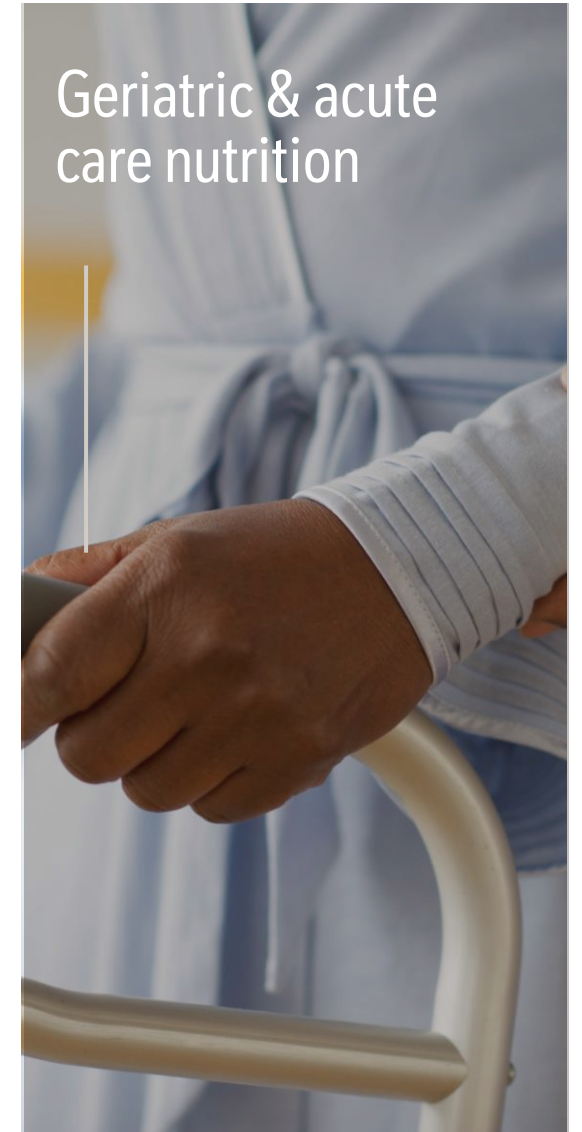
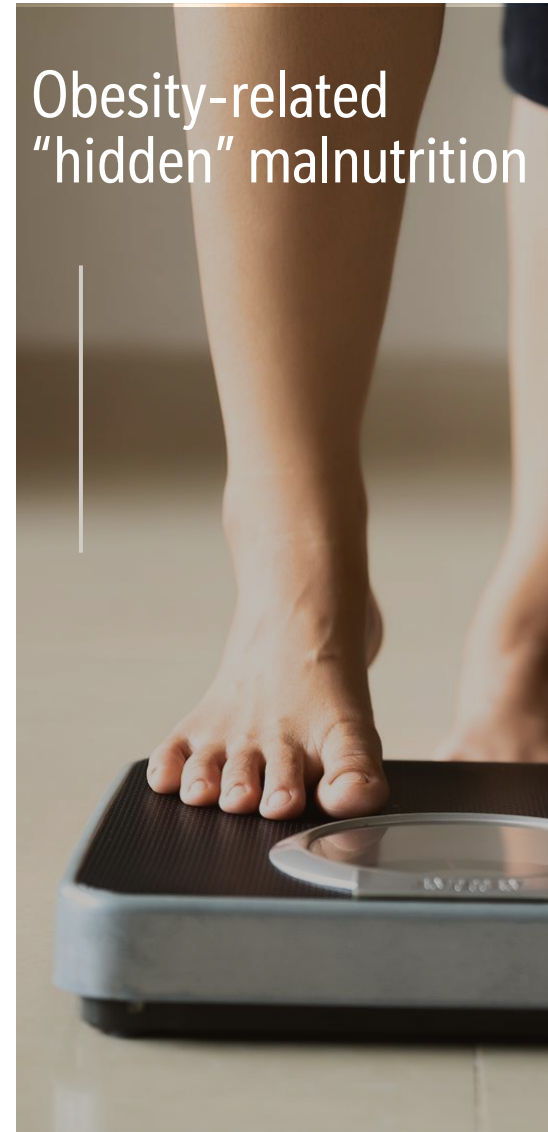
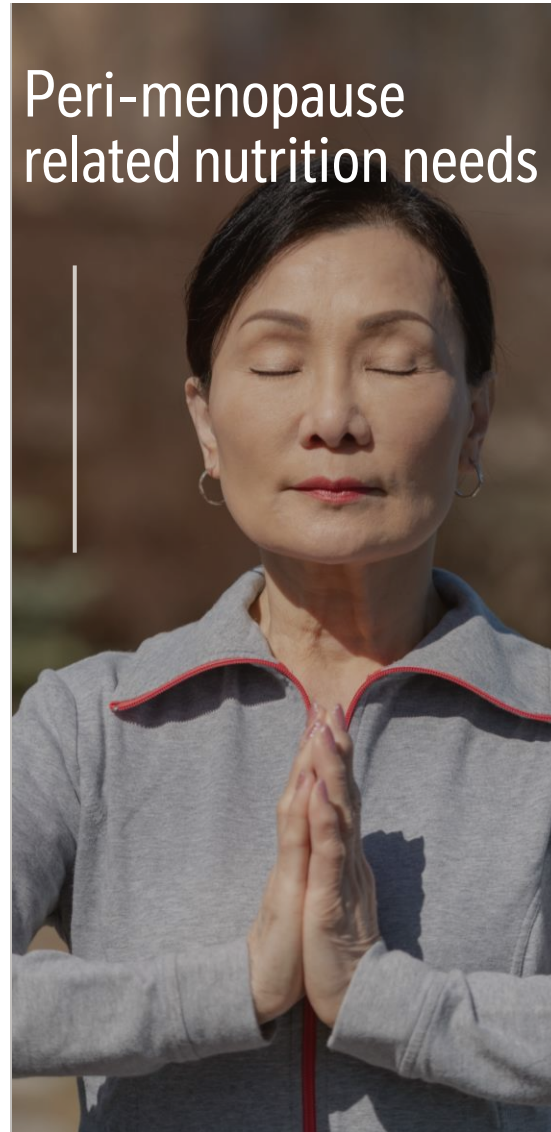


