

GOUVERNEMENT
Liberté
Égalité
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FRANCE
2030

IHU HealthAge
GEROSCIENCE & PREVENTION

SAB IHU HealthAge

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CHU TOULOUSE

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Overall goal of IHU HealthAge

Our global goal is to enable Healthy Longevity. To achieve our goal we have the following specific aims

- **Implement the WHO ICOPE program (Integrated Care for Older PErsons) massively into clinical practice** to maintain functions and be able to continue to do what the older persons value the most
- **Develop translational research** to better understand the biology of aging & Intrinsic Capacity to develop new target therapies and biomarkers using the Inspire human & mice cohorts and fish colonies
- **Design and implement Geroscience drug trials** for Healthy Longevity
- **Develop validated Longevity Clinics** in Academic Hospitals

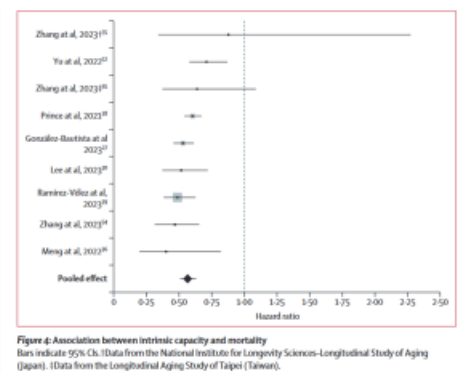
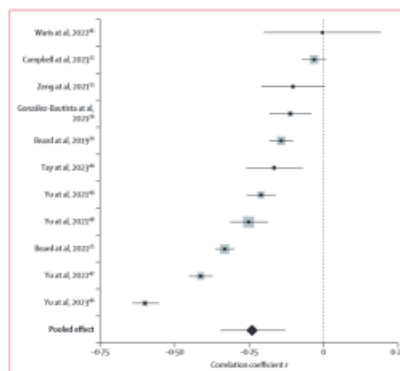
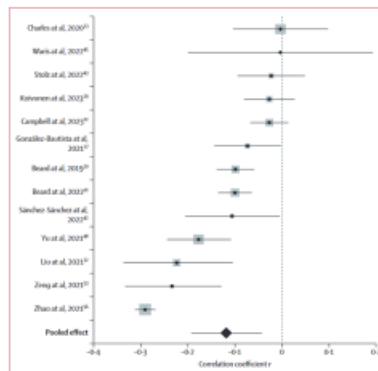
Healthy Longevity is to Maintain our Functions: Focus on the Concept of Intrinsic Capacity

- **Intrinsic Capacity: what it measures:** IC is the composite of the individual's physical and mental capacities: Locomotion, Cognition, Vitality Psychological, Vision domain, Hearing
- **ICD-11 (International Classification of Diseases)** “ageing associated decline in intrinsic capacity”. (Lancet Longevity , July 2022)
- **How it is measured:**
 - The six domains of IC can be measured in the clinical and research settings relying on validated instruments
 - Still subject of research, especially to accommodating sociocultural diversities
 - Composite scores can be used as clinical as well as research endpoints; for Randomized Clinical Trials Primary Outcome under-development.
- **IHU Pilar focus on I.C**
Icope in clinical care, Inspire human, mice cohorts & fish colonies; biology of I.C, ICOPE RCTs, éducation, open access platform

Association of intrinsic capacity with functional decline and mortality in older adults: a systematic review and meta-analysis of longitudinal studies

Lancet Healthy Longevity. 2024;5(7):e480-e492.
doi:[10.1016/S2666-7568\(24\)00092-8](https://doi.org/10.1016/S2666-7568(24)00092-8).

Juan Luis Sánchez-Sánchez, Wan-Hsuan Lu, Daniel Gallardo-Gómez, Borja del Pozo Cruz, Philippe de Souto Barreto, Alejandro Lucia*, Pedro L Valenzuela*



Intrinsic capacity is inversely associated with functional decline and mortality risk in older adults.

Forces

- Probably largest department of Internal Medicine & Geriatrics in the EU moving to Prevention & Healthy Longevity and Geroscience (50 M.D, 400 healthcare workers). Can have a high impact clinical practice, education & research on other department, inter aging & geriatric societies
- Major INSERM Research Centers in Toulouse involved: 2024 Internal call on the Inspire-T human, mice and fish colonies: 15 projects funded
- The only IHU on Aging and Healthy Longevity, brings together forces from Inserm, University, CHU as well as political and industrial
- Successful ICOPE Clinical Program (61,000 subjects with a target of 2 million in the next 3 to 5 years. International deployment: Medicaid in the US, NM, Canada, China, Singapore, Japan, EU..). Lancet Longevity 2022, Nature Aging 2024
- Inspire Human cohort: 1,100 subjects aged 20-100 years, 12 years follow-up (Nature Aging 2023)
- Clinical Research Center, in the Preventive Clinics
- RCT ICOPE health economic (n=1000), ethical approval July 2024.
- Pastel Foundation






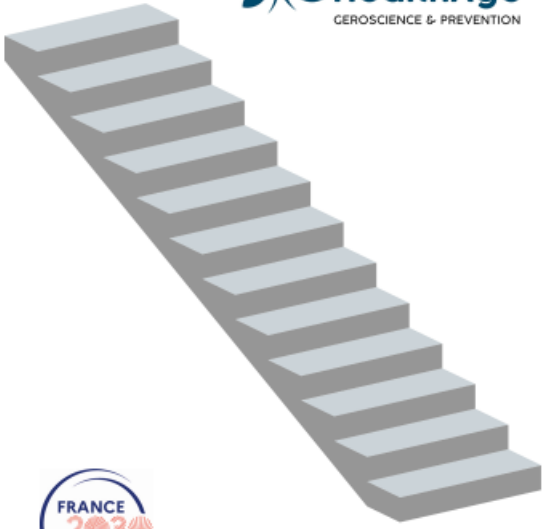
Weaknesses

- Basic and translational research: coming from different INSERM Institute we don't have yet a unique, common topic on Geroscience translational research.
- We don't have the bioinformatic & aging research competences to make for e.g omics analysis, in the Inspire T human and mice cohorts
- Few biotech discovery research program on Geroscience

What is an I.H.U ?

- I.H.U University Institute Hospital: give the CHU the opportunity to focus and innovate on translational, clinical research, care and education on a specific topic: **Prevention, Geroscience and Healthy Longevity**
- CHU-T, INSERM, University Paul Sabatier and the Gerontopole
 - 2010 first call : we focused on frailty -> W.H.O Collaborative Center
 - 2018 Second call : -> Inspire Geroscience Program, Felipe Sierra (Regional and European Funds)
 - 2023 Thied call -> We got the IHU Center in Toulouse

NB: After several months it became clear for the IHU teams, Inserm, University Paul Sabatier and the University Hospital that a 100% IHU director is needed on site in Toulouse



Maintain our Intrinsic Capacities & functions
Icpe Monitor digital already 53,000 participants, objective 2 millions

Early Diagnosis and Organ Repair
e.g Ptau 217 and Alzheimer,
But also sarcopenia, frailty, renal failure ..

GEROSCIENCE
Measure biological age, understand the effects of the aging process on the onset of age-related diseases for new drugs discovery