List of Publications (September 2023)

Prof. Dr. rer. nat. habil. Nilima Prakash

Total citations: **2.885**

First authorships: **13**

Last authorships: **19**

h-Index: **29**

Original Publications:

1. Giehrl-Schwab, J., Giesert, F., Rauser, B., Lao, C.L., Hembach, S., Lefort, S., Ibarra, I.L., Koupourtidou, C., Luecken, M.D., Truong, D.-J.J., Fischer-Sternjak, J., Masserdotti, G., **Prakash, N.**, Ninkovic, J., Hölter, S.M., Vogt Weisenhorn, D.M., Theis, F.J., Götz, M. and Wurst, W. (2022). Parkinson's disease motor symptoms rescue by CRISPRa-reprogramming astrocytes into GABAergic neurons. *EMBO Mol. Med.* e14797, doi:10.15252/emmm.202114797. **IF: 14.3; Citations: 12**

2. Nouri, P., Zimmer, A., Brüggemann, S., Friedrich, R., Kühn, R. and **Prakash, N.** (2022). Generation of a *NES*-mScarlet Red Fluorescent Reporter Human iPSC Line for Live Cell Imaging and Flow Cytometric Analysis and Sorting Using CRISPR-Cas9-Mediated Gene Editing. *Cells* 11, 268. **IF: 7.666; Citations: 2**

3. Nouri, P., Götz, S., Rauser, B., Irmler, M., Peng, C., Trümbach, D., Kempny, C., Lechermeier, C.G., Bryniok, A., Dlugos, A., Euchner, E., Beckers, J., Brodski, C., Klümper, C., Wurst, W. and **Prakash, N.** (2020). Dose-dependent and subset-specific regulation of midbrain dopaminergic neuron differentiation by LEF1-mediated WNT1/b-catenin signaling. *Front. Cell Dev. Biol.* 8, 587778. **IF: 6.684**; **Citations: 14**

4. Heppt, J., Wittmann, M.-T., Schäffner, I., Billmann, C., Zhang, J., Vogt-Weisenhorn, D., **Prakash, N.**, Wurst, W., Taketo, M.M. and Lie, D. C. (2020). β-catenin signaling modulates the tempo of dendritic growth of adult-born hippocampal neurons. *EMBO J* 39, e104472. **IF: 9.96**; **Citations: 16**

5. Jovanovic, V.M., Salti, A., Tilleman, H., Zega, K., Jukic, M.M., Zou, H., Friedel, R.H., **Prakash, N.**, Blaess, S., Edenhofer, F. and Brodski, C. (2018). BMP/SMAD pathway promotes neurogenesis of midbrain dopaminergic neurons *in vivo* and in human induced pluripotent and neural stem cells. *J Neurosci.* 38, 1662-1676. **IF: 5.988**; **Citations: 81**

6. Klafke, R., Prem Anand, A.A., Wurst, W.*, **Prakash, N.*** and Wizenmann, A.* (2016). Differences in the spatiotemporal expression and epistatic gene regulation of the mesodiencephalic dopaminergic precursor marker *PITX3* during chicken and mouse development. *Development* 143, 691-702. (***** Corresponding authors). **IF: 6.059**; **Citations: 3**

7. Fukusumi, Y., Meier, F., Götz, S., Matheus, F., Irmler, M., Beckervordersandforth, R., Faus-Kessler, T., Minina, E., Rauser, B., Zhang, J., Arenas, E., Andersson, E., Niehrs, C., Beckers, J., Simeone, A., Wurst, W. and **Prakash, N.** (2015). Dickkopf 3 promotes the differentiation of a rostrolateral midbrain dopaminergic neuronal subset *in vivo* and from pluripotent stem cells *in vitro* in the mouse. *J Neurosci.* 35, 13385-13401. **IF: 5.924**; **Citations: 30**
   Journal Club by: Veenvliet J.V. (2016), *J Neurosci.* 36, 1794-1796.

