

Mareike Albert

Current position Professor of “Epigenomics of neural development”
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Scientific biography

Since 10/2024 **Faculty of Biology, CRTD, TUD Dresden University of Technology**
 Professor of “Epigenomics of neural development”
Since 01/2019 **Center for Regenerative Therapies TU Dresden (CRTD)**
 Research group leader “*Gene regulatory mechanisms of neocortex evolution*”
07/2013 – 12/2018 **Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG),
Dresden, Germany**
 Postdoctoral fellow in the laboratory of Prof. Wieland B. Huttner
12/2008 – 12/2012 **Biotech Research and Innovation Center (BRIC), Copenhagen, Denmark**
 Postdoctoral fellow in the laboratory of Prof. Kristian Helin
05/2004 – 08/2008 **Friedrich Miescher Institute (FMI), Basel, Switzerland**
 PhD student in the laboratory of Prof. Antoine H.F.M. Peters
07/2002 – 06/2003 **Curtin University of Technology, Perth, Australia**
 MSc (Biomedical Science)

Fellowships and prizes

06/2020 – 09/2024 **TUD Young Investigator**, Faculty of Biology, TUD
11/2019 – 10/2025 **Emmy Noether** research group, DFG
03/2016 – 02/2017 **Christiane Nüsslein Volhard (CNV)** Foundation support
09/2009 – 11/2011 **EMBO** Long Term Postdoc Fellowship
09/2009 **Edmond H. Fisher Prize** awarded by FMI for the best PhD thesis in 2008
04/2005 – 03/2007 **Boehringer Ingelheim Fonds (BIF)** PhD Scholarship

Publications (selection)

- 1) Ditzer N*, Senoglu E*, Kolodziejczyk A, Schütze TM, Nikolaidi A, Küster K, Sameith K, Dietz S, Derihaci RP, Birdir C, Eugster A, Karl MO, Dahl A, Wimberger P, Baenke F, Peitzsch C, **Albert M.** (2025) Epigenome profiling identifies H3K27me3 regulation of extracellular matrix composition in human corticogenesis. *Neuron* S0896-6273(25)00474-X. doi: 10.1016/j.neuron.2025.06.016.
Presented on the cover of Neuron and highlighted in a preview.
- 2) Aquilino M*, Ditzer N*, Namba T, **Albert M.** (2025) Epigenetic and metabolic regulation of developmental timing in neocortex evolution. *Trends in Neurosciences* 48(6):430-444, doi: 10.1016/j.tins.2025.03.001.
Presented on the cover of Trends in Neurosciences.
- 3) Hoffmann J, Schütze TM, Kolodziejczyk A, Kränkel A, Reinhardt S, Derihaci RP, Birdir C, Wimberger P, Koseki H, **Albert M.** (2024) Canonical and non-canonical PRC1

- differentially contribute to the regulation of neural stem cell fate. *Life Science Alliance* 8(4):e202403006, doi: 10.26508/lsa.202403006.
- 4) Cubillos P, Ditzer N, Kolodziejczyk A, Schwenk G, Hoffmann J, Schütze TM, Derihaci RP, Birdir C, Kollner JE, Petzold A, Sarov M, Martin U, Long KR, Wimberger P, **Albert M** (2024) The growth factor EPIREGULIN promotes basal progenitor cell proliferation in the developing neocortex. *EMBO J* 43(8):1388-1419, doi: 10.1038/s44318-024-00068-7. *Highlighted as News & Views* (doi: 10.1038/s44318-024-00083-8) and on the *cover*.
 - 5) Noack F, Vangelisti S, Ditzer N, Chong F, **Albert M**, Bonev B (2023) Joint epigenome profiling reveals cell-type-specific gene regulatory programmes in human cortical organoids. *Nat Cell Biol* (12):1873-1883, doi: 10.1038/s41556-023-01296-5.
 - 6) Schütze TM, Bölicke N, Sameith K, **Albert M** (2022) Profiling Cell Type-Specific Gene Regulatory Regions in Human Cortical Organoids. In: *Brain Organoid Research*, Gopalakrishnan J. (ed.) pp. 17-41. Springer US: New York, NY.
 - 7) Bölicke N, **Albert M** (2022) Polycomb-mediated gene regulation in human brain development and neurodevelopmental disorders. *Dev Neurobiol* 82: 345-363, doi: 10.1002/dneu.22876.
 - 8) **Albert M**, Kalebic N, Florio M, Lakshmanaperumal N, Haffner C, Brandl H, Henry I, Huttner WB (2017) Epigenome profiling and editing of neocortical progenitor cells during development. *EMBO J* 36: 2642-2658, doi: 10.15252/embj.201796764.
 - 9) Florio M, **Albert M***, Taverna E*, Namba T*, Brandl H, Lewitus E, Haffner C, Sykes A, Wong FK, Peters J et al (2015) Human-specific gene ARHGAP11B promotes basal progenitor amplification and neocortex expansion. *Science* 347: 1465-1470, doi: 10.1126/science.aaa1975. *Highlighted in Science News* (10.1126/science.aaa7913).
 - 10) **Puschendorf M[#]**, Terranova R, Boutsma E, Mao X, Isono K, Brykczynska U, Kolb C, Otte AP, Koseki H, Orkin SH et al (2008) PRC1 and Suv39h specify parental asymmetry at constitutive heterochromatin in early mouse embryos. *Nat Genet* 40: 411-420, doi: 10.1038/ng.99. *Presented as Research Highlight in Nature Reviews Genetics*, 9, 248-249 (2008).

* Equal contributions; [#] Albert (née Puschendorf)