

# GLOBAL LONGEVITY FEDERATION



# GLF 2024

MARCH 25-26, 2024  
ONLINE EVENT

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# KEYNOTE

## PRESENTATIONS

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

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March 25 -26, 2024

Online Event

GLF 2024

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event



## Rejuvenation Biotechnology: progressing from individual repair therapies to combinations

### Aubrey de grey

President and Chief Science Officer, LEV Foundation, USA

#### Biography

Dr. Aubrey de Grey is a biomedical gerontologist based in Silicon Valley, California, USA, and is the founder, President and Chief Science Officer of LEV Foundation, a biomedical research and advocacy charity focused on repairing the molecular and cellular damage of aging. He received his BA in computer science and Ph.D. in biology from the University of Cambridge. His research interests encompass the characterisation of all the types of damage that constitute mammalian aging and the design of interventions to repair and/or obviate that damage. Dr. de Grey is a Fellow of both the Gerontological Society of America and the American Aging Association, and sits on the editorial and scientific advisory boards of numerous journals and organisations. He is a highly sought-after speaker who gives frequent invited talks at scientific conferences, universities, companies in areas ranging from pharma to life insurance, and to the public.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event



## Glycans as biomarkers and functional effectors of ageing and disease

### Lucija Sironic

GlycanAge, USA

The GlycanAge test of biological age is the most actionable ageing biomarker currently available in longevity and holistic medicine space, as per the recent Cell paper published by the Biomarkers of Aging Consortium (Moqri et al.). The test measures changes in the glycome of immunoglobulin G (IgG), a key component of the immune system that plays a critical role in inflammaging and age-related diseases.

IgG glycans have a high level of granularity for several reasons. Changes in glycans have been observed in over 70 different conditions, diseases and pathologies. Secondly, glycans are powerful disease discriminators, discriminating very well between healthy and non-healthy individuals, as well as between disease that have similar clinical presentations. Thirdly, they are a powerful tool in chronic disease prediction as they change years in advance, before any symptoms are noticeable.

The GlycanAge test is backed by over 300 research studies and 20+ years of research. It is responsive to lifestyle and pharmaceutical interventions, making it a powerful tool for predicting future health and tracking the effectiveness of preventative health strategies.

### Biography

Dr Lucija Sironic is a UK-trained and GMC-registered medical doctor who transitioned from working in the public healthcare sector, where she practised disease management medicine, to working in a vibrant start-up environment that translates glycoscience findings from bench to bedside. Lucija works as a neuroglycobiology researcher and product development scientist at GlycanAge, and is passionate about healthspan optimisation and improvement of disease prevention policies.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event



## Human regenerator: the health symphony

### Lucia Hue-Fontaine

LHF CARE/ human regenerator, France

**INTRODUCTION:** In a world where wellgeivity meets innovation, groundbreaking device emerges—the Human Regenerator. Step into a realm where cutting-edge technology meets the wisdom of nature, where the Human Regenerator invites you on a journey towards vitality and rejuvenation.

#### RENEWAL:

Imagine waking up each day feeling vibrant, energized, and ready to conquer the world. The Human Regenerator isn't just a device—it's your companion on the path to a healthier lifespan. With its revolutionary ECR (Electromagnetic Cell Regeneration) and HIP (Hyper Ion Plasma Indication) technologies, the Human Regenerator promises a symphony of healing within every cell.

ECR technology or the pulse of life. Imagine waves of electromagnetic energy gently touching your cells, optimizing their energy supply and stimulating regeneration. It's like a revitalizing dance (of electrons) within your body, awakening dormant potential and restoring harmony where there was once imbalance. Meanwhile the other technology, HIP is designed as nectar of Well aging, using ion plasma fields. These charged particles, guided by electromagnetic fields, enhance cellular permeability and balance. With HIP, your cells become vibrant hubs of vitality, absorbing nutrients, expelling toxins, and communicating with newfound clarity.

#### MAIN EFFECTS of using electron-based therapy:

- AFFECTS ON LOCOMOTOR DISORDERS
- DECREASE OXYDATIVE STRESS AND DIMINISH FREE RADICALS
- INCREASES STAMINA AND CONCENTRATION, STIMULATES THE BODY'S BLOOD FLOW
- STRENGTHENS THE IMMUNE SYSTEM and detoxification pathways
- IMPACT ON INJURIES
- HAS AN IMPACT ON ANXIETY AND STRESS
- ANTI-AGING EFFECT
- PROVIDES BALANCED, HEALTHY, DEEP SLEEP
- HELPS REGENERATE NERVE-CELLS (post neurotoxic chemotherapy)
- AFFECTS TO ALL BIOENERGETIC PROCESS

As you step into the world of the Human Regenerator, you become the protagonist of your recovery story. Picture yourself enveloped in a metaphysical rebalanced therapy. It's a journey where fatigue melts away and vitality surges through cells awakening to their full potential and correct in subtle physiological manner imbalances.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## 2. Conclusion: Embrace the Future of lifespan into wellness

The Human Regenerator is a pathway for health to embrace the future of wellness. It's not just a device—it's a promise of renewal, a gateway to a healthier, more vibrant life. With ECR and HIP as your guides, the journey towards vitality and rejuvenation begins. In this captivating hope of renewal, and the limitless potential of the human body to heal itself. A new chapter begins—one where you are the protagonist, and wellness is within reach.

Are you ready to embark on this journey with the Human Regenerator?