Nutrition for Longevity

Eline van der Beek, PhD

May 2026

Nutrition has broad and diverse roles to promote health throughout life



Healthy longevity is fuelled by demographics and emerging science

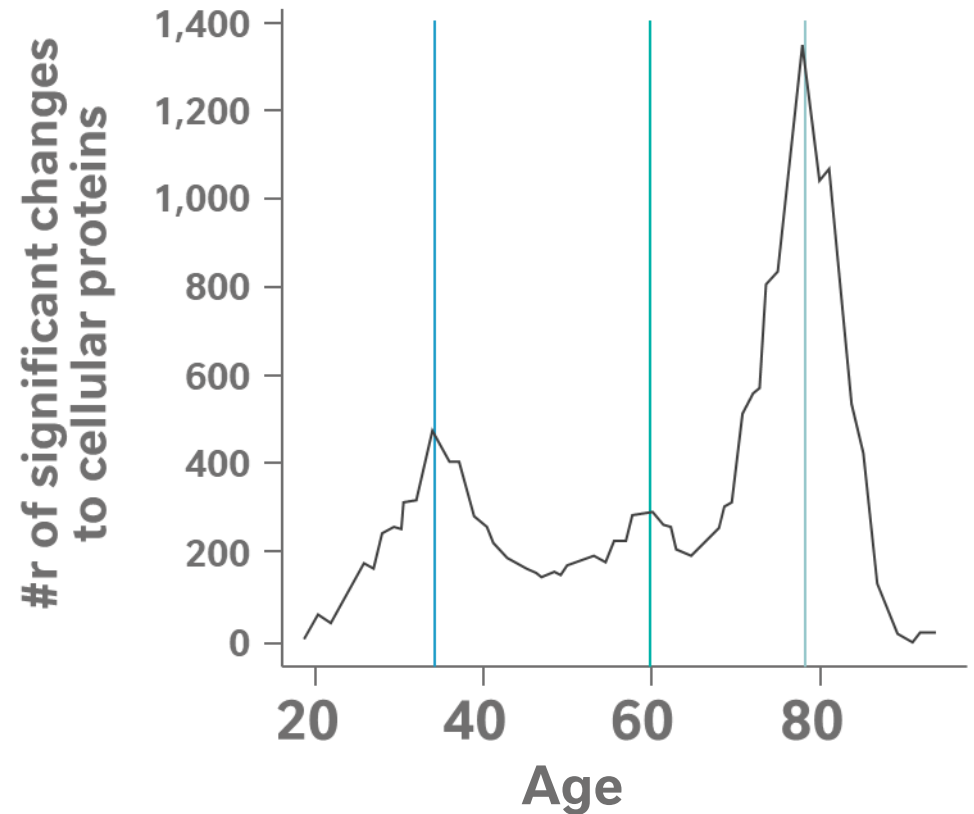
Healthy Longevity – living healthier for longer

- **25-30% of adults will be 60+** by 2050, across most geographies
- **9 years gap** between health- and lifespan

The opportunity:

- Mindset shift from anti-aging to **proactive care**
- Adoption of **health & age tech**
- **Empowerment** to control aging process

Aging is increasingly understood at the cellular level, and comes in waves



Nutrient dense diets with high food group diversity promote healthspan

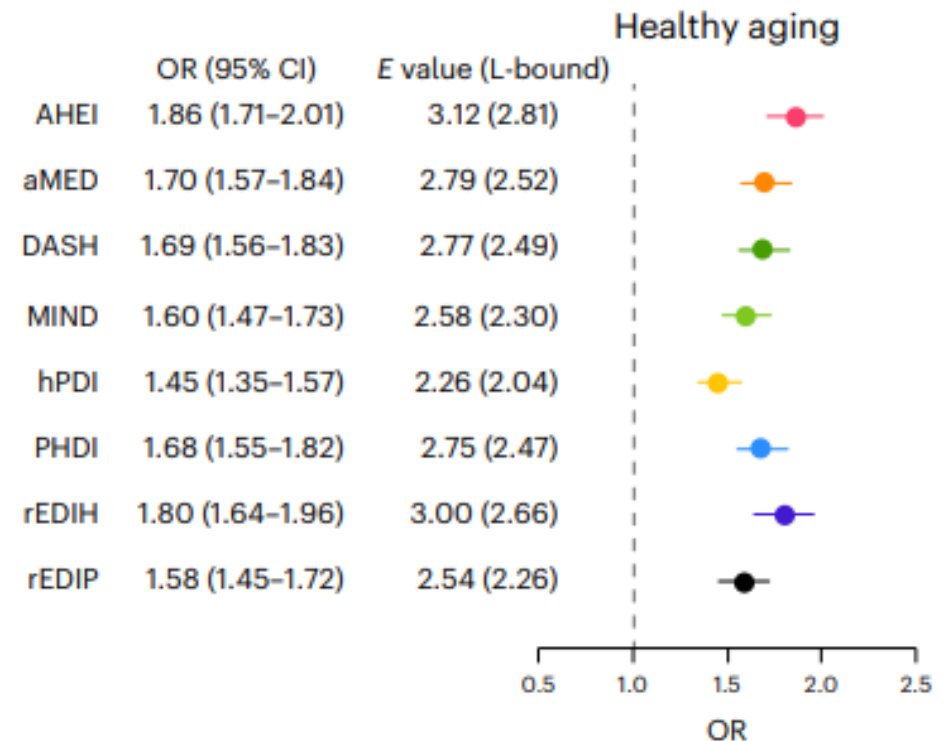
Adopting healthier food habits at midlife can have a strong impact on long-term health



10 years estimated gain in life expectancy after shift from unhealthy to longevity-associated dietary factors at age 40

Fadnes et al, Nature Food 2023

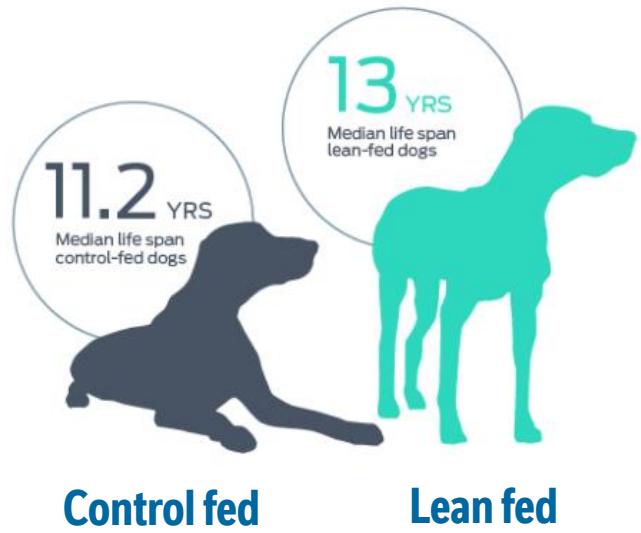
Nutrient dense dietary patterns associate to healthy aging across health domains



