La fragilità dell’ anziano e la prevenzione vaccinale contro le patologie respiratorie: esigenze, sfide e opportunità

2023

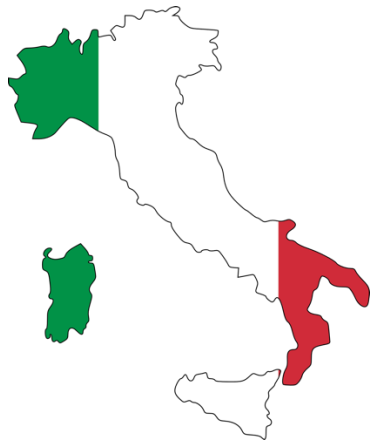
100+ years old	105+ years old	110+ years old
20,445	844	24
83% women – 17% men	87% women – 13% men	92% women – 8% men

Source: ISTAT

People aged ≥100 years in 2024 → 22,552 (+2000 persons vs. 2023)

2023:

- 818,970 persons aged ≥ 90 yrs
- 179,188 persons aged ≥ 95 yrs



2024:

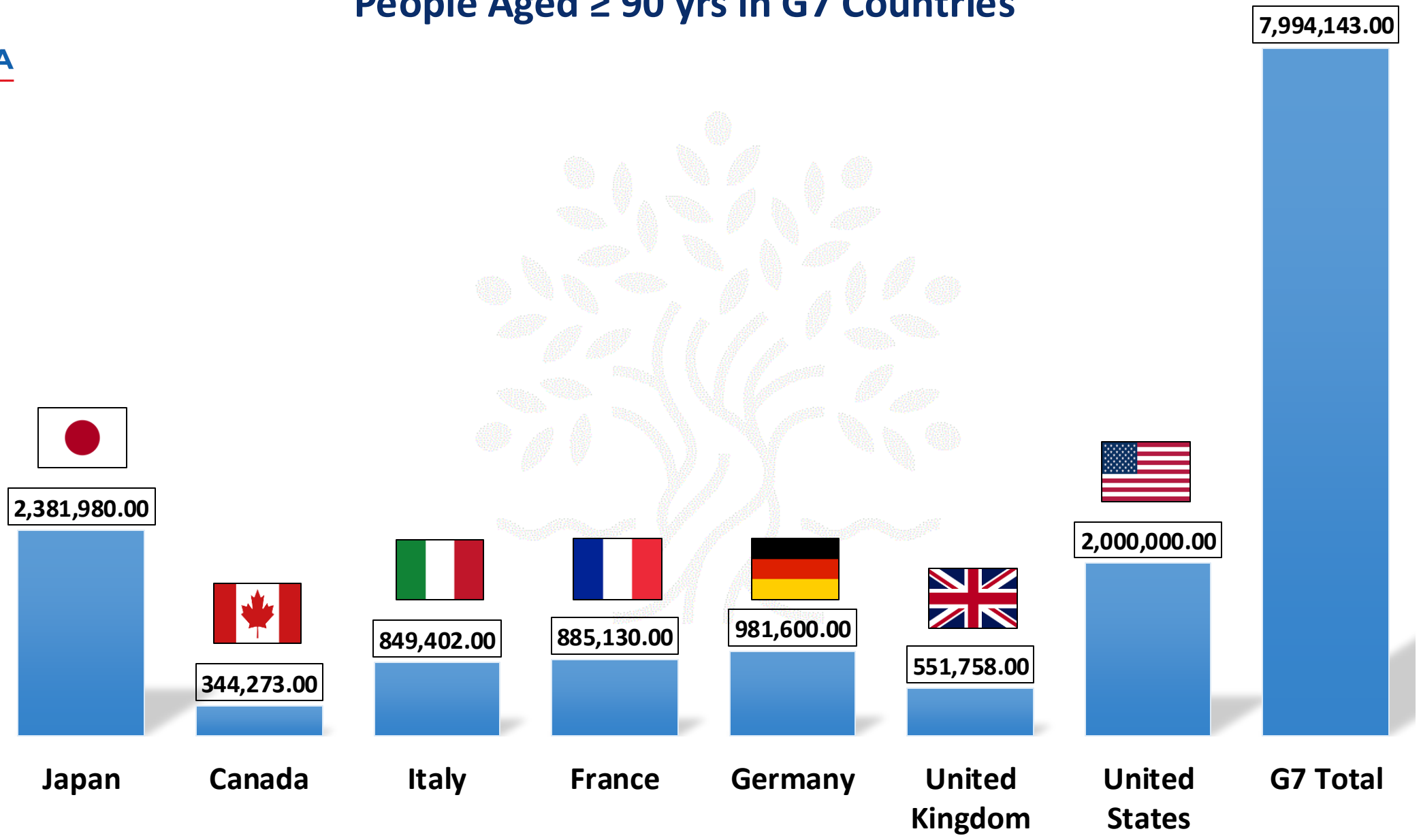
- 849,402 persons aged ≥ 90 yrs
- 189,718 persons aged ≥ 95 yrs

