

# Dr. Vera Zywitza

Stem Cell Biologist / Scientist

---

Leibniz Institute for Zoo and Wildlife Research in the Forschungsverbund Berlin e. V.

Department of Reproduction Management

Alfred-Kowalke-Strasse 17

10315 Berlin, Germany

**Phone:** 0049 (0) 30 5168 - 681

**Email:** [zywitza@izw-berlin.de](mailto:zywitza@izw-berlin.de)

---

## EDUCATION

04/2014 – 01/2019     **PhD in Molecular Biology, *summa cum laude***

Faculty of Life Sciences, Humboldt Universität zu Berlin, Berlin, Germany

10/2009 – 04/2012     **Master of Science Molecular Biotechnology, grade 1.1**

Technische Universität München, Munich, Germany

10/2006 – 09/2009     **Bachelor of Science Education** with Emphases on Biology and Chemistry for

Teaching Profession for Secondary School Education, grade 1.9

Technische Universität München, Munich, Germany

## RESEARCH ACTIVITIES & EMPLOYMENT HISTORY

09/2024 – today     **Scientist and head** of the team “cellular biodiversity” in the group of Thomas B. Hildebrandt, Department of Reproduction Management, Leibniz Institute for Zoo and Wildlife Research in the Forschungsverbund Berlin e. V., Berlin, Germany

09/2019 – today     **Scientist** in the BioRescue consortium, which develops advanced reproduction technologies for saving critically endangered mammals such as the northern white rhino from extinction

09/2019 – 08/2024     **Postdoctoral Researcher** in the lab of Sebastian Diecke, Technology Platform Pluripotent Stem Cells, Max-Delbrück-Center for Molecular Medicine in the Helmholtz Association (MDC), Berlin, Germany

01/2022 - today     **Head** of the international “animal PSC club”, a monthly meeting to exchange knowledge about reprogramming diverse animal species

08/2022-09/2022     **Visiting Scientist/JSPS fellow** in the lab of Katsuhiko Hayashi, Department of Genome Biology, Graduate School of Medicine, Osaka University, Osaka, Japan (within the scope of the JSPS Summer Program 2020)

04/2014 – 01/2019     **PhD Student** in the lab of Nikolaus Rajewsky, Systems Biology of Gene Regulatory Elements, Berlin Institute for Medical Systems Biology (BIMSB), Max-Delbrück-Center for Molecular Medicine in the Helmholtz Association (MDC), Berlin, Germany  
*Thesis:* Adult neurogenesis at single-cell resolution, grade *summa cum laude*

02/2013 – 07/2013     **Freelance** i. a. at ALBA Group, and Agora Energiewende, Berlin, Germany

09/2011 - 12/2012     **Research Assistant and Master Student** in the lab of Magdalena Götz, Institute of Stem Cell Research, Helmholtz Zentrum München, German Research Center for Environmental Health (GmbH), Munich, Germany  
*Thesis:* Reconstitution of the stem cell niche of adult neural stem cells *in vitro*, grade 1.0

11/2008 – 07/2009     **Bachelor Student and Intern** in the lab of Angelika Schnieke, Chair of Livestock Biotechnology, Technische Universität München, Munich, Germany  
*Thesis:* Inducible gene expression – evaluation of expression and reporter constructs of Cre recombinase in cell culture, grade 1.0

05/2011 – 06/2011     **Intern** in the lab of Stefan Engelhardt, Institute of Pharmacology and Toxicology, Technische Universität München, Munich, Germany  
*Topic:* Function of microRNAs in the heart

08/2010 – 10/2010     **Intern** in the lab of Arne Skerra, Chair of Biological Chemistry, Technische Universität München, Munich, Germany  
*Topic:* Expression, purification and first crystallization screenings of an endolysin from *Yersinia enterocolitica*

## MAJOR PUBLICATIONS

**Zywitza, V.**, Rusha, E., Shaposhnikov, D., Ruiz-Orera, J., Telugu, N., Rishko, V., Hayashi, M., Michel, G., Wittler, L., Stejskal, J., et al. (2022a). Naïve-like pluripotency to pave the way for saving the northern white rhinoceros from extinction. *Sci. Rep.* 12, 3100.

**Zywitza, V.**, Frahm, S., Krüger, N., Weise, A., Göritz, F., Hermes, R., Holtze, S., Colleoni, S., Galli, C., Drukker, M., et al. (2022b). Induced pluripotent stem cells and cerebral organoids from the critically endangered Sumatran rhinoceros. *iScience* 105414.

Hayashi, M., **Zywitza, V.**, Naitou, Y., Hamazaki, N., Goeritz, F., Hermes, R., Holtze, S., Lazzari, G., Galli, C., Stejskal, J., et al. (2022). Robust induction of primordial germ cells of white rhinoceros on the brink of extinction. *Sci. Adv.* 8, eabp9683.

**Zywitza, V.**, Misios, A., Bunatyan, L., Willnow, T.E., and Rajewsky, N. (2018). Single-cell transcriptomics characterizes cell types in the subventricular zone and uncovers molecular defects impairing adult neurogenesis. *Cell Rep.* 25, 2457–2469.e8.

