

Publications Rouach (2022 - 2017)

- Ribot, J., Breton, R., Dallérac, G., and Rouach, N. (2022). [Astrocytes, guardians of critical period plasticity]. *Med Sci (Paris)* 38, 251–254. [10.1051/medsci/2022014](https://doi.org/10.1051/medsci/2022014).
- Dincă, D.M., Lallemand, L., González-Barriga, A., Cresto, N., Braz, S.O., Sicot, G., Pillet, L.-E., Polvèche, H., Magneron, P., Huguet-Lachon, A., et al. (2022). Author Correction: Myotonic dystrophy RNA toxicity alters morphology, adhesion and migration of mouse and human astrocytes. *Nat Commun* 13, 4091. [10.1038/s41467-022-31774-7](https://doi.org/10.1038/s41467-022-31774-7).
- De Bock, M., De Smet, M.A., Verwaerde, S., Tahiri, H., Schumacher, S., Van Haver, V., Witschas, K., Steinhäuser, C., Rouach, N., Vandenbroucke, R.E., et al. (2022). Targeting gliovascular connexins prevents inflammatory blood-brain barrier leakage and astrogliosis. *JCI Insight*, e135263. [10.1172/jci.insight.135263](https://doi.org/10.1172/jci.insight.135263).
- Cresto, N., Lebrun, N., Dumont, F., Letourneur, F., Billuart, P., and Rouach, N. (2022). Hippocampal Excitatory Synaptic Transmission and Plasticity Are Differentially Altered during Postnatal Development by Loss of the X-Linked Intellectual Disability Protein Oligophrenin-1. *Cells* 11, 1545. [10.3390/cells11091545](https://doi.org/10.3390/cells11091545).
- Cheung, G., Bataveljic, D., Visser, J., Kumar, N., Moulard, J., Dallérac, G., Mozheiko, D., Rollenhagen, A., Ezan, P., Mongin, C., et al. (2022). Physiological synaptic activity and recognition memory require astroglial glutamine. *Nat Commun* 13, 753. [10.1038/s41467-022-28331-7](https://doi.org/10.1038/s41467-022-28331-7).
- Bigarreau, J., Rouach, N., Perrier, A.L., Mouthon, F., and Charvériat, M. (2022). Modeling and Targeting Neuroglial Interactions with Human Pluripotent Stem Cell Models. *Int J Mol Sci* 23, 1684. [10.3390/ijms23031684](https://doi.org/10.3390/ijms23031684).
- Ribot, J., Breton, R., Calvo, C.-F., Moulard, J., Ezan, P., Zapata, J., Samama, K., Moreau, M., Bemelmans, A.-P., Sabatet, V., et al. (2021). Astrocytes close the mouse critical period for visual plasticity. *Science* 373, 77–81. [10.1126/science.abf5273](https://doi.org/10.1126/science.abf5273).
- Mazaud, D., Capano, A., and Rouach, N. (2021). The many ways astroglial connexins regulate neurotransmission and behavior. *Glia*. [10.1002/glia.24040](https://doi.org/10.1002/glia.24040).
- Hardy, E., Cohen-Salmon, M., Rouach, N., and Rancillac, A. (2021). Astroglial Cx30 differentially impacts synaptic activity from hippocampal principal cells and interneurons. *Glia*. [10.1002/glia.24017](https://doi.org/10.1002/glia.24017).
- Escartin, C., Galea, E., Lakatos, A., O’Callaghan, J.P., Petzold, G.C., Serrano-Pozo, A., Steinhäuser, C., Volterra, A., Carmignoto, G., Agarwal, A., et al. (2021). Reactive astrocyte nomenclature, definitions, and future directions. *Nat Neurosci*. [10.1038/s41593-020-00783-4](https://doi.org/10.1038/s41593-020-00783-4).
- Dossi, E., and Rouach, N. (2021). Pannexin 1 channels and ATP release in epilepsy: two sides of the same coin : The contribution of pannexin-1, connexins, and CALHM ATP-release channels to purinergic signaling. *Purinergic Signal*. [10.1007/s11302-021-09818-2](https://doi.org/10.1007/s11302-021-09818-2).
- Basnayake, K., Mazaud, D., Kushnireva, L., Bemelmans, A., Rouach, N., Korkotian, E., and Holcman, D. (2021). Nanoscale molecular architecture controls calcium diffusion and ER replenishment in dendritic spines. *Sci Adv* 7, eabh1376. [10.1126/sciadv.abh1376](https://doi.org/10.1126/sciadv.abh1376).

