

Publicaties 2020 MS Centrum Amsterdam

1. Alexander S, Peryer G, Gray E, Barkhof F, Chataway J. Wearable technologies to measure clinical outcomes in multiple sclerosis: A scoping review. *Mult Scler*. 2020 Aug 4;1352458520946005. doi: 10.1177/1352458520946005. Epub ahead of print. PMID: 32749928.
2. Amor S, Baker D, Khoury SJ, Schmierer K, Giovannoni G. SARS-CoV-2 and Multiple Sclerosis: Not All Immune Depleting DMTs are Equal or Bad. *Ann Neurol*. 2020 Jun;87(6):794-797. doi: 10.1002/ana.25770. PMID: 32383812; PMCID: PMC7273059.
3. Baker D, Amor S, Kang AS, Schmierer K, Giovannoni G. The underpinning biology relating to multiple sclerosis disease modifying treatments during the COVID-19 pandemic. *Mult Scler Relat Disord*. 2020 Aug;43:102174. doi:10.1016/j.msard.2020.102174. Epub 2020 May 12. PMID: 32464584; PMCID: PMC7214323.
4. Baker D, Roberts CAK, Pryce G, Kang AS, Marta M, Reyes S, Schmierer K, Giovannoni G, Amor S. COVID-19 vaccine-readiness for anti-CD20-depleting therapy in autoimmune diseases. *Clin Exp Immunol*. 2020 Nov;202(2):149-161. doi:10.1111/cei.13495. Epub 2020 Aug 1. PMID: 32671831; PMCID: PMC7405500.
5. Beaino W, Janssen B, Kooijman E, Vos R, Schuit RC, O'Brien-Brown J, Kassiou M, van Het Hof B, Vugts DJ, de Vries HE, Windhorst AD. PET imaging of P2X7R in the experimental autoimmune encephalomyelitis model of multiple sclerosis using [11C]SMW139. *J Neuroinflammation*. 2020 Oct 14;17(1):300. doi: 10.1186/s12974-020-01962-7. PMID: 33054803; PMCID: PMC7556947.
6. Beckerman H, Eijssen I, van Meeteren J, Verhisdock MC, de Groot V. Fatigue profiles in patients with multiple sclerosis are based on severity of fatigue and not on dimensions of fatigue. *Scientific Reports (IF3.988)* 2020 May 3. Doi: 10.1038/s41598-020-61076-1
7. Benedict RHB, Amato MP, DeLuca J, Geurts JJG. Cognitive impairment in multiple sclerosis: clinical management, MRI, and therapeutic avenues. *Lancet Neurol*. 2020 Oct;19(10):860-871. doi: 10.1016/S1474-4422(20)30277-5. Epub 2020 Sep 16. PMID: 32949546.
8. Berglund R, Guerreiro-Cacais AO, Adzemovic MZ, Zeitelhofer M, Lund H, Ewing E, Ruhrmann S, Nutma E, Parsa R, Thessen-Hedreul M, Amor S, Harris RA, Olsson T, Jagodic M. Microglial autophagy-associated phagocytosis is essential for recovery from neuroinflammation. *Sci Immunol*. 2020 Oct 16;5(52):eabb5077. doi:10.1126/sciimmunol.abb5077. PMID: 33067381.
9. Bogie JFJ, Haidar M, Kooij G & Hendriks JJA. Fatty acid metabolism in the progression and resolution of CNS disorders Jan 2020, In: *Advanced Drug Delivery Reviews*. 159, p. 198-213 16 p. Research output: Contribution to journal > Review article > Academic > peer-review
10. Bouman PM, Steenwijk MD, Pouwels PJW, Schoonheim MM, Barkhof F, Jonkman LE, Geurts JJG. Histopathology-validated recommendations for cortical lesion imaging in multiple sclerosis. *Brain*. 2020 Oct 1;143(10):2988-2997. doi: 10.1093/brain/awaa233. PMID: 32889535; PMCID: PMC7586087.
