

Publications

All papers published within the context of ABINEP can be found here:

Barbazzeni B, Haider S and Friebe M (2022) Engaging Through Awareness: Purpose-Driven Framework Development to Evaluate and Develop Future Business Strategies With Exponential Technologies Toward Healthcare Democratization. *Front. Public Health* 10:851380. **doi:**
10.3389/fpubh.2022.851380

(<https://www.frontiersin.org/articles/10.3389/fpubh.2022.851380/full>)

Caliskan G, **French T**, Lacalle SE, del Angel M, Steffen J, Heimesaat MM, Dunay IR, Stork O. (2021). Antibiotic-induced gut dysbiosis leads to activation of microglia and impairment of cholinergic gamma oscillations in the hippocampus. *Brain behaviour and immunity* 99:203-217. **doi:**
10.1016/j.bbi.2021.10.007

(<https://www.sciencedirect.com/science/article/abs/pii/S0889159121005833?via%3Dihub>)

Cepeda-Prado EA*, **Khodaie B***, Quiceno GD, Beythien S, Edelmann E and Leßmann V. (2022) Calcium-Permeable AMPA Receptors Mediate Timing-Dependent LTP Elicited by Low Repeat Coincident Pre- and Postsynaptic Activity at Schaffer Collateral-CA1 Synapses. *Cerebral Cortex* 32:1682-1703. *shared first authorship. **doi.org/10.1093/cercor/bhab306**

(<https://pubmed.ncbi.nlm.nih.gov/34498663/>)

French T, Steffen J, Glas A, Osbelt L, Strowig T, Schott BH, Schüler T, Dunay IR (2022). Persisting microbiota and neuronal imbalance following *T. gondii* infection reliant on the infection route. *Front Immunol.* 13: 920658

doi.org/10.3389/fimmu.2022.920658

(<https://www.frontiersin.org/articles/10.3389/fimmu.2022.920658/full>)

Griffiths B, Zaehle T, **Repplinger S**, Schmitt F, Voges J, Hanslmayr S & Staudigl T (2022) Rhythmic interactions between the mediodorsal thalamus and prefrontal cortex precede human visual perception. *Nat Commun* 13, 3736. *Nat Commun* 13, 3736. **doi.org/10.1038/s41467-022-31407-z**

(<https://www.nature.com/articles/s41467-022-31407-z>)

Guzmán-Salas S, Weber A, **Malci A**, Lin X, Herrera-Molina R,

Cerpa W, Dorador C, Signorelli J, Zamorano P. (2022) The metabolite p-cresol impairs dendritic development, synaptogenesis, and synapse function in hippocampal neurons: Implications for autism spectrum disorder. *J Neurochem.* 161(4): 335-349 **doi: 10.1111/jnc.15604**

(<https://onlinelibrary.wiley.com/doi/full/10.1111/jnc.15604>)

Malci A, Lin X, Sandoval R, Gundelfinger ED, Naumann M, Seidenbecher CI, Herrera-Molina R. (2022) Ca²⁺ signaling in postsynaptic neurons: neuroplastin-65 regulates the interplay between plasma membrane Ca²⁺ ATPases and ionotropic glutamate receptors. *Cell Calcium* 106 (2022) 102623.

doi.org/10.1016/j.ceca.2022.102623

(<https://www.sciencedirect.com/science/article/pii/S0143416022000963?via%3Dihub>)

Pausder A, Mras P, Hoenicke L, Waldburg N, Lesker TR, Schreiber J, Strowig T, Boehme JD, Bruder D. (2022) Altered nasal microbiota in asthmatic patients is not related to changes in secretory immunity in the nasopharynx. *Clin Exp Allergy.* **doi: 10.1111/cea.14200.**

(<https://onlinelibrary.wiley.com/doi/10.1111/cea.14200>)

Publications

(<https://www.frontiersin.org/articles/10.3389/fimmu.2022.920658/full>)

Barbazzeni, B. Fritzsche, H. and Friebe, M. (2021). Forecasting the Future of Healthcare Democratization. *Current Directions in Biomedical Engineering*, 7(2): 155-158.

doi.org/10.1515/cdbme-2021-2040

(<https://www.degruyter.com/document/doi/10.1515/cdbme-2021-2040/html>)

