

Celebrating 10 years of 'Pushing Boundaries, Creating Legacies' Gracing the conference was Singapore's Minister for Education, Mr Chan Chun Sing



Giving the thumbs up are Minister Chan Chun Sing (front row, centre), with VIP guests from Ministry of Education, National Research Foundation, Nanyang Technological University, National University of Singapore and members of SCELSE's Governing Board.

Following an easing of restrictions in Singapore, SCELSE hosted its first in-person conference in two years, bringing together hundreds of academics, agency members and industry partners to commemorate SCELSE's 10 years of research excellence, impact and collaboration.



SCELSE centre director, Prof Staffan Kjelleberg welcoming Minister Chan Chun Sing to the conference

“ SCELSE's top-notch experts are pleased to share our research outcomes - both basic and translational - in these 30 presentations and exhibits. - SCELSE centre director Prof Staffan Kjelleberg ”

Guests journeyed with SCELSE's experts as they took them through their deep knowledge of biofilm & microbiome science and engineering through:

- Keynote lectures (keep a look out on [SCELSE YouTube](#) for videos)
- Scientific sessions featuring more than 30 speakers
- Exhibits
- Networking sessions

Keynote speakers included Mr Peter Ho (SCELS E Governing Board chair), Mr Harry Seah (PUB) and Prof Alexander Zehnder (SCELS E Advisory Board chair).



Opening remarks by Mr Peter Ho, Chairman, SCELS E Governing Board; Senior Advisor, Centre for Strategic Futures.



Distinguished University Professor Staffan Kjelleberg, centre director, SCELS E shared 'A Decade of SCELS E in Singapore's Research and Innovation Landscape'.



Mr Harry Seah, deputy chief executive at PUB, highlighted the importance of microbiome and biofilm research, underscoring the potential of future collaborations between PUB and SCELS E.



Prof Alexander Zehnder, chair SCELS E Scientific Advisory Board member, NTU Board of Trustees talks about 'SCELS E's Translational Impact'.

SCELS E centre director Prof Staffan Kjelleberg said: "We are very happy to mark the occasion of SCELS E's 10th anniversary with this conference that brings together key stakeholders and SCELS E researchers. SCELS E's top-notch experts are pleased to share our research outcomes - both basic and translational - in these 30 presentations and exhibits."

This scientific conference was held from 15 - 16 June 2022 at Capella Sentosa, Singapore.

Scientific sessions



Dr Viduthalai Regina, SCELSE senior research fellow discussed about the challenges & opportunities of building in vitro model of the skin microbiome.



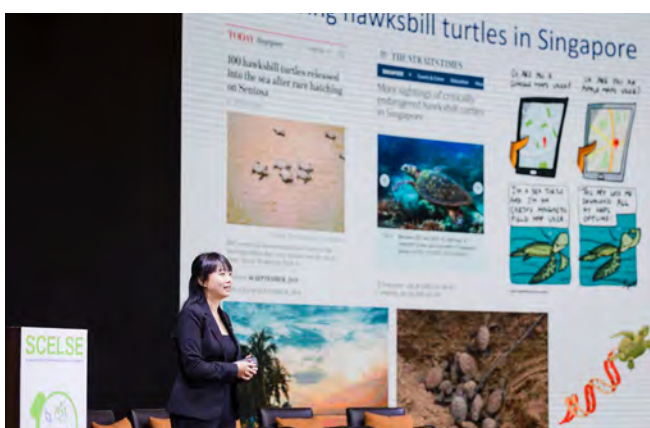
Asst Prof Kim Hie Lim, principal investigator, SCELSE; Asian School of the Environment, NTU presented the GenomeAsia 100K project contributing to studies on human diseases and microbiomes.



Dr Germaine Kwok (far right), research fellow, SCELSE discussed 'Wastewater surveillance of viruses: From pandemic to endemic'.



Mr Omkar Kulkarni, PhD Student, SCELSE; Department of Biological Sciences, NUS presented 'A novel volatile signaling system for beneficial plant-associated biofilms'.



Ms Regine Tiong, PhD Student, SCELSE discussed, Population genomics of hawksbill turtles and metagenomics of their nests in Singapore.



A/Prof Rebecca Case (holding mic) principal investigator, SCELSE; School of Biological Sciences, NTU sharing a light-hearted moment during a Q&A session.