## Biography

Biography of Lucia Hue-Fontaine:

Dr. Hue Fontaine Lucia is a physician, researcher, and educator specializing in endocrinology and metabolic disorders. With a passion for holistic healthcare and a commitment to advancing medical knowledge, Dr. Lucia has made significant contributions to the field through her clinical expertise, academic pursuits, and humanitarian efforts.

After completing her medical degree in Normandy meanwhile a master in physiology. Dr. Lucia pursued extensive fellowship training in Endocrinology and Metabolism in Lyon, France. Throughout her career, has obtained additional certifications in laser, ultrasound, and endocrine tumour management, with a fellowship in radio-oncology at Kinghorn cancer Institute in Sydney. She expanded her practice with Laser and aesthetic medicine to offer the best therapeutic options to her patients.

In addition to her medical expertise, Dr. Lucia is a certified yoga teacher and integrates principles of holistic wellness into her practice, promoting physical, mental, and emotional wellbeing for her patients. She is also a renowned expert in aesthetic medicine with a focus on longevity, utilizing cutting edge techniques to enhance natural beauty and promote healthy aging. She is also a sought-after

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

international speaker, sharing her expertise at conferences and symposiums around the world (workshop in Australia, speaker for IMCAS and AMWC).

Dr. Lucia is deeply committed to addressing metabolic diseases in underserved communities, particularly in the Pacific and Indian Ocean regions. She has led medical missions to these areas, providing essential care and education to populations facing significant metabolic health challenges.

Dr. Lucia is still enriching her understanding of the underlying mechanisms of endocrine disorders and metabolic dysregulation and passionate either on innovative medicine and bio hacking or deep understanding of mental health including mindfulness techniques. She is always keen on connecting with practitioners from all around the world to share and discuss new perspective on health optimization.

## 2. Conclusion: Embrace the Future of lifespan into wellness

The Human Regenerator is a pathway for health to embrace the future of wellness. It's not just a device—it's a promise of renewal, a gateway to a healthier, more vibrant life. With ECR and HIP as your guides, the journey towards vitality and rejuvenation begins. In this captivating hope of renewal, and the limitless potential of the human body to heal itself. A new chapter begins—one where you are the protagonist, and wellness is within reach.

Are you ready to embark on this journey with the Human Regenerator?

**ORAL**

**PRESENTATIONS**

**2<sup>nd</sup> EDITION  
GLOBAL  
LONGEVITY  
FEDERATION**

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March 25 -26, 2024

Online Event

**GLF 2024**

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Aging clocks, entropy, maximum human lifespan, and the challenge of age-reversal

**Peter Fedichev**

Gero PTE. LTD, Singapore

**A**ge is the leading risk factor for prevalent diseases and death. However, the relation between age-related physiological changes and lifespan is poorly understood. We combine analytical and machine learning tools to investigate aging as a macroscopic manifestation of underlying dynamic instability of the organism state in large biomedical data. In mice, the leading aging signature (“dynamic frailty indicator”, dFI) increases exponentially and predicts the remaining lifespan. The dynamics of dFI is consistent with the late-life mortality deceleration. dFI changed along with hallmarks of aging, including frailty index, molecular markers of inflammation, senescent cell accumulation, and responded to life-shortening (high-fat diet) and life-extending (rapamycin) treatments. In human data, the analysis paints a more sophisticated picture. We analyzed aging signatures of DNA methylation and longitudinal electronic medical records from the UK Biobank datasets. We observed that aging is driven by a large number of independent and infrequent transitions between metastable states in a vast configuration space. The compound effect of configuration changes can be captured by a single stochastic variable, thermodynamic biological age (tBA), tracking entropy produced, and hence information lost during aging. We show that tBA increases with age, causes the linear and irreversible drift of physiological state variables, reduces resilience, and drives the exponential acceleration of chronic disease incidence and death risks. The reduction of resilience sets the maximum human lifespan limit, whereas the entropic character of aging drift sets severe constraints on the possibilities of age reversal. However, we highlight the universal features of configuration transitions, suggest practical ways of suppressing the rate of aging in humans, and speculate on the possibility of achieving negligible senescence.

### Biography

Ph.D. from the University of Amsterdam. Co-founder of Gero, a data-driven longevity biotech company, that develops new drugs against aging and other complex diseases using AI-platform. An author of 75+ published papers in multiple domain areas, including publications in Science and Nature Communications

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Senile Health Optimisation: A Global Challenge

**Bhaweshwar Singh**

L.N. Mithila University, India

The 'Aged lot' represents heterogenous human population with maximised proneness to disease and death. In the given backdrop of exponential growth of geriatric population world over, elderly wellbeing has become the foremost priority area of nations across the globe. Extended human longevity with inescapable disabilities has put the states on high alert to formulate innovative futuristic strategies for combating old age blues and, at the same time, raising the 'Quality of Life' and the 'Satisfaction Level' among the elders. Quite pertinently, ageing biologists have recommended increasing the health span rather than the life span for securing late life with minimal disease burden.

WHO definition of health elaborates physical, mental, and social wellbeing of an individual and it is categorically stated that merely the absence of disease and infirmity is not necessarily the sole criterion of good health. Recent advances in ageing studies have identified several age triggers, in every likelihood, responsible for accelerating loss of functions and subsequent disastrous pathophysiologic perturbations.