Pillet, L.-E., Cresto, N., Saillour, Y., Ghézali, G., Bemelmans, A.-P., Livet, J., Bienvenu, T., Rouach, N., and Billuart, P. (2020). The intellectual disability protein Oligophrenin-1 controls astrocyte morphology and migration. *Glia*. [10.1002/glia.23801](https://doi.org/10.1002/glia.23801).

N, C., P, B., and N, R. (2020). [A role for astrocytes in intellectual disabilities?]. *Medecine sciences : M/S* 36. [10.1051/medsci/2020153](https://doi.org/10.1051/medsci/2020153).

Milior, G., Morin-Brureau, M., Chali, F., Duigou, C.L., Savary, E., Huberfeld, G., Rouach, N., Pallud, J., Capelle, L., Navarro, V., et al. (2020). Distinct P2Y receptors mediate extension and retraction of microglial processes in epileptic and peri-tumoral human tissue. *J. Neurosci*. [10.1523/JNEUROSCI.0218-19.2019](https://doi.org/10.1523/JNEUROSCI.0218-19.2019).

Guillebaud, F., Barbot, M., Barbouche, R., Brézun, J.-M., Poirot, K., Vasile, F., Lebrun, B., Rouach, N., Dallaporta, M., Gaige, S., et al. (2020). Blockade of Glial Connexin 43 Hemichannels Reduces Food Intake. *Cells* 9. [10.3390/cells9112387](https://doi.org/10.3390/cells9112387).

Walter, A., van der Spek, L., Hardy, E., Bemelmans, A.P., Rouach, N., and Rancillac, A. (2019). Structural and functional connections between the median and the ventrolateral preoptic nucleus. *Brain Struct Funct*. [10.1007/s00429-019-01935-4](https://doi.org/10.1007/s00429-019-01935-4).

Pannasch, U., Dossi, E., Ezan, P., and Rouach, N. (2019). Astroglial Cx30 sustains neuronal population bursts independently of gap-junction mediated biochemical coupling. *Glia*. [10.1002/glia.23591](https://doi.org/10.1002/glia.23591).

Ghézali, G., Vasile, F., Curry, N., Fantham, M., Cheung, G., Ezan, P., Cohen-Salmon, M., Kaminski, C., and Rouach, N. (2019). Neuronal Activity Drives Astroglial Connexin 30 in Perisynaptic Processes and Shapes Its Functions. *Cereb. Cortex*. [10.1093/cercor/bhz123](https://doi.org/10.1093/cercor/bhz123).

Droguerre, M., Tsurugizawa, T., Duchêne, A., Portal, B., Guiard, B.P., Déglon, N., Rouach, N., Hamon, M., Mouthon, F., Ciobanu, L., et al. (2019). A New Tool for In Vivo Study of Astrocyte Connexin 43 in Brain. *Sci Rep* 9, 18292. [10.1038/s41598-019-54858-9](https://doi.org/10.1038/s41598-019-54858-9).

Cresto, N., Pillet, L.-E., Billuart, P., and Rouach, N. (2019). Do Astrocytes Play a Role in Intellectual Disabilities? *Trends Neurosci*. 42, 518–527. [10.1016/j.tins.2019.05.011](https://doi.org/10.1016/j.tins.2019.05.011).

Chauveau, F., Claverie, D., Lardant, E., Varin, C., Hardy, E., Walter, A., Canini, F., Rouach, N., and Rancillac, A. (2019). Neuropeptide S promotes wakefulness through the inhibition of sleep-promoting VLPO neurons. *Sleep*. [10.1093/sleep/zsz189](https://doi.org/10.1093/sleep/zsz189).

Basnayake, K., Mazaud, D., Bemelmans, A., Rouach, N., Korkotian, E., and Holcman, D. (2019). Fast calcium transients in dendritic spines driven by extreme statistics. *PLoS Biol*. 17, e2006202. [10.1371/journal.pbio.2006202](https://doi.org/10.1371/journal.pbio.2006202).