Barbazzeni B, Fritzsche H, Mahmeen M, Haider S, Friebe M. (2021) A Structured Pathway Towards Disruption: A Novel Healthtec Innovation Design Curriculum with Entrepreneurship in Mind. *Front. Public Health.* **doi: 10.3389/fpubh.2021.715768**

(<https://www.frontiersin.org/articles/10.3389/fpubh.2021.715768/abstract>)

Barbazzeni B and Friebe M. (2021) Digital Scientist 2035—An Outlook on Innovation and Education. *Front. Comput. Sci.* 3:710972. **doi: 10.3389/fcomp.2021.710972**

(<https://www.frontiersin.org/articles/10.3389/fcomp.2021.710972/full>)

French T, Israel N, Dusedau HP, Tersteegen A, Steffen J, Cammann C, Topfstedt E, Dieterich D, Schuler T, Seifert U, Dunay IR. (2021). The Immunoproteasome Subunits LMP2, LMP7 and MECL-1 Are Crucial Along the Induction of Cerebral Toxoplasmosis. *Frontiers in immunology* 12: 619465 **doi: 10.3389/fimmu.2021.619465**

(<https://www.frontiersin.org/articles/10.3389/fimmu.2021.619465/full>)

Ilic K, Lin X, **Malci A**, Stojanović M, Puljko B, Rožman M, Vukelić Ž, Heffer M, Montag D, Schnaar RL, Kalanj-Bognar S, Herrera-Molina R, Mlinac-Jerkovic K. (2021) Plasma Membrane Calcium

ATPase-Neuroplastin Complexes Are Selectively Stabilized in GM1-Containing Lipid Rafts. *Int J Mol Sci.* 22 (24) 13590. doi: **10.3390/ijms222413590** (<https://www.mdpi.com/1422-0067/22/24/13590>)

Kakaei, E, Stepan A, Braun J. (2021) Visual object recognition is facilitated by temporal community structure. *Learning & Memory* 28 (5) 148-152. DOI:**10.1101/lm.053306.120** (<http://learnmem.cshlp.org/content/28/5/148.short>)

Koeninger L, **Osbelt L**, Berscheid A, Wendler J, Berger J, Hipp K, Lesker TR, Pils MC, Malek NP, Jensen BAH, Brötz-Oesterhelt H, Strowig T, Wehkamp J. (2021) Curbing gastrointestinal infections by defensin fragment modifications without harming commensal microbiota. *Commun Biol.* 8;4(1):47. doi: **10.1038/s42003-020-01582-0**. (<https://www.nature.com/articles/s42003-020-01582-0>)

Marquardt I, Jakob J, Scheibel J, Hofmann JD, Klawonn F, Neumann-Schaal M, Gerhard R, Bruder D, Jänsch L. (2021) Clostridioides difficile Toxin CDT Induces Cytotoxic Responses in Human Mucosal-Associated Invariant T (MAIT) Cells. *Front Microbiol.* 21;12:752549. doi: **10.3389/fmicb.2021.752549**. (<https://www.frontiersin.org/articles/10.3389/fmicb.2021.752549/full>)

Meinshausen, A-K; Herbster, M; Zwahr, C; Soldera, M; Müller, A; Halle, T; Lasagni, A; Bertrand, J. (2021) Aspect ratio of nano/microstructures determines Staphylococcus aureus adhesion on PET and titanium surfaces. *J Appl Microbiol.*131:1498-1514 doi.org/**10.1111/jam.15033** (<https://sfamjournals.onlinelibrary.wiley.com/doi/full/10.1111/jam.15033>)

Osbelt L, Wende M, Almási É, Derksen E, Muthukumarasamy U, Lesker TR, Galvez EJC, Pils MC, Schalk E, Chhatwal P, Färber J, Neumann-Schaal M, Fischer T, Schlüter D, Strowig T. (2021) Klebsiella oxytoca causes colonization resistance against multidrug-resistant K. pneumoniae in the gut via cooperative carbohydrate competition. *Cell Host Microbe* 10;29(11):1663-1679.e7. doi: **10.1016/j.chom.2021.09.003**. (<https://pubmed.ncbi.nlm.nih.gov/34610293/>)

