

CURRICULUM VITAE OF LÁSZLÓ ORBÁN

PERSONAL DETAILS

Date of birth: July 25, 1957 at Várpalota, Hungary

Address: 8315 Gyenesdiás, Faludi utca 22.

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EXPERTISE: Fish biology, teleost reproduction, functional genomic analysis of sex determination and gonad differentiation in vertebrates

EDUCATION

- 1971-75 Lovassy László High School, Veszprém, Hungary
1976-81 József Attila University (today Szeged University), Szeged, Hungary
1981 University Diploma (Biology), Szeged No. 202/1981.
1983 Doctoral Degree (Biochemistry), Szeged No. 62-7/1983
1986-89 Fogarty Fellowship, NICHD, National Institutes of Health, Bethesda, MD, USA
1997 Candidacy Degree (Biochemistry of nucleic acids), Hungarian Academy of Sciences, Budapest, Hungary, No. 16.485

POSITIONS:

- 1981-82 Research and Teaching Assistant, Department of Biochemistry, József Attila University, Szeged, Hungary
1983-86 Postdoctoral Fellow, Department of Biochemistry, József Attila University, Szeged, Hungary
1986-89 Fogarty Fellow, SMA, LTPB, NICHD, National Institutes of Health, Bethesda, MD, USA
1989-98 Staff Scientist, Group Leader
Laboratory of Fish Biotechnology (formerly Transgenic Fish Group), Agricultural Biotechnology Center, Gödöllő, Hungary
1998-02 Senior Scientist, Principal Investigator, Laboratory of Reproductive Genomics, Institute of Molecular Agrobiolgy, Singapore
2001-15 Associate Professor (adjunct), Department of Biological Sciences, National University of Singapore
2002-17 Director of Reproductive Genomics, then Senior Principal Investigator, Temasek Life Sciences Laboratory, Singapore
2009- Professor (adjunct), Georgikon Faculty, University of Pannonia, Keszthely, Hungary
2013- Honorary Professor, Department of Fish Culture, Szent István University, Gödöllő, Hungary
2013-20 Professor (adjunct), Comparative Genomics Centre, Murdoch University, Murdoch, Australia
2018-19 Senior Scientist & Project Leader, Frontline Fish Genomics Research Group, Department of Animal Sciences, Georgikon Faculty, University of Pannonia, Keszthely, Hungary

- 2019-21 Senior Advisor & Project Leader, Frontline Fish Genomics
Research Group, Department of Animal Sciences, Georgikon Faculty,
University of Pannonia, Keszthely, Hungary
- 2021- Senior Advisor & Project Leader, Frontline Fish Genomics
Research Group, Institute of Aquaculture and Environmental Safety,
Georgikon Campus of SzIE, then MATE, Keszthely, Hungary

HONORS AND PROFESSIONAL ACHIEVEMENTS

Student Fellowship of the Hungarian People's Republic

Invited speaker at eight international conferences

Conference Co-Chairman of four "Plant and Animal Genome Asia 2013" Symposia,
Singapore, 2013-2016

Session Chair at four "Plant and Animal Genome Asia 2013" Symposia, Singapore and
Seoul, 2014-2017

Member of the Organizing Committee and Session Chair of the 10th European Zebrafish
Meeting (EZM); Budapest, Hungary; 2017

Referee for 69 international, peer-reviewed journals

Member of the Editorial Board of Halászat (Hungary; 2014-)

Member of the joint Editorial Board of Journal of Endocrinology and Journal of Molecular
Endocrinology (2016-)

Deputy Editor-in-Chief of Pisces Hungarici (Hungary; 2018-2022)

Member of the Editorial Board of Pisces Hungarici (Hungary; 2022-)

Past member of the Editorial Advisory Board of Aquaculture (Elsevier, The Netherlands;
1994-2004) and past Academic Editor of PLoS ONE (1996-2015)

Supervisor or co-supervisor of 10 PhD students (+3 in progress)

Supervisor or co-supervisor of 74 high school, BSc and MSc students (+2 in progress)

PUBLICATIONS:

109 publications in peer-reviewed international journals (+2 manuscripts communicated)