Mazaré, N., Gilbert, A., Boulay, A.-C., Rouach, N., and Cohen-Salmon, M. (2018). Connexin 30 is expressed in a subtype of mouse brain pericytes. *Brain Struct Funct* 223, 1017–1024. [10.1007/s00429-017-1562-4](https://doi.org/10.1007/s00429-017-1562-4).

Ghézali, G., Calvo, C.-F., Pillet, L.-E., Llense, F., Ezan, P., Pannasch, U., Bemelmans, A.-P., Etienne Manneville, S., and Rouach, N. (2018). Connexin 30 controls astroglial polarization during postnatal brain development. *Development* 145. [10.1242/dev.155275](https://doi.org/10.1242/dev.155275).

Ghézali, G., Calvo, C.-F., Pillet, L.-E., Llense, F., Ezan, P., Pannasch, U., Bemelmans, A.-P., Etienne Manneville, S., and Rouach, N. (2018). Connexin 30 controls astroglial polarization during postnatal brain development. *Development* 145. [10.1242/dev.155275](https://doi.org/10.1242/dev.155275).

- Dossi, E., Vasile, F., and Rouach, N. (2018). Human astrocytes in the diseased brain. *Brain Res. Bull.* *136*, 139–156. [10.1016/j.brainresbull.2017.02.001](https://doi.org/10.1016/j.brainresbull.2017.02.001).
- Dossi, E., Blauwblomme, T., Moulard, J., Chever, O., Vasile, F., Guinard, E., Le Bert, M., Couillin, I., Pallud, J., Capelle, L., et al. (2018). Pannexin-1 channels contribute to seizure generation in human epileptic brain tissue and in a mouse model of epilepsy. *Sci Transl Med* *10*. [10.1126/scitranslmed.aar3796](https://doi.org/10.1126/scitranslmed.aar3796).
- Dallérac, G., Zapata, J., and Rouach, N. (2018). Versatile control of synaptic circuits by astrocytes: where, when and how? *Nat. Rev. Neurosci.* [10.1038/s41583-018-0080-6](https://doi.org/10.1038/s41583-018-0080-6).
- Blauwblomme, T., Dossi, E., Pellegrino, C., Goubert, E., Gal Iglesias, B., Sainte-Rose, C., Rouach, N., Nabbout, R., and Huberfeld, G. (2018). GABAergic transmission underlies interictal epileptogenicity in pediatric FCD. *Ann. Neurol.* [10.1002/ana.25403](https://doi.org/10.1002/ana.25403).
- Vasile, F., Dossi, E., and Rouach, N. (2017). Human astrocytes: structure and functions in the healthy brain. *Brain Struct Funct* *222*, 2017–2029. [10.1007/s00429-017-1383-5](https://doi.org/10.1007/s00429-017-1383-5).
- Meunier, C., Wang, N., Yi, C., Dallerac, G., Ezan, P., Koulakoff, A., Leybaert, L., and Giaume, C. (2017). Contribution of Astroglial Cx43 Hemichannels to the Modulation of Glutamatergic Currents by D-Serine in the Mouse Prefrontal Cortex. *J. Neurosci.* *37*, 9064–9075. [10.1523/JNEUROSCI.2204-16.2017](https://doi.org/10.1523/JNEUROSCI.2204-16.2017).
- Mazaré, N., Gilbert, A., Boulay, A.-C., Rouach, N., and Cohen-Salmon, M. (2017). Connexin 30 is expressed in a subtype of mouse brain pericytes. *Brain Struct Funct.* [10.1007/s00429-017-1562-4](https://doi.org/10.1007/s00429-017-1562-4).
- Dallérac, G., Moulard, J., Benoist, J.-F., Rouach, S., Auvin, S., Guilbot, A., Lenoir, L., and Rouach, N. (2017). Non-ketogenic combination of nutritional strategies provides robust protection against seizures. *Sci Rep* *7*, 5496. [10.1038/s41598-017-05542-3](https://doi.org/10.1038/s41598-017-05542-3).
- Curry, N., Ghézali, G., Kaminski Schierle, G.S., Rouach, N., and Kaminski, C.F. (2017). Correlative STED and Atomic Force Microscopy on Live Astrocytes Reveals Plasticity of Cytoskeletal Structure and Membrane Physical Properties during Polarized Migration. *Front Cell Neurosci* *11*, 104. [10.3389/fncel.2017.00104](https://doi.org/10.3389/fncel.2017.00104).