

Publications in 2019 of research projects with the NBB as co-author

The following list contains publications that arose from research projects in which the NBB's contribution was more substantial than the supply of tissue, but also e.g. intellectual input into study design or specific analyses of tissue or donor data. In these cases the NBB requests corporate co-authorship.

- Böttcher, C., Schlickeiser, S., Sneeboer, M. A. M., Kunkel, D., Knop, A., Paza, E., Fidzinski, P., Kraus, L., Snijders, G. J. L., Kahn, R. S., Schulz, A. R., Mei, H. E., Hol, E. M., Siegmund, B., Glauen, R., Spruth, E. J., de Witte, L. D., & Priller, J. (2019). Human microglia regional heterogeneity and phenotypes determined by multiplexed single-cell mass cytometry. *Nature Neuroscience*, 22(1), 78–90. <https://doi.org/10.1038/s41593-018-0290-2>
- Byman, E., Schultz, N., Netherlands Brain Bank, Blom, A. M., & Wennström, M. (2019). A Potential Role for α -Amylase in Amyloid- β -Induced Astrocytic Glycogenolysis and Activation. *Journal of Alzheimer's Disease*, 68(1), 205–217. <https://doi.org/10.3233/JAD-180997>
- Gami-Patel, P., Dijken, I. van, Swieten, J. C. van, Pijnenburg, Y. a. L., Netherlands Brain Bank, Rozemuller, A. J. M., Hoozemans, J. J. M., & Dijkstra, A. A. (2019). Von Economo neurons are part of a larger neuronal population that are selectively vulnerable in C9orf72 frontotemporal dementia. *Neuropathology and Applied Neurobiology*, 0(0). <https://doi.org/10.1111/nan.12558>
- Laarman Melanie D., Geeven Geert, Barnett Phil, Netherlands Brain Bank, Rinkel Gabriël J. E., de Laat Wouter, Ruigrok Ynte M., & Bakkers Jeroen. (2019). Chromatin Conformation Links Putative Enhancers in Intracranial Aneurysm-Associated Regions to Potential Candidate Genes. *Journal of the American Heart Association*, 8(9), e011201. <https://doi.org/10.1161/JAHA.118.011201>
- Schultz, N., Byman, E., Netherlands Brain Bank, & Wennström, M. (2019). Levels of Retinal Amyloid- β Correlate with Levels of Retinal IAPP and Hippocampal Amyloid- β in Neuropathologically Evaluated Individuals. *Journal of Alzheimer's Disease: JAD*. <https://doi.org/10.3233/JAD-190868>
- Sneeboer, M. A. M., Snijders, G. J. L. J., Berdowski, W. M., Fernández-Andreu, A., Psychiatric Donor Program of the Netherlands Brain Bank (NBB-Psy), Mierlo, H. C. van, Berlekom, A. B. van, Litjens, M., Kahn, R. S., Hol, E. M., & Witte, L. D. de. (2019). Microglia in post-mortem brain tissue of patients with bipolar disorder are not immune activated. *Translational Psychiatry*, 9. <https://doi.org/10.1038/s41398-019-0490-x>
- van der Lee, S. J., Conway, O. J., Jansen, I., Carrasquillo, M. M., Kleinedam, L., van den Akker, E., Hernández, I., van Eijk, K. R., Stringa, N., Chen, J. A., Zettergren, A., Andlauer, T. F. M., Diez-Fairen,

