Curriculum Vitae

Personal Data

Title	**PD Dr. rer. nat. habil.**
First name	**Daria**
Name	**Onichtchouk**
Current position	Groupleader
Current institution(s)/site(s), country	University of Freiburg, Biology I, Developmental Biology Dept.
Identifiers/ORCID	0000-0001-6497-1445

Qualifications and Career

Stages	**Periods and Details**
Degree programme	Diplom, Animal Physiology, 1982-1989, Moscow State University, Russian Federation
Doctorate	1995-1999, "The role of Xvent-1 and Xvent-2 homeobox genes in mesoderm formation during Xenopus laevis development", Christof Niehrs, DKFZ, Heidelberg, Germany
Stages of academic/professional career	2012 – present- Groupleader, University of Freiburg 2015 – Habilitation, venia legendi, University of Freiburg. 2006-2012 Lecturer, University of Freiburg 2001-2006 Senior Scientist, DeveloGen AG, Göttingen, Germany 1999-2001 MPI postdoc fellowship in MPI Biophysical chemistry, Göttingen, Germany. 1995 – 1999, Doctorate 1992-1995 Scientist, National Medical Research Centre for Hematology, Moscow, Russian Federation.

Supplementary Career Information

1989-1992 – Maternity leave.

2001-2006: academic career break: taking care of two school age children who migrated to Germany in 2000.

Activities in the Research System:

Currently: member of two TAC (Thesis Advisory Committees) for Doctoral Students

2020-2025: teaching Master Students, OM "Genetics and Developmental Biology" (lab practical, Developmental Biology part), SP1 "Developmental Biology" (lectures and taking exams, together with other lecturers).

2020-2025: Peer-reviewing for funding bodies: DFG, ANR (French Research National Agency), BBSRC (UK), NWO (Netherlands)

2020-2025: Peer-reviewing for journals: Science, Nature Molecular and Structural Biology, Nature Communications, Molecular Systems Biology, Mol Biol Evol, Developmental Cell, Developmental Biology, Developmental Dynamics, FEBS letters, Development Genes and Evolution, Theriogenology, Fish Physiology and Biochemistry

Supervision of Researchers in Early Career Phases

Supervision of 2 doctoral dissertations and 2 Masters dissertations within the last 5 years and ongoing.

Scientific Results

Category A

- **Corresponding author*

1. Riesle AJ, Gao M, Rosenblatt M, Hermes J, Hass H, Gebhard A, Veil M, Grüning B, Timmer J, **Onichtchouk D***. Activator-blocker model of transcriptional regulation by pioneer-like factors. *Nat Commun*. 2023 Sep 14;14(1):5677. doi:10.1038/s41467-023-41507-z. OA

2. Gao M, Veil M, Rosenblatt M, Riesle AJ, Gebhard A, Hass H, Buryanova L, Yampolsky LY, Grüning B, Ulianov SV, Timmer J, **Onichtchouk D***. Pluripotency factors determine gene expression repertoire at zygotic genome activation. *Nat Commun*. 2022 Feb 10;13(1):788. doi: 10.1038/s41467-022-28434-1. OA

3. Baranasic D, Hörtenhuber M, Balwierz PJ, Zehnder T, Mukarram AK, Nepal C, Várnai C, Hadzhiev Y, Jimenez-Gonzalez A, Li N, Wragg J, D'Orazio FM, Relic D, Pachkov M, Díaz N, Hernández-Rodríguez B, Chen Z, Stoiber M, Dong M, Stevens I, Ross SE, Eagle A, Martin R, Obasaju O, Rastegar S, McGarvey AC, Kopp W, Chambers E, Wang D, Kim HR, Acemel RD, Naranjo S, Łapiński M, Chong V, Mathavan S, Peers B, Sauka-Spengler T, Vingron M, Carninci P, Ohler U, Lacadie SA, Burgess SM, Winata C, van Eeden F, Vaquerizas JM, Gómez-Skarmeta JL, **Onichtchouk D**, Brown BJ, Bogdanovic O, van Nimwegen E, Westerfield M, Wardle FC, Daub CO, Lenhard B, Müller F. Multiomic atlas with functional stratification and developmental dynamics of zebrafish cis-regulatory elements. *Nat Genet.* 2022 Jul;54(7):1037-1050. doi: 10.1038/s41588-022-01089-w. OA

4. Veil M, Yampolsky LY, Grüning B, **Onichtchouk D***. Pou5f3, SoxB1, and Nanog remodel chromatin on high nucleosome affinity regions at zygotic genome activation. *Genome Res*. 2019 Mar ;29(3):383-395. doi: 10.1101/gr.240572.118. OA

5. Veil M, Schaechtle MA, Gao M, Kirner V, Buryanova L, Grethen R, **Onichtchouk D***. Maternal Nanog is required for zebrafish embryo architecture and for cell viability during gastrulation. *Development.* 2018 Jan 9;145(1):dev155366. doi: 10.1242/dev.155366.

6. **Onichtchouk D***. Evolution and functions of Oct4 homologs in non-mammalian vertebrates. *Biochim Biophys Acta.* 2016 Jun;1859(6):770-9. doi: 10.1016/j.bbagrm.2016.03.013.

7: Tan H, **Onichtchouk D**, Winata C. DANIO-CODE: Toward an Encyclopedia of DNA Elements in Zebrafish. *Zebrafish.* 2016 Feb;13(1):54-60. doi:10.1089/zeb.2015.1179

8: Leichsenring M, Maes J, Mössner R, Driever W*, **Onichtchouk D***. Pou5f1 transcription factor controls zygotic gene activation in vertebrates. *Science.* 2013 Aug 30;341(6149):1005-9. doi: 10.1126/science.1242527.

9: Belting HG, Wendik B, Lunde K, Leichsenring M, Mössner R, Driever W*, **Onichtchouk D***. Pou5f1 contributes to dorsoventral patterning by positive regulation of vox and modulation of fgf8a expression. *Dev Biol.* 2011 Aug 15;356(2):323-36. doi: 10.1016/j.ydbio.2011.05.660.

10: **Onichtchouk D***, Geier F, Polok B, Messerschmidt DM, Mössner R, Wendik B, Song S, Taylor V, Timmer J, Driever W*. Zebrafish Pou5f1-dependent transcriptional networks in temporal control of early development. *Mol Syst Biol.* 2010;6:354. doi: 10.1038/msb.2010.9. Epub 2010 Mar 9. OA

Category B

1. Galitsyna A, Ulianov SV, Bykov NS, Veil M, Gao M, Perevoschikova K, Gelfand M, Razin SV, Mirny L*, **Onichtchouk D***. Extrusion fountains are hallmarks of chromosome organization emerging upon zygotic genome activation. bioRxiv [Preprint]. 2023 Jul 15:2023.07.15.549120. doi: 10.1101/2023.07.15.549120.
2. Ulianov SV*, **Onichtchouk D*** “Awakening of the three-dimensional genome: HiC method in zebrafish embryos”, book chapter for *Zygotic Genome Activation* volume in Methods in Molecular Biology series, published by Springer Nature, editor – Matthew Good (UPenn, USA), *issued April 2025*.
3. Sulej, A., **Onichtchouk, D**., Winata, C., 2021. Zebrafish swims into post-genomic era. Preview, Briefings in Functional Genomics 20, 345-347

Academic Distinctions

2000 Walther and Christine Richtzenhain-Preis for the best Doctorate work of the year, DKFZ Heidelberg, Germany.

Other Information

not specified