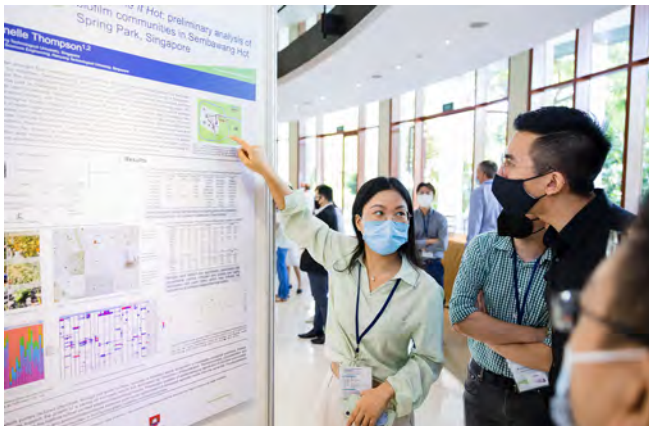
Posters and exhibits



A visitor at the "Technologies for Sustainability" booth, which displayed SCELSE's latest innovations in the sustainability field.



SCELSE research fellow Dr Mats Leifels (in purple) giving a demonstration at the Urban Waterways booth.



SCELSE researchers and students having a discussion on the analysis of biofilm communities in Sembawang Hot Spring Park.



SCELSE PhD student Yissue Woo with the poster he co-authored with Prof Stefan Wuertz.



VIP guests mingling with SCELSE staff and students.



An interactive exhibit where visitors could build their own conjugated oligoelectrolytes or COEs (a new platform of membrane insertion molecules) with Lego!

Networking sessions



SCElse 10th Anniversary Dinner Highlights

Past NTU president (2011-2017) Prof Bertil Andersson shared his fond memories of the beginnings of SCElse and paid tribute to the many stakeholders who played a part in its success. SCElse centre director Prof Staffan Kjelleberg was honoured by deputy centre director Prof Stefan Wuertz with a plaque. Everyone toasted to 10 years of SCElse and beyond, while enjoying live music by Evolution Quartet.



'Mad' scientists at SCELSE



Thank you for your support of the event!



[Celebrate our milestones with us in this SCELSE 10-year milestone video](#)

SCELSE

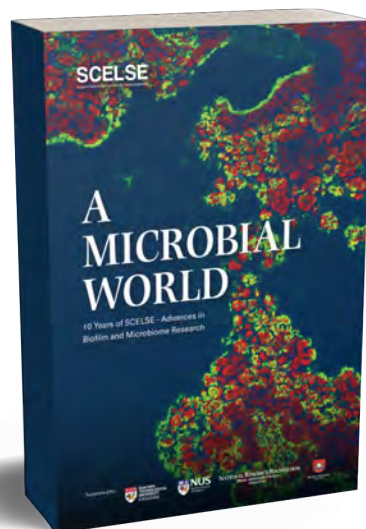
Singapore Centre for Environmental Life Sciences Engineering

