2ND WORLD CONGRESS

TARGETING Longevity

UNDERSTANDING THE SYSTEMS THAT SHAPE LONGEVITY

APRIL
8–9, 2026
BERLIN

FINAL AGENDA

Welcome to Targeting Longevity 2026

The Second World Congress on Targeting Longevity is a joint initiative of the World Mitochondria Society (WMS) and the International Society of Microbiota (ISM) will be held on 8-9 April 2026 in Berlin. Building on previous WMS and ISM meetings, this congress invites participants to rethink longevity beyond isolated biological mechanisms.

Aging Is Not a Defect

Longevity is often approached as a problem to solve, a pathway to correct, a marker to optimize, or a target to reach. Yet aging does not behave like a defect that can simply be fixed. Aging is a dynamic and systemic process shaped by continuous interactions between mitochondria, microbiota, metabolism, immunity, inflammation, and stress adaptation over time. Understanding these interactions is essential if we want to understand longevity itself.

From Targets to Systems

The strategy of Targeting Longevity is built on a simple but demanding idea: understand aging before attempting to correct it. Rather than focusing on isolated mechanisms, the meeting explores aging as the progressive loss of coordination between biological systems. Mitochondria, microbiota, metabolic regulation, immune balance, and redox signaling form an interconnected network that continuously adapts across the lifespan. When this coordination weakens, resilience declines.

The Mitochondria Microbiota Dialogue

At the center of this vision lies the dialogue between mitochondria and microbiota. Mitochondria regulate cellular energy and adaptive responses, while the gut microbiota shapes metabolism, immune tone, inflammation, and systemic signaling. Their interaction contributes to aging trajectories rather than isolated outcomes.

A Multidisciplinary Perspective

By bringing together scientists and clinicians from multiple disciplines, the meeting aims to move beyond reductionist models and to better understand how biological systems coordinate and adapt over time in humans as well as in companion animals.

Aging as a Trajectory

Longevity cannot be reduced to late interventions or single targets. Aging trajectories begin early, evolve dynamically, and differ across individuals and species. Preserving resilience requires understanding how biological systems interact across time.

A Strategic Goal

The goal of this meeting is not to promote a single molecule, technology, or intervention. It is to reshape how longevity is understood and approached.

Looking Forward…

The future of longevity may depend less on correcting aging than on learning how living systems maintain balance over time.

We look forward to welcoming you to Berlin.

Warm regards,

Marvin Edeas, Volkmar Weissig
Chairmen of the Targeting Longevity Scientific Committee

Wednesday, April 8 – Day 1

8h00 Materials Distribution

9h00 Welcome note by Marvin Edeas and Volkmar Weissig

9h10 **Opening Keynote**
Is Aging a Communication Failure? Rethinking Longevity as System Resilience
Marvin Edeas, *Institut Cochin, Université de Paris, France*

Session 1: Mitochondria as Signal Hubs in Aging

9h45 **Framing lecture**
Mitochondrial Dysfunction as the Mother of all Hallmarks of Aging
Volkmar Weissig, *Midwestern University, USA*

10h20 – 11h05 Coffee Break

Chairs: João Pedro de Magalhães, Viktor Korolchuk

11h05 **Complex I and the Clock of Life: Developmental Insights and Therapeutic Perspectives**
Alberto Sanz Montero*, University of Glasgow, United Kingdom*

11h40 **Mitochondria as central regulators of inflammation in senescence and aging**
João F. Passos*, Mayo Clinic, USA*

12h15 Discussion

12h30 – 14h00 Lunch & Group Photo

Chairs: João F. Passos, Mikołaj Ogrodnik

14h00 **Autophagy as an Anti-Ageing Programme**
Viktor Korolchuk*, Newcastle University, United Kingdom*

14h35 **When Brain Aging Begins: Mitochondria, Glia, and the Rise of Senescence**
Nancy M. Bonini*, University of Pennsylvania, USA*

15h10 **Short Communications** - 10 Minutes -

Is type 2 diabetes an early aging state? Brain iron reveals systemic imbalance
Michele Cerasuolo, University of Campania "Luigi Vanvitelli", Italy

Senescence disrupts mechanosensitive calcium signalling and mitochondrial function in ageing tendon cells
Karyna Tarasova, University of Veterinary Medicine Vienna, Austria

15h30 – 16h15 Coffee Break

Session 2: How Microbial Signals Shape Aging Trajectories

Chairs: Clara Correia-Melo, Yasukazu Nakamura

16h15 **Kyotango Longevity Lessons: Mechanisms Linking Microbiota, Brain, and Healthy Aging Pathways**
***Yuji Naito**, Kyoto Prefectural University of Medicine, Japan*