Publications 2019

- M., Simon-Sanchez, J., Lleó, A., Zetterberg, H., Nygaard, M., Blauwendraat, C., Savage, J. E., ... The GIFT (Genetic Investigation in Frontotemporal Dementia and Alzheimer's Disease) Study Group. (2019). A nonsynonymous mutation in *PLCG2* reduces the risk of Alzheimer's disease, dementia with Lewy bodies and frontotemporal dementia, and increases the likelihood of longevity. *Acta Neuropathologica*, *138*(2), 237–250. <https://doi.org/10.1007/s00401-019-02026-8>
- van Rooij, J. G. J., Meeter, L. H. H., Melhem, S., Nijholt, D. A. T., Wong, T. H., Netherlands Brain Bank, Rozemuller, A., Uitterlinden, A. G., van Meurs, J. G., & van Swieten, J. C. (2019). Hippocampal transcriptome profiling combined with protein-protein interaction analysis elucidates Alzheimer's disease pathways and genes. *Neurobiology of Aging*, *74*, 225–233. <https://doi.org/10.1016/j.neurobiolaging.2018.10.023>
- Vergouw, L. J. M., Marler, L. P., Van, W. de B., Rozemuller, A. J. M., De, F. J., & Netherlands Brain Bank. (2019). Dementia With Lewy Bodies: A Clinicopathologic Series of False-positive Cases. *Alzheimer Disease and Associated Disorders*. <https://doi.org/10.1097/WAD.0000000000000308>

All publications in 2019

The following list contains publications that were realized through the use of NBB tissue. The NBB is acknowledged in these articles, but is not included as a co-author.

- Aarum, J., Cabrera, C. P., Jones, T. A., Rajendran, S., Adiutori, R., Giovannoni, G., Barnes, M. R., Malaspina, A., & Sheer, D. (2019). Enzymatic degradation of RNA causes widespread protein aggregation in cell and tissue lysates. *BioRxiv*, 841577. <https://doi.org/10.1101/841577>
- Adav, S. S., Park, J. E., & Sze, S. K. (2019). Quantitative profiling brain proteomes revealed mitochondrial dysfunction in Alzheimer's disease. *Molecular Brain*, *12*(1), 8. <https://doi.org/10.1186/s13041-019-0430-y>
- Adorjan, I., Tyler, T., Bhaduri, A., Demharter, S., Finszter, C. K., Bako, M., Sebok, O. M., Nowakowski, T. J., Khodosevich, K., Møllgård, K., Kriegstein, A. R., Shi, L., Hoerder-Suabedissen, A., Ansorge, O., & Molnár, Z. (2019). Neuroserpin expression during human brain development and in adult brain revealed by immunohistochemistry and single cell RNA sequencing. *Journal of Anatomy*, *235*(3), 543–554. <https://doi.org/10.1111/joa.12931>

Publications 2019

- Aguila, J., Cheng, S., Kee, N., Cao, M., Deng, Q., & Hedlund, E. (2019). Spatial transcriptomics identifies novel markers of vulnerable and resistant midbrain dopamine neurons. *BioRxiv*, 334417. <https://doi.org/10.1101/334417>
- Alkemade, A., de Hollander, G., Miletic, S., Keuken, M. C., Balesar, R., de Boer, O., Swaab, D. F., & Forstmann, B. U. (2019). The functional microscopic neuroanatomy of the human subthalamic nucleus. *Brain Structure and Function*, 224(9), 3213–3227. <https://doi.org/10.1007/s00429-019-01960-3>
- Allodi, I., Nijssen, J., Benitez, J. A., Schweingruber, C., Fuchs, A., Bonvicini, G., Cao, M., Kiehn, O., & Hedlund, E. (2019). Modeling Motor Neuron Resilience in ALS Using Stem Cells. *Stem Cell Reports*, 12(6), 1329–1341. <https://doi.org/10.1016/j.stemcr.2019.04.009>
- Berrocal, M., Caballero-Bermejo, M., Gutierrez-Merino, C., & Mata, A. M. (2019). Methylene Blue Blocks and Reverses the Inhibitory Effect of Tau on PMCA Function. *International Journal of Molecular Sciences*, 20(14), 3521. <https://doi.org/10.3390/ijms20143521>
- Binamé, F., Pham-Van, L. D., Spénlé, C., Jolivel, V., Birmpili, D., Meyer, L. A., Jacob, L., Meyer, L., Mensah-Nyagan, A. G., Po, C., Van der Heyden, M., Roussel, G., & Bagnard, D. (2019). Disruption of Sema3A/Plexin-A1 inhibitory signalling in oligodendrocytes as a therapeutic strategy to promote remyelination. *EMBO Molecular Medicine*, 11(11), e10378. <https://doi.org/10.15252/emmm.201910378>
- Boon, B. D. C., Pouwels, P. J. W., Jonkman, L. E., Keijzer, M. J., Preziosa, P., van de Berg, W. D. J., Geurts, J. J. G., Scheltens, P., Barkhof, F., Rozemuller, A. J. M., Bouwman, F. H., & Steenwijk, M. D. (2019). Can post-mortem MRI be used as a proxy for in vivo? A case study. *Brain Communications*, 1(1). <https://doi.org/10.1093/braincomms/fcz030>
- Bowles, K. R., Pugh, D. A., Farrell, K., Han, N., Tcw, J., Liu, Y., Liang, S. A., Qian, L., Bendl, J., Fullard, J. F., Renton, A. E., Casella, A., Iida, M. A., Bandres-Ciga, S., Gan-Or, Z., Heutink, P., Siitonen, A., Bertelsen, S., Karch, C. M., ... Goate, A. M. (2019). 17q21.31 sub-haplotypes underlying H1-associated risk for Parkinson's disease and progressive supranuclear palsy converge on altered glial regulation. *BioRxiv*, 860668. <https://doi.org/10.1101/860668>
- Bowman, A. P., Bogie, J. F. J., Hendriks, J. J. A., Haidar, M., Belov, M., Heeren, R. M. A., & Ellis, S. R. (2019). Evaluation of lipid coverage and high spatial resolution MALDI-imaging capabilities of oversampling combined with laser post-ionisation. *Analytical and Bioanalytical Chemistry*. <https://doi.org/10.1007/s00216-019-02290-3>

