

Veröffentlichungen klinischer und wissenschaftlicher Arbeiten

Peer-reviewed papers (the name of the Pernet lab members is underlined, CA= Vincent Pernet is corresponding author)

- 1) Sandrine Joly, Julius Baya Mdzomba, Léa Rodriguez, Françoise Morin, Luc Vallières, **Vincent Pernet**. B cell-dependent EAE induces visual deficits in the mouse with similarities to human autoimmune demyelinating diseases. *Journal of Neuroinflammation*, *accepted* (CA)
- 2) Vincent Pernet, Ivo Meli, Sherif Idriss, Frank Maigler, Sandrine Joly, Sebastian Spiegel, Maud Bagnound, Jana Remlinger, Katharina Roenneke, Martin E. Schwab, Martino Calamei, Katharina Schindowski, Andrew Chan. Nose-to-brain transfer of Nogo-A antibody alleviates the spinal cord symptoms of mouse experimental autoimmune encephalomyelitis. *Submitted* (CA).
- 3) Sandrine Joly, Léa Rodriguez and Vincent Pernet (2021) The lack of amyloidogenic activity is persistent in *old* WT and APP_{swE}/PS1 Δ E9 mouse retinae. *Int J Mol Sci*, 22(21):11344 (CA)
- 4) Françoise Morin, Noopur Singh, Julius Baya Mdzomba, Aline Dumas, **Vincent Pernet**, and Luc Vallières (2021) Conditional deletions of *Hdc* confirm roles of histamine in anaphylaxis and circadian activity, but not in autoimmune encephalomyelitis. *J Immunology*, 206(9) :2029-2037
- 5) Biyong E.F., Tremblay C., Leclerc M., Caron V., Alfos S., Helbling J.C., Émond V., Rodriguez L., **Pernet V.**, Bennett D. A., Pallet V. & Calon F (2021) Protective role of RXRs and dietary vitamin A in Alzheimer's disease: evidence from clinicopathological and preclinical studies. *Neurobiol Dis*, 161:105542
- 6) Léa Rodriguez, Sandrine Joly, Julius Baya Mdzomba and **Vincent Pernet** (2020) Tau gene deletion does not influence axonal regeneration and retinal neuron survival in the injured mouse visual system. *Int J Mol Sci*, 21(11):E4100 (CA)
- 7) Léa Rodriguez, Julius Baya Mdzomba, Sandrine Joly and **Vincent Pernet** (2020) Tau restricts visual cortex plasticity in adult mice. *Neurobiol Aging*, 95:214-224 (CA)
- 8) Julius Baya Mdzomba, Sandrine Joly, Léa Rodriguez, Patricia Lassiaz, Francine Behar-Cohen and **Vincent Pernet** (2020) Nogo-A-targeting antibody promotes visual recovery and inhibits neuroinflammation after retinal injury. *Cell Death Dis*, 11:101 (CA)
- 9) Florence Masse, Pascale Desjardins, Mathieu Ouellette, Camille Couture, Mahmoud Mohamed Omar, **Vincent Pernet**, Sylvain Guérin, Elodie Boisselier (2019) [Synthesis of Ultrastable Gold Nanoparticles as a New Drug Delivery System](#). *Molecules*, 24:16

- 10) Léa Rodriguez, Julius Baya Mdzomba, Sandrine Joly, Mélissa Boudreau-Laprise, Emmanuel Planel, **Vincent Pernet** (2018) Human Tau expression does not induce mouse retina neurodegeneration, suggesting differential toxicity of Tau in Brain vs retinal neurons. **Front Mol Neurosci**, 11:390 (CA)
- 11) Julius Baya Mdzomba, Noémie Jordi, Sandrine Joly, Léa Rodriguez, Frédéric Bretzner and **Vincent Pernet** (2018) Nogo-A inactivation improves visual plasticity and recovery after retinal injury. **Cell Death Dis**, 9:727 (CA)
- 12) Sandrine Joly, Agnieszka Dejda, Léa Rodriguez, Mike Sapielha, **Vincent Pernet** (2018) Nogo-A inhibits vascular regeneration in ischemic retinopathy. **Glia**, 66(10):2079-2093 (CA)
- 13) Sandrine Joly, Deniz Dalkara and **Vincent Pernet** (2017) Sphingosine 1-phosphate receptor 1 modulates CNTF-induced axonal growth and neuroprotection in the mouse visual system. **Neural Plast**, article ID 6818970 (CA)
- 14) Dietmar Fischer, Alan R. Harvey, **Vincent Pernet**, Vance P. Lemmon, Kevin K. Park (2017) Optic nerve regeneration in mammals: regenerated or spared axons? Published on line in **Exp Neurol**, 296:83-88
- 15) **Vincent Pernet** (2017) Nogo-A in the visual system development and in ocular diseases. **Biochim Biophys Acta**, 1863:1300-1311 (CA)
- 16) Sandrine Joly, Simon Lamoureux, **Vincent Pernet** (2017) Nonamyloidogenic processing of amyloid beta precursor protein is associated with retinal function improvement in aging male APP^{swe}/PS1 Δ E9 mice. **Neurobiol Aging**, 53C:181-191 (CA)
- 17) Sandrine Joly, Dana A Dodd, Benjamin F Grewe and **Vincent Pernet** (2016) Reticulon 4A/Nogo-A influences the distribution of Kir4.1 but is not essential for potassium conductance in retinal Müller glia. **Neurosci Lett**, 627:168-177 (CA)
- 18) Sandrine Joly and **Vincent Pernet** (2016) Sphingosine 1-phosphate receptor 1 is required for retinal ganglion cell survival after optic nerve trauma. **J Neurochem**, 138:571-586 (CA)
- 19) Anna Guzik-Kornacka, Alexander van der Bourg, Flora Vajda, Sandrine Joly, Martin E. Schwab, **Vincent Pernet** (2016) Nogo-A deletion increases the plasticity of the optokinetic response and changes retinal projection organization in the adult mouse visual system. **Brain Struct Funct** 221(1):317-29 (CA)
- 20) Flora Vajda, Noémie Jordi, Deniz Dalkara, Sandrine Joly, Franziska Christ, Björn Tews,

