



# Pisa Zebrafish day3.0

September 15<sup>th</sup> 2023  
CNR Research Area, Via Moruzzi 1, 56124 Pisa

08:15 - 08:35 Registration (building A, room 27, ground floor)  
08:35 - 08:45 Welcome and opening

## Session 1 - Disease

Chairs: Prof. Alessandro Cellerino, Scuola Normale Superiore  
Dr. Filippo Maria Santorelli, IRCCS Stella Maris

- 08:45 - 09:00 Study of neurodegeneration and subcellular morphological changes in the fast-aging teleost *Nothobranchius furzeri*  
Sara Bagnoli, Scuola Normale Superiore, Pisa (Italy)
- 09:00 - 09:15 BRAFV600E oncogenic mutation in melanoma development and pigmentation  
Raffaella De Paolo, CNR-IFC, Pisa (Italy)
- 09:15 - 09:30 Zebrafish tumor xenografts as tool for drug repurposing and personalized medicine  
Alice Usai, University of Pisa (Italy)
- 09:30 - 09:45 Sponsor communication: Standard and custom-made behavioural monitoring solutions for zebrafish - Antoine Barbot, Viewpoint
- 09:45 - 10:15 Coffee break
- 10:15 - 11:15 Plenary lecture:  
Studying the interplay between cancer and immune responses in zebrafish models  
Prof. Marina Mione, CIBIO, University of Trento (Italy)

## Session 2 - Development

Chairs: Prof. Chiara Gabellini, University of Pisa  
Prof. Massimiliano Andreazzoli, University of Pisa

- 11:15 - 11:30 Unraveling epigenetic contribution in the etiology of neurodevelopmental disorders: *prp12* and *setd5* inactivation to model ID and ASD in zebrafish  
Alessia Muscò, University of Pisa (Italy)
- 11:30 - 11:45 Multiple CRISPR/Cas approaches to model human diseases using zebrafish: the case-study of Sotos syndrome, an example of syndromic autism with peculiar craniofacial alteration  
Erica Lucia Crapanzano, University of Pisa (Italy)
- 11:45 - 12:00 Modeling Pitt-Hopkins syndrome and new pathogenetic variants of *TCF4* by gene editing: a step forward toward personalized medicine  
Martina Orefice, University of Pisa (Italy)
- 12:00 - 12:15 1,3-1,6  $\beta$ -Glucans restore impaired autophagy and mitochondrial respiration in the aging brain via a direct action  
Letizia Brogi, Scuola Normale Superiore, Pisa (Italy)
- 12:15 - 12:30 Decline in DNA repair and increased genome instability characterize aging of the immune system in turquoise killifish  
Gabriele Morabito, Leibniz Institute on Aging, Jena (Germany)
- 12:30 - 13:45 Lunch break
- 13:45 - 14:45 Plenary lecture:  
Dissecting zebrafish development with novel genome editing tools  
Prof. Filippo Del Bene, Institut de la Vision, Paris (France)

### Session 3 - Regulation and Animal Welfare

Chair: Prof. Baldassare Fronte, University of Pisa

- 14:45 - 15:15 Silvia Burchielli, DVM, Fondazione Gabriele Monasterio, Pisa (Italy)
- 15:15 - 15:30 **Aquaculture research and zebrafish model: application at the Department of Veterinary Sciences**  
Chiara Sangiacomo, University of Pisa (Italy)
- 15:30 - 15:45 **Zebrafish nutrition: a systematic approach to standardize feeding management**  
Rosario Licitra, IRCCS Stella Maris, Pisa (Italy)
- 15:45 - 16:00 **Early detection of endo-cellular parasites (*Microsporidia* and *Myxosporidia*) in zebrafish**  
Gianluca Fichi, IZS-LT, Rome (Italy)
- 16:00 - 16:15 **Sponsor communication: InterZebTEC: a new approach for the environmental monitoring of zebrafish colonies**  
Tommaso Sala, Tecniplast
- 16:15 - 16:45 Coffee break**

### Session 4 - Emerging Technologies

Chair: Prof. Vittoria Raffa, University of Pisa

- 16:45 - 17:10 **Two-photon imaging and dynamics of early gene expression during zebrafish embryo development**  
Prof. Francesco Vanzi, University of Florence (Italy)
- 17:10 - 17:25 **Photoswitchable nanoformulations for thermo-inducible DNA breaks and efficient delivery of gene editing complexes**  
Sultana Konstantinidou, University of Pisa (Italy)
- 17:25 - 17:40 **Neuro-electrophysiological recordings in zebrafish larvae: an innovative and non invasive platform for drugs screening**  
Marta D'Amora, University of Pisa (Italy)

**17:40 - 17:50 Conclusions**

**17:50 - 19:20 PI meeting**

#### Scientific and organizing committee:

Sara Bagnoli, Scuola Normale Superiore  
Silvia Burchielli, DVM, FTGM  
Erica Lucia Crapanzano, University of Pisa  
Francesco Cucco, CNR-IFC  
Raffaella De Paolo, CNR-IFC  
Maria Marchese, IRCCS Fondazione Stella Maris  
Alessia Muscò, University of Pisa  
Martina Orefice, University of Pisa  
Laura Poliseno, CNR-IFC, CRL-ISPRO  
Chiara Sangiacomo, University of Pisa  
Alice Usai, University of Pisa

#### Contacts & Registration:

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#### Registration form:



#### Organized by:

Clinical Physiology Institute CNR



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