

# Publications de l'équipe *Development and Neuropharmacology / LabCom team*

2016-2021

## Peer-Reviewed Articles

1. \*Arnaud, K., \*Oliveira Moreira, V., Vincent, J., Dallerac, G., Poupon, C. L., Dupont, E., Richter, M., Müller, U. C., Rondi-Reig, L., \*Prochiantz, A. & \*Di Nardo, A. A. Choroid plexus APP regulates adult brain proliferation and animal behavior. *Life Sci Alliance* 4, e202000703 (2021). <https://dx.doi.org/10.26508/lsa.202000703>
2. Ibad, R., Quenech'du, N., Prochiantz, A. & Moya, K. OTX2 stimulates adult retinal ganglion cell regeneration. *Neural Regen Res* 17, 690 (2022). <https://dx.doi.org/10.4103/1673-5374.320989>
3. Planques, A., Oliveira Moreira, V., Benacom, D., Bernard, C., Jourden, L., Blugeon, C., Dingli, F., Masson, V., Loew, D., Prochiantz, A. & Di Nardo, A. A. OTX2 Homeoprotein Functions in Adult Choroid Plexus. *Int J Mol Sci* 22, 8951 (2021). <https://dx.doi.org/10.3390/ijms22168951>
4. \*Vincent, C., \*Gilabert-Juan, J., Gibel-Russo, R., Alvarez-Fischer, D., Krebs, M.-O., Pen, G. L., \*Prochiantz, A. & \*Di Nardo, A. A. Non-cell-autonomous OTX2 transcription factor regulates anxiety-related behavior in the mouse. *Mol Psychiatry* (2021). <https://dx.doi.org/10.1038/s41380-021-01132-y>
5. Harkness, J. H., Gonzalez, A. E., Bushana, P. N., Jorgensen, E. T., Hegarty, D. M., Di Nardo, A. A., Prochiantz, A., Wisor, J. P., Aicher, S. A., Brown, T. E. & Sorg, B. A. Diurnal changes in perineuronal nets and parvalbumin neurons in the rat medial prefrontal cortex. *Brain Struct Funct* 226, 1135–1153 (2021). <https://dx.doi.org/10.1007/s00429-021-02229-4>
6. Devienne, G., Picaud, S., Cohen, I., Piquet, J., Tricoire, L., Testa, D., Di Nardo, A. A., Rossier, J., Cauli, B. & Lambolez, B. Regulation of perineuronal nets in the adult cortex by the activity of the cortical network. *J Neurosci* 41, 5779-5790 (2021). <https://dx.doi.org/10.1523/jneurosci.0434-21.2021>
7. Ravel-Godreuil, C., Massiani-Beaudoin, O., Mailly, P., Prochiantz, A., Joshi, R. L. & Fuchs, J. Perturbed DNA methylation by Gadd45b induces chromatin disorganization, DNA strand breaks and dopaminergic neuron death. *iScience* 24, 102756 (2021). <https://dx.doi.org/10.1016/j.isci.2021.102756>

8. Pensieri, P., Mantilleri, A., Plassard, D., Furukawa, T., Moya, K.L., Prochiantz, A. & Lamonerie, T. Photoreceptor cKO of OTX2 enhances OTX2 intercellular transfer in the retina and causes photophobia. *eNeuro* 8, ENEURO.0229-21.2021 (2021). <https://dx.doi.org/10.1523/eneuro.0229-21.2021>
9. Amblard, I., Thauvin, M., Rampon, C., Queguiner, I., Pak, V. V., Belousov, V., Prochiantz, A., Volovitch, M., Joliot, A. & Vriz, S. H2O2 and Engrailed 2 paracrine activity synergize to shape the zebrafish optic tectum. *Commun Biology* 3, 536 (2020). <https://dx.doi.org/10.1038/s42003-020-01268-7>
10. \*Torero-Ibad, R., \*Mazhar, B., \*Vincent, C., Bernard, C., Dégardin, J., Simonutti, M., Lamonerie, T., Di Nardo, A. A., \*Prochiantz, A. & \*Moya, K. L. OTX2 non-cell autonomous activity regulates inner retinal function. *eNeuro* 7, ENEURO.0012-19.2020 (2020). <https://dx.doi.org/10.1523/eneuro.0012-19.2020>
11. Thomasson, N., Pioli, E., Friedel, C., Monseur, A., Lavaur, J., Moya, K. L., Bezard, E., Bousseau, A. & Prochiantz, A. Engrailed-1 induces long-lasting behavior benefit in an experimental Parkinson primate model. *Movement Disord* 34, 1082–1084 (2019). <https://dx.doi.org/10.1002/mds.27714>
12. \*Kaddour, H., \*Coppola, E., Di Nardo, A. A., Poupon, C. L., Mailly, P., Wizenmann, A., Volovitch, M., \*Prochiantz, A. & \*Pierani, A. Extracellular Pax6 Regulates Tangential Cajal–Retzius Cell Migration in the Developing Mouse Neocortex. *Cereb Cortex* (2019). <https://dx.doi.org/10.1093/cercor/bhz098>
13. \*Vargas Abonce, S. E., L\*eboeuf, M., Prochiantz, A. & Moya, K. L. Homeoprotein Neuroprotection of Embryonic Neuronal Cells. *eNeuro* 6, ENEURO.0061-19.2019 (2019). <https://dx.doi.org/10.1523/eneuro.0061-19.2019>
14. Apulei, J., Kim, N., Testa, D., Ribot, J., Morizet, D., Bernard, C., Jourdren, L., Blugeon, C., \*Di Nardo, A. A. & \*Prochiantz, A. Non-cell Autonomous OTX2 Homeoprotein Regulates Visual Cortex Plasticity Through Gadd45b/g. *Cereb Cortex* 29, 2384–2395 (2019). <https://dx.doi.org/10.1093/cercor/bhy108>
15. \*Planques, A., \*Oliveira Moreira, V., Dubreuil, C., Prochiantz, A. & Di Nardo, A. A. OTX2 signals from the choroid plexus to regulate adult neurogenesis. *eNeuro* 6, ENEURO.0262-18.2019 (2019). <https://dx.doi.org/10.1523/eneuro.0262-18.2019>
16. \*Blaudin de Thé, F.-X., \*Rekaik, H., Peze-Heidsieck, E., Massiani-Beaudoin, O., Joshi, R. L., \*Fuchs, J. & \*Prochiantz, A. Engrailed homeoprotein blocks degeneration in adult dopaminergic neurons through LINE-1 repression. *EMBO J* 37, e97374 (2018). <https://dx.doi.org/10.15252/embj.201797374>
17. \*Lee, H. H. C., \*Bernard, C., \*Ye, Z., Acampora, D., Simeone, A., Prochiantz, A., \*Di Nardo, A. A. & \*Hensch, T. K. Genetic Otx2 mis-localization delays critical period plasticity across brain regions. *Mol Psychiatry* 22, 680–688 (2017). <https://dx.doi.org/10.1038/mp.2017.1>

