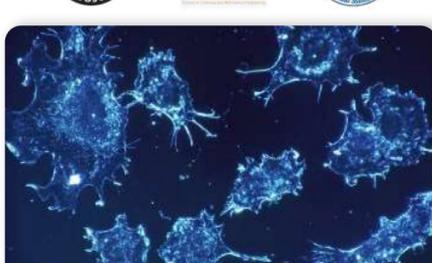
The public lecture was jointly organised by IAS and the Institute for Mathematical Science (IMS), NUS, as part of the IMS-IAS joint public lecture series on Mathematical Artificial Intelligence. Prof Carlsson's talk covered a brief introduction of deep learning, Mapper, topological modelling, and topological deep learning, as well as the "shape of data".

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### Discovery Science Seminar "Silently Targeting Cancer" by Nanyang Asst Prof Melissa Fullwood | 29 July 2022

In this webinar jointly organised with the Graduate Students' Clubs of SBS, SCBE and SPMS, Nanyang Asst Prof Melissa Fullwood (SBS) discussed the hallmarks of cancer, the treatment options, and her lab's research into the epigenetics of cancer, specifically, the role of RNA enhancers and suppressors in the regulation of transcription.

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## UPCOMING EVENT

### Nobel lecture "The Usefulness of Useless Knowledge" by Prof Serge Haroche 14 September 2022, 3pm | SPMS LT1 (in-person event)

The Nobel lecture at NTU is part of the Nobel Prize Dialogue Singapore 2022.

Basic and applied science are traditionally opposed. Prof Serge Haroche (Nobel Prize laureate in Physics 2012) will illustrate the symbiotic relationship between "useless" and "useful" science by examples coming from the development of quantum physics during the last hundred years.



[Register now](#) (limited seats available)

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