2ND WORLD CONGRESS

TARGETING Longevity

UNDERSTANDING THE SYSTEMS THAT SHAPE LONGEVITY

APRIL
8–9, 2026
BERLIN

PROGRAM

Dear Colleagues,

The Second World Congress on Targeting Longevity is a joint initiative of the World Mitochondria Society (WMS) and the International Society of Microbiota (ISM) and 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 such as horses, dogs, and cats.

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 **Welcoming Attendees**

9h00 **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

9h30 **Framing lecture**
Mitochondrial Dysfunction as the Mother of all Hallmarks of Aging
Volkmar Weissig, *Midwestern University, USA*

10h00 **Complex I and the Clock of Life: Developmental Insights and Therapeutic Perspectives**
Alberto Sanz Montero*, University of Glasgow, United Kingdom*

10h30 – 11h15 Coffee Break

11h15 **Mitochondria as central regulators of inflammation in senescence and aging**
João F. Passos*, Mayo Clinic, USA*

11h45 **Autophagy as an Anti-Ageing Programme**
Viktor Korolchuk*, Newcastle University, United Kingdom*

12h15 **When Brain Aging Begins: Mitochondria, Glia, and the Rise of Senescence**
Nancy M. Bonini*, University of Pennsylvania, USA*

12h45 – 14h00 Lunch

Session 2: How Microbial Signals Shape Aging Trajectories

14h00 **Kyotango Longevity Lessons: Mechanisms Linking Microbiota, Brain, and Healthy Aging Pathways**
Yuji Naito*, Kyoto Prefectural University of Medicine, Japan*

14h30 **Microbiota to Host Aging: The Redox Machinery as a System Integrator**
Soheil Saeedi*, University of Zurich, Switzerland*

15h00 **The Architects of Longevity: The Invisible Thread Linking Mitochondria, Microbiota, and Redox Balance**
Laurent Chatre*, University of Caen-Normandie, France*

15h30 – 16h15 Coffee Break

Short Oral Communications (6 Slots)

17h15 Evening Roundtable Discussion: **Is Aging a Coordination Problem?**
All speakers + audience discussion.

18h15 **End of the First Day**

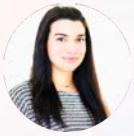
Thursday, April 9 - Day 2

8h00 **Opening of Day 2**

Session 3: Can Aging Be Repaired? From Senescence, Repair & Longevity Strategy

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

09h30 **Healing, Senescence, and Longevity: Spatiotemporal Controls in Tissue Repair**
Mikołaj Ogrodnik, *Ludwig Boltzmann Research Group, Austria*



10h00 **How Sharing Metabolites Between Cells Can Extend Lifespan**
Clara Correia-Melo, *Fritz Lipmann Institute (FLI), Germany*

10h30 – 11h15 Coffee Break

Short Oral Communications (6 Slots)

12h15 – 13h30 Lunch

13h30 **From Stem Cells to Skin Aging: Mitochondrial Metabolism in Regeneration and Longevity**
William Lowry, *University of California, USA*

14h00 **Another Way to Look at Longevity: What Animal Genomes and Gut Microbes Reveal**
Yasukazu Nakamura, *National Institute of Genetics (NIG), Japan*

14h30 **From Genomes to Longevity Strategies: A Systems Biology Perspective**
João Pedro de Magalhães, *University of Birmingham, United Kingdom*

15h00 – 15h30 Coffee Break

15h30 **Closing Discussion**

Where Should Longevity Science Go Next?

Moderatosr: Marvin Edeas, Volkmar Weissig

1. What we tested as a hypothesis: "Is aging a failure of biological dialogue?"
2. What we heard across sessions (5 bullet points)
3. What the field must do differently!

Strategic Question to All Panelists: What is plausible, what is hype, what is next?

16h00 **Targeting Longevity 2026 Awards**

16h10 **End of the congress**