11. BtRAIN Network, Advancing brain barriers RNA sequencing: Guidelines from experimental design to publication 18 Aug 2020, In: *FLUIDS AND BARRIERS OF THE CNS*. 17, 1, 51. Research output: Contribution to journal > Review article > Academic > peer-review
12. Brownlee W, Bourdette D, Broadley S, Killestein J, Ciccarelli O. Treating multiple sclerosis and neuromyelitis optica spectrum disorder during the COVID-19 pandemic. *Neurology*. 2020 Jun 2;94(22):949-952. doi:10.1212/WNL.0000000000009507. Epub 2020 Apr 2. PMID: 32241953.

13. Burggraaff J, Dorn J, D'Souza M, Morrison C, Kamm CP, Kontschieder P, Tewarie P, Steinheimer S, Sellen A, Dahlke F, Kappos L & Uitdehaag B, Video-Based Pairwise Comparison: Enabling the Development of Automated Rating of Motor Dysfunction in Multiple Sclerosis 1 Feb 2020, In: Archives of Physical Medicine and Rehabilitation. 101, 2, p. 234-241 8 p. Research output: Contribution to journal > Article > Academic > peer-review
14. Butzkueven H, Licata S, Jeffery D, Arnold DL, Filippi M, Geurts JJ, Santra S, Campbell N, Ho PR; REVEAL Investigators. Natalizumab versus fingolimod for patients with active relapsing-remitting multiple sclerosis: results from REVEAL, a prospective, randomised head-to-head study. *BMJ Open*. 2020 Oct 20;10(10):e038861. doi: 10.1136/bmjopen-2020-038861. PMID: 33082194; PMCID: PMC7577060.
15. Calvi A, Haider L, Prados F, Tur C, Chard D, Barkhof F. In vivo imaging of chronic active lesions in multiple sclerosis. *Mult Scler*. 2020 Sep 23:1352458520958589. doi: 10.1177/1352458520958589. Epub ahead of print. PMID: 32965168.
16. Chataway J, De Angelis F, Connick P, Parker RA, Doshi A, John N, Barkhof F, Sharrack B, Weir CJ, Chandran S; MS-SMART Investigators. MS-SMART study: systematic sampling bias concerns - Authors' reply. *Lancet Neurol*. 2020 Jun;19(6):479-480. doi: 10.1016/S1474-4422(20)30149-6. Epub 2020 May 26. PMID: 32470412.
17. Chung K, Altmann D, Barkhof F, Miszkiel K, Brex PA, O'Riordan J, Ebner M, Prado F, Cardoso MJ, Vercauteren T, Ourselin S, Thompson A, Ciccarelli O & Chard DT. A 30-Year Clinical and Magnetic Resonance Imaging Observational Study of Multiple Sclerosis and Clinically Isolated Syndromes. 1 Jan 2020, In: *Annals of Neurology*. 87, 1, p. 63-74 12 p. Research output: Contribution to journal > Article > Academic > peer-review
18. Cohen J A, Trojano M, Mowry EM, Uitdehaag BMJ, Reingold SC & Marrie, RA. Leveraging real-world data to investigate multiple sclerosis disease behavior, prognosis, and treatment 1 Jan 2020, In: *Multiple Sclerosis Journal*. 26, 1, p. 23-37 15 p. Research output: Contribution to journal > Article > Academic > peer-review
19. Cole JH, Raffel J, Friede T, Eshaghi A, Brownlee WJ, Chard D, De Stefano N, Enzinger C, Pirpamer L, Filippi M, Gasperini C, Rocca MA, Rovira A, Ruggieri S, Sastre-Garriga J, Stromillo ML, Uitdehaag BMJ, Vrenken H, Barkhof F, Nicholas R, Ciccarelli O; MAGNIMS study group. Longitudinal Assessment of Multiple Sclerosis with the Brain-Age Paradigm. *Ann Neurol*. 2020 Jul;88(1):93-105. doi: 10.1002/ana.25746. Epub 2020 May 6. PMID: 32285956.
20. Collorone S, Prados F, Hagens MH, Tur C, Kanber B, Sudre CH, Lukas C, Gasperini C, Oreja-Guevara C, Andelova M, Ciccarelli O, Wattjes MP, Ourselin S, Altmann DR, Tijms BM, Barkhof F, Toosy AT; MAGNIMS Study Group. Single-subject structural cortical networks in clinically isolated syndrome. *Mult Scler*. 2020 Oct;26(11):1392-1401. doi: 10.1177/1352458519865739. Epub 2019 Jul 24. PMID: 31339446.
