

CONFERENCE SCHEDULE

1 DAY: 5th March

Registration + Light Refreshments 09.00 - 09.30

Opening words 09.30 - 09.45

**Session 1: The Emergence of Gerophysics:
Integrating Physical Laws into Aging Science** 09.45 - 11.00



Prof. Uri Alon Using physics-style math models to dissect core drivers of aging



Prof. Marija Cvijovic The Ageing Game: Why Gilgamesh Should Have Studied Physics and Math



Dr. Yifan Yang Compression of morbidity by interventions that steepen the survival curve

Coffee Break + Group Picture + Exhibition viewing 11.00 - 11.30

Session 2: Fundamental Principles: Physics-Derived Models for Understanding Aging 11.30 - 13.00



Dr. Peter Fedichev Beyond Hallmarks: A Thermodynamic Framework for Radical Lifespan Extension



Dr. Michael Rera Ageing as a two-phase process. Reinterpreting hallmarks of ageing and its evolution.



Mr. Ben Shenhar Heritability of human lifespan in the light of the saturated removal model of aging



Prof. Vadim Gladyshev Insights into aging, longevity and rejuvenation



Short Talk

Lunch Break + Exhibition viewing 13.00- 14.00

Session 3: Stochasticity and Dynamics of
Biological Aging Clocks

14.00- 15.15



Prof. Andrew Teschendorf Physics in Aging Biology:
from applications to fundamental theories



Prof. Steffen Ruland Stochasticity and memory in
epigenetic ageing



Dr. Dmitrii Kriukov Estimating Uncertainty in
Biological Age Prediction: A Fundamental Challenge

Coffee Break + Exhibition viewing

15.15 - 15.45

Session 4: Bridging Physics and Longevity Medicine

15.45 - 17.00



Prof. Matt Kaeberlein



Prof. Andrew Rutenberg Dynamics of Aging Biomarkers



Dr. Weilan Wang Use of potential gerotherapeutic drugs and
mortality of geriatric rehabilitation inpatients



Dr. Glen Pridham Dynamical modelling of the frailty index
indicates that health reaches a tipping point near age 75

Short Break

17.00 - 17.10

Session 5: Short talks and 1 Min Pitches

17.10 - 18.00



Prof. Yumi Kim Age-dependent remodeling of ribosomes in
skeletal muscle: Structural and functional changes



Mr. Kamil Pabis

1- Minute Poster Presentations

Refreshments & Networking

19.00 - 20.00

CONFERENCE SCHEDULE

2 DAY: 6th March

Registration + Light Refreshments 08.00 - 08.30

Session 6: Synergizing Physics and AI:
Computational Approaches to Aging Biology 08.30 - 10.00



Dr. Kumar Selvarajoo Can predictive models be developed for understanding complex aging cellular dynamics?



Prof. Jan Gruber



Prof. Morten Scheibye-Knudsen



Dr. Andrei Tarkov No easy answers - AI-assisted protein design for lifespan extension

Coffee Break + Exhibition viewing 10.00 - 10.30

Session 7: Lifelong Dynamics: Physics-Inspired Insights
into Developmental Processes and Aging Patterns 10.30 - 12.00



Prof. Rong Li



Short Talk



Dr. Leong Kim Whye Critical phenomenon associated with luminogenesis during ovarian follicle development



Short Talk

Lunch Break + Exhibition viewing 12.00- 13.00

Session 8: Quantitative Insights into
Metabolism and Longevity

13.00- 14.15



Prof. Nir Eynon Dynamic ways of quantifying the human ageing methylome and exercise rejuvenation



Prof. Brian Kennedy



Short Talk

Coffee Break + Exhibition viewing

14.15 - 14.35

Session 9: Complex Systems and Connectivity: A
Network Approach to Aging & Metabolism

14.35 - 15.50



Prof. Ee Hou



Prof. Feng Ling Percolation theory in complex networks



Mr. Weihua Huai Identifying Novel Geroprotectors through Aging Network Mapping



Dr. Csaba Kerepesi Methylation and network entropy measurements during aging

Short Break

15.50 - 16.10

Session 10: Panel on The Future of Gerophysics

16.10 - 16.45

Moderator: Sebastien Thuault

Panelists: Uri Alon, Peter Fedichev, Marija Cvijovic

Wrap up: Max Unfried & Brian Kennedy

16.45 - 17.00

Speakers and Sponsors Dinner

19.00 - 22.00