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- Byman, E., Schultz, N., Bank, the N. B., Blom, A. M., & Wennström, M. (2019). A Potential Role for α -Amylase in Amyloid- β -Induced Astrocytic Glycogenolysis and Activation. *Journal of Alzheimer's Disease*, 68(1), 205–217. <https://doi.org/10.3233/JAD-180997>
- Choi, K. Y., Lee, J. J., Gunasekaran, T. I., Kang, S., Lee, W., Jeong, J., Lim, H. J., Zhang, X., Zhu, C., Won, S.-Y., Choi, Y. Y., Seo, E. H., Lee, S. C., Gim, J., Chung, J. Y., Chong, A., Byun, M. S., Seo, S., Ko, P.-W., ... Neuroimaging Initiative, A. D. (2019). APOE Promoter Polymorphism-219T/G is an Effect Modifier of the Influence of APOE ϵ 4 on Alzheimer's Disease Risk in a Multiracial Sample. *Journal of Clinical Medicine*, 8(8), 1236. <https://doi.org/10.3390/jcm8081236>
- Chrobok, N. L., Bol, J. G. J. M., Wilhelmus, M. M. M., Drukarch, B., & van Dam, A.-M. (2019). Tissue Transglutaminase Appears in Monocytes and Macrophages but Not in Lymphocytes in White Matter Multiple Sclerosis Lesions. *Journal of Neuropathology & Experimental Neurology*, 78(6), 492–500. <https://doi.org/10.1093/jnen/nlz030>
- Cicognola, C., Brinkmalm, G., Wahlgren, J., Portelius, E., Gobom, J., Cullen, N. C., Hansson, O., Parnetti, L., Constantinescu, R., Wildsmith, K., Chen, H.-H., Beach, T. G., Lashley, T., Zetterberg, H., Blennow, K., & Höglund, K. (2019). Novel tau fragments in cerebrospinal fluid: Relation to tangle pathology and cognitive decline in Alzheimer's disease. *Acta Neuropathologica*, 137(2), 279–296. <https://doi.org/10.1007/s00401-018-1948-2>
- Crotti, A., Sait, H. R., McAvoy, K. M., Estrada, K., Ergun, A., Szak, S., Marsh, G., Jandreski, L., Peterson, M., Reynolds, T. L., Dalkilic-Liddle, I., Cameron, A., Cahir-McFarland, E., & Ransohoff, R. M. (2019). BIN1 favors the spreading of Tau via extracellular vesicles. *Scientific Reports*, 9(1), 1–20. <https://doi.org/10.1038/s41598-019-45676-0>
- Cupidi, C., Dijkstra, A. A., Melhem, S., Vernooij, M. W., Severijnen, L.-A., Hukema, R. K., Rozemuller, A. J. M., Neumann, M., van Swieten, J. C., & Seelaar, H. (2019). Refining the Spectrum of Neuronal Intranuclear Inclusion Disease: A Case Report. *Journal of Neuropathology & Experimental Neurology*, 78(7), 665–670. <https://doi.org/10.1093/jnen/nlz043>
- Darreh-Shori, T., Rezaeianyazdi, S., Lana, E., Mitra, S., Gellerbring, A., Karami, A., Bogdanovic, N., Lithner, C. U., Winblad, B., & Behbahani, H. (2019). Increased Active OMI/HTRA2 Serine Protease Displays a Positive Correlation with Cholinergic Alterations in the Alzheimer's Disease Brain. *Molecular Neurobiology*, 56(7), 4601–4619. <https://doi.org/10.1007/s12035-018-1383-3>