21. Coric D, Ometto G, Montesano G, Keane PA, Balk LJ, Uitdehaag BMJ, Petzold A, Crabb DP & Denniston AK., 1 Jan 2020, Objective quantification of vitreous haze on optical coherence tomography scans: no evidence for relationship between uveitis and inflammation in multiple sclerosis In: *European Journal of Neurology*. 27, 1, p. 144-e3 Research output: Contribution to journal > Article > Academic > peer-review
22. Dalgas U, Hvid LG, Kwakkel G, Motl RW, de Groot V, Feys P, Op't Eijnde B, Coote S, Beckerman H, Pfeifer K, Streber R, Peters S, Riemann-Lorenz K, Rosenkranz SC, Centonze D, Van Asch P, Bansi J, Sandroff BM, Pilutti LA, Ploughman M, Freeman J, Paul L, Dawes H, Romberg A, Kalron A, Stellmann JP, Friese MA, Heesen C. Moving exercise research in multiple sclerosis forward (the MoXFo initiative): Developing consensus statements for research. *Mult Scler*. 2020 Oct;26(11):1303-1308. doi: 10.1177/1352458520910360. Epub 2020 Mar 12. PMID: 32162578.

23. d'Ambrosio A, Valsasina P, Gallo A, de Stefano N, Pareto D, Barkhof F, Ciccarelli O, Enzinger C, Tedeschi G, Stromillo M., Arévalo MJ, Hulst HE, Muhlert N, Koini M, Filippi M & Rocca MA, Reduced dynamics of functional connectivity and cognitive impairment in multiple sclerosis, 1 Apr 2020, In: *Multiple Sclerosis*. 26, 4, p. 476-488 13 p. Research output: Contribution to journal > Article > Academic > peer-review
24. de Kleermaeker FGCM, Uitdehaag BMJ & van Oosten BW, Patients' expectations of autologous hematopoietic stem cell transplantation as a treatment for MS Jan 2020, In: *Multiple Sclerosis and Related Disorders*. 37, 101467. Research output: Contribution to journal > Article > Academic > peer-review
25. de Sitter A, Verhoeven T, Burggraaff J, Liu Y, Simoes J, Ruggieri S, Palotai M, Brouwer I, Versteeg A, Wottschel V, Ropele S, Rocca MA, Gasperini C, Gallo A, Yiannakas MC, Rovira A, Enzinger C, Filippi M, De Stefano N, Kappos L, Frederiksen JL, Uitdehaag BMJ, Barkhof F, Guttmann CRG, Vrenken H; MAGNIMS Study Group. Reduced accuracy of MRI deep grey matter segmentation in multiple sclerosis: an evaluation of four automated methods against manual reference segmentations in a multi-center cohort. *J Neurol*. 2020 Dec;267(12):3541-3554. doi: 10.1007/s00415-020-10023-1. Epub 2020 Jul 3. PMID: 32621103; PMCID: PMC7674567.
26. Dekker I, Sombekke MH, Balk LJ, Moraal B, Geurts JJ, Barkhof F, Uitdehaag BM, Killestein J, Wattjes MP. Infratentorial and spinal cord lesions: Cumulative predictors of long-term disability? *Mult Scler*. 2020 Oct;26(11):1381-1391. doi: 10.1177/1352458519864933. Epub 2019 Aug 2. PMID: 31373535; PMCID: PMC7543019.
27. D'Souza M, Van Munster CEP, Dorn JF, Dorier A, Kamm CP, Steinheimer S, Dahlke F, Uitdehaag BMJ, Kappos L, Johnson M. Autoencoder as a New Method for Maintaining Data Privacy While Analyzing Videos of Patients With Motor Dysfunction: Proof-of-Concept Study. *J Med Internet Res*. 2020 May 8;22(5):e16669. doi: 10.2196/16669. PMID: 32191621; PMCID: PMC7244995.
28. Eken M, Richards R, Beckerman H, van der Krogt M, Gerrits K, Rietberg M, de Groot V, Heine M. Quantifying muscle fatigue during walking in people with multiple sclerosis PMID: 31862607 DOI: 10.1016/j.clinbiomech.2020 Feb; 72:94-101
29. Filippi M, Preziosa P, Langdon D, Lassmann H, Paul F, Rovira À, Schoonheim MM, Solari A, Stankoff B, Rocca MA. Identifying Progression in Multiple Sclerosis: New Perspectives. *Ann Neurol*. 2020 Sep;88(3):438-452. doi: 10.1002/ana.25808. Epub 2020 Jul 6. PMID: 32506714.
