

Eva Terzibasi Tozzini



Born in Milano (Italy) on 28/08/1976

Tel.: +39 081 583322

e-mail: eva.terzibasi@szn.it

Skype: eva terzibasi tozzini

Google scholar: <https://scholar.google.com/citations?user=cpkslV4AAAAAJ&hl=en>

Current Position: ricercatore III° livello, Scientist

Current Affiliation:

Section Biologia ed Evoluzione degli Organismi Marini (BEOM), Stazione Zoologica Anton Dohrn, Napoli (Italy)

Education/Training/Experience

| Institute and Location | Degree / Function | Year | Field of Study |
|---|----------------------------|------------------|---|
| Università di Pisa – Dipartimento di Scienze dell’Uomo e dell’Ambiente | Master (Laurea) | 1995-2001 | Biological sciences, Marine Biology |
| Università di Pisa - Dipartimento di Fisiologia | Ph.D. | 2003-2006 | Neurosciences |
| Frits Lipmann Institute for Ageing Research – Leibniz Institute, Jena (Germany) | Postdoc | 2007-2010 | Neurobiology and evolution of ageing |
| Laboratorio di Biologia (Bio@SNS) | Postdoc | 2011-2019 | Neurobiology and evolution of ageing |
| Stazione Zoologica Anton Dohrn, Napoli, Italy | Ricercatore III Livello | November 2019 | Neurobiology of marine vertebrates |

Appointments and awards

- Co-editor of the Special Issue “Biology of Aging” - Seminars in Cellular and Developmental Biology Journal
- Review activity for the following scientific journals: The Journal of Comparative Neurology, Molecular Nutrition and Food Research, Brain Research; Histochemistry and Cell Biology, Evolutionary Applications (Publons account: <https://publons.com/a/1213436>)

Other

Academic titles

- Italian ASN: Abilitazione Scientifica Nazionale a Professore di II fascia (SSC 05/D1, Fisiologia)
- Italian ASN: Abilitazione Scientifica Nazionale a Professore di II fascia (SSC 05/B2, Anatomia comparata e Citologia)

Organization and/or participation as speaker in national and international scientific conferences

- Oral Presentation and Member of the Organization Committee of the 1st International Symposium “From bush to bench: “10 years of *Nothobranchius furzeri* as a model system in biology”, Sala Azzurra of the Scuola Normale Superiore, February 6-8, 2014 Pisa, contacts management with external sponsors (Techniplast, AISAL)
- Selected speaker to the international meeting “Healthy Ageing: From Molecules to Organisms”, 18-20 May 2015, Cambridge (UK)
- Invited speaker at the 3rd *Nothobranchius* Symposium, 7-9 2016, Max Planck Institute for Biology of Ageing, Koeln, (DE)
- Invited speaker at the "4th Mancunian Skin Club (MSC) Annual International Workshop", May 10-11 2018, Chetham's College of Music, Manchester (UK)
- Selected speaker at “the annual meeting of the German Association for Aging Research (DGfA)”, December 6-7 2018, Jena (DE)
- Selected speaker to “The 2nd Italian Zebrafish Meeting”, January 30 to February 1 - 2019, Pisa, Italy

Scientific responsibility of national and international research projects, admitted to financing based on competitive calls for peer review:

- Drafting, management and scientific responsibility for the AIRC project, “My First AIRC Grant (MFAG) 2011”: “The short-lived fish *Nothobranchius furzeri* as a model of age-dependent spontaneous tumorigenesis”

Students’ Supervision and Teaching

- 10-h modules (Methodologies of Immunohistochemistry), part of the SNS cours “Laboratory of Biology”, for the 2nd year SNS undergraduate students (2017 and 2019), Scuola Normale Superiore, Pisa (IT)
- Supervisor of the SNS PhD student Sara Bagnoli
- Evaluation Committee member of the doctoral thesis of the PhD Students Valerio Corvaglia, Giacomo Siano, Giovanna Testa, Cinzia Caterino, Mariateresa Mazzetto (Scuola Normale Superiore)

Publications

List of publications of the last 10 years:

Terzibasi E, Calamusa M, Novelli E, Domenici L, Strettoi E, Cellerino A. Age-dependent remodelling of retinal circuitry. *Neurobiol Aging*. 2009 May;30(5):819-28. Epub 2007 Oct 24. PubMed PMID: 17920161.