Five book chapters

19 publications in national journals

Total number of independent citations: 2,903 (MTMT)

h-index: 40

LIST OF TEN MOST RELEVANT PEER-REVIEWED PUBLICATIONS

- Valdivieso, A., L. Ribas, A. Monleón, **L. Orbán** and F. Piferrer: Exposure of zebrafish to elevated temperature induces sex ratio shifts and alterations in the testicular epigenome of unexposed offspring. *Environmental Research* **186**: 109601 (2020; doi: 10.1016/j.envres.2020.109601)
- Saju, J.M., M.S. Hossain, W.C. Liew, A. Pradhan, N.M. Thevasagayam, L.S.E. Tan, A. Anand*, P-E. Olsson* and **L. Orbán***: Heat shock factor 5 is essential for spermatogenesis in zebrafish. *Cell Reports* **25(12)**: 3252-3261.E4 (2018; <https://doi.org/10.1016/j.celrep.2018.11.090>; * joint corresponding authors)
- Ribas L., W. C. Liew, N. Díaz, R. Sreenivasan, **L. Orbán*** and F. Piferrer*: Heat-induced masculinization in domesticated zebrafish is family-specific and yields a set of gonadal transcriptomes, *Proc. Natl. Acad. Sci. USA* **114(6)**: E941-E950 (2017; doi: 10.1073/pnas.1609411114;* joint corresponding authors)
- Bian, C., Y. Hu, V. Ravi, I.S. Kuznetsova, X.Y. Shen, X. Mu, Y. Sun, X. You, J. Li, X. Li, ... J. Xu, S.J. O'Brien, **L. Orbán***, B. Venkatesh* and Q. Shi*: The Asian arowana (*Scleropages formosus*) genome provides new insights into the evolution of an early lineage of teleosts. *Scientific Reports* **6**: 24501 (2016; doi: 10.1038/srep24501;* joint corresponding authors)
- Vij, S., H. Kuhl, I.S. Kuznetsova, A. Komissarov, A.A. Yurchenko, P.v. Heusden, S. Singh, N.M. Thevasagayam, P.S.R. Sridatta, K. Purushothaman, ... S.J. O'Brien, M.C. Schatz, T. Dalmay, S. Turner, S. Lok, A. Christoffels* and **L. Orbán***: Chromosomal-level assembly of the Asian seabass genome using long sequence reads and multi-layered scaffolding. *PLoS Genetics* **12(4)**: e1005954 (2016; doi:10.1371/journal.pgen.1005954; * joint corresponding authors)
- Tzung, K.W., R. Goto, J.M. Saju, R. Sreenivasan, T. Saito, K. Arai, E. Yamaha, M.S. Hossain, M. Calvert and **L. Orbán**: Early depletion of primordial germ cells in the zebrafish promotes testis formation. *Stem Cell Reports* **4**: 61-73 (2015; doi: 10.1016/j.stemcr.2014.10.011)
- Sreenivasan, R., J. Jiang, X. Wang, R. Bártfai, H.Y. Kwan, A. Christoffels and **L. Orbán**: Gonad differentiation in zebrafish is regulated by the canonical Wnt signaling pathway. *Biology of Reproduction* **90(2)**: 45-56 (2014; doi: 10.1095/biolreprod.113.110874)

Liew WC, R. Bartfai R, Z. Lim Z, R. Sreenivasan, K.R. Siegfried KR and **L. Orbán**: Polygenic sex determination system in zebrafish. *PLoS ONE* 7(4): e34397 (2012; doi: 10.1371/journal.pone.0034397)

Rohner, N., M. Bercsényi, **L. Orbán**, M. Kolanczyk, D. Linke, M. Brand, C. Nüsslein-Volhard and M.P. Harris: Duplication of *fgfr1* permits Fgf signaling to serve as a target for selection during domestication, *Current Biology* **19**: 1-6 (2009; doi: 10.1016/j.cub.2009.07.065)

Bárfai, R., C. Balduf, T. Hilton, Y. Rathmann, Y. Hadzhiev, L. Tora, **L. Orbán***, and F. Müller*: TBP2, a vertebrate-specific member of the TBP family is required in embryonic development of zebrafish. *Current Biology* **14(7)**: 593-598 (2004; doi: 10.1016/j.cub.2004.03.034; * joint corresponding authors)