% change from 2023:

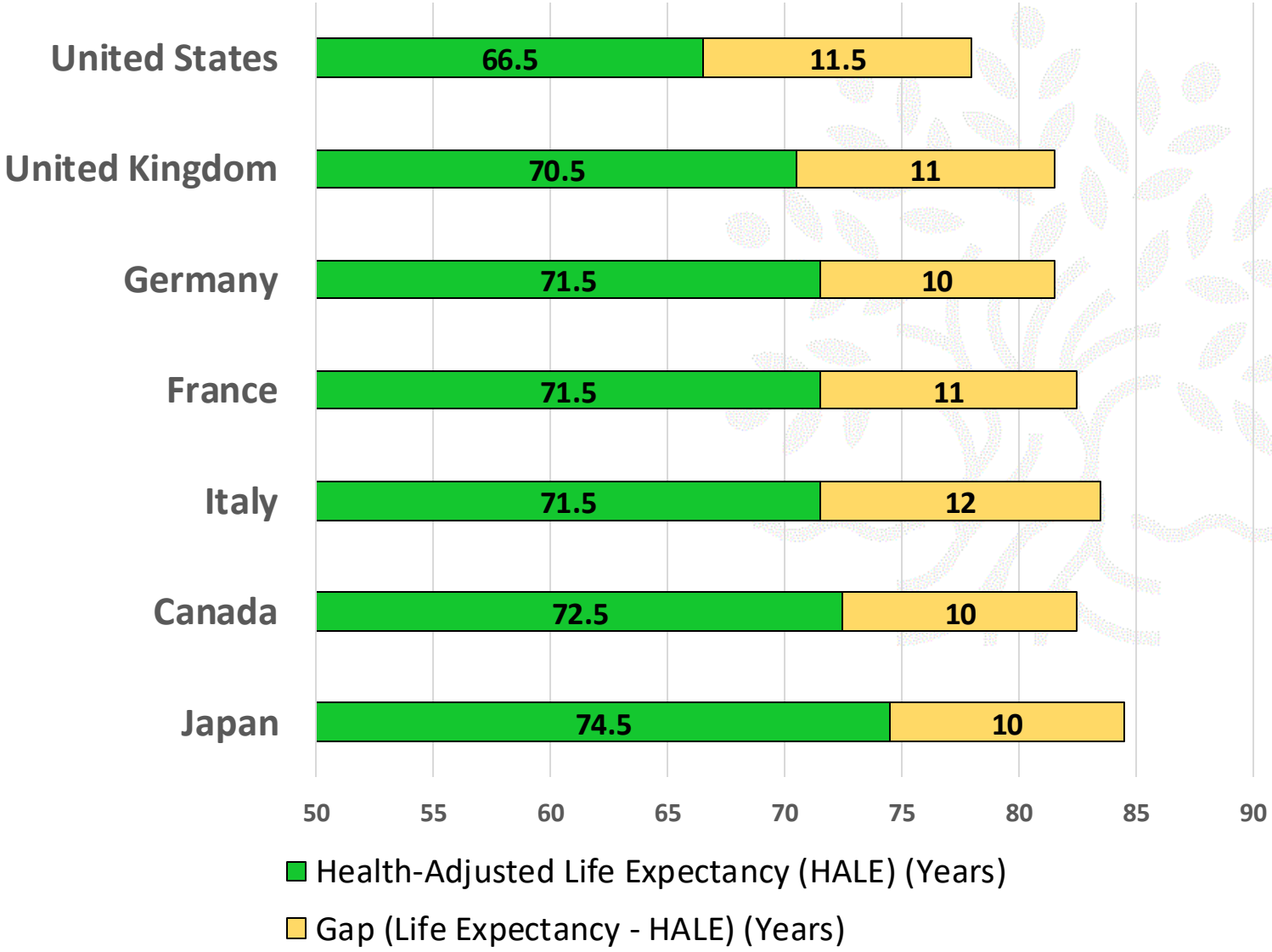
- \+ *3.7%*
- \+ *5.9%*

Source: ISTAT

People Aged ≥ 90 yrs in G7 Countries



Lifespan/Healthspan Gap in G7 Countries



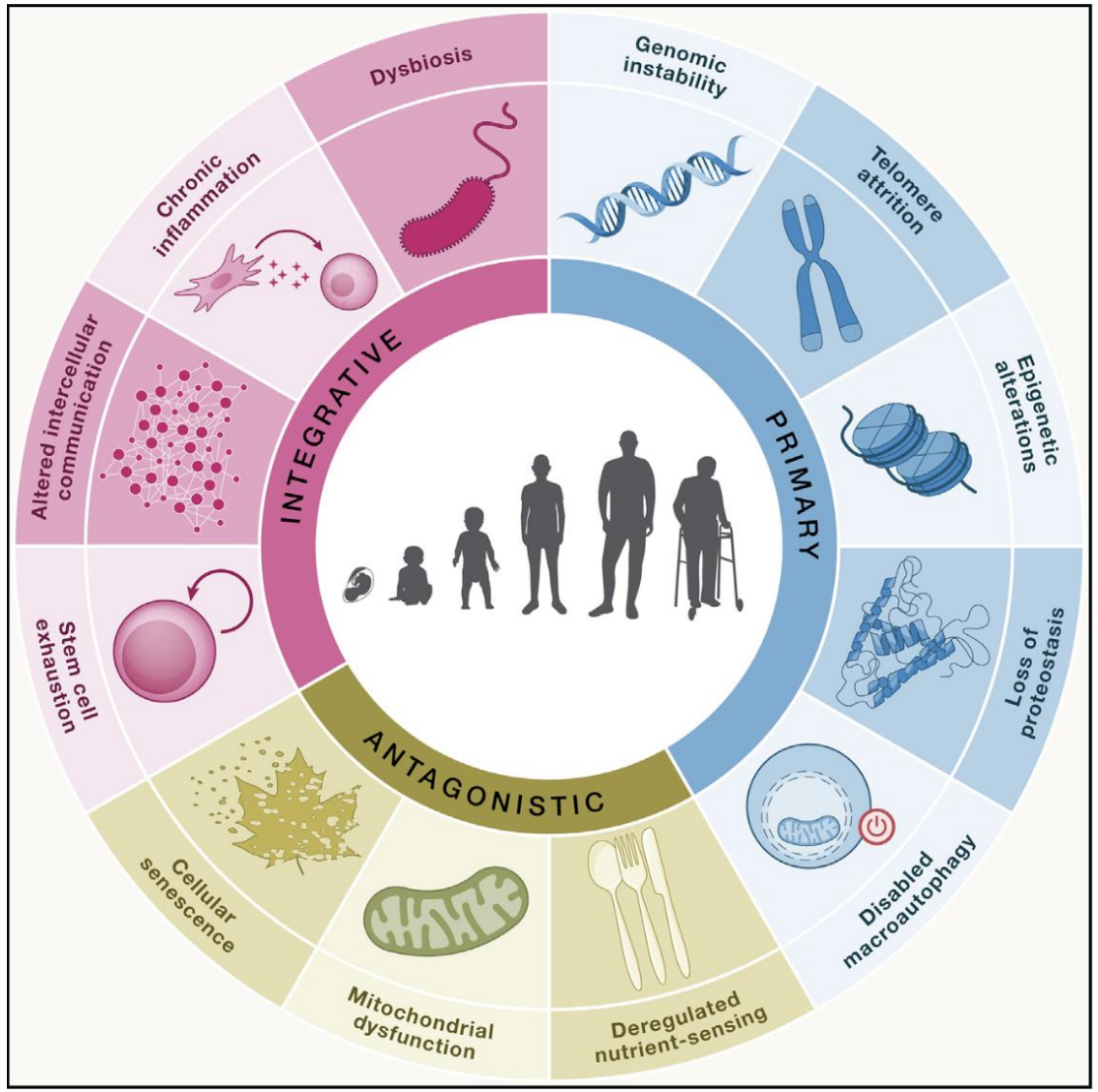
…there is a recognized gap between lifespan (the total life lived) and healthspan (the period free from disease). Using health-adjusted life expectancy, … the healthspan-lifespan gap is estimated at around 10 years