It is in this perspective that the present paper has been contemplated considering the available data and interactions with potential subjects from elderly cohorts faced with age-induced trauma of variable intensities. More precisely, it attempts to suggest prospective measures to meet the global challenge of achieving optimized health for the senile age group with highest morbidity and mortality.

### Biography

With a teaching experience of more than 39 years and special interest in Mammalian Ageing, the author superannuated from the University Department of Zoology as the University Professor and relinquished the additional administrative post as the Director of the Institute of Gerontology and Geriatrics, L.N. Mithila University, Darbhanga on Feb 28, 2022. Besides participation in several National and International Conferences in the area of interest, a number of published research papers and books are to his credit..

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Causal Effect of Gut Microbiota on DNA Methylation Phenotypic Age Acceleration: A Two-Sample Mendelian Randomization Study

Yedong Huang  
Fujian Medical University, China

**Background:** The causal relationship between gut microbiota and DNA methylation phenotypic age acceleration remains unclear. This study aims to examine the causal effect of gut microbiota on the acceleration of DNA methylation phenotypic age using Mendelian randomization analysis.

**Methods:** A total of 212 gut microbiota species were included in this study, and their 16S rRNA sequencing data were obtained from the Genome-wide Association Study (GWAS) database (<http://gwas.mrcieu.ac.uk/datasets/>). The GWAS data corresponding to DNA methylation phenotypic age acceleration were selected as the outcome variable for this study. Two-sample Mendelian randomization (TSMR) analysis was conducted using R software, and a scatter plot was generated to visualize the results. During the analysis process, careful consideration was given to address potential biases arising from linkage disequilibrium and weak instrumental variables. Furthermore, rigorous assessments for heterogeneity and horizontal pleiotropy were conducted to ensure the robustness of the findings.

**Results:** The results from inverse-variance weighting (IVW) analysis revealed significant associations ( $P < 0.05$ ) between single nucleotide polymorphisms (SNPs) corresponding to 16 gut microbiota species and DNA methylation phenotypic age acceleration. Out of the total, 12 gut microbiota species exhibited consistent and robust causal effects, as indicated by stable SNP associations, and were thoroughly validated through rigorous assessments for heterogeneity and horizontal pleiotropy. Among the 12 investigated gut microbiota species, 7 displayed a significant positive correlation with the outcome, indicating a positive causal effect on the DNA methylation phenotypic age acceleration. Conversely, 5 species showed a significant negative correlation with the outcome, suggesting a negative causal effect on DNA methylation phenotypic age acceleration.

**Conclusion:** This study utilized Mendelian randomization analysis to unravel the intricate causal effects of various gut microbiota species on DNA methylation phenotypic age acceleration.

**Keywords:** Gut microbiota, DNA methylation phenotypic age acceleration, Mendelian randomization

### Biography

Second-year M.D. student in Oncology, Fujian Medical University and Resident Physician.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Reversing Biologic Age with Rejuvant

**Tom Weldon**

Ponce De Leon Health, USA

### Biography

Tom Weldon has 35 years of senior management experience, primarily in the medical device industry, in both early stage and public companies. He is a well-known entrepreneur and venture capitalist and holds more than two dozen patents. He has founded more than a dozen companies, which have created more than \$2 billion in shareholder value. Today, he is the founder, executive chairman and CEO of Ponce De Leon Health, which focuses on increasing human health span. Rejuvant is a product he helped develop.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Disrupting Medical Care with Longevity Medicine

Ryan A. McNally  
Elevate Health, USA

Modern medical care is a system born out of battlefield medicine and the treatment of infectious disease and has modernized to include advanced surgical procedures, early disease detection, limited preventive medicine, and disease management. Though this system has its strengths, it has so far missed an opportunity to engage in longevity medicine. It has largely dismissed the aging process as an unmodifiable risk factor for disease and has ignored early research in longevity medicine making the system ripe for disruption. As research continues to accumulate on the pillars of aging, advanced longevity diagnostics, and longevity therapeutics this author contends there is enough early data to safely move clinical practice and medical systems towards a Longevity Model of Healthcare. Foundational components of longevity medicine such as the language, psychology, and culture of longevity, principles of lifestyle medicine, functional/integrative medicine techniques, and longevity risk analysis are all currently available and readily adoptable. This presentation will outline what we are doing right, what we are doing wrong and opportunities for change while longevity therapeutics continue to go through preclinical and clinical research. This presentation will discuss the pillars of aging, early clinical trials, and some promising longevity therapies that show good safety profiles.

### Biography

Dr. Ryan McNally completed his doctoral training at Sonoran University of Health Sciences in Tempe, AZ, Masters training at Northeastern University in Boston, MA, and undergraduate training at U. Massachusetts–Amherst. He completed his residency in Integrative Medicine at Yale-Griffin Hospital-U. Bridgeport. He has 16 years of medical experience holding two licences to practice medicine in the State of California as a Naturopathic Doctor and PA. His current roles include the medical director of a longevity telehealth medical practice, U. of California-Irvine as the Assistant Director of Integrative Health Education, and an instructor at Academy of Integrative Health and Medicine.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Multi-Step Rejuvenation Protocol

Jason C. Mercurio  
Ageless Partners, USA

**M**ulti-Step Rejuvenation Protocol: This presentation unveils a cross-disciplinary integrative approach to precision age management. By fusing lifestyle factors—exercise, nutrition, sleep—with pioneering non-invasive treatments like the Ageless Method, shockwave therapy, and red-light therapy, we aim to revolutionize age reversal. A critical innovation is the meticulous tracking of biological age across 78+ organs, employing evidence-based strategies to achieve proven age reversal. Special focus is given to soundwaves, augmented intermittent fasting, electrical muscle stimulation, peptides, and more. Our trailblazing protocol aims to take individuals aged 65+ and rejuvenate them to the health and fitness levels of a 25-year-old, extending their health span by decades rather than mere years.