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- de Wit, N. M., den Hoedt, S., Martinez-Martinez, P., Rozemuller, A. J., Mulder, M. T., & de Vries, H. E. (2019). Astrocytic ceramide as possible indicator of neuroinflammation. *Journal of Neuroinflammation*, 16(1), 48. <https://doi.org/10.1186/s12974-019-1436-1>
- Demuyser, T., Deneyer, L., Bentea, E., Albertini, G., Femenia, T., Walrave, L., Sato, H., Danbolt, N. C., Bundel, D. D., Michotte, A., Lindskog, M., Massie, A., & Smolders, I. (2019). Slc7a11 (xCT) protein expression is not altered in the depressed brain and system xc- deficiency does not affect depression-associated behaviour in the corticosterone mouse model. *The World Journal of Biological Psychiatry*, 20(5), 381–392. <https://doi.org/10.1080/15622975.2017.1371332>
- Derada Troletti, C., Fontijn, R. D., Gowing, E., Charabati, M., van Het Hof, B., Didouh, I., van der Pol, S. M. A., Geerts, D., Prat, A., van Horssen, J., Kooij, G., & de Vries, H. E. (2019). Inflammation-induced endothelial to mesenchymal transition promotes brain endothelial cell dysfunction and occurs during multiple sclerosis pathophysiology. *Cell Death & Disease*, 10(2), 1–13. <https://doi.org/10.1038/s41419-018-1294-2>
- Donega, V., Burm, S. M., van Strien, M. E., van Bodegraven, E. J., Paliukhovich, I., Geut, H., van de Berg, W. D. J., Li, K. W., Smit, A. B., Basak, O., & Hol, E. M. (2019). Transcriptome and proteome profiling of neural stem cells from the human subventricular zone in Parkinson's disease. *Acta Neuropathologica Communications*, 7(1), 84. <https://doi.org/10.1186/s40478-019-0736-0>
- Elkouris, M., Kouroupi, G., Vourvoukelis, A., Papagiannakis, N., Kaltezioti, V., Matsas, R., Stefanis, L., Xilouri, M., & Politis, P. K. (2019). Long Non-coding RNAs Associated With Neurodegeneration-Linked Genes Are Reduced in Parkinson's Disease Patients. *Frontiers in Cellular Neuroscience*, 13. <https://doi.org/10.3389/fncel.2019.00058>
- Espitia Pinzon, N., van Mierlo, H., de Jonge, J. C., Brevé, J. J. P., Bol, J. G. J. M., Drukarch, B., van Dam, A.-M., & Baron, W. (2019). Tissue Transglutaminase Promotes Early Differentiation of Oligodendrocyte Progenitor Cells. *Frontiers in Cellular Neuroscience*, 13. <https://doi.org/10.3389/fncel.2019.00281>
- Fang, X. T., Hultqvist, G., Meier, S. R., Antoni, G., Sehlin, D., & Syvänen, S. (2019). High detection sensitivity with antibody-based PET radioligand for amyloid beta in brain. *NeuroImage*, 184, 881–888. <https://doi.org/10.1016/j.neuroimage.2018.10.011>