8. Martinez-Ferre, A., Lloret-Quesada, C., **Prakash, N.**, Wurst, W., Rubenstein, J.L. and Martinez, S. (2015). Fgf15 regulates thalamic development by controlling the expression of proneural genes. *Brain Struct. Funct.* 221, 3095-3109. **IF: 5.811**; **Citations: 15**

9. Theodorou, M., Rauser, B., Zhang, J., **Prakash, N.**, Wurst, W. and Schick, J.A. (2015). Limitations of in vivo reprogramming to dopaminergic neurons via a tricistronic strategy. *Hum. Gene Ther. Method* 26, 107-122. **IF: 1.986**; **Citations: 2**

10. Zhang, J., Götz, S., Vogt Weisenhorn, D.M., Simeone, A., Wurst, W. and **Prakash, N.** (2015). A WNT1-regulated developmental gene cascade prevents dopaminergic neurodegeneration in adult *En1*$^{+/-}$ mice. *Neurobiol. Dis.* 82, 32-45. **IF: 4.856**; **Citations: 33**

11. Matthes, M., Preusse, M., Zhang, J., Schechter, J., Mayer, D., Lentes, B., Theis, F., **Prakash, N.***, Wurst, W.* and Trümbach, D.* (2014). Mouse IDGenes: a reference database for genetic interactions in the developing mouse brain. *Database*, pii: bau083 (doi: 10.1093/database/bau083). (***** Corresponding authors). **IF: 3.372**; **Citations: 4**

12. Meier, F., Giesert, F., Delic, S., Faus-Kessler, T., Matheus, F., Simeone, A., Hölter, S.M., Kühn, R., Vogt Weisenhorn, D.M., Wurst, W. and **Prakash, N.** (2014). FGF/FGFR2 signaling regulates the generation and correct positioning of Bergmann glia cells in the developing mouse cerebellum. *PLOS ONE* 9, e101124. **IF: 3.234**; **Citations: 20**

13. Pertek, A., Meier, F., Irmler, M., Beckers, J., Skylaki, S., Endele, M., Wurst, W., **Prakash, N.** and Kühn, R. (2014). Simple derivation of transgene-free iPS cells by a dual recombinase approach. *Mol. Biotechnol.* 56, 697-713. **IF: 1.876**; **Citations: 4**

14. Di Giovannantonio, L.G., Di Salvio, M., Omodei, D., **Prakash, N.**, Wurst, W., Pierani, A., Acampora, D. and Simeone, A. (2014). Otx2 cell-autonomously determines dorsal mesencephalon versus cerebellum fate independently of isthmic organizing activity. *Development* 141, 377-388. **IF: 6.462**; **Citations: 29**

15. Hock, S., Ng, Y.-K., Hasenauer, J., Wittmann, D., Lutter, D., Trümbach, D., Wurst, W., **Prakash, N.*** and Theis, F.J.* (2013). Sharpening of expression domains induced by transcription and microRNA regulation within a spatio-temporal model of mid-hindbrain boundary formation. *BMC Syst. Biol.* 7, 48. (***** Corresponding authors). **IF: 2.982**; **Citations: 24**

16. Di Giovannantonio, L.G., Di Salvio, M., Acampora, D., **Prakash, N.**, Wurst, W. and Simeone, A. (2013). Otx2 selectively controls the neurogenesis of specific neuronal subtypes of the ventral tegmental area and compensates En1-dependent neuronal loss and MPTP vulnerability. *Dev. Biol.* 373, 176-183. **IF: 3.868**; **Citations: 43**

17. Peng, C., Li, N., Ng, Y.-K., Zhang, J., Meier, F., Theis, F.J., Merkenschlager, M., Chen, W., Wurst, W. and **Prakash, N.** (2012). A unilateral negative feedback loop between *miR-200* microRNAs and Sox2/E2F3 controls neural progenitor cell-cycle exit and differentiation. *J Neurosci.* 32, 13292-13308. **IF: 7.115**; **Citations: 121**