- Terzibasi E, Lefrançois C, Domenici P, Hartmann N, Graf M, Cellerino A. Effects of dietary restriction on mortality and age-related phenotypes in the short-lived fish *Nothobranchius furzeri*. *Aging Cell*. 2009 Apr;8(2):88-99. doi: 10.1111/j.1474-9726.2009.00455.x. PubMed PMID: 19302373. **Cited by Cell Previews**
- Hartmann N, Reichwald K, Lechel A, Graf M, Kirschner J, Dorn A, Terzibasi E, Wellner J, Platzer M, Rudolph KL, Cellerino A, Englert C. Telomeres shorten while Tert expression increases during ageing of the short-lived fish *Nothobranchius furzeri*. *Mech Ageing Dev*. 2009 May;130(5):290-6. doi: 10.1016/j.mad.2009.01.003. Epub 2009 Jan 22. PubMed PMID: 19428446.
- Di Cicco E, Tozzini ET, Rossi G, Cellerino A. The short-lived annual fish *Nothobranchius furzeri* shows a typical teleost aging process reinforced by high incidence of age-dependent neoplasias. *Exp Gerontol*. 2011 Apr;46(4):249-56. doi: 10.1016/j.exger.2010.10.011. Epub 2010 Nov 3. PubMed PMID: 21056099. **Cited by Cell Previews**
- Hartmann N, Reichwald K, Wittig I, Dröse S, Schmeisser S, Lück C, Hahn C, Graf M, Gausmann U, Terzibasi E, Cellerino A, Ristow M, Brandt U, Platzer M, Englert C. Mitochondrial DNA copy number and function decrease with age in the short-lived fish *Nothobranchius furzeri*. *Aging Cell*. 2011 Oct;10(5):824-31. doi: 10.1111/j.1474-9726.2011.00723.x. Epub 2011 Jun 27. PubMed PMID: 21624037.
- D'Angelo L, de Girolamo P, Cellerino A, Tozzini ET, Castaldo L, Lucini C. Neurotrophin Trk receptors in the brain of a teleost fish, *Nothobranchius furzeri*. *Microsc Res Tech*. 2012 Jan;75(1):81-8. doi: 10.1002/jemt.21028. Epub 2011 Jun 15. PubMed PMID: 21678525.
- Tozzini ET, Baumgart M, Battistoni G, Cellerino A. Adult neurogenesis in the short-lived teleost *Nothobranchius furzeri*: localization of neurogenic niches, molecular characterization and effects of aging. *Aging Cell*. 2012 Apr;11(2):241-51. doi: 10.1111/j.1474-9726.2011.00781.x. Epub 2012 Jan 13. PubMed PMID: 22171971; PubMed Central PMCID: PMC3437507.
Highlighted by Faculty of 1000
- D'Angelo L, De Girolamo P, Cellerino A, Tozzini ET, Varricchio E, Castaldo L, Lucini C. Immunolocalization of S100-like protein in the brain of an emerging model organism: *Nothobranchius furzeri*. *Microsc Res Tech*. 2012 Apr;75(4):441-7. doi: 10.1002/jemt.21075. Epub 2011 Oct 22. PubMed PMID: 22021149.
- D'Angelo L, de Girolamo P, Lucini C, Terzibasi ET, Baumgart M, Castaldo L, Cellerino A. Brain derived neurotrophic factor: mRNA expression and protein distribution in the brain of the teleost *Nothobranchius furzeri*. *J Comp Neurol*. 2013 Aug 24. doi: 10.1002/cne.23457. [Epub ahead of print] PubMed PMID: 23983038.
- Tozzini ET, Dorn A, Ng'oma E, Polačik M, Blažek R, Reichwald K, Petzold A, Watters B, Reichard M, Cellerino A. Parallel evolution of senescence in annual fishes in response to extrinsic mortality. *BMC Evol Biol*. 2013 Apr 3;13:77. doi: 10.1186/1471-2148-13-77. PubMed PMID: 23551990; PubMed Central PMCID: PMC3623659.
- Terzibasi Tozzini E, Savino A, Ripa R, Battistoni G, Baumgart M, Cellerino A. Regulation of microRNA expression in the neuronal stem cell niches during aging of the short-lived annual fish *Nothobranchius furzeri*. *Front Cell Neurosci*. 2014 Feb 21;8:51. doi: 10.3389/fncel.2014.00051. eCollection 2014. PubMed PMID: 24600353; PubMed Central PMCID: PMC3930850.
- Polačik M, Blažek R, Režucha R, Vrtílek M, Terzibasi Tozzini E, Reichard M. Alternative intrapopulation life-history strategies and their trade-offs in an African annual fish. *J Evol Biol*.