Snapshot of SCELSE over the years



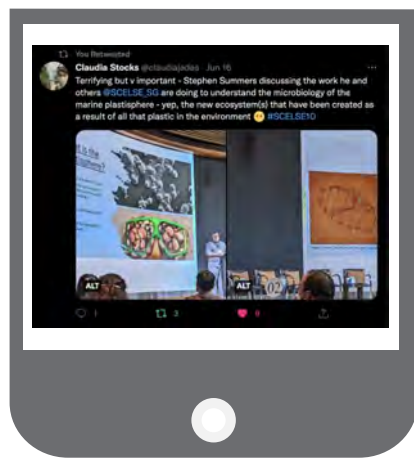
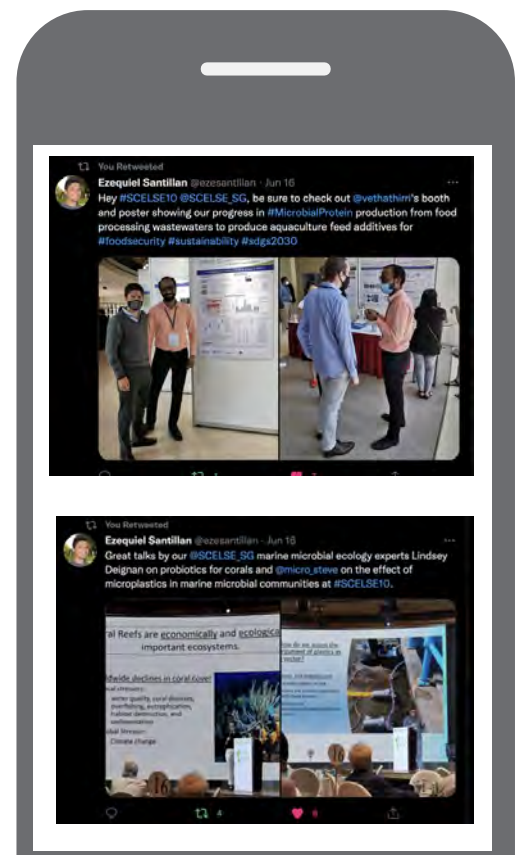
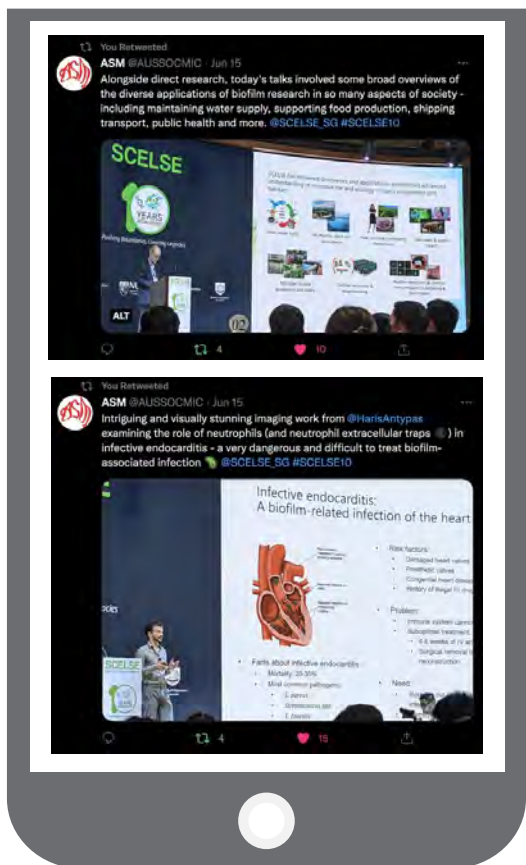
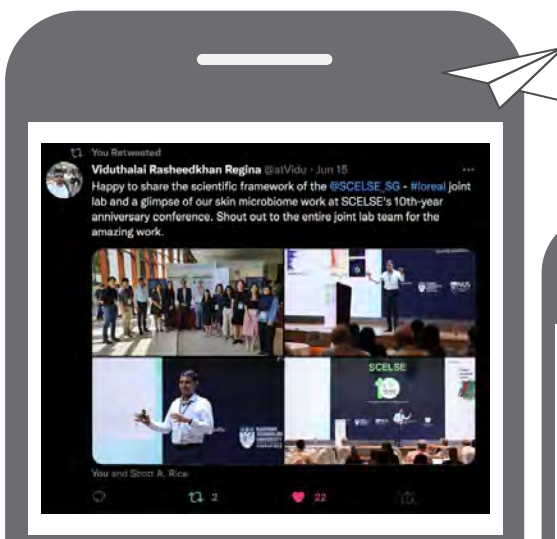
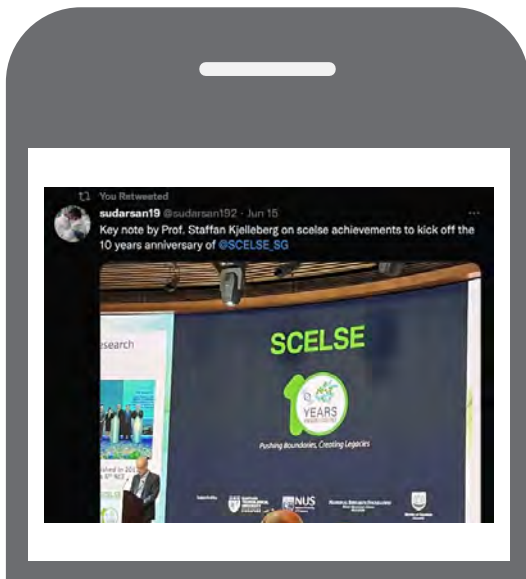
'A Microbial World' book

SCELSE also launched a book - A Microbial World - at the 10th anniversary conference. It highlights SCELSE's research projects and successes in addressing modern challenges by harnessing the power of microbes. Available in both hardcopy and [online](#).



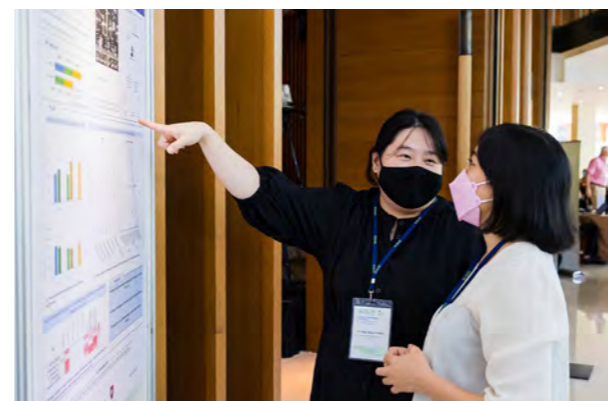
SCELSSE 10TH ANNIVERSARY CONFERENCE as seen on social media

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Event overview

SCELSE 10th Anniversary Conference



SNBC seed grant propels research-industry collaboration forward

NUS and Nutrition Technologies harness bacteriophages (viruses that prey on bacteria) as antibiotic replacement in black soldier fly protein.