18. Peng, C., Aron, L., Klein, R., Li, M., Wurst, W., **Prakash, N.*** and Le, W.* (2011). Pitx3 is a critical mediator of GDNF-induced BDNF expression in nigrostriatal dopaminergic neurons. *J Neurosci.* 31, 12802-12815. (***** Corresponding authors). **IF: 7.271**; **Citations: 110**

19. Fischer, T., Faus-Kessler, T., Welzl, G., Simeone, A., Wurst, W. and **Prakash, N.** (2011). Fgf15-mediated control of neurogenic and proneural gene expression regulates dorsal midbrain neurogenesis. *Dev. Biol.* 350, 496-510. **IF: 4.379**; **Citations: 39**

20. Di Salvio, M., Di Giovannantonio, L.G., Acampora, D., Prosperi, R., Omodei, D., **Prakash, N.**, Wurst, W. and Simeone, A. (2010). Otx2 controls neuron subtype identity in ventral tegmental area and antagonizes vulnerability to MPTP. *Nat. Neurosci.* 13, 1481-1488. **IF: 14.345**; **Citations: 133**

21. Hackl, C., Papazoglou, A., Ganser, C., Klein, A., **Prakash, N.**, Wurst, W. and Nikkhah, G. (2010). Ectopic dopaminergic progenitor cells from *En1*$^{+/Otx2lacZ}$ transgenic mice survive and functionally reinnervate the striatum following transplantation in a rat model of Parkinson's disease. *Cell Transplant.* 19, 1085-1101. **IF: 5.126**; **Citations: 6**

22. Stuebner, S., Faus-Kessler, T., Fischer, T., Wurst, W. and **Prakash, N.** (2010). *Fzd3* and *Fzd6* deficiency results in a severe midbrain morphogenesis defect. *Dev. Dyn.* 239, 246-260. **IF: 2.833**; **Citations: 62**

23. Castelo-Branco, G., Andersson, E.R., Minina, E., Sousa, K.M., Ribeiro, D., Kokubu, C., Imai, K., **Prakash, N.**, Wurst, W. and Arenas, E. (2010). Delayed dopaminergic neuron differentiation in *Lrp6* mutant mice. *Dev. Dyn.* 239, 211-221. **IF: 2.833**; **Citations: 45**

24. Wittmann, D. M., Blöchl, F., Trümbach, D., Wurst, W., **Prakash, N.** and Theis, F.J. (2009). Spatial analysis of expression patterns predicts genetic interactions at the mid-hindbrain boundary. *PLoS Comput. Biol.* 5, e1000569. **IF: 5.895**; **Citations: 48**

25. **Prakash, N.**, Puelles, E., Freude, K., Trümbach, D., Omodei, D., Di Salvio, M., Sussel, L., Ericson, J., Sander, M., Simeone, A. and Wurst, W. (2009). Nkx6-1 controls the identity and fate of red nucleus and oculomotor neurons in the mouse midbrain. *Development* 136, 2545-2555. **IF: 6.812**; **Citations: 86**

26. Omodei, D., Acampora, D., Mancuso, P., **Prakash, N.**, Di Giovannantonio, L.G., Wurst, W. and Simeone, A. (2008). Anterior-Posterior graded response to Otx2 controls proliferation and differentiation of dopaminergic progenitors in the ventral mesencephalon. *Development* 135, 3459-3470. **IF: 7.293**; **Citations: 124**

27. Andersson, E. R., **Prakash, N.**, Cajanek, L., Minina, E., Bryja, V., Bryova, L., Yamaguchi, T.P., Hall, A.C., Wurst, W. and Arenas, E. (2008). *Wnt5a* regulates ventral midbrain morphogenesis and the development of A9-A10 dopaminergic cells *in vivo*. *PLoS ONE* 3, e3517. **IF: 0**; **Citations: 120**

28. Fischer, T., Guimera, J., Wurst, W. and **Prakash, N.** (2007). Distinct but redundant expression of the *Frizzled* Wnt receptor genes at signaling centers of the developing mouse brain. *Neuroscience* 147, 693-711. **IF: 3.427**; **Citations: 64**