### Biography

Jason C. Mercurio is the founder and CEO of Ageless Partners, a global anti-aging company specializing in rejuvenation methods for age reversal. Prior to Ageless Partners, Jason worked in hedge funds, leveraging machine learning, data science, and statistical methods in the financial markets. He holds a BS in Applied Mathematics with a minor in Computer Science from UCSD and a Masters in Financial Engineering from UCLA. In his personal life, he is a dedicated biohacker, weightlifter, and family man.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Stem cells technology: The Dawn of Hope for Incurable Diseases

Michael Lim Ming Soon  
Prime Genesis Pte. Ltd., Singapore

Many questions behind what is a stem cells therapy. There is a reality and a myth of what stem cells can actually do and perform. It is however ongoing research and there are many new discoveries and innovations that appear almost every day in regards to this topic. This is a review to some fundamental basics and science about stem cells physiology and biology is still not known to most clinicians worldwide.

The ability to self-renew and differentiate has also many benefits and outcomes in both aesthetic use and also therapeutic use. My team have achieved an amicable degree of results over the last 10 years for anti-aging purposes, aesthetic purposes and also helping diseases e.g. Parkinson's disease, Alzheimer's disease, Psoriasis, Chronic eczema, trauma, gangrene foot and also CVA.

Questions like selection of stem cells, identifying to culture or not to culture, the stem cells integration with host are amongst the questions that will be reviewed with a possible answer.

Secretomes, exosomes, trans differentiation and paracrine benefits will be shown and how it will help in some aging skin, degeneration and inflammation also immunological disorders.

### Biography

Dr. Michael Lim Ming Soon, performed the 1st Allogeneic Stem Cell transplantation in 2012 for Aesthetic medicine and diseases intervention using cultured umbilical MSC and dental pulp MSC.

He has done about 1000 transplants ever since and is currently the PACESETTER in the region for stem cells ALLOGENEIC therapy. His experience in the field of stem cells transplant have been amicable achieving many successes even in complicated terminal cases. He is probably one of the pioneers to do allogeneic transplant in children with the youngest patient being 3 years old.

He has been practising in the field of Aesthetic medicine and Anti-Aging since the year 1999 and 2003 respectively. He has been training doctors ever since 2012 in USA, Australia, Germany, Malaysia, Singapore, Indonesia, Philippines, Taiwan and China. Currently, he is the Founder of Prime Genesis Pte.Ltd. Singapore and Cell Genesis Pte. Ltd. Singapore which have footprints in more than 9 countries.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Rapid Reversal of Aging and Diseases of Aging

Louis Dischler

Independent Scholar, USA

With the hypothesis that core aging is a function of DNA methylation, dosing protocols were developed to remove aberrant methylation of mitochondrial and nuclear DNA. It was found that methylation of mtDNA could be substantially removed in as little as two hours, and that the average epigenetic age of nDNA could be reversed at a rate of several years per year. Reversal of epigenetic age is accomplished by taking control of stem cell mitochondria to promote proliferation and the refilling of stem cell niches throughout the body. Treatments of mtDNA and nDNA can be combined synergistically, and comprise the dosing of supplements for promoting demethylase, for promoting mitochondrial energetics and mtDNA biogenesis, and for modifying mitochondrial morphology of outer and inner membranes. In addition to reversing epigenetic age and the frailties of aging, any disease associated with secondary mitochondrial dysfunction is expected to benefit. Emphasis throughout has been on simplicity, rapidity of action, and minimal cost.

### Biography

Lou Dischler has been a mechanical engineer, machine and process designer, novelist, inventor, and life extension enthusiast. He has 65 US patents, with six in the area of life extension.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## The Ethics of Radical Life Extension and How to Change Attitudes

**Ingemar Patrick Linden**

NYU Tandon School of Engineering, USA

The general public is often quite hesitant to support radical life extension and the notion of biological immortality seems to frighten many. The resistance is often seemingly morally motivated. People worry about adverse social consequences of living longer, and see the search for a longer life as selfish and morally suspect. There is, as I have argued in my book *The Case against Death*, in fact a perennial philosophy of death-acceptance and even celebration of death, running alongside the human wish to transcend the naturally given limit to our life. In this talk I will describe this death-ist ideology and argue that morality is on the side of those who seek to expand the human life span by curing aging. I will conclude with some suggestions of how to change attitudes towards antiaging medicine based on a review of the most important surveys of the public's attitudes to radical life extension.