Top diets to stay healthy are AHEI, aMED and DASH**

Tessier et al., Nature Medicine 2025

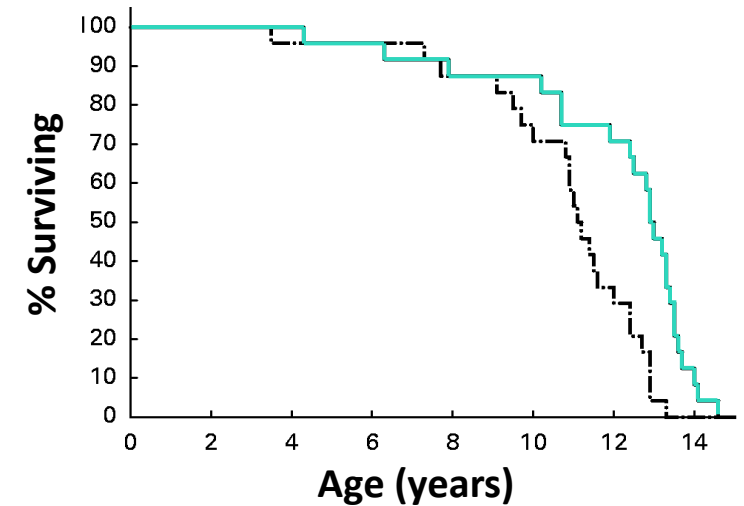
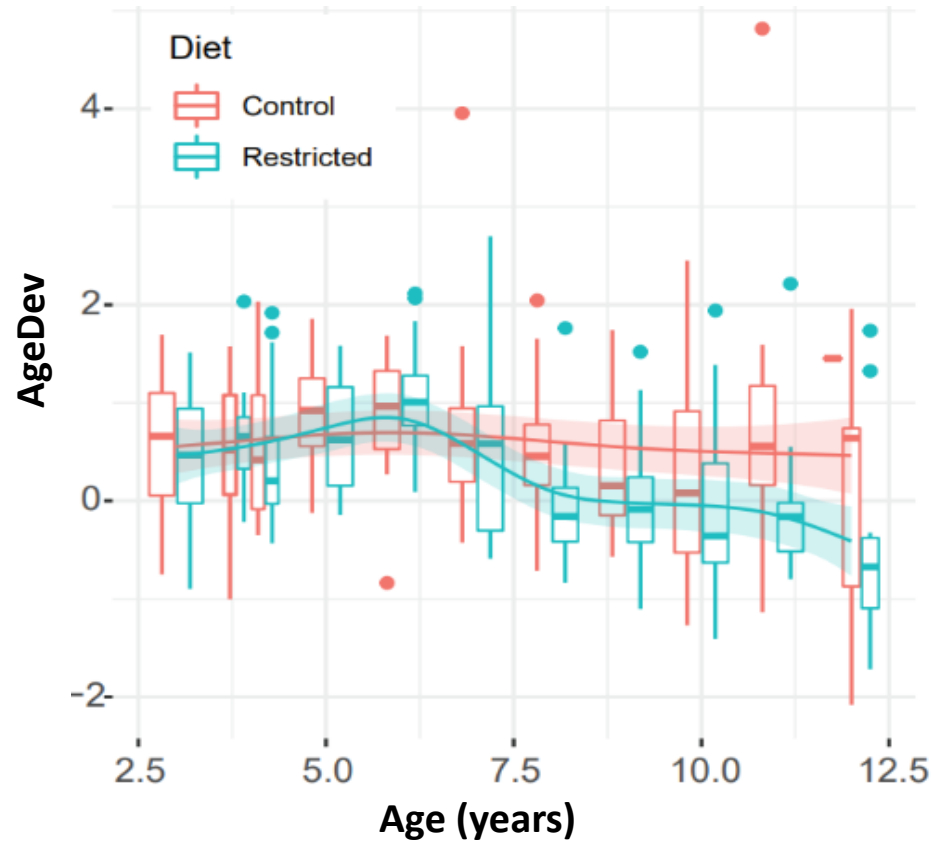
Our longevity research: A 14-years lifetime intervention study in dogs



