November 2021

PD Dr. med. Vinzenz Fleischer awarded with the *Neurowiss Research Prize*

Every year, the society for supporting neurological sciences in Frankfurt am Main „*NeuroWiss*“ awards three research prizes that promote neuroscience research in the Rhine-Main region and beyond. This prize aims to reward young scientists for outstanding work in the field of basic as well as clinical neuroscience. This year, the national award jury selected Dr. Vinzenz Fleischer, clinician scientist in the Department of Neurology, as the recipient of the Basic Research Prize.

Dr. Fleischer’s work bridges clinical care and translational research with a focus on non-invasive MRI, which has become one of the cornerstones in multiple sclerosis (MS) diagnosis and monitoring. His work uses advanced neuroimaging methods to evaluate brain plasticity.

His recent translational study provided pathophysiological insights into the cross-dependency between neuroinflammation and choroid plexus characteristics in both mice and humans. His work related an enlargement of choroid plexus volume to ongoing neuroinflammation and emerging clinical disability in two large cohorts of MS patients as well as in two mouse models, the cuprizone diet-related demyelination and the experimental autoimmune encephalomyelitis. Choroid plexus characterization as measured by high-resolution MRI thus represents a reliable and translatable interspecies marker for the quantification of neuroinflammation and disease trajectories that is strongly associated with functional outcomes. Dr. Fleischer and his co-authors conclude that the choroid plexus could serve as a promising interspecies marker for translational and reverse-translational approaches.

This work was recently published in *Proceedings of the National Academy of Sciences (PNAS)*:

Vinzenz Fleischer, Gabriel Gonzalez-Escamilla*, Dumitru Ciolac, Philipp Albrecht, Patrick Küry, Joel Gruchot, Michael Dietrich, Christina Hecker, Thomas Müntefering, Stefanie Bock, Mohammadsaleh Oshaghi, Angela Radetz, Manuela Cerina, Julia Krämer, Lydia Wachsmuth, Cornelius Faber, Hans Lassmann, Tobias Ruck, Sven G. Meuth[§], Muthuraman Muthuraman[§] and Sergiu Groppa[§]. Translational value of choroid plexus imaging for tracking neuroinflammation in mice and humans.* ***Proceedings of the National Academy of Sciences (PNAS).*** *2021 Sep 7;118(36): e2025000118*