Martin E. Schwab and **Vincent Pernet** (2015) Cell type-specific Nogo-A gene ablation promotes axonal regeneration in the injured adult optic nerve. **Cell Death Differ.** 22(2):323-35 (CA)

- 21) Sandrine Joly*, Noémie Jordi*, Martin E. Schwab, **Vincent Pernet** (2014) EphA4 gene deletion improves axonal regeneration but reduces axonal branching in the injured mouse optic nerve. *Equal contributors. **Eur J Neurosci.** 40:3021-3031 (Article featured in the journal cover) (CA)
- 22) Sandrine Joly, Anna Guzik-Kornacka, Martin E. Schwab, **Vincent Pernet** (2014) New mouse retinal stroke model reveals direction-selective circuit damage linked to permanent optokinetic response loss. **Invest Ophthalmol Vis Sci.** 55(7):4476-89 (CA)
- 23) Jeanne Ster, Martin Steuble, Clara Orlando, Tu-My Diep, Alexander Akhmedov, Olivier Raineteau, **Vincent Pernet**, Peter Sonderegger, Urs Gerber (2014) Calsyntenin-1 regulates neuronal spine development by modulating NMDA receptor trafficking. **J Neurosci.** 34(26):8716-8727
- 24) **Vincent Pernet** and Martin E. Schwab (2014) Lost in the jungle: new hurdles for optic nerve axon regeneration. **Trends Neurosci.** 37(7):381-7 (CA)
- 25) Anissa Kempf*, Bjoern Tews*, Michael E. Arzt, Oliver Weinmann, Franz J. Obermair, **Vincent Pernet**, Marta Zagrebelsky, Andrea Delekate, Cristina Iobbi, Ajmal Zemmari, Zorica Ristic, Miriam Gullo, Peter Spies, Dana Dodd, Daniel Gygax, Martin Korte, and Martin E. Schwab (2014) The sphingolipid receptor S1PR2 is a receptor for Nogo-A repressing synaptic plasticity. **PLoS Biol.** 12 :e1001763. *Equal contributors
- 26) **Vincent Pernet**, Sandrine Joly, Noémie Jordi, Deniz Dalkara, Anna Guzik-Kornacka, John G Flannery, Martin E Schwab (2013) Misguidance and modulation of axonal regeneration by Stat3 and Rho/ROCK signaling in the transparent optic nerve. **Cell Death Dis** 4:e734; doi:10.1038/cddis.2013.266 (CA)
- 27) Thomas Wälchli*, **Vincent Pernet***, Oliver Weinmann, Jau-ye Shiu, Anna Guzik-Kornacka, Guillaume Decrey, Kaustabh Ghosh, Hannah Schneider, Johannes Vogel, Donald E. Ingber, Viola Vogel, Karl Frei, Martin E. Schwab (2013) Nogo-A is a negative regulator of CNS angiogenesis. *Equal contributors. **Proc Nat Acad Sci USA** 110:E1943-1952
- 28) **Vincent Pernet**, Sandrine Joly, Deniz Dalkara, Noémie Jordi, Olivia Schwarz, Franziska Christ, David Schaffer, John G. Flannery, Martin E. Schwab (2013) Long-distance axonal regeneration induced by CNTF gene transfer is impaired by axonal misguidance in the injured adult optic nerve. **Neurobiol Dis** 51:202-13 (CA)