+ 17% longer life

- Better insulin sensitivity
- Better immune function
- Later disease onset

Diet optimization to maintain lean body mass lowers biological age

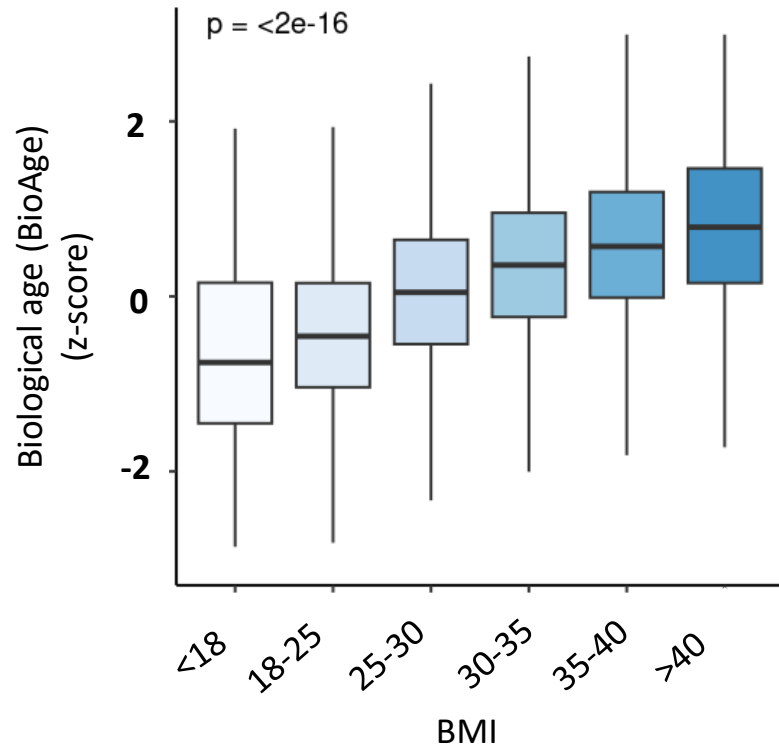


Term	p.val	HR
AgeDev	0.0178	1.47
Diet (R)	0.0007	0.26

Mortality HR

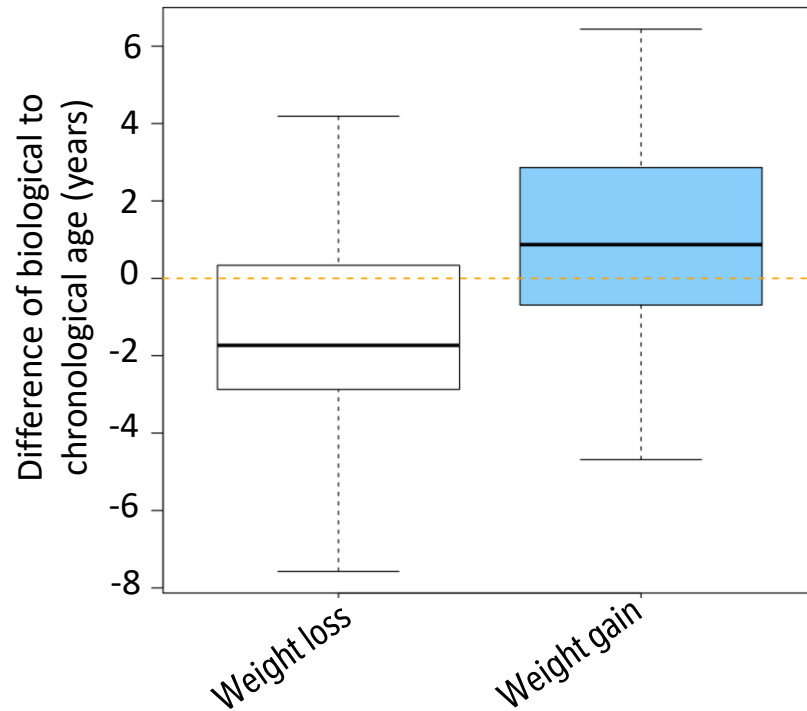
Managing weight improves biological age in humans too

Overweight and obesity associate to increased Biological Age



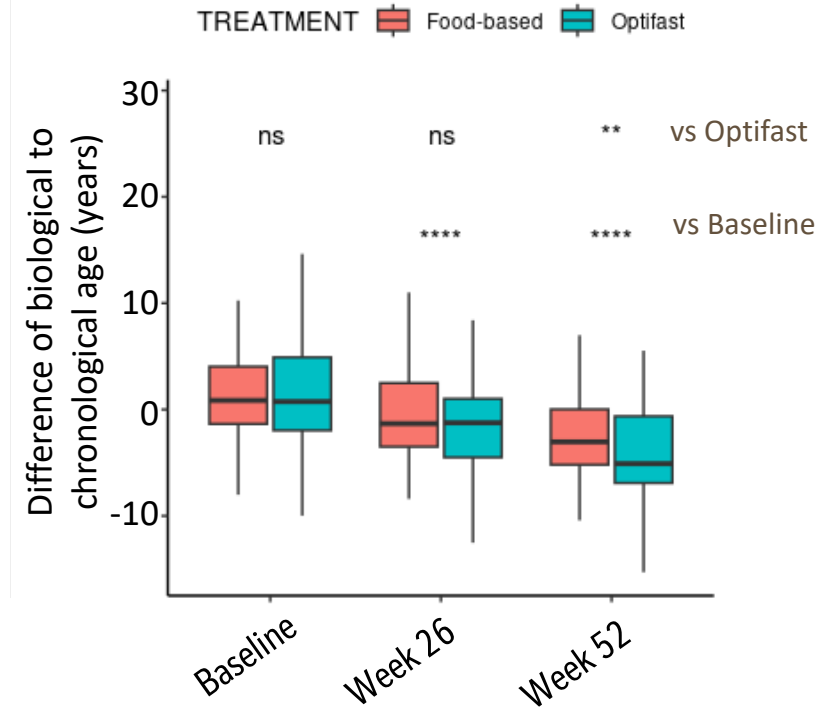
Differences in biological age ~4 years between BMI 18-25 and 30-40

Weight loss in obese subjects lowers Biological Age



Biological age reduction of 2 years over 5 years period*.
10th percentile of weight loss, >8.6kg.

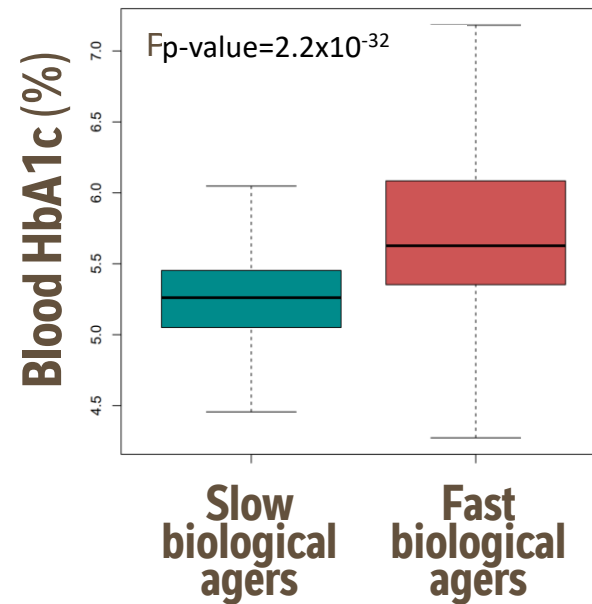
Meal replacement regiments lower Biological Age with weight loss