Pausder A, Fricke J, Schughart K, Schreiber J, Strowig T, Bruder D, Boehme JD. (2021) Exogenous and Endogenous Triggers Differentially Stimulate Pigr Expression and Antibacterial Secretory Immunity in the Murine Respiratory Tract. *Lung.* 200(1):119-128. doi: **10.1007/s00408-021-00498-8** (<https://pubmed.ncbi.nlm.nih.gov/34825965/>)

Schreier S, Cebulski K, Kröger A. (2021). Contact-dependent transmission of Langkat and tick-borne encephalitis virus in type I interferon receptor-1 deficient mice. *J Virol.* 02039-20. doi: **10.1128/JVI.02039-20** (<https://pubmed.ncbi.nlm.nih.gov/33504602/>)

Shah A, Lindquist JA, Rosendahl L, Schmitz I, Mertens PR. (2021) Novel Insights into YB-1 Signaling and Cell Death Decisions. *Cancers.* 13(13):3306. doi:**10.3390/cancers13133306**. (<https://www.mdpi.com/2072-6694/13/13/3306>)

Sobczak A, **Replinger S**, Bauch EM, Brueggemann N, Lohse C, Hinrichs H, Buentjen L, Voges J, Zaehle T, Bunzeck N. (2021) Anticipating social incentives recruits alpha-beta oscillations in the human substantia nigra and invigorates behavior across the life span. *Neuroimage.*;245:118696. **doi.org/10.1016/j.neuroimage.2021.118696**

(<https://www.sciencedirect.com/science/article/pii/S1053811921009691>)

Stojanovska V, **Shah A**, Woidacki K, Fischer F, Bauer M, Lindquist JA, Mertens PR, Zenclussen AC. (2021) YB-1 Is Altered in Pregnancy-Associated Disorders and Affects Trophoblast in Vitro Properties via Alternation of Multiple Molecular Traits. *Int J Mol Sci.* 22(13):7226.

doi:10.3390/ijms22137226 (<https://www.mdpi.com/1422-0067/22/13/7226>)

Strackeljan L, Baczynska E, **Cangalaya C**, Baidoe-Ansah D, Wlodarczyk J, Kaushik R, Dityatev A. (2021) Microglia Depletion-Induced Remodeling of Extracellular Matrix and Excitatory Synapses in the Hippocampus of Adult Mice. *Cells.* 10(8):1862.

doi.org/10.3390/cells10081862 (<https://www.mdpi.com/2073-4409/10/8/1862>)

Bank U, Deiser K, Plaza-Sirvent C, **Osbelt L**, Witte A, Knop L, Labrenz R, Jänsch R, Richter F, Biswas A, Zenclussen AC, Vivier E, Romagnani C, Kühl AA, Dunay IR, Strowig T, Schmitz I, Schüler T. (2020). c-FLIP is crucial for IL-7/IL-15-dependent NKp46+ ILC development and protection from intestinal inflammation in mice. *Nat Commun* 11, 1056.

doi.org/10.1038/s41467-020-14782-3

(<https://www.nature.com/articles/s41467-020-14782-3>)

Bernal I., van Ham M., Jänsch L. (2020), Immune monitoring of human mucosal-associated invariant T cells by quantitative proteomics. *Protocols Methods Mol Biol* 2098:209-218. **DOI: 10.1007/978-1-0716-0207-2_14**

(https://experiments.springernature.com/articles/10.1007/978-1-0716-0207-2_14)

Bui VD, Mwangi JW, **Meinshausen A-K**, Mueller AJ, Bertrand J, Schubert A (2020). Antibacterial coating of Ti-6Al-4V surfaces using silver nano-powder mixed electrical discharge machining. *Surface and Coatings Technology.* Volume 383.

https://doi.org/10.1016/j.surfcoat.2019.125254

(<https://doi.org/10.1016/j.surfcoat.2019.125254>)

Cangalaya C, Stoyanov S, Fischer KD, Dityatev A. (2020) Light-induced engagement of microglia to focally remodel synapses in the adult brain. *Elife*, 9:e58435. **DOI: 10.7554/eLife.58435**

(<https://elifesciences.org/articles/58435>)

Cornelius ADA, Hosseini S, **Schreier S**, Fritzsich D, Weichert L, Michaelsen-Preusse K, Fendt M, Kröger A. (2020). Langkat virus infection affects hippocampal neuron morphology and function in

mice without disease signs. *J Neuroinflammation*. 17(1):278.