Regenerative Medicine (2021) 6:57

Review

Hallmarks of aging: An expanding universe

- Dysbiosis
- Chronic Inflammation
- Altered Intercellular Communication
- Stem cell exhaustion
- Cellular senescence
- Mitochondrial Dysfunction



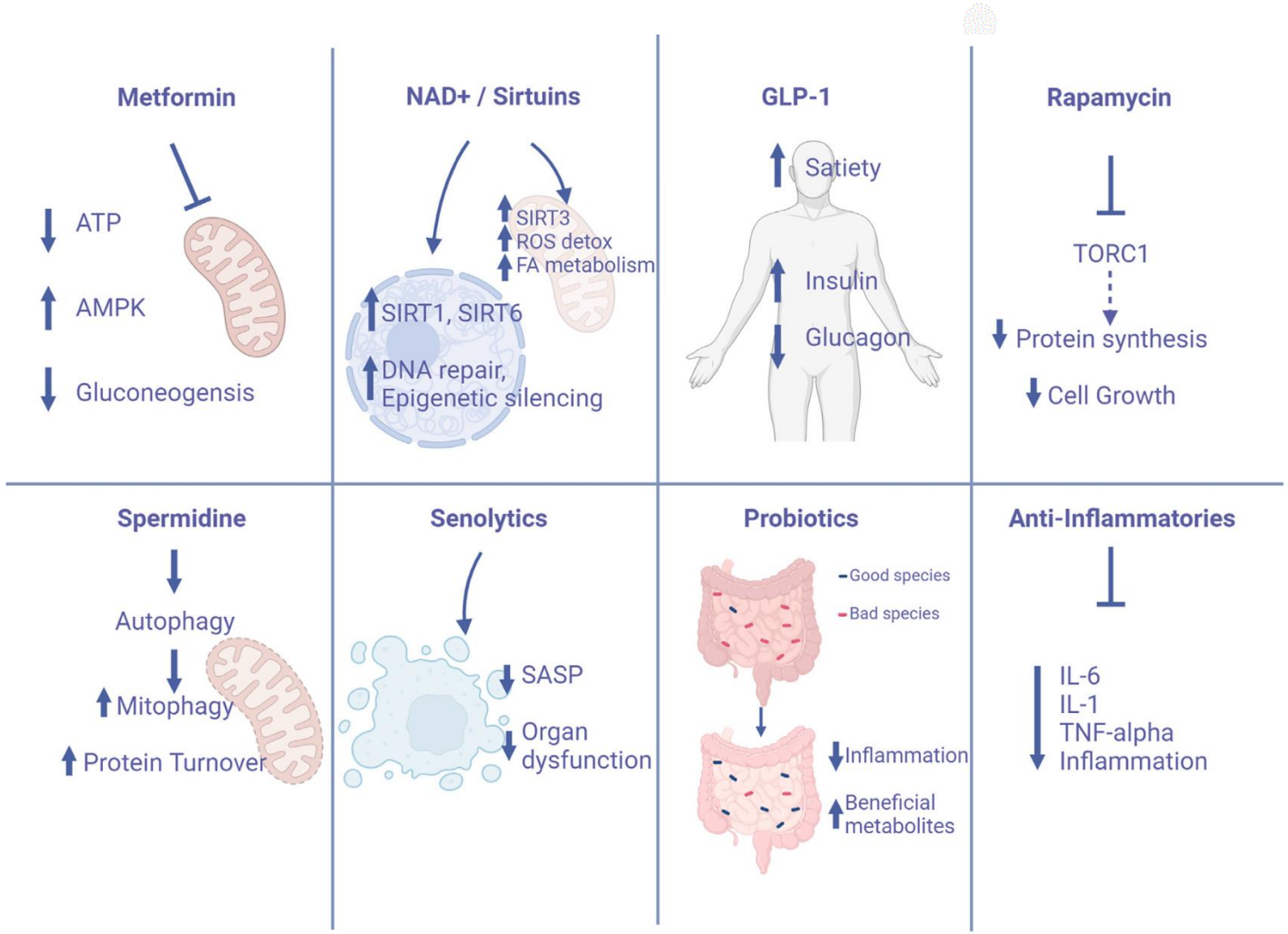
- Genomic Instability
- Telomere Attrition
- Epigenetic Alterations
- Loss of Proteostasis
- Disabled Macroautophagy
- Deregulated Nutrient-Sensing