2014 May;27(5):854-65. doi: 10.1111/jeb.12359. Epub 2014 Mar 26. PubMed PMID: 24666645.

Baumgart M, Groth M, Priebe S, Savino A, Testa G, Dix A, Ripa R, Spallotta F, Gaetano C, Ori M, Terzibasi Tozzini E, Guthke R, Platzer M, Cellerino A. RNA-seq of the aging brain in the short-lived fish *N. furzeri* - conserved pathways and novel genes associated with neurogenesis. *Aging Cell*. 2014 Dec;13(6):965-74. doi: 10.1111/accel.12257. Epub 2014 Jul 25. PubMed PMID: 25059688; PubMed Central PMCID: PMC4326923.

Baumgart M, Di Cicco E, Rossi G, Cellerino A, Tozzini ET. Comparison of captive lifespan, age-associated liver neoplasias and age-dependent gene expression between two annual fish species: *Nothobranchius furzeri* and *Nothobranchius korthause*. *Biogerontology*. 2015 Feb;16(1):63-9. doi: 10.1007/s10522-014-9535-y. Epub 2014 Oct 15. PubMed PMID: 25315356. **Highlighted by Faculty of 1000**

Blažek R, Polačik M, Kačer P, Cellerino A, Řežucha R, Methling C, Tomášek O, Syslová K, Terzibasi Tozzini E, Albrecht T, Vrtílek M, Reichard M. Repeated intraspecific divergence in life span and aging of African annual fishes along an aridity gradient. *Evolution* 2016 Dec 7. 71 (2), 386-402. Doi: 10.1111/evo.13127

Ripa R, Dolfi L, Terrigno M, Pandolfini L, Savino A, Arcucci V, Groth M, Terzibasi Tozzini E, Baumgart M, Cellerino A. MicroRNA miR-29 controls a compensatory response to limit neuronal iron accumulation during adult life and aging. *BMC Biol*. 2017 Feb 13;15(1):9. doi: 10.1186/s12915-017-0354-x. **Cited by Nature News**

Terzibasi-Tozzini E¹, Martinez-Nicolas A, Lucas-Sánchez A. The clock is ticking. Ageing of the circadian system: from physiology to cell cycle. *Semin Cell Dev Biol*. 2017 Jun 16. pii: S1084-9521(16)30309-3. doi: 10.1016/j.semcdb.2017.06.011.

Cellerino A, Terzibasi Tozzini E. Biology of aging: New models, new methods. *Semin Cell Dev Biol*. 2017 Epub Jul 19. doi.org/10.1016/j.semcdb.2017.07.024

Api M, Biondi P, Olivotto I, Terzibasi E, Cellerino A, Carnevali O. Effects of Parental Aging During Embryo Development and Adult Life: The Case of *Nothobranchius furzeri*. *Zebrafish*. 2018 Jan 5. doi: 10.1089/zeb.2017.1494.

Montesano A, Baumgart M, Avallone L, Castaldo L, Lucini C, Terzibasi Tozzini E, Cellerino A, D'Angelo L, de Girolamo P. Age-related central regulation of orexin and NPY in the short lived African killifish *Nothobranchius furzeri*. *J Comp Neurol*. 2019 Jan 21. doi: 10.1002/cne.24638. [Epub ahead of print] PMID:30666646

Leggieri A, Attanasio C, Palladino A, Cellerino A, Lucini C, Paolucci M, Terzibasi Tozzini E, de Girolamo P, D'Angelo L. Identification and Expression of Neurotrophin-6 in the Brain of *Nothobranchius furzeri*: One More Piece in Neurotrophin Research. *J Clin Med*. 2019 Apr 30;8(5). pii: E595. doi: 10.3390/jcm8050595.