doi: 10.1186/s12974-020-01951-w

(<https://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-020-01951-w>)

Heimrath K, Spröggel A, **Replinger S**, Heinze HJ, Zaehle T. (2019). Transcranial Static Magnetic Field Stimulation Over the Temporal Cortex Modulating the Right Ear Advantage in Dichotic Listening. *Neuromodulation: Technology at the neural Interface* 23(3), 335-340. **doi.org/10.1111/ner.13023**

(<https://onlinelibrary.wiley.com/doi/10.1111/ner.13023>)

Hessman CL, Hildebrandt J, **Shah A**, Brandt S, Bock A, Frye BC, Raffetseder U, Geffers R, Brunner-Weinzierl MC, Isermann B, Mertens PR, Lindquist JA. YB-1 Interferes with TNF α -TNFR Binding and Modulates Progranulin-Mediated Inhibition of TNF α Signaling. *Int J Mol Sci*. 2020 Sep 25;21(19):7076. **DOI:**

10.3390/ijms21197076. ([https://www.mdpi.com/1422-](https://www.mdpi.com/1422-0067/21/19/7076)

[0067/21/19/7076](https://www.mdpi.com/1422-0067/21/19/7076))

Koeninger L, **Osbelt L**, Berscheid A, Wendler J, Berger J, Hipp K, Lesker TR, Pils M, Malek N, Jensen B, Brötz-Oesterhelt H, Strowig T, Wehkamp J. (2020) Curbing gastrointestinal infections by defensin fragment modifications without harming commensal microbiota. *Comm Biology*. 4(47) **Doi:**

10.1038/s42003-020-01582-0

(<https://www.nature.com/articles/s42003-020-01582-0>)

Lindqvist R, Rosendal E, Weber E, Asghar N, **Schreier S**, Lenman A, Johansson M, Dobler G, Bestehorn M, Kröger A, Överby AK. (2020). The envelope protein of tick-borne encephalitis virus influences neuron entry, pathogenicity, and vaccine protection. *J Neuroinflammation*. 17(1):284. **doi:**

10.1186/s12974-020-01943-w.

(<https://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-020-01943-w>)

Osbelt L, Thiemann S, Smit N, Lesker TR, Schröter M, Gálvez EJC, Schmidt-Hohagen K, Pils MC, Mühlen S, Dersch P, Hiller K, Schlüter D, Neumann-Schaal M, Strowig T. (2020). Variations in microbiota composition of laboratory mice influence *Citrobacter rodentium* infection via variable short-chain fatty acid production. *PLoS Pathog*. 16(3):e1008448. **doi:**

10.1371/journal.ppat.1008448

(<https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1008448>)

Shah A, Plaza-Sirvent C, Weinert S, Buchbinder JH, Lavrik IN, Mertens PR, Schmitz I, Lindquist JA (2020) YB-1 Mediates TNF-Induced Pro-Survival Signaling by Regulating NF- κ B Activation. *Cancers*, 12(8), 2188; **DOI.org/10.3390/cancers12082188**

(<https://www.mdpi.com/2072-6694/12/8/2188>)

Stoyanov S., Sun W., Düsedau H.P., Choi I., **Cangalaya C.**, Mirzapourdelavar H., Baidoe-Ansah D., Kaushik R., Neumann J., Dunay I.R., Dityatev A. (2020) Attenuation of the extracellular matrix restores microglial activity during the early stage of

amyloidosis. *Glia*, DOI: **10.1002/glia.23894**

(<https://onlinelibrary.wiley.com/doi/full/10.1002/glia.23894>)

Vemula SK*, **Malci A***, Lennart J, Lehmann AC, Ramya R, Hradsky J, Matute R. A., Weber A., Prigge M., Naumann M., Kreutz M. R., Seidenbecher C. I., Gundelfinger E. D., Herrera-Molina R. (2020) The Interaction of TRAF6 With Neuroplastin Promotes Spinogenesis During Early Neuronal Development. *Frontiers in Cell and Developmental Biology*, 8. *equal contribution. DOI=**10.3389/fcell.2020.579513**

(<https://www.frontiersin.org/articles/10.3389/fcell.2020.579513/full>)