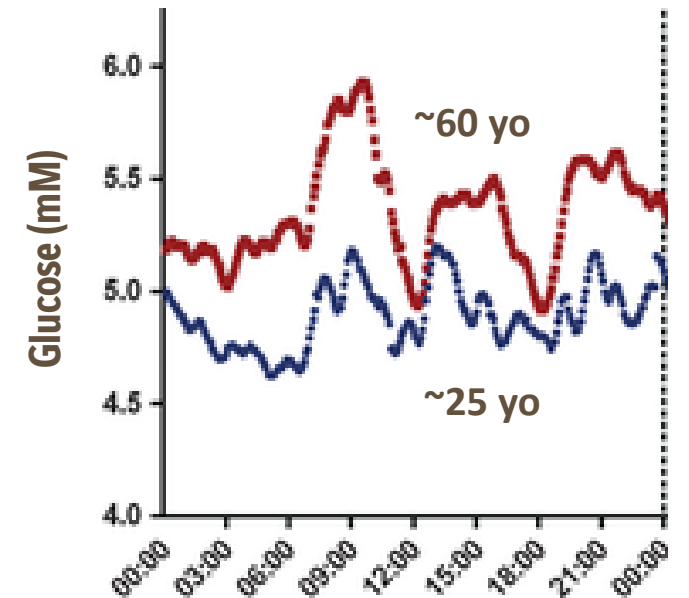
Nutrition adequacy during weight loss needs to be assured

Beyond weight loss: decline in glucose control is a hidden driver of the aging process

Accelerated biological aging is characterized by poor glucose control



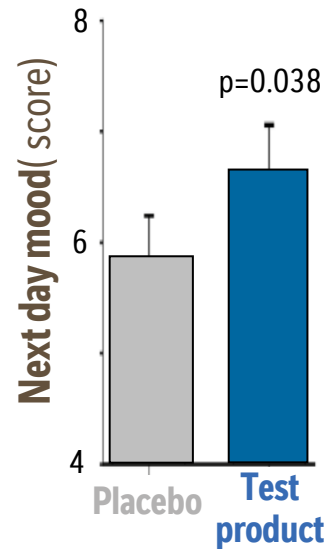
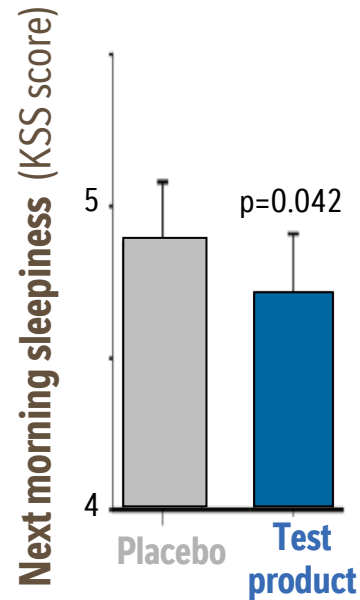
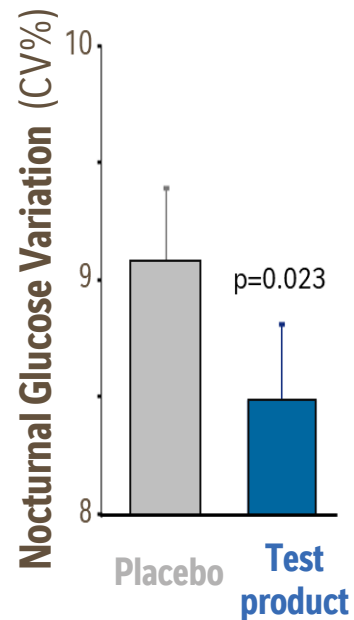
Nestlé cohort study



External cohort study

We design nutrition solutions to address physiological mechanisms in aging

Nutrition solutions that improve glucose control also promote good quality sleep, a pillar of healthy aging



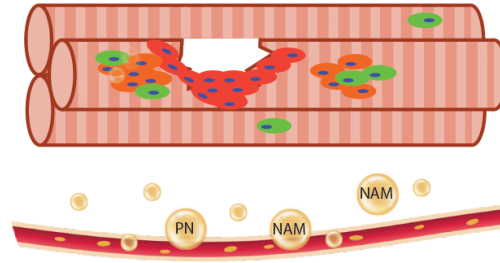
Nestlé clinical trial

Nicotinamide and VitB6 improve Muscle Recovery

Clinical Study Results in healthy volunteers



NAM/B6 boost Muscle Stem Cells activity

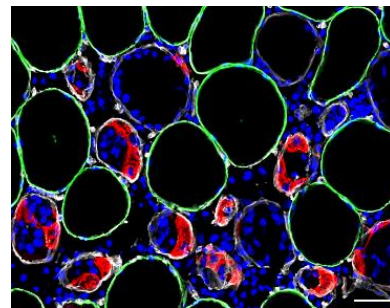


Regenerating myofibers

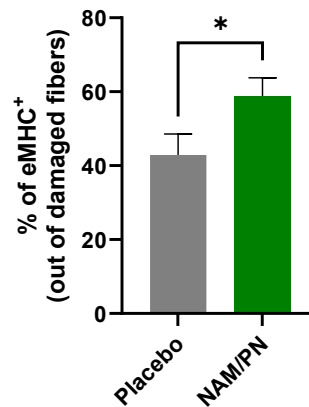
+37%

A blend of Nicotinamide (NAM) + Pyridoxine (PN) activates Muscle Stem Cells and accelerate muscle repair1

Double-blind clinical trial in healthy volunteers
In a model of exercise-induced muscle damage
intervention: 714mg NAM + 19mg B6 per day