29. Blak, A.A., Naserke, T., Saarimaki-Vire, J., Peltopuro, P., Giraldo-Velasquez, M., Vogt Weisenhorn, D.M., **Prakash, N.**, Sendtner, M., Partanen, J. and Wurst, W. (2007). Fgfr2 and Fgfr3 are not required for patterning and maintenance of the midbrain and anterior hindbrain. *Dev. Biol.* 303, 231-243. **IF: 4.893**; **Citations: 38**

30. **Prakash, N.**, Brodski, C., Naserke, T., Puelles, E., Gogoi, R., Hall, A., Panhuysen, M., Echevarria, D., Sussel, L., Weisenhorn, D.M., Martinez, S., Arenas, E., Simeone, A. and Wurst, W. (2006). A Wnt1-regulated genetic network controls the identity and fate of midbrain-dopaminergic progenitors in vivo. *Development* 133, 89-98. **IF: 7.603**; **Citations: 313**

31. Blak, A.A., Naserke, T., Weisenhorn, D.M., **Prakash, N.**, Partanen, J. and Wurst, W. (2005). Expression of Fgf receptors 1, 2, and 3 in the developing mid- and hindbrain of the mouse. *Dev. Dyn.* 233, 1023-1030. **IF: 2.868**; **Citations: 46**

32. **Prakash, N.**, Hansson, E., Betsholtz, C., Mitsiadis, T. and Lendahl, U. (2002). Mouse Notch 3 expression in the pre- and postnatal brain: Relationship to the stroke and dementia syndrome CADASIL. *Exp. Cell Res.* 278, 31-44. **IF: 5.96**; **Citations: 64**

33. Mohr, E., **Prakash, N.**, Vieluf, K., Fuhrmann, C., Buck, F. and Richter, D. (2001). Vasopressin mRNA localization in nerve cells: Characterization of cis-acting elements and trans-acting factors. *Proc. Natl. Acad. Sci. USA* 98, 7072-7079. **IF: 10.789**; **Citations: 43**

34. Lothian, C., **Prakash, N.**, Lendahl, U. and Wahlström, G.M. (1999). Identification of both general and region-specific embryonic CNS enhancer elements in the nestin promoter. *Exp. Cell Res.* 248, 509-519. **IF: 3.051**; **Citations: 109**

35. **Prakash, N.**, Fehr, S., Mohr, E. and Richter, D. (1997). Dendritic localization of rat vasopressin mRNA: Ultrastructural analysis and mapping of targeting elements. *Eur. J. Neurosci.* 9, 523-532. **IF: 4.303**; **Citations: 70**

36. Homberg, U. and **Prakash, N.** (1996). Development of pigment-dispersing hormone-like immunoreactivity in the brain of the locust *Schistocerca gregaria*: Comparison with immunostaining for urotensin I and Mas-allatotropin. *Cell Tissue Res.* 285, 127-139. **IF: 2.204**; **Citations: 13**

Review and Perspective Articles:

1. **Prakash, N.** (2024). A dysregulated calcium homeostasis as the earliest pathological sign in stem cell-derived Parkinson's disease neurons? *Neural Regen. Res.* 19, in press. **IF: 6.058**; **Citations:**

2. **Prakash, N.** (2022). Developmental pathways linked to the vulnerability of adult midbrain dopaminergic neurons to neurodegeneration. *Front. Mol. Neurosci.* 15, 1071731. **IF: 6.261**; **Citations: 4**

3. Brodski, C., Blaess, S., Partanen, J. and **Prakash, N.** (2019). Crosstalk of intercellular signaling pathways in the generation of midbrain dopaminergic neurons *in vivo* and from stem cells. *J Dev. Biol.* 7, 3. **CiteScore Scopus: 4.2**; **Citations: 24**

4. Trümbach, D. and **Prakash, N.** (2015). The conserved *miR-8*/*miR-200* microRNA family and their role in invertebrate and vertebrate neurogenesis. *Cell Tissue Res.* 359, 161–177. **IF: 2.948**; **Citations: 58**