### Biography

Patrick Linden author of *The Case against Death* (MIT Press 2022). Holds a PhD in philosophy. Taught at NYU for ten years.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Diabetes and Ageing

Georgios Mitrou

AIMIS HealthCare Group, Greece

Ageing and Diabetes mellitus are two well-known risk factors for cardiovascular disease (CVD). Ageing alone is associated with decline in physiological function leading to chronic diseases, such as diabetes mellitus, CVD, cognitive impairment, and physical disability. Diabetes mellitus is a recognized cause of accelerated aging, and there is evidence that aging and diabetes mellitus share common pathophysiological pathways. The mechanisms linking advancing age to metabolic dysregulation, are multifactorial and complex. Furthermore, the management of older adults with diabetes is clearly more complicated, given the observation that they commonly have multiple coexisting medical conditions that can impact clinical management. The heterogeneity in the health status of older adults with frailty and multiple comorbid conditions and the paucity of evidence from clinical trials, represent another point of scientific discussion and future potential research. Under these circumstances the establishment of the best practice protocols and the implementation of the up-to-date evidence-based individualized therapeutic regimens, in order to control diabetes, aiming simultaneously at the aging process, still remains a real challenge, in every day's clinical practice, in order to warrant the best outcomes.

### Biography

Georgios Mitrou is an experienced Managing Director PhD, with a demonstrated history of working in the hospital & health care industry. Skilled in Diabetes, Clinical Research, Medical Education, Hypertension, and Medicine. Strong research professional focused in Internal Medicine, Geriatrics and Gerontology, Longevity and Anti-Aging Medicine.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## The Role of Peptides in Anti-Aging

**Jesse Morse**

The Osteopathic Center, USA

### Definition of Aging

Dr. Joseph Cleaver defines aging as “the most insidious and relentless degenerative disease known to man. It is characterized by molecular DNA damage, leading to cell senescence, cell failure, physiologic deterioration resulting in loss of homeostasis led by immune senescence.”

- DNA damage and telomere shortening then leads to cell senescence and SASP cells
- What helps with DNA damage repair & prevention of epigenetic drift
- Methylene Blue, Cat’s Claw, NAC, Sulforaphane, Melatonin, Curcumin,
- NAD/NMN, SIRT 6 modulators, Berberine, Resveratrol, Fucoidan, Astaxanthin, Urolithin A, EGCG, Peptides -

What is a senescent cell?

Cell cycle arrest phase G0. Can’t divide but still viable, but apoptosis doesn’t occur

Accelerators of Senescence: Lifestyle & Environment

Epigenetic factors, Telomere Erosion, DNA damage, Mitochondrial dysfunction, Nutrient signaling dysfunction, Chronic inflammation, Stem Cell exhaustion, Proteostatic dysfunction

-Signs of aging

Frailty, DMII, Loss of kidney function, Dementia, Osteoporosis, Osteoarthritis, Cancers, Skin aging (wrinkles, sagging), Hair loss -

Immune Aging Panel:

T-Cell Ratio (CD4/CD8): Optimal = 1.5 - 2.5, Healthy = 2.5+, -

Aging = 1-1.5, Immune risk = 0.7-1, Critical IRP = <0.7 -

What are peptides?

- Short chains of amino acids
- How they work
- Classes of peptides
- Musculoskeletal (tissue healing)
- Aesthetics
- Muscle health / sarcopenia / Weight loss
- Sexual performance
- Anti-Aging: Sermorelin, GhkCu, BPC-157, MOTs-C, 5 Amnio 1-QM, Dihexa, Cerebrolysin, TB-4, TA-1
- Neuro-regeneration
- Sports performance
  - Heart
  - Side effects
  - Uses in Longevity / Functional / Regenerative medicine
  - General principles of peptides
  - Examples of classes & peptides
  - DDR: DNA Damage / Telomere - Epitalon, GHKCu
  - Immune System Health - TA-1, TB-500, BPC-157
  - Latent Viral Therapy - LL-37, BPC-157
  - Mitochondria - SS-31, MOTs-C, CJC-1295/Ipa, Sermorelin, Epitalon
  - Telomere Length - Epitalon

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

- Senolytic - FOXO4 DRI
- Longevity: Immune/Pineal/Thymus - TA-1, TB-4, SS-21, Epitalon, Thymulin
- Heart - TB-4, SS-31, BPC-157, Epitalon, Vesugen
- Kidney - TB-4, BPC-157, SS-31
- Brain / Pineal - Epitalon, BPC-157
- Muscle - CJC-1295/Ipa, BPC-157, MOTs-C, MGF - Anti-Aging Protocol
- 1st 3 Months: BPC/TB4 + Epitalon + TA-1
- 2nd 3 Months: GhkCu + MOTs-C + Cerebrolysin + FOXO4 DRI
- 3rd 3 Months: 5 Amnio 1-MQ + Dihexa + Sermorelin
- Sermorelin, GhkCu, BPC-157, MOTs-C, 5 Amnio 1-MQ, Dihexa, Cerebrolysin, TB-4, TA-1
- BPC-157
- Overview
- Mechanisms of Action
- Clinical Uses
- Protocol

## TB-4

- Overview
- Mechanisms of Action
- Clinical Uses
- Protocol
- TA-1
- Overview
- Mechanisms of Action
- Clinical Uses
- Protocol
- GhkCu
- Overview
- Mechanisms of Action
- Clinical Uses
- Protocol
- Role of Bioregulators & Aging
- Epithalamin, Epithalon, Thymulin/Thymogen - Options for Testing
- Epigenetics/Biological Age test
- Anti-Aging Blood panel - Klotho genes, Beta-Gal, B-hydroxy, SASP, SIRT,
- 

## IC-NAD

- Toxins (Heavy Metals, Lyme, Environmental, Mold)
- Genetics
- Cancer Screening
- DEXA Scan, VO2 Max
- Medications that can help with anti-aging
- Metformin
- Fish Oil
- Methylene Blue
- Dasatinib/Quercetin
- Sirolimus
- Atorvastatin
- Losartan