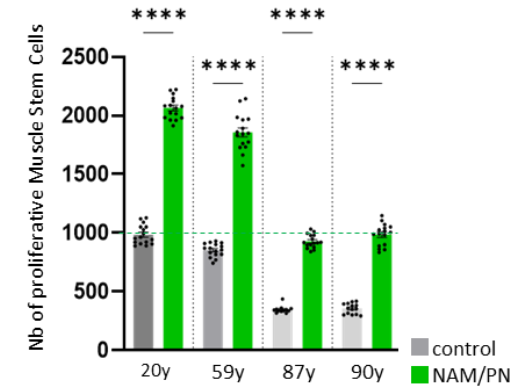


eMHC Dystrophin Laminin DAPI

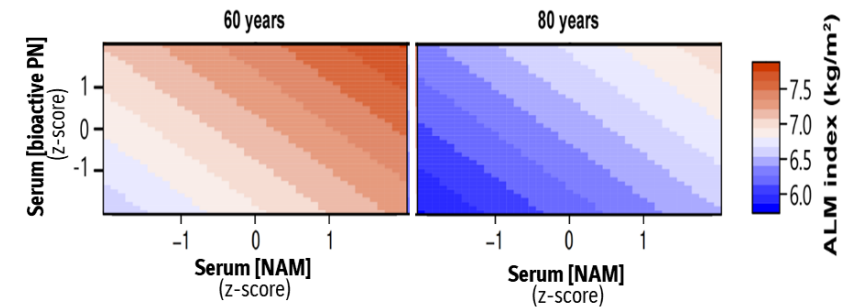


For healthy muscle aging

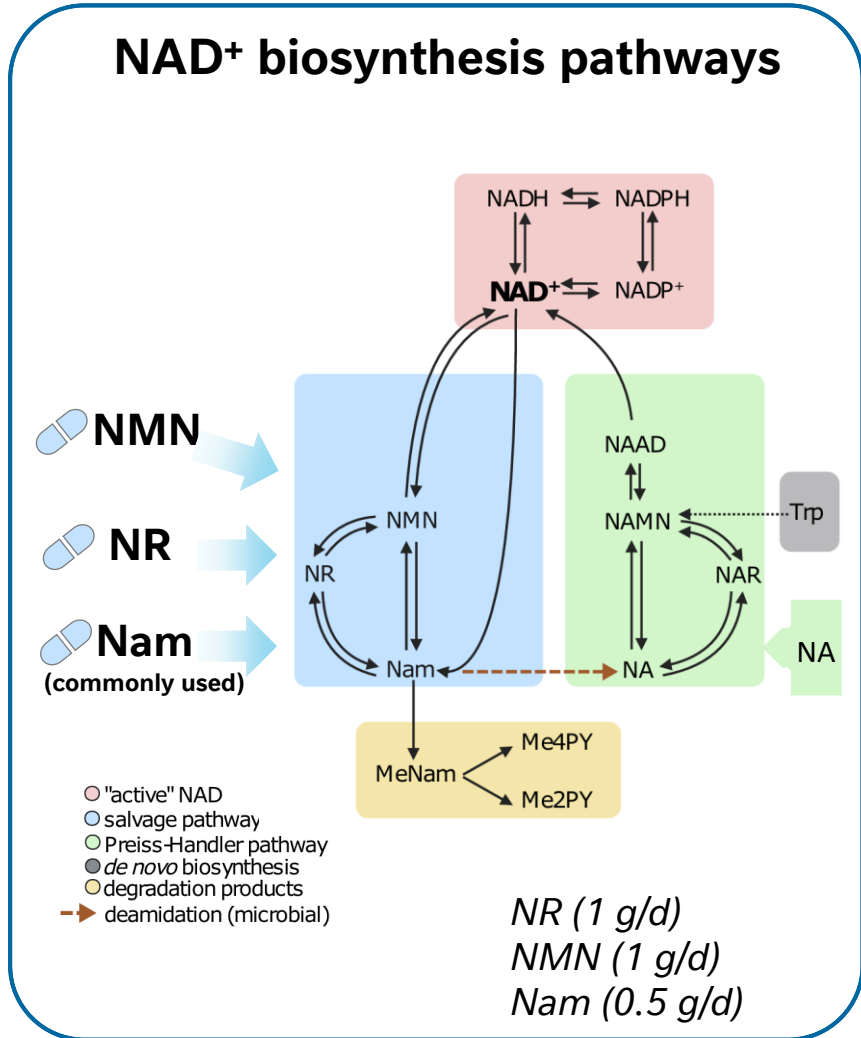
NAM/PN reverses age-related decline of human myogenic progenitors (*in vitro*)



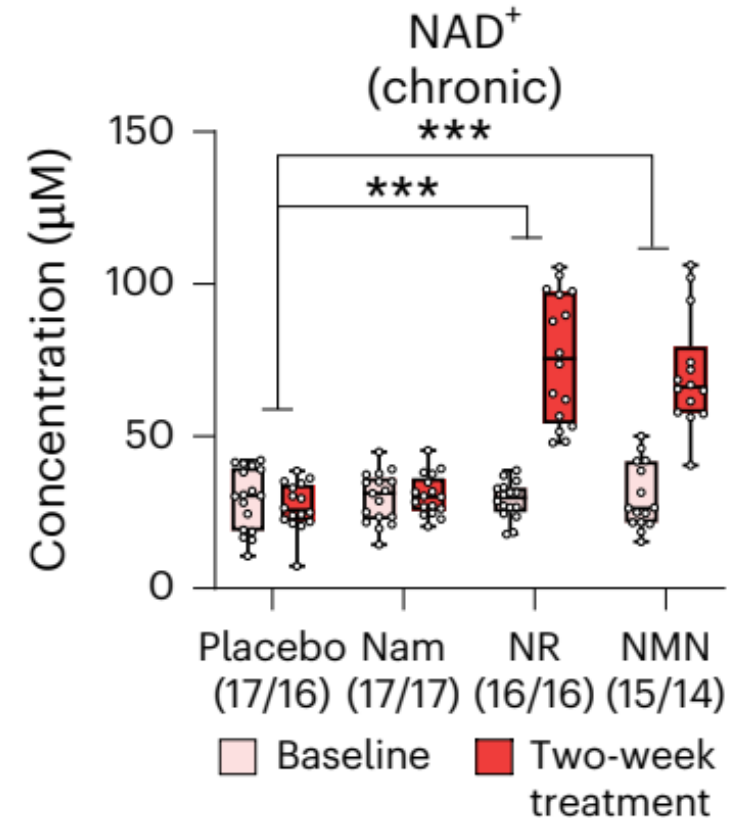
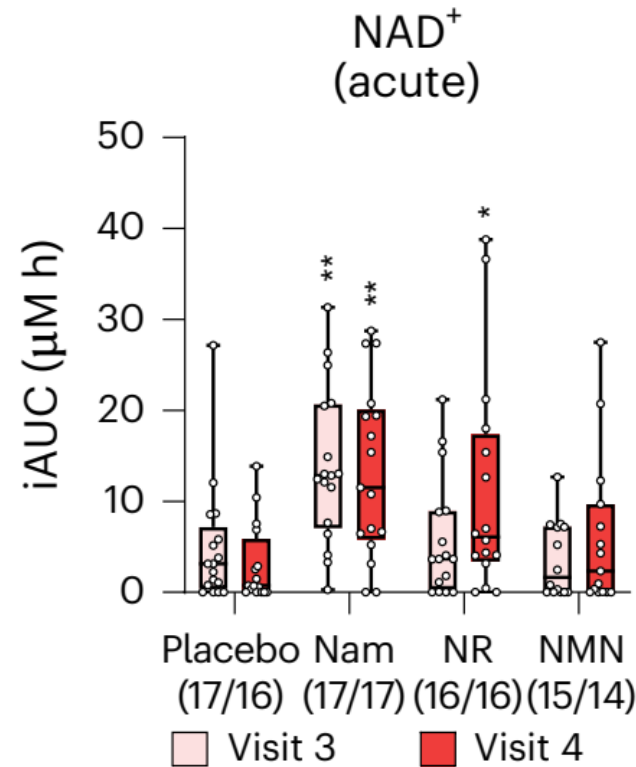
Blood levels of NAM and PN are positively associated with muscle mass and function in 60+