Cell *186*, January 19, 2023

Review

Human trials exploring anti-aging medicines

Leonard Guarente,[1,2,*] David A. Sinclair,[2,3] and Guido Kroemer[2,4,5,6,*]



Cell Metabolism *36*, February 6, 2024

Review

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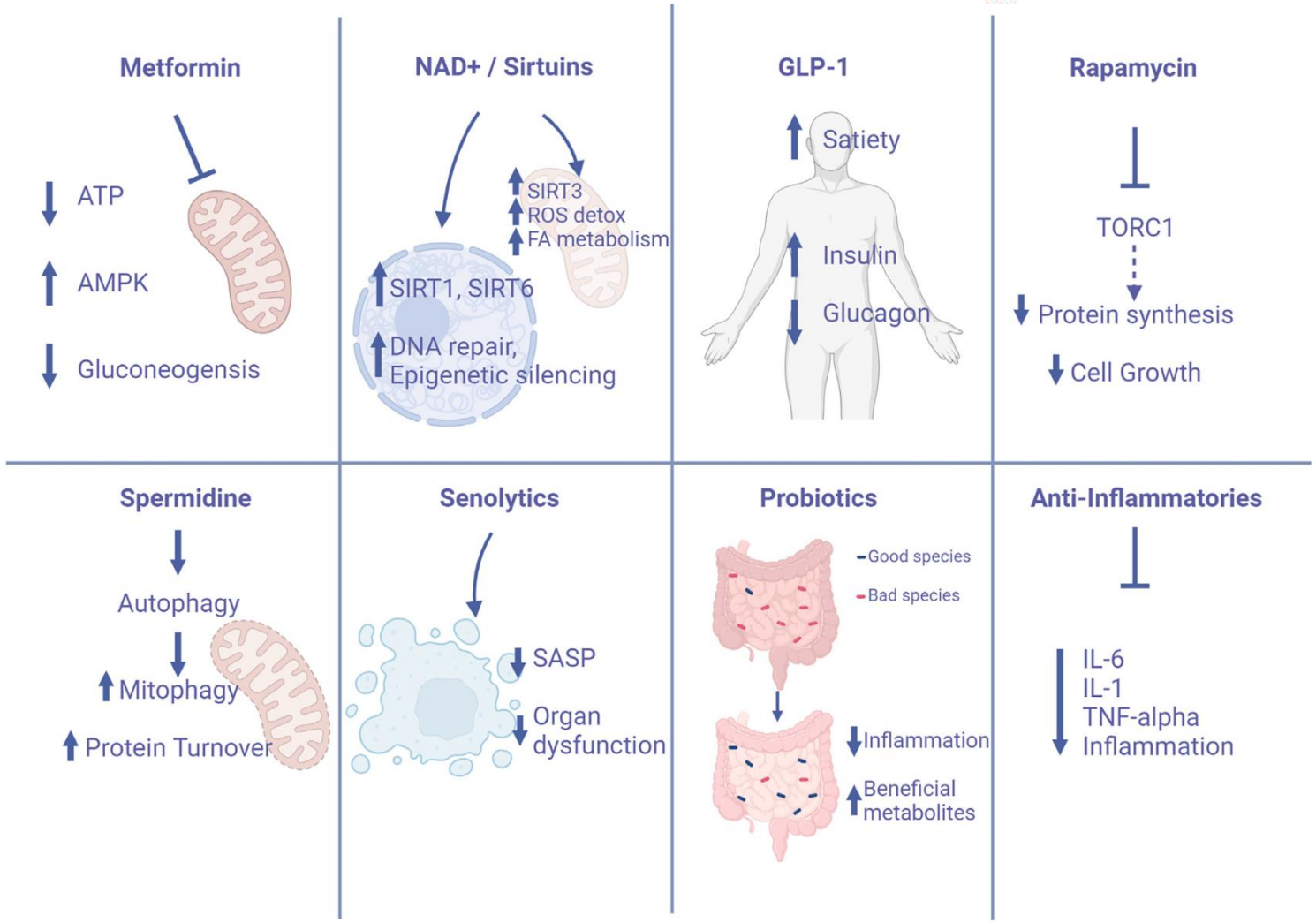


Cell Metabolism *36*, February 6, 2024

nature medicine

NEWS | 02 September 2024

Senolytics target cellular senescence – but can they slow aging?

