

Where Physics Meets Ageing Biology

# Global Conference on Gerophysics

Join us in supporting this inaugural meeting to pioneer the integration of physics and geroscience. This groundbreaking conference brings together leading theoretical physicists and eminent researchers in ageing and rejuvenation biology to spark a transformative new discipline, *gerophysics*. The conference will feature expert presentations, dynamic discussions, and networking opportunities. By supporting this conference, sponsors can position their organizations at the forefront of innovation, network with influential scientists, and contribute to a healthier future.

5-6 MARCH 2025

Paradox Singapore











### **Why This Conference Matters**

In recent years, fundamental principles in theoretical physics have underpinned breakthroughs in deep learning and artificial intelligence, culminating in recognition by the Nobel Committee. The subtle interplay of information, entropy, and order–key concepts in physics–have inspired neural network architectures and optimization techniques that are now driving dramatic advances in virtually all areas of science and engineering. Just as physicists once revolutionized the world of finance by translating their deep understanding of complex systems into quantitative trading models, today's visionary scientists see an equally profound opportunity at the intersection of theoretical physics and the biology of ageing.

We believe the time is right to apply the powerful toolkit of theoretical physics to one of humanity's greatest challenges: understanding and controlling the ageing process.

Ageing biology now stands at a turning point. Robust models of cellular senescence, DNA damage repair, proteostasis, and metabolic regulation can, when combined with rigorous physical theories and mathematical modeling, shed new light on the fundamental laws governing life's progression and decline.

Throughout this conference, participants will exchange ideas on how to integrate statistical mechanics, complex systems theory, and dynamical modeling with cutting-edge work in molecular gerontology. The goal is not only to identify parallels and common frameworks but also to forge long-term collaborations. By cultivating a shared language, developing innovative methods, and nurturing interdisciplinary dialogue, this event aims to lay the intellectual groundwork for a field that could revolutionise our approach to ageing and longevity.











# **Conference Objectives**







- **1. Advance Science of Ageing** Facilitate the integration of physics-inspired quantitative modeling and frameworks into longevity research, unlocking new pathways to extend human healthspan and lifespan.
- **2. Educate and Inspire** Provide a stimulating platform for knowledge sharing and idea exchange across disciplines and experience levels.
- **3. Build a Global Community** Connect multi-generation scientists from the worlds of biology and physics to establish a new scientific discipline, *gerophysics*.

# **Why Support This Initiative?**

- Position Your Organisation at the Forefront of Innovation Align your brand with a transformative scientific movement.
- Expand and strengthen your organisation's network Connect with influential scientists and thought leaders in geroscience.
- Contribute to a Healthier Future Take part in establishing a founding community of *gerophysics*, a new discipline that could revolutionise healthcare.



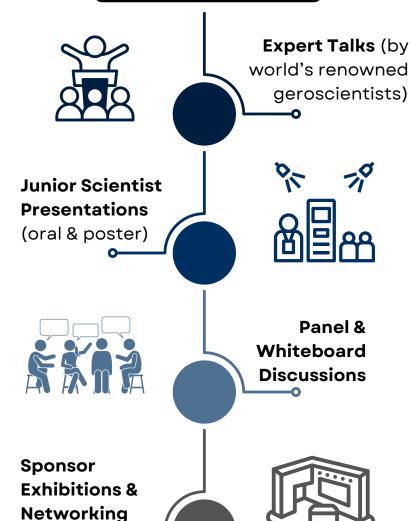






# **Program Overview**

#### 5-6 March 2025



Lunch & refreshments will be provided.



# Scientific Committee



**Prof Brian Kennedy** 



A/Prof Jan Gruber



**Dr Max Unfried** 

National University of Singapore









# **Confirmed Speakers**



Prof Uri Alon, Israel



Prof Vadim Gladyshev, USA



Prof Marija Cvijovic, Sweden



Prof Matt Kaeberlein, USA



Prof Andrew
Teschendorff, China



Prof Andrew Rutenberg, Canada



Dr Peter Fedichev Singapore



Asst Prof Feng Ling, Singapore



A/Prof Morten Scheibye-Knudsen, Denmark



Dr Weilan Wang, Singapore



Asst Prof Yong Ee Hou, Singapore



Dr Kumar Selvarajoo, Singapore



A/Prof Jan Gruber, Singapore



Dr Michael Rera, France



Dr Yifan Yang, China



Kamil Pabis, Singapore



Prof Brian Kennedy, Singapore



Dr Maximilian Unfried, Singapore











#### **Conference Venue & Location**



Paradox Singapore, Merchant Court, was thoughtfully selected to provide an inspiring and collaborative environment for our conference. This urban resort boasts a 680m² ballroom perfect for plenary sessions, several breakout rooms for concurrent workshops, a spacious foyer for exhibitions, and a variety of guest rooms at discounted rates for our participants.

Located in the vibrant district of Clarke Quay, along the Singapore River, the hotel offers easy access to Singapore's iconic attractions. within walking distance or a short public transport ride, guests can take a morning walk at Fort Canning Park, taste local cuisine at the famous Lau Pa Sat Hawker Center, or dine at Marina Bay Sands or various bars and restaurants in the vicinity.

Combining convenience and comfort, Paradox Singapore provides a stimulating environment conducive to both academic discussions and networking experiences.

















# **How To Support This Initiative**

Join us on this transformative journey by opting for one of the packages below or reaching out to discuss customised collaborations. We also appreciate sponsorships for individual elements, e.g., travel grants for young researchers, dinner with speakers, and cocktail reception for all participants. Opportunities to give an opening or closing speech of the day, a dinner/reception speech, etc. can also be discussed.

Transformer Catalyst Accelerator \*SGD 13,200 \*SGD 6,600 \*SGD 3,300 (~USD 10,000) (~USD 2,500) (~USD 5,000) \*Inclusive of 9% GST Logo on website &  $\bigcirc$ Ø (V) promotional materials Logo on slideshows during breaks Single advert slide shown during breaks Single advert page (3) on e-booklet 1 seat 2 seats 4 seats Conference ticket 1 seat 2 seats 4 seats Dinner with speakers 1 unit 2 units **Exhibition space** Chairing a session Speaking slot (20 (3) min)

If you are interested in taking part in this groundbreaking initiative, please reach out to Max Unfried at unfried@nus.edu.sg.