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- Fathy, Y. Y., Jonker, A. J., Oudejans, E., Jong, F. J. J. de, Dam, A.-M. W. van, Rozemuller, A. J. M., & Berg, W. D. J. van de. (2019). Differential insular cortex subregional vulnerability to α -synuclein pathology in Parkinson's disease and dementia with Lewy bodies. *Neuropathology and Applied Neurobiology*, 45(3), 262–277. <https://doi.org/10.1111/nan.12501>
- Folke, J., Pakkenberg, B., & Brudek, T. (2019). Impaired Wnt Signaling in the Prefrontal Cortex of Alzheimer's Disease. *Molecular Neurobiology*, 56(2), 873–891. <https://doi.org/10.1007/s12035-018-1103-z>
- Fritsche, L., Teuber-Hanselmann, S., Soub, D., Harnisch, K., Mairinger, F., & Junker, A. (2019). MicroRNA profiles of MS gray matter lesions identify modulators of the synaptic protein synaptotagmin-7. *Brain Pathology*, n/a(n/a). <https://doi.org/10.1111/bpa.12800>
- Fritz, F. J., Sengupta, S., Harms, R. L., Tse, D. H., Poser, B. A., & Roebroek, A. (2019). Ultra-high resolution and multi-shell diffusion MRI of intact ex vivo human brains using kT-dSTEAM at 9.4T. *NeuroImage*, 202, 116087. <https://doi.org/10.1016/j.neuroimage.2019.116087>
- Gail Canter, R., Huang, W.-C., Choi, H., Wang, J., Ashley Watson, L., Yao, C. G., Abdurrob, F., Bousleiman, S. M., Young, J. Z., Bennett, D. A., Delalle, I., Chung, K., & Tsai, L.-H. (2019). 3D mapping reveals network-specific amyloid progression and subcortical susceptibility in mice. *Communications Biology*, 2(1), 1–12. <https://doi.org/10.1038/s42003-019-0599-8>
- Gao, S., Zhang, T., Jin, L., Liang, D., Fan, G., Song, Y., Lucassen, P. J., Yu, R., & Swaab, D. F. (2019). CAPON Is a Critical Protein in Synaptic Molecular Networks in the Prefrontal Cortex of Mood Disorder Patients and Contributes to Depression-Like Behavior in a Mouse Model. *Cerebral Cortex*, 29(9), 3752–3765. <https://doi.org/10.1093/cercor/bhy254>
- Ghanbari, M., Munshi, S. T., Ma, B., Lendemeijer, B., Bansal, S., Adams, H. H., Wang, W., Goth, K., Slump, D. E., Hout, M. C. G. N. van den, IJcken, W. F. J. van, Bellusci, S., Pan, Q., Erkeland, S. J., Vrij, F. M. S. de, Kushner, S. A., & Ikram, M. A. (2019). A functional variant in the miR-142 promoter modulating its expression and conferring risk of Alzheimer disease. *Human Mutation*, 40(11), 2131–2145. <https://doi.org/10.1002/humu.23872>
- Ginneken, V. van. (2019). The Expected Pandemic of Mild-Alzheimer (\approx Type 3 Diabetes) , How to Combat ? *Gastroenterology & Hepatology International Journal*, 4(2).
- Guerreiro, R., Escott-Price, V., Hernandez, D. G., Kun-Rodrigues, C., Ross, O. A., Orme, T., Neto, J. L., Carmona, S., Dehghani, N., Eicher, J. D., Shepherd, C., Parkkinen, L., Darwent, L., Heckman, M. G., Scholz, S. W., Troncoso, J. C., Pletnikova, O., Dawson, T., Rosenthal, L., ... Bras, J. (2019). Heritability

Publications 2019

and genetic variance of dementia with Lewy bodies. *Neurobiology of Disease*, 127, 492–501.

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Gündner, A. L., Duran-Pacheco, G., Zimmermann, S., Ruf, I., Moors, T., Baumann, K., Jagasia, R., van de Berg, W. D. J., & Kremer, T. (2019). Path mediation analysis reveals GBA impacts Lewy body disease status by increasing α -synuclein levels. *Neurobiology of Disease*, 121, 205–213.