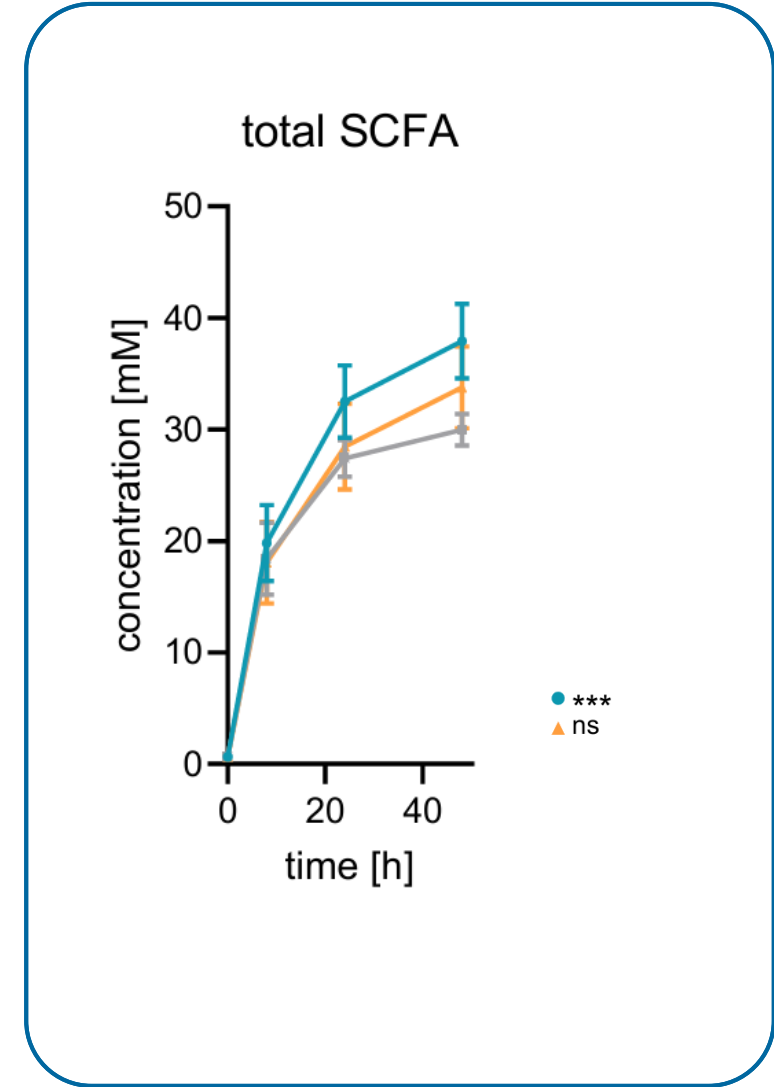
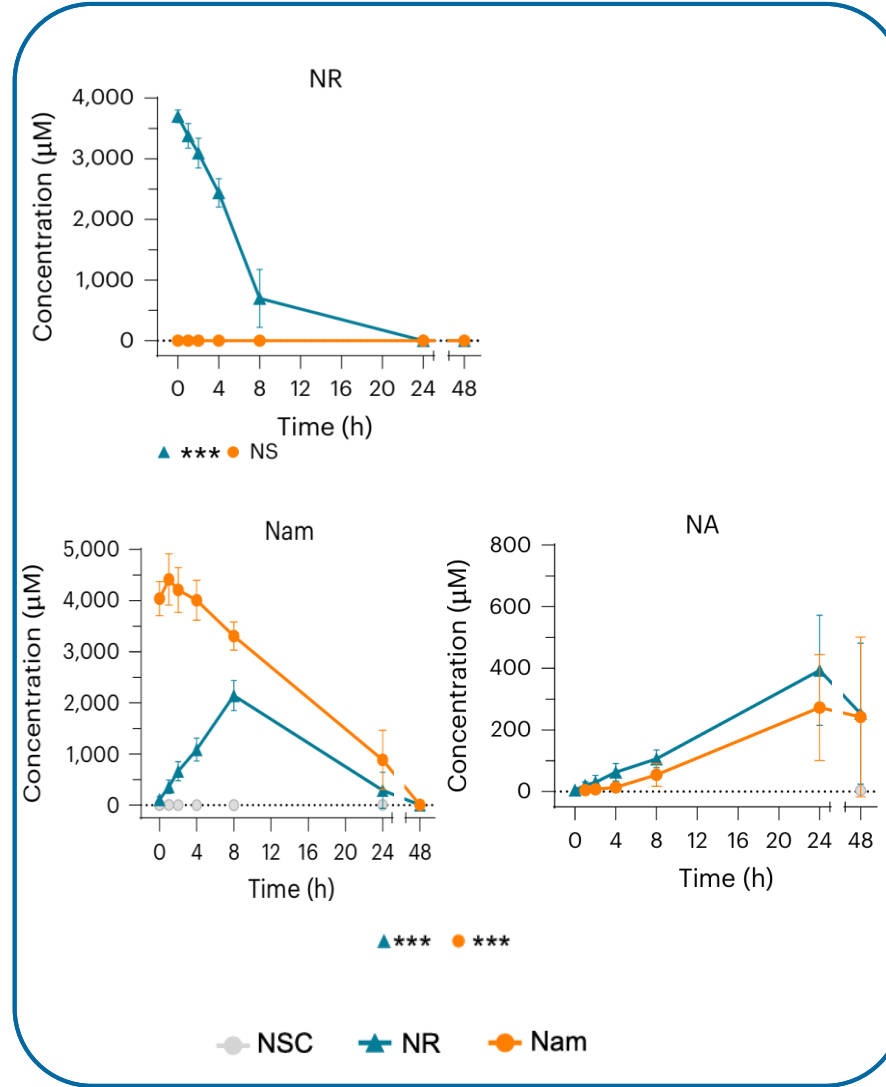
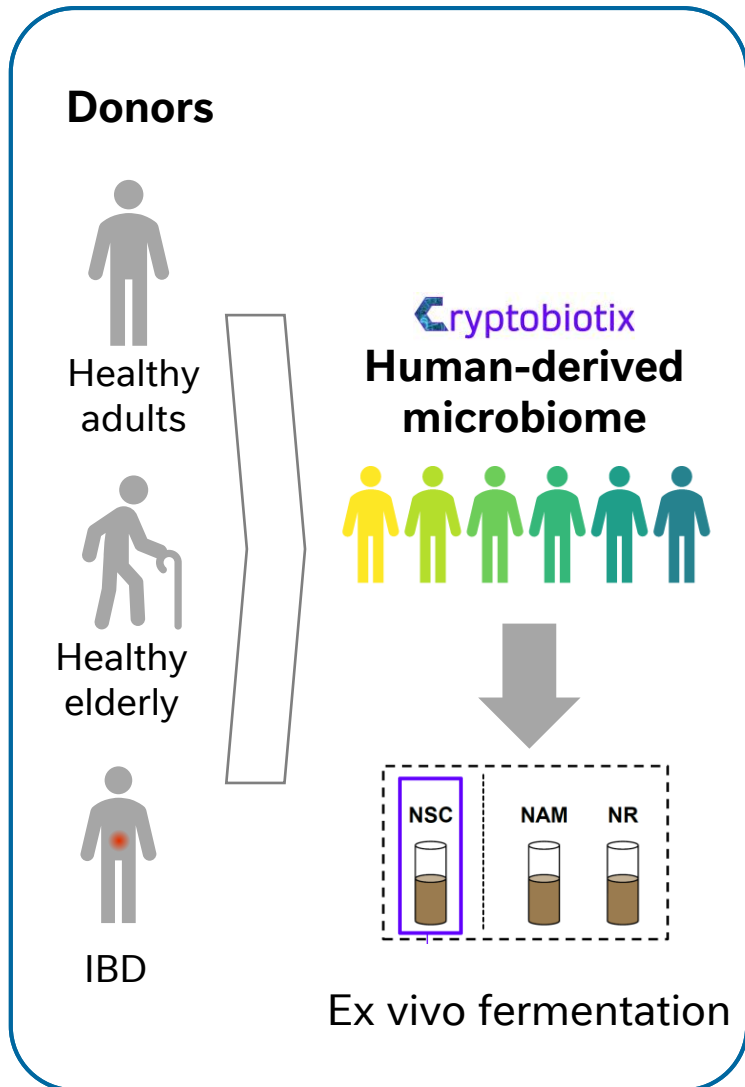
A head-to-head comparison of three NAD⁺ precursors in healthy adults