30. Geraldès R, Juryńczyk M, Dos Passos GR, Pichler A, Chung K, Hagens M, Ruggieri S, Auger C, Sastre-Garriga J, Enzinger C, Chard D, Barkhof F, Gasperini C, Rovira A, DeLuca G, Palace J; MAGNIMS study group. The role of pontine lesion location in differentiating multiple sclerosis from vascular risk factor-related small vessel disease. *Mult Scler*. 2020 Aug 6:1352458520943777. doi: 10.1177/1352458520943777. Epub ahead of print. PMID: 32757905.
31. Gerdes LA, Janoschka C, Eveslage M, Mannig B, Wirth T, Schulte-Mecklenbeck A, Lauks S, Glau L, Gross CC, Tolosa E, Flierl-Hecht A, Ertl-Wagner B, Barkhof F, Meuth SG, Kümpfel T, Wiendl H, Hohlfeld R, Klotz L. Immune signatures of prodromal multiple sclerosis in monozygotic twins. *Proc Natl Acad Sci U S A*. 2020 Sep 1;117(35):21546-21556. doi: 10.1073/pnas.2003339117. Epub 2020 Aug 17. PMID: 32817525; PMCID: PMC7474627.
32. Giovannoni G, Knappertz V, Steinerman JR, Tansy AP, Li T, Krieger S, Uccelli A, Uitdehaag BMJ, Montalban X, Hartung HP, Pia Sormani M, Cree BAC, Lublin F, Barkhof F. A randomized, placebo-controlled, phase 2 trial of laquinimod in primary progressive multiple sclerosis. *Neurology*. 2020 Aug 25;95(8):e1027-e1040. doi: 10.1212/WNL.0000000000010284. Epub 2020 Jul 10. PMID: 32651286.
33. Gravesteyn AS, Beckerman H, de Jong BA, Hulst HE, de Groot V. Neuroprotective effects of exercise in people with progressive multiple sclerosis (Exercise PRO-MS): study protocol of a phase II trial. *BMC Neurol*. 2020 May 11;20(1):177. doi: 10.1186/s12883-020-01765-6. PMID: 32393193; PMCID: PMC7212565.

34. Hacoen Y, Brownlee W, Mankad K, Chong WK, Thompson A, Lim M, Wassmer E, Hemingway C, Barkhof F, Ciccarelli O. Improved performance of the 2017 McDonald criteria for diagnosis of multiple sclerosis in children in a real-life cohort. *Mult Scler.* 2020 Oct;26(11):1372-1380. doi: 10.1177/1352458519863781. Epub 2019 Jul 18. PMID: 31317829.
35. Hagens MHJ, Golla SSV, Janssen B, Vugts DJ, Beaino W, Windhorst AD, O'Brien-Brown J, Kassiou M, Schuit RC, Schwarte LA, de Vries HE, Killestein J, Barkhof F, van Berckel BNM, & Lammertsma AA, The P2X₇ receptor tracer [¹¹C]SMW139 as an in vivo marker of neuroinflammation in multiple sclerosis: a first-in man study 1 Feb 2020, In: *European Journal of Nuclear Medicine and Molecular Imaging.* 47, 2, p. 379-389 11 p. Research output: Contribution to journal > Article > Academic > peer-review
36. Hartung HP, Berger T, Bermel RA, Brochet B, Carroll WM, Holmøy T, Karabudak R, Killestein J, Nos C, Patti F, Ross AP, Vanopdenbosch L, Vollmer T, Buffels R, Garas M, Kadner K, Manfrini M, Wang Q, Freedman MS. Shorter infusion time of ocrelizumab: Results from the randomized, double-blind ENSEMBLE PLUS substudy in patients with relapsing-remitting multiple sclerosis. *Mult Scler Relat Disord.* 2020 Nov;46:102492. doi: 10.1016/j.msard.2020.102492. Epub 2020 Sep 24. PMID: 33039944; PMCID: PMC7513877.