By Natalie Healey

«Senolytics can prevent and treat age-related diseases in mice, but data in humans are lacking — for now.»

Blue Zones

OGLIASTRA, *Italy*

ICARIA, *Greece*

LOMA LINDA, *US*

NICOYA, *Costa Rica*

OKINAWA, *Japan*

www.bluezones.com

Blue Zones: The 7 Principles

Move Naturally

Eat Wisely

Avoid Stress & Get plenty of Sleep

Keep Strong Family Ties

Stimulate Strong Community Support

Respect for the Planet

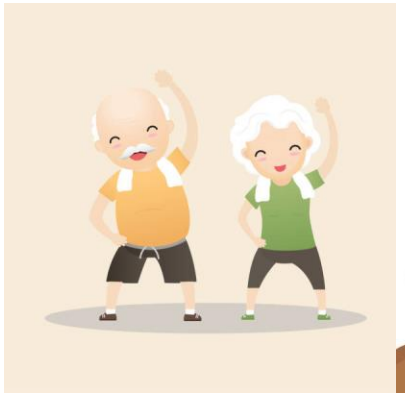
Having a Purpose in Life

RESEARCH

Multicomponent intervention to prevent mobility disability in frail older adults: randomised controlled trial (SPRINTT project)

Bernabei R et al. BMJ 2022;377:e068788

Multicomponent Intervention (Healthy lifestyle)