<https://doi.org/10.1016/j.nbd.2018.09.015>

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Helgadottir, H. T., Lundin, P., Wallén-Årzt, E., Lindström, A.-K., Graff, C., & Eriksson, M. (2019). Somatic mutation that affects transcription factor binding upstream of CD55 in the temporal cortex of a late-onset Alzheimer disease patient. *Human Molecular Genetics*, 28(16), 2675–2685.

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Hoffmann, A., Ertle, B., Battis, K., Reiprich, S., Schlachetzki, J. C. M., Masliah, E., Wegner, M., Kuhlmann, T., Riemenschneider, M. J., & Winkler, J. (2019). Oligodendroglial α -synucleinopathy-driven neuroinflammation in multiple system atrophy. *Brain Pathology*, 29(3), 380–396.

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- Hu, Y.-T., Chen, X.-L., Huang, S.-H., Zhu, Q.-B., Yu, S.-Y., Shen, Y., Sluiter, A., Verhaagen, J., Zhao, J., Swaab, D., & Bao, A.-M. (2019). Early growth response-1 regulates acetylcholinesterase and its relation with the course of Alzheimer's disease. *Brain Pathology*, *29*(4), 502–512. <https://doi.org/10.1111/bpa.12688>
- Ilarregui, J. M., Kooij, G., Rodríguez, E., van der Pol, S. M. A., Koning, N., Kalay, H., van der Horst, J. C., van Vliet, S. J., García-Vallejo, J. J., de Vries, H. E., & van Kooyk, Y. (2019). Macrophage galactose-type lectin (MGL) is induced on M2 microglia and participates in the resolution phase of autoimmune neuroinflammation. *Journal of Neuroinflammation*, *16*(1), 130. <https://doi.org/10.1186/s12974-019-1522-4>
- Ishunina, T. A., Bogolepova, I. N., & Swaab, D. F. (2019). Increased Neuronal Nuclear and Perikaryal Size in the Medial Mamillary Nucleus of Vascular Dementia and Alzheimer's Disease Patients: Relation to Nuclear Estrogen Receptor α . *Dementia and Geriatric Cognitive Disorders*, *47*(4–6), 274–280. <https://doi.org/10.1159/000500244>
- Jeon, G. S., Shim, Y.-M., Lee, D.-Y., Kim, J.-S., Kang, M., Ahn, S. H., Shin, J.-Y., Geum, D., Hong, Y. H., & Sung, J.-J. (2019). Pathological Modification of TDP-43 in Amyotrophic Lateral Sclerosis with SOD1 Mutations. *Molecular Neurobiology*, *56*(3), 2007–2021. <https://doi.org/10.1007/s12035-018-1218-2>
- Kamermans, A., Planting, K. E., Jalink, K., Horssen, J. van, & Vries, H. E. de. (2019). Reactive astrocytes in multiple sclerosis impair neuronal outgrowth through TRPM7-mediated chondroitin sulfate proteoglycan production. *Glia*, *67*(1), 68–77. <https://doi.org/10.1002/glia.23526>
- Kamermans, A., Rijnsburger, M., Chakraborty, A., van der Pol, S., de Vries, H. E., & van Horssen, J. (2019). Reduced Angiopoietin-Like 4 Expression in Multiple Sclerosis Lesions Facilitates Lipid Uptake by Phagocytes via Modulation of Lipoprotein-Lipase Activity. *Frontiers in Immunology*, *10*. <https://doi.org/10.3389/fimmu.2019.00950>
- Kamermans, A., Verhoeven, T., van het Hof, B., Koning, J. J., Borghuis, L., Witte, M., van Horssen, J., de Vries, H. E., & Rijnsburger, M. (2019). Setmelanotide, a Novel, Selective Melanocortin Receptor-4 Agonist Exerts Anti-inflammatory Actions in Astrocytes and Promotes an Anti-inflammatory Macrophage Phenotype. *Frontiers in Immunology*, *10*. <https://doi.org/10.3389/fimmu.2019.02312>

Publications 2019

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