5. Wurst, W. and **Prakash, N.** (2014). Wnt1-regulated genetic networks in midbrain dopaminergic neuron development. *J Mol. Cell. Biol.* 6, 34-41. **IF: 6.870**; **Citations: 50**

6. Klafke, R., Wurst, W. and **Prakash, N.** (2008). Genetic control of rodent midbrain dopaminergic neuron development in the light of human disease. *Pharmacopsychiatry* 41, S44-S50. **IF: 3.234**; **Citations: 5**

7. **Prakash, N.** and Wurst, W. (2007). A Wnt signal regulates stem cell fate and differentiation in vivo. *Neurodegener. Dis.* 4, 333-338. **IF: 0**; **Citations: 61**

8. **Prakash, N.** and Wurst, W. (2006). Genetic networks controlling the development of midbrain dopaminergic neurons. *J. Physiol. (Lond)* 575, 403-410. **IF: 4.272**; **Citations: 157**

9. **Prakash, N.** and Wurst, W. (2006). Development of dopaminergic neurons in the mammalian brain. *Cell. Mol. Life Sci.* 63, 187-206. **IF: 4.582**; **Citations: 250**

10. **Prakash, N.** and Wurst, W. (2004). Specification of midbrain territory. *Cell Tissue Res.* 318, 5-14. **IF: 2.991**; **Citations: 73**

Book Chapters:

1. **Prakash, N.** (2016). Posttranscriptional Modulation of Sox2 Activity by miRNAs. In: Sox2: Biology and Role in Development and Disease. Eds: Kondoh, H. and Lovell-Badge, R. *Academic Press, Elsevier Inc.* pp. 43-71.

2. **Prakash, N.** und Veerkamp, C. (2014). Neurobiologie der Suchterkrankungen. In: Das Böse behandeln. Eickelborner Schriftenreihe zur Forensischen Psychiatrie. Hrsg: Nahlah Saimeh. *Medizinisch Wissenschaftliche Verlagsgesellschaft, Berlin, D.* pp. 145-158.

3. Wurst, W. and **Prakash, N.** (2010). Genetic control of meso-diencephalic dopaminergic neuron development in rodents. In: Dopamine Handbook. Eds: Iversen, L. et al. *Oxford University Press, Oxford, UK.* pp. 141-159.

4. **Prakash, N.** and Lendahl, U. (2002). Molecular mechanisms for organizing the developing central nervous system. In: The newborn brain: neuroscience and clinical applications. Eds: Lagercrantz, H. et al. *Cambridge University Press, Cambridge, UK.* pp. 29-45.

Cited Abstracts:

1. Götz, S., Rauser, B., Brodski, C. and **Prakash, N.** (2016). Early and localized expression of ion channels and ion channel subunits in the developing mesodiencephalic dopaminergic domain of the mouse embryo. *Acta Physiol.* 216, 91-92.

2. **Prakash, N.**, Andersson, E., Minina, E., Klafke, R., Simeone, A., Arenas, E., Wurst, W. (2008). Genetic pathways controlling midbrain dopaminergic neuron development in vivo. *Int. J. Dev. Neurosci.* 26, 829-833.

3. Klafke, R.. Wizenmann, A., Wurst, W., **Prakash, N.** (2006). Mapping of the midbrain dopaminergic system during development of the chicken embryo reveals evolutionary differences between birds and mammals. *Int. J. Dev. Neurosci.* 24, 585.

4. Papazoglou, A., Hackl, C., Klein, A., **Prakash, N.**, Wurst, W., Nikkhah, G. (2006). In vivo characterization of embryonic dopaminergic neurons derived from transgenic mice ectopically expressing Otx2 in the anterior hindbrain. *Cell Transplant.* 15, 551-552.

5. Lendahl, U., Lundkvist, J., Beatus, P., Oberg, C., **Prakash, N.** (2000). Diversity in Notch intracellular functions: Implications for CADASIL. *Eur. J Neurosci.* 12, 514.