Head of black soldier fly (BSF) larvae that munch up organic waste? In fact, they also transform their bodies into valuable animal feed in the process.

With the Singapore National Biofilm Consortium's (SNBC) seed fund, researchers from the National University of Singapore (NUS) and Nutrition Technologies (a company specialising in creating products with BSF larvae) are finding ways to supercharge these larval protein packets with antimicrobial properties.

Animals like chickens and fish that are fed this diet can be better protected against bacterial infections without a need to administer antibiotics. The secret to this lies in the fly larvae's ability to coexist with a bacterial predator - bacteriophages. Bacteriophages prey on bacteria and convert them into factories that can be used to grow their genetic material.

Wilfried Moreira, a microbiology and immunology scientist at NUS said, "This idea came because the rampant use of antibiotics in farm animals was contributing to the global issue of antibiotic-resistant bacteria." This is because indiscriminate use of antibiotics can end up selecting for bacteria that are resistant and wipe out healthy microbial life, or provide a blank slate for harmful bacteria to colonise. He added: "Bacteriophages are more like special force troops or snipers that take out specific bacteria."

The team is mainly targeting poultry-based infections at the moment but hopes in future to fight bacteria in other farmed animals too, like fish.

Read The Straits Times: ["S'porean team developing bacteriophages as antibiotic replacement in black soldier fly protein"](#)

ABOUT BSF LARVAE

Conventional animal feed like soy and corn on the other hand, have a massive environmental footprint due to greenhouse gas emissions and pesticides that pollute water bodies among other reasons. This is why the alternative feed using BSF is becoming more popular, as it not only provides a sustainable option for animal feed, but also helps to reduce our burgeoning waste problem.

STAFF NEWS

Staff Promotion Announcement

Dear SCELSE colleagues,
I am very pleased to announce the 2022 promotion results. Please join me in congratulating our colleagues!

Promotees

Dr Jamie Hinks
Dr Viduthalai R. Regina
Dr Josiah Chong Shau Poh
Dr Subramoni Sujatha
Dr Haris Antypas
Chew Ley Byan
Lau Soon Lay
Lee Hui Min
Noor Rehan Bte Abdul Rahman

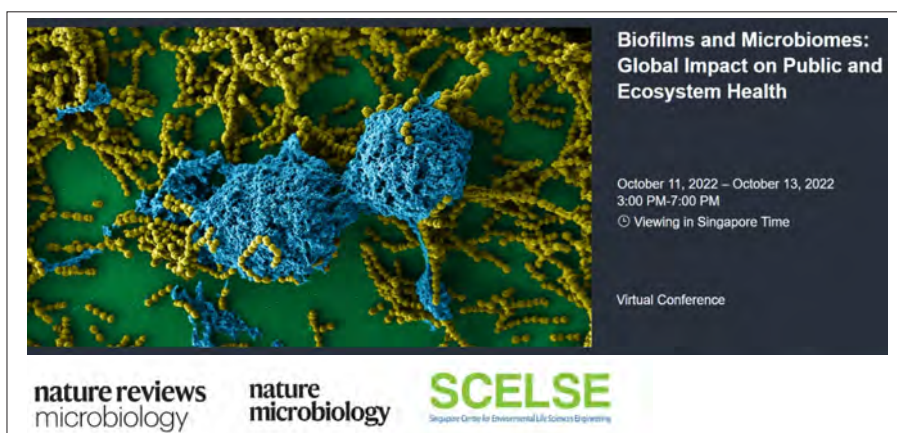
New Designation

Senior Principal Research Fellow
Principal Research Fellow
Senior Research Fellow
Senior Research Fellow
Senior Research Fellow
Senior Assistant Manager, Laboratory Operations
Finance Generalist, Senior Executive
Senior Executive, Administrative Support
Senior Executive, Administrative Support

Best Regards,
Staffan Kjelleberg
Centre Director, SCELSE

SCELSE partners with Nature to host a conference on “Biofilms & Microbiomes: Global Impact on Public and Ecosystem Health” (**Free for SCELSE's NTU and NUS staff and students**).

SCELSE staff and students, [sign up before September 16, 2022](#) with our promo code (to be sent via email soon) for free admission



Following the success of the [first Nature Conference hosted by SCELSE in 2017](#) (attracting 250 onsite participants), SCELSE will be hosting its second Nature conference in October 2022.

The conference titled [Biofilms & Microbiomes: Global Impact on Public and Ecosystem Health](#) will be held **virtually** on **11-13 October 2022** (3-7 pm SGT), and will be free for all interested staff and students of SCELSE, NTU & NUS.

The conference sessions will focus on:

- Mechanisms and models of biofilm communities
- Environmental holobiont systems
- Ecosystem health
- Environmental surveillance for public health
- Innovative approaches in microbial ecology

If you have any queries, please contact the project lead from SCELSE, [Smitha](#)

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