18. \*Bernard, C., \*Vincent, C., Testa, D., Bertini, E., Ribot, J., Di Nardo, A. A., Volovitch, M. & Prochiantz, A. A Mouse Model for Conditional Secretion of Specific Single-Chain Antibodies Provides Genetic Evidence for Regulation of Cortical Plasticity by a Non-cell Autonomous Homeoprotein Transcription Factor. *Plos Genet* 12, e1006035 (2016). <https://dx.doi.org/10.1371/journal.pgen.1006035>

#### Preprint

1. \*Lebœuf, M., \*Vargas-Abonce, S.E.V., Heidsieck, E.P., \*Moya, K.L., and \*Prochiantz, A. Homeoprotein ENGRAILED-1 promotes motoneuron survival and motor functions. *bioRxiv* (2020). <https://dx.doi.org/10.1101/734020>

#### Reviews

1. Gibel-Russo, R., Benacom, D. & Di Nardo, A.A. Non-Cell-Autonomous Factors Implicated in Parvalbumin Interneuron Maturation and Critical Period. *Frontiers in Neural Circuits* 16 (2022). <https://dx.doi.org/10.3389/fncir.2022.875873>

2. Moya, K. & Ibad, R. OTX2 signaling in retinal dysfunction, degeneration and regeneration. *Neural Regen Res* 16, 2002 (2021). <https://dx.doi.org/10.4103/1673-5374.308094>

3. Di Nardo, A. A., Joliot, A. & Prochiantz, A. Homeoprotein transduction in neurodevelopment and physiopathology. *Sci Adv* 6, eabc6374 (2020). <https://dx.doi.org/10.1126/sciadv.abc6374>

4. Testa, D., Prochiantz, A. & Di Nardo, A. A. Perineuronal nets in brain physiology and disease. *Semin Cell Dev Biol* 89, 125–135 (2019). <https://dx.doi.org/10.1016/j.semcdb.2018.09.011>

5. Di Nardo, A. A., Fuchs, J., Joshi, R. L., Moya, K. L. & Prochiantz, A. The Physiology of Homeoprotein Transduction. *Physiol Rev* 98, 1943–1982 (2018). <https://dx.doi.org/10.1152/physrev.00018.2017>

6. Arnaud, K. & Di Nardo, A. A. Choroid plexus trophic factors in the developing and adult brain. *Frontiers in Biology* 11, 214–221 (2016). <https://dx.doi.org/10.1007/s11515-016-1401-7>

7. Prochiantz, A. How to navigate counter dogmatic research findings. *EMBO J* 37, e98945 (2018). <https://dx.doi.org/10.15252/embj.201898945>

8. Blaudin de Thé, F.-X., Rekaik, H., Prochiantz, A., Fuchs, J. & Joshi, R. L. Neuroprotective Transcription Factors in Animal Models of Parkinson Disease. *Neural plasticity* 2016, 6097107–11 (2016). <https://dx.doi.org/10.1155/2016/6097107>

9. Kim, H.-T., Prochiantz, A. & Kim, J. W. Donating Otx2 to support neighboring neuron survival. *Bmb Rep* 49, 69–70 (2016). <https://dx.doi.org/10.5483/bmbrep.2016.49.2.006>

10. Bernard, C. & Prochiantz, A. Otx2-PNN Interaction to Regulate Cortical Plasticity.

Neural Plast 2016, 1–7 (2016). <https://dx.doi.org/10.1155/2016/7931693>

#### Editorials

1. Germain, S. & Di Nardo, A.A. Editorial: Matrix Proteins. *Sem Cell Dev Biol* 89, 99 (2019). <https://dx.doi.org/10.1016/j.semcdb.2019.03.001>

#### Book Chapters

1. Prochiantz A. & Di Nardo A. A. Shuttling homeoproteins and their biological significance. In: Langel Ü. (eds) *Cell Penetrating Peptides. Methods in Molecular Biology*, vol 2383. Humana, New York, NY. (2022) [https://dx.doi.org/10.1007/978-1-0716-1752-6\\_2](https://dx.doi.org/10.1007/978-1-0716-1752-6_2)

#### Books

1. Prochiantz, A. *Singe toi-même*. Editions Odile Jacob, Paris 2019.