

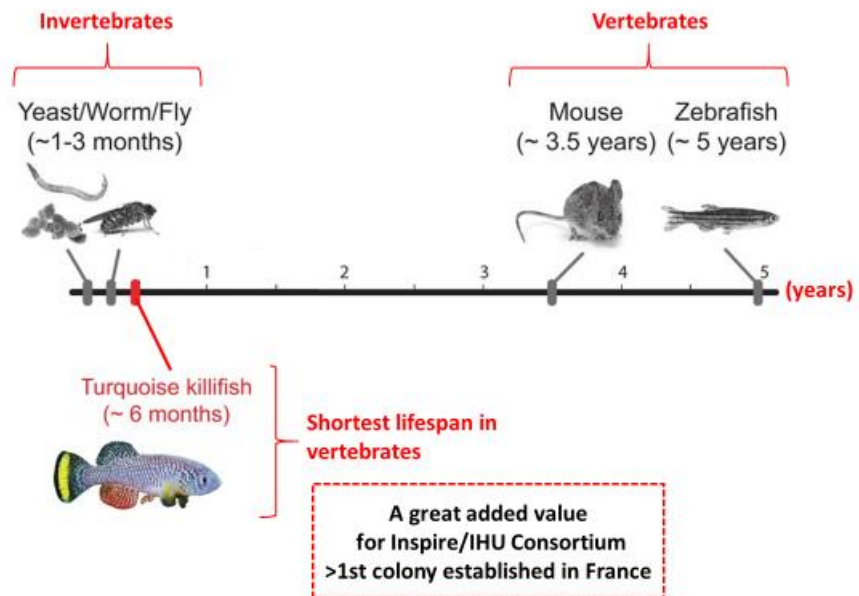
## IHU HealthAge 1st SAB September 5-7, 2024