Chronic supplementation with NR and NMN sustains circulating NAD⁺ while Nam shows an acute boost

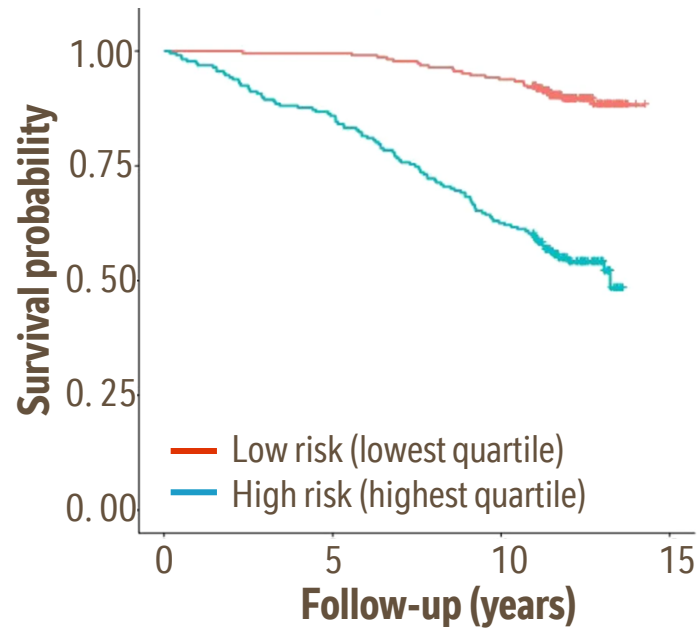


Gut microbiome degrades NAD⁺ precursors to building blocks and boosts SCFA production ex vivo



Healthy aging can be objectively assessed through biological age clocks

Biological age predicts survival (and health status)



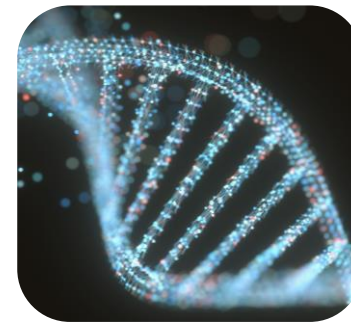
*** = $P < 0.001$

Hilary et al., *Molecular Psychiatry*, 2021

Biological aging clock technologies have different routes of adoption



Clinical composite scores



Research and consumer epigenetic age tests



Protein clocks for organ aging



Wearables-based biological age

Biological age clocks predict future health outcome and serve as prognostic markers in response to interventions

Healthy longevity requires an integrated approach and scalability



Evolution of Health Care –
Power of integrated health data to strengthen proactive solutions



Emerging LongevityTech –
Biomarkers and diagnostics quantify aging and detect risk early



Precision Health Nutrition and physical activity can be tailored to specific health needs



Holistic shift – People are empowered to take charge of their health through a holistic *body and mind* approach

THANK YOU

Population Growth



Climate change



Agricultural productivity & Natural resource (biodiversity)



Urbanisation



Mal-Nutrition & health



Ageing



Poverty, inequality and food insecurity



Food losses & waste