- 29) Fabrice D. Heitz, Michael Erb, Corinne Anklin, Dimitri Robay, **Vincent Pernet**, Nuri Gueven (2012) Idebenone protects against retinal damage and loss of vision in a mouse model of Leber's hereditary optic neuropathy. **PLoS One** 7(9):e45182
- 30) **Vincent Pernet** and Martin E. Schwab (2012) The role of Nogo-A in axonal plasticity, regrowth and repair. **Cell Tissue Res** 349:97-104 (CA)
- 31) **Vincent Pernet**, Sandrine Joly, Deniz Dalkara, Olivia Schwarz, Franziska Christ, David Schaffer, John G. Flannery, *Martin E. Schwab* (2011) *Neuronal Nogo-A up-regulation does not contribute to ER stress-associated apoptosis but participates in the regenerative response in the axotomized adult retina.* **Cell Death Differ** 19:1096-108 (CA)
- 32) Sandrine Joly, **Vincent Pernet**, Marijana Samardzija, Christian Grimm (2011) Pax6-positive müller glia cells express cell cycle markers but do not proliferate after photoreceptor injury in the mouse retina. **Glia** 59:1033-46
- 33) Frédéric Lebrun-Julien[†], Laure Duplan[†], **Vincent Pernet**, Ingrid Osswald, Przemyslaw Sapielha, Philippe Bourgeois, Kathleen M Dickson, Derek Bowie, Philip Barker, and Adriana Di Polo (2009) Excitotoxic death of retinal neurons *in vivo* occurs via a non-cell autonomous mechanism. **J Neurosci** 29:5536-45. [†] Equal contributors
- 34) **Vincent Pernet**, Sandrine Joly, Franziska Christ, Leda Dimou, Martin E. Schwab. (2008) Nogo-A and MAG differently influence oligodendrocyte development *in vivo*. **J Neurosci**. 28:7435-44 (CA)
- 35) **Vincent Pernet**, Philippe Bourgeois and Adriana Di Polo. (2007) A role for polyamines in retinal ganglion cell excitotoxic death. **J Neurochem** 103:1481-90
- 36) Sandrine Joly, **Vincent Pernet**, Sylvain Chemtob, Adriana Di Polo and Pierre Lachapelle (2007) Neuroprotection in the juvenile rat model of light-induced retinopathy: evidence suggesting a role for FGF-2 and CNTF. **Invest Ophthalmol Vis Sci** 48: 2311-2320
- 37) Sandrine Joly, **Vincent Pernet**, Allison Dorfman, Sylvain Chemtob and Pierre Lachapelle (2006) Light-induced retinopathy: Comparing adult and juvenile rats. **Invest Ophthalmol Vis Sci** 47:3202-3212
- 38) **Vincent Pernet** and Adriana Di Polo (2006) Synergistic action of brain-derived neurotrophic factor and lens injury promotes retinal ganglion cell survival, but leads to optic nerve dystrophy *in vivo*. **Brain**, 129:1014-26. (Article featured in the journal cover)
- 39) Rosemarie Gauthier*, Sandrine Joly*, **Vincent Pernet**, Pierre Lachapelle and Adriana Di Polo (2005) Brain-derived neurotrophic factor gene delivery to Müller glia promotes

structural and functional protection of light-damaged photoreceptors. ***Equal contributors. Invest Ophthalmol Vis Sci** 46: 3383-92

- 40) Yu Zhou, **Vincent Pernet**, William W. Hauswirth and Adriana Di Polo (2005) Activation of The Extracellular Signal-Regulated Kinase 1/2 Pathway Protects Retinal Ganglion Cells in Experimental Glaucoma. **Mol Ther** 12:402-412
- 41) **Vincent Pernet**, William W. Hauswirth and Adriana Di Polo (2005) Extracellular signal-regulated kinase 1/2 mediates survival, but not regeneration, of adult injured CNS neurons *in vivo*. **J Neurochem** 93:72-83
- 42) **Vincent Pernet**, Michel Anctil and C.J.P. Grimmelikhuijzen (2004) Antho-RFamide-containing neurons in the primitive nervous system of the anthozoan *Renilla koellikeri*. **J Comp. Neurol** 472:208-220
- 43) **Vincent Pernet** and Michel Anctil (2002) Annual variations and sex-related differences of estradiol-17 β levels in the anthozoan *Renilla koellikeri*. **Gen Comp Endocrinol** 129:63-68
- 44) **Vincent Pernet**, Victor Gavino, Grace Gavino and Michel Anctil (2002) Variations of lipid and fatty acid contents during the reproductive cycle of the anthozoan *Renilla koellikeri*. **J Comp Physiol B** 172:455-465