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

- Supplements that can help with anti-aging
- Curcumin w/ Black Pepper Extract
- Resveratrol, Cat's Claw, NMN, CoQ10, Sulforaphane, Fucoidan, Spermidine
- Fisetin, NAC, Astragalus, Apigenin, Urolithin A, Ashwagandha, Cordyceps
- Vitamin K1, K2 (MK-4, MK-7), Vitamin D3
- Modalities
- Hyperbaric Chamber: 1.3 ATM vs. 2.4 ATM
- Sauna
- Cold Plunge
- Exercise
- Diet
- IVs
- Ozone
- NAD+
- Methylene Blue
- Exosomes
- Vitamins, High-Dose Vitamin C
- Chelation (EDTA, DMPS)

## Biography

Dr. Jesse Morse is board-certified in family and sports medicine that specializes in injuries and musculoskeletal pain. He uses a combination of traditional orthopedic medicine with regenerative medicine to provide an all-inclusive approach to injuries. Rather than providing a temporary solution, Dr. Morse identifies the root of the pain, and designs a treatment plan to comprehensively correct the cause and provide a solution.

A former team physician, Dr. Morse approaches medicine in an appropriately aggressive yet preventative fashion, custom-designing treatment plans that treat the current injury, preventing the injury from worsening as well as new compensatory injuries from developing. An athlete himself, Dr. Morse treats all different types of patients, ranging from weekend warriors to professional athletes. He understands the comprehensive approach it takes to get the patient back happy and healthy.

Dr. Morse is a newcomer to the Integrative Medicine scene, but is a fast learner. He believes that the majority of the diseases and illnesses humans develop have to do with weakened immune systems and various toxins that we have come into contact with. His goal is to identify what is causing your body to underperform, generate fatigue or pain, and help correct it. Dr. Morse has an interest in anti-aging / longevity medicine, fantasy football, and is always looking for different research-backed ways to optimize our health.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## “How Younging Are You?” - Tracking and Evaluating the Effectiveness of Anti-Aging Interventions

**Chris Wikman**

Biometrics for Healthy Aging, USA

“Younging” is a term utilized by Dr. Vince Giuliano, author of *Anti-Aging Firewalls*, for the rejuvenation processes in the human body. The term can also be applied to the process and results used by individuals to slow down and reverse their biological aging. When we say “How Younging Are You?” we mean to ask how well are your anti-aging strategies working? There are a multitude of anti-aging interventions available which trigger, aid, or otherwise support rejuvenation, including categories such as medications and supplements, behaviors, new technologies and medical therapies and procedures. Regarding measures of aging, they range from simple at-home methods to somewhat costly and invasive lab tests. In this review, we’ll examine both the types of interventions and the methods which can be used to evaluate their effectiveness (and thus lead you to an answer).

### Biography

Mr. Wikman is a private medical researcher and writer, is founder of the firm Biometrics for Healthy Aging, and is affiliated with Dr. Giuliano’s The Younging Project. Mr. Wikman’s areas of focus include Anti-Aging and Longevity, Self-Tracking, Heart Rate Variability, ME/CFS, and Integrative Therapies. He was author and presenter of the workshop “Objective Clinical Assessment of Integrative Therapies’ Effectiveness (with application to Treatment of ME/CFS Patients)” at the IACFSME 2023 ME/CFS Conference. He was lead investigator and author of the 2023 study “The NeuPT HRV Diagnostic System has Clinical Utility in Measuring Acute Responses to Integrative Therapies”. In addition, Mr. Wikman has been interviewed for podcasts, published two medical articles and taught Breathwork to clinic patients. He is currently providing consulting services to a medical device distributor and clinic.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## LongeTalks and intergenerational relationships: building a functional business model

**Jessyka Bram**  
LongeTalks, Brazil

15.1% of the Brazilian population is over 60 years old. The projection is that this proportion will exceed 30% in the next 25 years. This accelerated aging process generates many populations demands, ranging from the need for a more in-depth look at promoting health and quality of life during longevity, as well as opening up space for new business models that are capable of embracing different generations, in an inter- and transdisciplinary way. In this blue ocean, the LongeTalks Channel was born, a YouTube channel that addresses relevant issues about longevity. The objective is to promote awareness and a call to action for longevity with quality and purpose. The construction of the Channel took place through the meeting of 03 women from different generations, namely: Baby Boomer, Y and Z. Therefore, LongeTalks emerged from the common goal between three generations. Due to the relevance of the channel, LongeTalks currently attracts the attention of companies and government entities due to the curation it develops in the area of longevity. Today the channel has more than 109 videos of new content, opening space for the emergence of an intergenerational business model, based on complementarity between generations.

### Biography

Jessyka Bram is the co-founder of Longetalks. Gerontologist, PhD in Psychiatry and Specialist in Cognitive Rehabilitation. CEO of the Bram Institute and speaker on Behavioral Change.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Centenarian Expedition - What can we learn from Blue Zones?

Silvia Triboni

Silvia Triboni Productions, Portugal

The Centenarian Expedition, organized by Silvia Triboni to explore regions where people are longlived, active, and happy, such as the renowned Blue Zones, has allowed her, a journalist, author, and consultant, to disseminate information that encourages adopting the healthy practices of their inhabitants to age gracefully and joyfully.