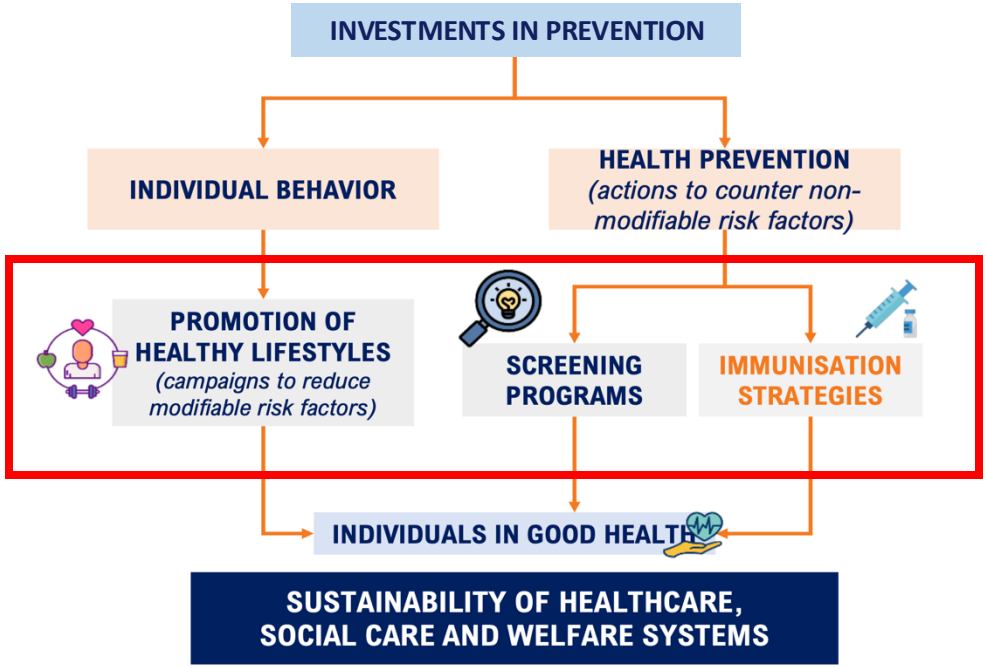
Exercise

Nutrition

- ⇩ risk of developing mobility disability

- ⇧ Physical Function

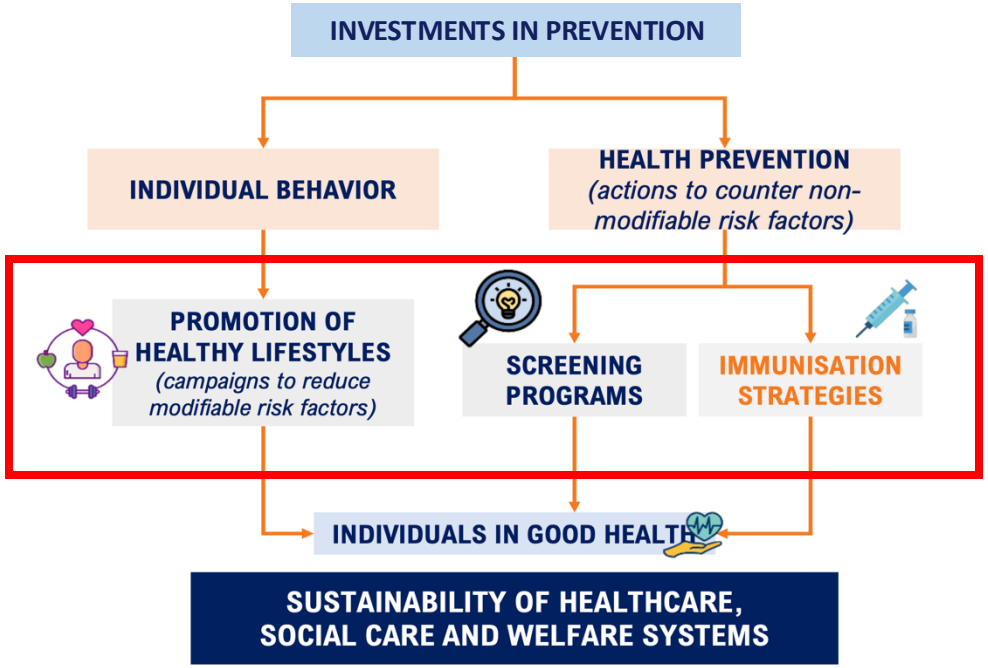
- ⇩ Muscle loss (in women)



"**The Value of Prevention for Economic Growth and the Sustainability of Healthcare, Social, and Welfare Systems**" realized by The European House - Ambrosetti in collaboration with **Vaccines Europe** and **IFPMA**

Studies suggest that **every 1 euro spent on preventative healthcare** generates a **14 euro return to the health and social care economy.**

TEHA on Masters, Rebecca, et al.
"Return on investment of public health interventions: a systematic review." J Epidemiol
Community Health 71.8 (2017) data, 2024



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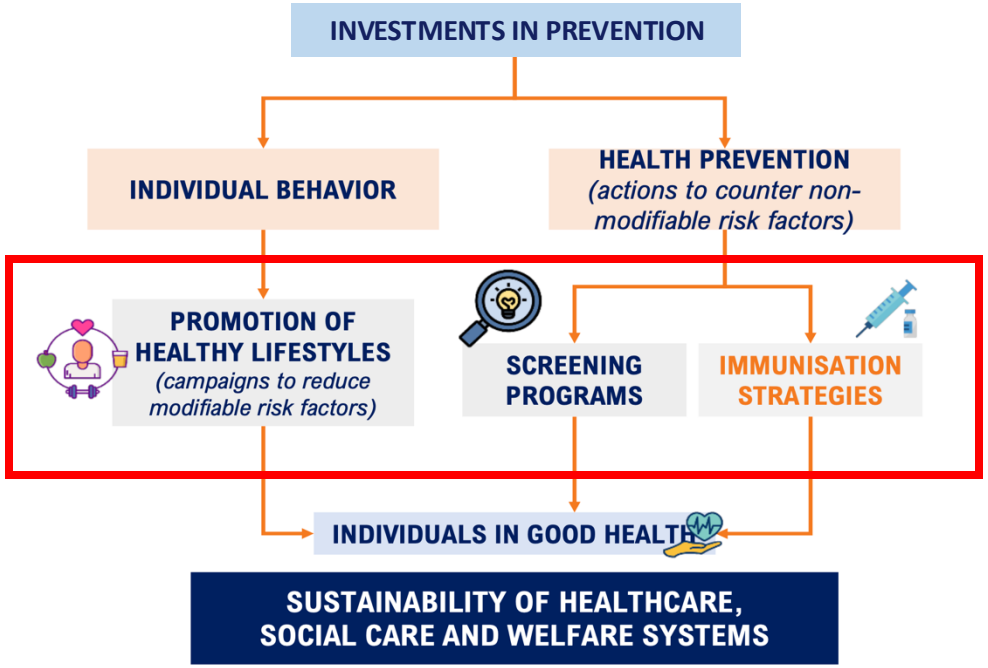