### Update and future use of INSPIRE fish cohort

PRADERE JEAN-PHILIPPE & DRAY CEDRIC  
INSERM 1301, Restore Institut

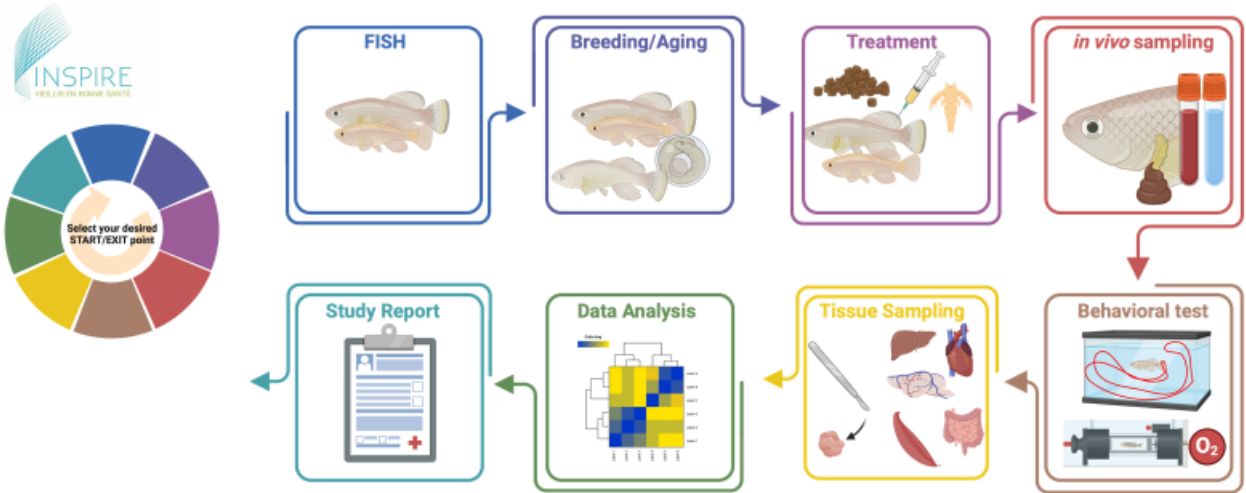


### African Killifish (*Nothobranchius furzeri*): a new and complete model of aging



Adapted from Harel I and Brunet A 2015

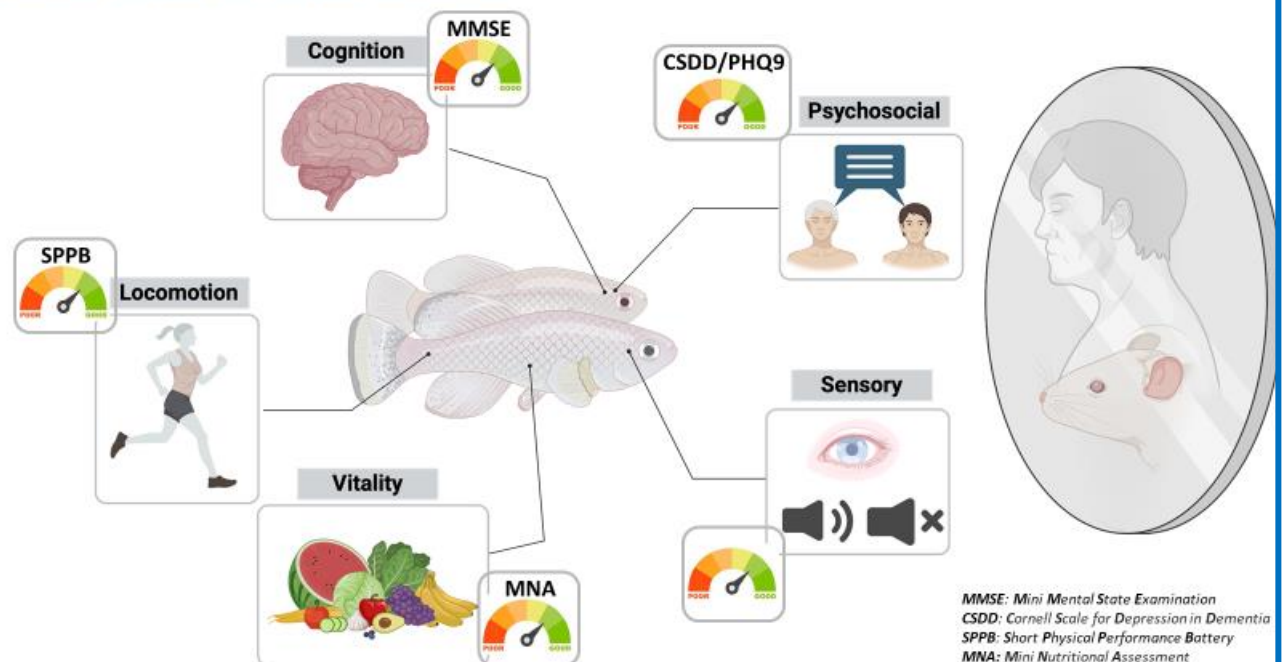
## FISH PLATFORM- SELECT YOUR ENTRY/EXIT POINT



### AIM: To get French Certification as a Fish (Killifish) Facility

- > Part of National Networks using Fish/marine biology models (Field and labs)
- >> Financial support
- >> To improve National and International visibility

## Intrinsic capacities adapted to Killifish



MMSE: Mini Mental State Examination  
 CSDD: Cornell Scale for Depression in Dementia  
 SPPB: Short Physical Performance Battery  
 MNA: Mini Nutritional Assessment

## PATHOLOGY ATLAS of The African Killifish: What are the causes of death of the Killifish ?

Toulouse VET School



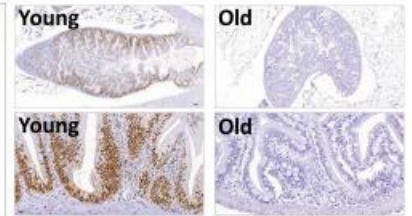
Aim: To determine tissue aging trajectory/hierarchy on a short-lived animal



H&E staining



Digestive tract-Ki67



(Solamiac B et al in prep)

Delivrables:

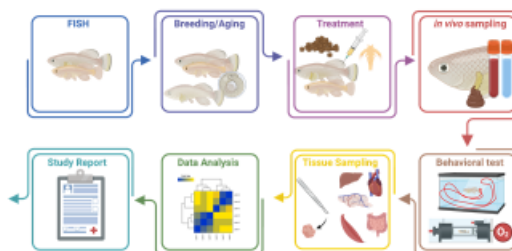
Publication(s) & Website:

- >Anatomical Annotations
- >Aging Pathology
- >Comparative Pathology (GRZ vs MZM backgrounds)

Supported by the IHU



## KILLIFISH FACILITY/PLATFORM (2019-present):



◆ 1st killifish paper (Sept 2024) ◆  
Morin E, Doumard E et al-Nature Metabolism (R2)



2x Permanent positions

- ◆ 1 Facility manager (since 2023)
- ◆ 1 technician (since 2024)

- ◆ 1 engineer (2019-2021)
- ◆ 2 engineer (2022-2024)
- ◆ 1 technician (2022-2023)
- ◆ 2 PhD students
- ◆ 6 Master Students

### BioBanking

3 inquiries for heart/liver/eyes from 3 labs

> Heart -Regenerative Biology

Dr Bensimon -Brito (CBI-Toulouse)

> Liver-Genomic

Pr Papanonis (Göttingen-Germ)

> Eyes/Brain

Pr Penninger (Braunschweig-Germ)

### Projects with Private Sector

3 funded partnerships



+ Discussion with 3 other companies

### Projects with Research Labs

6 collaborations with labs (3/7 are funded)