Agostino CS, Zana Y, Balci F, Claessens PME. (2019) Effect of Presentation Format on Judgment of Long-Range Time Intervals. *Front Psychol.* 10:1479. DOI:

10.3389/fpsyg.2019.01479 (<https://doi.org/10.3389/fpsyg.2019.01479>)

French, T., Düsedau, H. P., Steffen, J., Biswas, A., Ahmed, N., Hartmann, S., Schüler, T., Schott, B.H., Dunay, I. R. (2019). Neuronal impairment following chronic *Toxoplasma gondii* infection is aggravated by intestinal nematode challenge in an IFN- γ -dependent manner. *Journal of Neuroinflammation*, 16(1).

DOI:**10.1186/s12974-019-1539-8**

(<https://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-019-1539-8>)

Ball, F., Groth, R.M., **Agostino, C.S.**, Porcu, E., & Noesselt, T. (2019). Explicitly vs. implicitly driven temporal expectations: No evidence for altered perceptual processing due to top-down modulations. *Attention, Perception, & Psychophysics*, 82(4), 1793-1807. DOI: **10.3758/s13414-019-01879-1**

(<https://pubmed.ncbi.nlm.nih.gov/31875312/>)

Tadić V, Adam A, Goldhammer N, Lautenschlaeger J, Oberstadt M, **Malci A**, Le TT, Sengupta S, Stubendorff B, Keiner S, Witte OW, Grosskreutz J. (2019) Investigation of mitochondrial calcium uniporter role in embryonic and adult motor neurons from G93AhSOD1 mice. *Neurobiol Aging.* 75:209-222. doi:

10.1016/j.neurobiolaging.2018.11.019

(<https://pubmed.ncbi.nlm.nih.gov/30597405/>)

Bernal I., Hofmann J. D., Bulitta B., Klawonn F., Michel A., Jahn D., Neumann-Schaal M., Bruder D. and Jänsch L. (2018), *Clostridioides difficile* Activates Human Mucosal-Associated Invariant T Cells. *Frontiers in Microbiology*, 9: 2532. DOI:

10.3389/fmicb.2018.02532

(<https://www.frontiersin.org/articles/10.3389/fmicb.2018.02532/full>)

Bulitta, B. , Zuschratter, W. , **Bernal, I.** , Bruder, D. , Klawonn, F. , Bergen, M. , Garritsen, H. S. and Jänsch, L. (2018), Proteomic definition of human mucosal-associated invariant T cells

determines their unique molecular effector phenotype. Eur. J. Immunol., 48: 1336-1349. **DOI:10.1002/eji.201747398**

(<https://onlinelibrary.wiley.com/doi/10.1002/eji.201747398>)

Heyner M, **Schreier S**, Kröger A. (2018). The brain-immune cells axis controls tissue specific immunopathology. Cellular & Molecular Immunology 16, 101–103. **doi.org/10.1038/s41423-018-0176-y** (<https://www.nature.com/articles/s41423-018-0176-y>)

Kurhade C, **Schreier S**, Lee YP, Zegenhagen L, Hjertqvist M, Dobler G, Kröger A, Överby AK. (2018). Correlation of Severity of Human Tick-Borne Encephalitis Virus Disease and Pathogenicity in Mice. Emerg Infect Dis. 24(9):1709-1712. **doi: 10.3201/eid2409.171825** (https://wwwnc.cdc.gov/eid/article/24/9/17-1825_article)

Liakopoulos V, Jeron A, **Shah A**, Bruder D, Mertens PH, Gorny X (2018). Hemodialysis-related changes in phenotypical features of monocytes. Scientific Reports 8: 13694. **DOI: 10.1038/s41598-018-31889-2**

(<https://pubmed.ncbi.nlm.nih.gov/30228352/>)

Meinshausen, A-K.; Märten, N.; Berth, A; Färber, J.; Awiszus, F.; Macor, P.; Lohmann, C. H.; Bertrand, J. (2018). The terminal complement pathway is activated in septic but not in aseptic shoulder revision arthroplasties. Journal of shoulder and elbow surgery. Bd. 27, 10, S. 1837-1844.

DOI:10.1016/j.jse.2018.06.037

(<https://pubmed.ncbi.nlm.nih.gov/30139682/>)

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