Exploring Blue Zones:

Insights gathered during visits to Sardinia, Italy in 2021, and Ikaria, Greece in 2022, have contributed significantly to understanding the lifestyle factors conducive to longevity. Now, in February 2024, the focus shifts to unraveling the secrets of longevity in Okinawa, Japan, another remarkable Blue Zone.

**SARDINIA** - What is the longevity recipe of Sardinia's centenarians?

During the interview with Professor Gianni Pes he discusses the factors contributing to the exceptional longevity of Sardinia's centenarians. He emphasizes that while we can't replicate their lifestyle, we can adopt certain aspects, such as increased physical activity and a diet rich in fruits and vegetables while reducing fats and sugars. Building strong social connections is also highlighted. Regarding diet, he suggests reducing meat consumption and opting for animal proteins like milk, cheese, or eggs instead. This approach aims not just for longevity, but aging without diseases.

**IKARIA** Secrets – the Blue Zone where life is light and long

Ikarians, like the super seniors of Sardinia, live in the mountainous terrain of the island, engaging in daily physical activity through chores, animal care, and walks. Their Mediterranean-style diet consists of fruits, vegetables, whole grains, beans, olive oil, and garlic, with a preference for fish over meat. They enjoy coffee, wine, honey, and herbal teas, often relaxing in cafes. Taking a nap at noon is a common practice, believed to benefit heart health. Fasting, observed by most Greeks, is integral to the Greek Orthodox faith and is associated with potential anti-aging benefits. Family and social connections are highly valued, contributing to overall well-being. Ikarians favor goat's milk over cow's milk, reflecting their lifestyle focused on simplicity and unhurried living.

**OKINAWA** TODAY

The expedition in Okinawa unveils the warm hospitality of its inhabitants who generously shared their island's beauty and wisdom. Notably, discussions with Dr. Makoto Suzuki, a pioneering cardiologist and geriatrician, shed light on longevity research at the Okinawa Research Center for Longevity Science (ORCLS).

Ikigai and Moai Across Lifespan:

Dr. Suzuki emphasizes the dynamic nature of 'ikigai' throughout life, suggesting that it evolves continuously, providing purpose irrespective of age. This concept of finding purpose and cultivating it over time is integral to Okinawan longevity.

The concept of 'Moai', where groups support each other socially and financially, emerges as a significant contributor to the Okinawan sense of community and shared purpose, enhancing overall well-being and longevity.

The deep-rooted tradition of respecting elders in the Blue Zones culture highlights the importance of fostering reverence for the elderly worldwide, both within and outside the workplace. Impact of Westernization and Reasons for Decline in Longevity in Okinawa: The detrimental effects of Western influences, including fast food and a loss of traditional values like ikigai, are discussed in light of Okinawa's declining longevity. Dr. Suzuki stresses the need to preserve traditional practices for resilience and prosperity.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

The impact of Westernization, particularly since the end of World War II, has been a growing concern for Okinawa's longevity. The proliferation of fast food and sedentary lifestyles poses significant challenges to health and well-being, underscoring the importance of retaining cultural values like ikigai.

## Biography

Silvia Triboni is an Italian-Brazilian lawyer with an MBA in Public Management from the Getúlio Vargas Foundation. She has a degree in Sustainability and Human Responsibility from the University of Lisbon and in Coaching and Mentoring from the Getúlio Vargas Foundation.

Journalist, lecturer and consultant focusing on active longevity and generational harmony in companies. She is a columnist and international correspondent for companies linked to the interests of people 50+ in Brazil and Portugal.

An activist against ageism, she is director of the Stopdadism Association in Portugal.

A social entrepreneur, through her the Brazilian course Repórter 60+ was internationalised in Portugal, training reporters aged 60 and over in various regions of the country. She founded the Across the Seven Seas platform, whose aim is to disseminate information and stimuli that enable the inclusion and development of the 50+ audience.

In her Centenarian project, she has explored the Blue Zones, regions where the inhabitants are exceptionally healthy and long-lived, in order to publicise them to her readers. A writer, she has launched the book Employability 50+ in Portugal and Brazil, with useful information and strategies for a successful career in maturity.

She is responsible for the Longevity column in Viva Saúde magazine, available throughout Brazil.

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## Using DNA Methylation & Biological Noise to Regenerate Cells and Usher in Medicine 3.0

**Alina Rui Su & Michael Suswal**  
Generation Lab, USA

This session will offer an exploration of the dynamic relationship between DNA methylation tests, cell regeneration, and the evolving landscape of Medicine 3.0, providing valuable insights for advancing longevity research and healthcare practices. We are living in an exciting time. We're now able to use epigenetic tests to identify biomarkers for diseases and a person's biological age across the key functions and organs in the body. This breakthrough will make an important contribution to helping people live better longer.

DNA methylation, a crucial epigenetic mechanism, serves as a vital indicator of cellular aging and proclivity toward disease. In this talk, we examine the transformative potential of DNA methylation tests to assess biological age, predict health outcomes, and shape personalized interventions and action plans.

Cell regeneration emerges as a pivotal focus, elucidating mechanisms underlying cellular rejuvenation and their implications for extending healthspan. From innovative stem cell therapies to regenerative medicine interventions, attendees gain insights into leveraging the body's regenerative capacities to combat age-related decline and chronic diseases effectively.

The session will delve into the principles of Medicine 3.0, advocating for a proactive, personalized, and preventative healthcare approach. Through case studies and unreleased data, we explore how DNA methylation testing and cell regeneration intersect with Medicine 3.0, catalyzing a shift towards optimizing wellness and longevity.