16h50 **Microbiota to Host Aging: The Redox Machinery as a System Integrator**
***Soheil Saeedi**, University of Zurich, Switzerland*

17h25 **The Architects of Longevity: The Invisible Thread Linking Mitochondria, Microbiota, and Redox Balance**
***Laurent Chatre**, University of Caen-Normandie, France*

18h00 **End of Targeting Longevity 2026 Day One**

20h00 **Meet the Speakers Dinner** (for ticket holders only, you can register online)

…Day 2

Longevity 2026 TARGETS

Thursday, April 9 - Day 2

8h00 Materials Distribution

Session 3: Can Aging Be Repaired? Linking Senescence, Repair, and Longevity Strategies

Chairs: Alberto Sanz Montero, Soheil Saeedi

09h00 **Can Aging Be Vaccinated? Rethinking Senescence Through Immunity**
Tohru Minamino, *Juntendo University Graduate School of Medicine, Japan*

09h35 **Healing, Senescence, and Longevity: Spatiotemporal Controls in Tissue Repair**
Mikołaj Ogrodnik, *Ludwig Boltzmann Research Group, Austria*

10h10 **Short Communications -** 10 Minutes

Microbe-derived ADP-heptose translocation via human colonic mucosa: Driver of morbidity and obstacle to longevity
Thomas Meyer, Max Planck Institute of Infection Biology, Germany

JAK/STAT Signaling as a Central Node Linking Inflammation, Senescence, and Tissue Aging
Karima Djabali, Technical University of Munich, Germany

Vitis vinifera Cell Culture Extract: A Preventive Strategy to Enhance SIRT1 Activity and Support Skin and Vascular Longevity
Chiara Niespolo, Arterra Bioscience, Italy

Extracellular Vesicles as Modulators of Mitochondrial Function and Inflammation in Aging Cells
Weiming Lai, University of Heidelberg, Germany

The Cost Action Senescence 2030.. Presentation and Preliminary Results
Rustichelli Franco, Università Politecnica delle Marche, Italy

10h40 – 11h20 Coffee Break

11h20 **Cell-Cell Metabolite Exchange Interactions: What does it mean for aging?**
Clara Correia-Melo, *Fritz Lipmann Institute, Germany*

11h55 **Another Way to Look at Longevity: What Animal Genomes and Gut Microbes Reveal**
Yasukazu Nakamura, *National Institute of Genetics (NIG), Japan*

12h30 – 13h30 Lunch

Chairs: Yuji Naito, Nancy M. Bonini

13h30 **From Genomes to Longevity Strategies: A Systems Biology Perspective**
João Pedro de Magalhães, *University of Birmingham, United Kingdom*

14h05 **From Stem Cells to Skin Aging: Mitochondrial Metabolism in Regeneration and Longevity**
William Lowry, *University of California, USA*

14h40 **The Animal That Barely Ages: Secrets of the Naked Mole-Rats**
Gerd Birkenmeier, *University of Leipzig, Germany*

15h00 Innovation Showcase: 5 Minutes Presentations

Ace-Age: A Microbiome-based Platform to Prevent Vascular Aging and Extend Human Healthspan
Soheil Saeedi, *Switzerland*

Quantitative NAD^+/NADH Profiling in Whole Blood: A Novel Metabolic Biomarker Layer for Longevity and Disease Monitoring
NADMED, *Finland*

Targeting Carnitine Mimics as a Means to Understand and Intervene in Aging.
Donal Wall, *UK*

Targeting Skin and Microvascular Aging with Vitis vinifera Polyphenols: A Preventive Longevity Strategy
Arterra Bioscience, *Italy*

A New Standard for Longevity Prevention Built on Mitochondrial Capacity, Not Optimization
Blue Oak, *USA*

15h25 **Closing Discussion : Where Should Longevity Science Go Next?**

Chairs Marvin Edeas and Volkmar Weissig

Strategic Questions to All Panelists:

- What in longevity science is biologically plausible?
- What remains hype-driven?
- What should be the next actionable priorities?
- What is the most adequate longevity strategy moving forward?

Each speaker & Chair will briefly outline their proposed longevity strategy, translating concepts into realistic scientific and clinical directions.

16h00 **Targeting Longevity 2026 Awards**

- Scientific Award
- Innovation Award

16h20 Strategic Exchange in Longevity Science: Networking & Drinks

17h10 End of the Targeting Longevity 2026

Back to the website