

# KJELDGAARD Lecture - Dario Valenzano, PhD

Virtual lecture **11 February 2021 at 13:15 via Zoom**



**Dario Valenzano, PhD**

**Group leader (Max Planck Research Group)**

**MAX PLANCK INSTITUTE FOR BIOLOGY AND AGEING**

**Cologne, Germany**

## *“African killifishes shed light on evolution and modulation of lifespan”*

If developmental biology focuses on the processes that lead to the acquisition of adult form and function, biology of aging explores how cells, tissues and organisms maintain homeostasis over time despite internal and external insult. A largely un-answered question is what is the genomic substrate underlying the differences in lifespan and aging rates across species in nature. My group uses African killifishes as a natural vertebrate model system to study the evolutionary genomic basis underlying lifespan differences among species in nature and as an experimental system to study how the interaction between microbiota and host-immune function shapes organismal aging.

### **Dario Valenzano—short bio:**

Dario Valenzano leads a research group at the Max Planck Institute for Biology of Ageing in Cologne, Germany.

He studied Biology and Neuroscience in Italy at the Scuola Normale Superiore of Pisa, and after a postdoc in the Department of Genetics at Stanford University, in 2013 he established his research group in Cologne. His research is focused on understanding how evolution shapes life history traits (development, sexual maturation, ageing) and how ageing and longevity affect fitness in wild populations. His group also investigates what is the impact of the commensal gut microbial community on the host’s ageing and he is developing strategies to modulate life span targeting the gut microbiota. His main model system is the naturally short-lived turquoise killifish (*Nothobranchius furzeri*), which he started to develop as a novel model organism during graduate school. He devotes his time doing computational work and supervising scientific projects in his lab in Cologne, and once a year he conducts fieldwork in the African savannah, where he studies his favourite fish in their natural habitat.

Host: Anne von Phillipsborn

Group leader, Associate Professor

DANDRITE- Danish Research Institute of Translational Neuroscience

Nordic EMBL Partnership for Molecular Medicine

Aarhus University