Studies suggest that **every 1 euro spent on adult vaccination** generates a **19 euro return to the health and social care economy***

TEHA on Steuten, H. E. B. et al. (2024), «Socio-Economic Value of Adult Immunisation Programmes» , 2024

"**The Value of Prevention for Economic Growth and the Sustainability of Healthcare, Social, and Welfare Systems**" realized by The European House - Ambrosetti in collaboration with **Vaccines Europe** and **IFPMA**

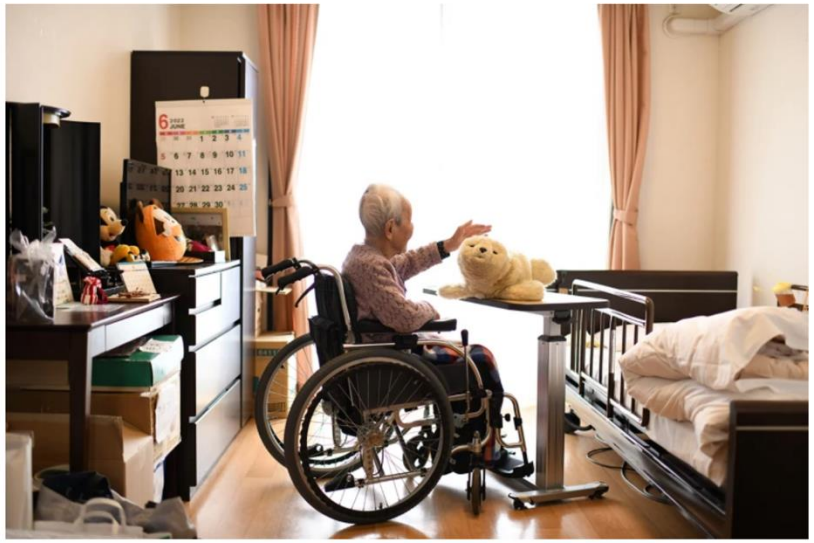
Innovation to promote healthy longevity: Humanoid robots and AI-based digital twins

nature

Are robots the solution to the crisis in older-person care?

Social robots that promise companionship and stimulation for older people and those with dementia are attracting investment, but some question their benefits.

By Tammy Worth



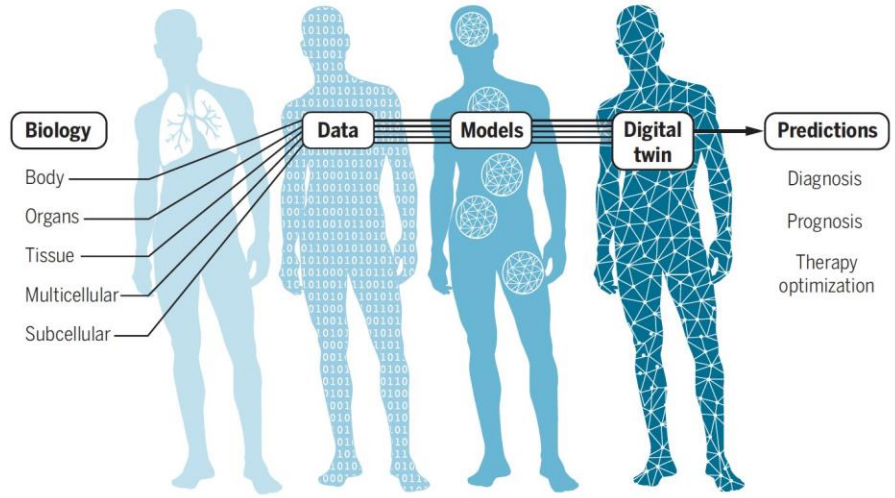
Interactive therapeutic robot Paro keeps a resident company at a nursing home in Japan. Credit: Noriko Hayashi/Panos Pictures

doi: https://doi.org/10.1038/d41586-024-01184-4

Science
JOURNALS AAAS

Building a personalized digital twin

Data from multiple scales are needed to build computational representations of biological processes and body systems that are affected by viral infection. These submodels are integrated and personalized with clinical data from individual patients. The digital twin can then be used to derive predictions about diagnosis, prognosis, and efficacy and optimization of therapeutic interventions.



Science. 2021 March 12; 371(6534): 1105–1106. doi:10.1126/science.abf3370.