37. Heine M, Beckerman H, Hamalainen P, de Groot V. Evidence based rehabilitation for multiple sclerosis made easy: the online APPECO platform. *Int. J. MS Care* (2020) 22(76):263-269. doi:10.7224/1537-2073.2019-100
38. Houben E, Janssens K, Hermans D, Vandooren J, van den Haute C, Schepers M, Vanmierlo T, Lambrichts I, van Horssen J, Baekelandt V, Opdenakker G, Baron W, Broux B, Slaets H, & Hellings N, Oncostatin M-induced astrocytic tissue inhibitor of metalloproteinases-1 drives remyelination, 3 Mar 2020, In: *Proceedings of the National Academy of Sciences of the United States of America.* 117, 9, p. 5028-5038 11 p. Research output: Contribution to journal > Article > Academic > peer-review
39. Houniet-de Gier M, Beckerman H, vLiet K, Knoop H, de Groot V. Testing non-inferiority of blended versus face-to-face cognitive behavioural therapy for severe fatigue in patients with multiple sclerosis and the effectiveness of blended booster sessions aimed at improving long-term outcome following both therapies: study protocol for two observer-blinded randomized clinical trials. NIH; National Center for Biotechnology Information. 2020 Jan 20;21(1):98 doi: 10.1186/213063-019-3825-2.
40. Huiskamp M, Moumdjian L, van Asch P, Popescu V, Schoonheim MM, Steenwijk MD, Vanzeir E, van Wijmeersch B, Geurts JJ, Feys P, Hulst HE. A pilot study of the effects of running training on visuospatial memory in MS: A stronger functional embedding of the hippocampus in the default-mode network? *Mult Scler.* 2020 Oct;26(12):1594-1598. doi: 10.1177/1352458519863644. Epub 2019 Jul 18. PMID: 31317828; PMCID: PMC7575292.
41. Hulst HE, Penner IK. Cognition and its relation to brain health in patients with MS. *Mult Scler.* 2020 Oct;26(12):1611-1613. doi: 10.1177/1352458520907906. Epub 2020 May 6. PMID: 32372717; PMCID: PMC7575285.
42. Jeung L, Smits LMG, Hoogervorst ELJ, van Oosten BW & Frequin STFM, A tumefactive demyelinating lesion in a person with MS after five years of fingolimod 1 May 2020, In: *Multiple Sclerosis and Related Disorders.* 40, 101978. Research output: Contribution to journal > Article > Academic > peer-review
43. Kapoor R, Smith KE, Allegretta M, Arnold DL, Carroll W, Comabella M, Furlan R, Harp C, Kuhle J, Leppert D, Plavina T, Sellebjerg F, Sincoc C, Teunissen CE, Topalli I, von Raison F, Walker E, Fox RJ. Serum neurofilament light as a biomarker in progressive multiple sclerosis. *Neurology.* 2020 Sep 8;95(10):436-444. doi: 10.1212/WNL.0000000000010346. Epub 2020 Jul 16. PMID: 32675076; PMCID: PMC7538221.

44. Killestein J, Du Pasquier R, Hemmer B. Vaccination in B-cell-depleted patients with multiple sclerosis. *Neurology*. 2020 Oct 6;95(14):613-614. doi: 10.1212/WNL.0000000000010378. Epub 2020 Jul 29. PMID: 32727838.
45. Kleerekooper I, Herbert MK, Kuiperij HB, Sato DK, Fujihara K, Callegaro D, Marignier R, Saiz A, Senel M, Tumani H, De Jong BA, Trip SA, Nakashima I, Verbeek MM, Petzold A. CSF levels of glutamine synthetase and GFAP to explore astrocytic damage in seronegative NMOSD. *J Neurol Neurosurg Psychiatry*. 2020 Jun;91(6):605-611. doi: 10.1136/jnnp-2019-322286. Epub 2020 Mar 26. PMID: 32217788.
46. Kleerekooper I, Houston S, Dubis AM, Trip SA, Petzold A. Optical Coherence Tomography Angiography (OCTA) in Multiple Sclerosis and Neuromyelitis Optica Spectrum Disorder. *Front Neurol*. 2020 Dec 10;11:604049. doi: 10.3389/fneur.2020.604049. PMID: 33362705; PMCID: PMC7758345.