Drawing on interdisciplinary perspectives from genetics, bioinformatics, and longevity science, this session fosters dialogue among researchers, clinicians, policymakers, and industry leaders. It navigates the scientific, and practical dimensions of harnessing DNA methylation tests, cell regeneration, and Medicine 3.0 to promote healthier, more resilient societies that help people live longer, healthier lives.

### Alina Rui Su Biography

Alina has a passion for biotech and healthcare, with a personal mission to empower accessible healthcare for all. Alina was inspired to focus on Aging & Regeneration while working as a researcher at The Conboy Laboratory at UC Berkeley. Prior to co-founding Generation Lab, Alina was founder and CEO of startup NovaXS, dedicated to helping patients with injectable medication get better, more pain-free care. After a successful exit, she partnered with mentor Dr. Irina Conboy and Michael Suswal to start Generation Lab.

A Ph.D. candidate at Harvard Medical School, Alina was featured on the Forbes 30 Under 30 list in 2023 and is an alum of tech accelerators Y Combinator and TechStars. She is currently based in San Francisco.

### Michael Suswal Biography

Michael Suswal  
Co-founder and COO

A serial entrepreneur, Michael had a long-time interest in longevity that was revived when he met now co-founder Alina Rui Su at a TechStars event in 2022. Prior to co-founding Generation Lab, Michael was co-founder and COO of Standard AI, a computer vision startup that transformed how retailers leverage AI for checkout and inventory tracking. At Standard, he forged retail partnerships that helped turn the startup into an early unicorn.

Prior to co-founding Standard AI, Michael was a program manager for the U.S. Securities & Exchange Commission (SEC), where he led a team that developed technology to help prevent fraud in high-frequency trading. Previously, Michael co-founded and worked in strategy and development roles for several other startups. He is also a Y Combinator alum.

# POSTER

## PRESENTATIONS

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

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March 25 -26, 2024

Online Event

GLF 2024

# 2<sup>nd</sup> EDITION GLOBAL LONGEVITY FEDERATION

March 25-26, 2024 | Online Event

## TELOMIR-1 Induces Telomere Extensions in Primary Human Cell Strains

Danielle Baker

Telomir Pharmaceuticals, USA

Background: Telomere repeats, (TTAGGG)<sub>n</sub>, are added to chromosome ends by the enzyme telomerase, but shortened by cell divisions. Telomere shortening is associated with senescence, idiopathic pulmonary fibrosis, and numerous other features, eliciting the quest for telomere modifying compounds. Numerous tobacco-derived alkaloids exhibit anti-inflammatory properties and analgesic effects. These alkaloids have been shown to have activity in cell cycle regulation including binding to DNA and modifying enzyme function; some alkaloids may be responsible for epigenetic modifications leading to changes in gene expression. A structurally modified version of one of these alkaloids, TELOMIR-1, is posited to modulate telomere length. Aims: To test the effect of TELOMIR-1 on telomere length in 3 human cell lines: MRC-5 fetal lung fibroblasts, human umbilical endothelial cells (HUVEC), and mesenchymal stem cells (MSC). Methods: First, primary and stem cell strains were treated with TELOMIR-1 for 48 hours. TELOMIR-1 was dissolved in ethanol (EtOH) as a vehicle, and EtOH alone at 1% was the vehicle control. After 48 hours, Alamar Blue assayed the cells for cytotoxicity, or their DNA was extracted and subjected to telomere length qPCR. Results: Total telomere length was augmented following TELOMIR-1 treatment at 1, 50, 100, and 500  $\mu$ M, supporting the hypothesis that TELOMIR-1 extends telomere modulation in MRC-5, HUVEC, and MSC cells. Telomere lengthening was seen in passage 3 of HUVEC and MSCs, and through passage 8 of MRC-5 cells. TELOMIR-1 exhibited moderate cytotoxicity at concentrations above 500  $\mu$ M in HUVEC and MRC-5 cells, and greater cytotoxicity at 1 mM. Major cell loss was observed in the MSC culture treated with EtOH vehicle and TELOMIR-1 compound at 10  $\mu$ M and above. Conclusion: This in vitro study shows that TELOMIR-1 increases telomere length at concentrations below the cytotoxicity threshold and provides an accurate platform to validate the potency of TELOMIR-1, critical for regulatory submissions.

### Biography

Danielle R. Baker obtained her Bachelor of Science from Ithaca College (Ithaca, New York) and graduated with a Ph.D. in Molecular and Cellular and Biology and Genetics from Drexel University (Philadelphia, Pennsylvania) in 2021 studying natural transformation in the bacterial pathogen *Haemophilus influenzae*. Shortly after graduation, Danielle joined Frontage Laboratories, Inc. (Exton, Pennsylvania), a mid-size pharmaceutical CRO specialized in drug discovery and development. At Frontage Laboratories, Inc., Danielle works within the Biologics, Gene, and Cell Therapy division leading projects for the R&D team. Her primary focus is on molecular biology and cell culture, where she thrives on performing laboratory experiments, generating data, and interfacing with her clients. Danielle's 9+ years of experience allow her to troubleshoot, execute, and deliver quality research and contribute to the field of drug development.

UPCOMING EDITION

# 3<sup>rd</sup> Edition Global Longevity Federation 2024

12-13 AUGUST, 2024

ROME, ITALY

(Hybrid Event)



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