47. Kleerekooper I, Petzold A, Trip SA. Anterior visual system imaging to investigate energy failure in multiple sclerosis. *Brain*. 2020 Jul 1;143(7):1999-2008. doi: 10.1093/brain/awaa049. PMID: 32163545.
48. Koch MW, Mostert J, Uitdehaag B, Cutter G. Clinical outcome measures in SPMS trials: An analysis of the IMPACT and ASCEND original trial data sets. *Mult Scler*. 2020 Oct;26(12):1540-1549. doi: 10.1177/1352458519876701. Epub 2019 Sep 13. PMID: 31517591.
49. Kooij G, Troletti CD, Leuti A, Norris PC, Riley I, Albanese M, Ruggieri S, Libreros S, van der Pol SMA, van Het Hof B, Schell Y, Guerrero G, Buttari F, Mercuri NB, Centonze D, Gasperini C, Battistini L, de Vries HE, Serhan CN, Chiurchiù V. Specialized pro-resolving lipid mediators are differentially altered in peripheral blood of patients with multiple sclerosis and attenuate monocyte and blood-brain barrier dysfunction. *Haematologica*. 2020 Aug;105(8):2056-2070. doi: 10.3324/haematol.2019.219519. Epub 2019 Nov 28. PMID: 31780628; PMCID: PMC7395264.
50. Lam KH, Meijer KA, Loonstra FC, Coerver E, Twose J, Redeman E, Moraal B, Barkhof F, de Groot V, Uitdehaag B, Killestein J. Real-world stroke dynamics are a potentially valid biomarker for clinical disability in multiple sclerosis. *Mult Scler*. 2020 Nov 5:1352458520968797. doi: 10.1177/1352458520968797. Epub ahead of print. PMID: 33150823.
51. Leurs CE, Twaalfhoven H, Lissenberg-Witte BI, van Pesch V, Dujmovic I, Drulovic J, Castellazzi M, Bellini T, Pugliatti M, Kuhle J, Villar LM, Alvarez- Cermeño JC, Alvarez-Lafuente R, Hegen H, Deisenhammer F, Walchhofer LM, Thouvenot E, Comabella M, Montalban X, Vécsei L, Rajda C, Galimberti D, Scarpini E, Altintas A, Rejdak K, Frederiksen JL, Pihl-Jensen G, Jensen P, Khalil M, Voortman MM, Fazekas F, Saiz A, La Puma D, Vercammen M, Vanopdenbosch L, Uitdehaag B, Killestein J, Bridel C, Teunissen C. Kappa free light chains is a valid tool in the diagnostics of MS: A large multicenter study. *Mult Scler*. 2020 Jul;26(8):912-923. doi: 10.1177/1352458519845844. Epub 2019 May 8. PMID: 31066634; PMCID: PMC7350201.
52. Loonstra FC, Hoitsma E, van Kempen ZL, Killestein J, Mostert JP. COVID-19 in multiple sclerosis: The Dutch experience. *Mult Scler*. 2020 Sep;26(10):1256-1260. doi: 10.1177/1352458520942198. Epub 2020 Jul 14. PMID: 32662742; PMCID: PMC7493197
53. Loonstra FC, van Rossum JA, van Kempen ZL, Rispens T, Uitdehaag BM, Killestein J. Infusion-related events during natalizumab: No need for post- infusion monitoring. *Mult Scler*. 2020 Oct;26(12):1590-1593. doi: 10.1177/1352458519860415. Epub 2019 Jun 25. PMID: 31237826; PMCID: PMC7575291.
54. Loonstra FC, van Kempen ZLE, Strijbis EM, Killestein J, Hoitsma E & Mostert JP, Response to letter 'Lymphocyte counts and the risk of COVID-19 in people with MS' 2020, (Accepted/In press) In: *Multiple Sclerosis Journal*. Research output: Contribution to journal › Letter › Academic › peer-review

55. Malekzadeh A, Bader I, van Dieteren J, Heijboer AC, Beckerman H, Twisk JWR, de Groot, V, Teunissen CE. & TREFAMS-ACE Study Group, Diurnal Cortisol Secretion Is Not Related to Multiple Sclerosis-Related Fatigue, 28 Jan 2020, In: *Frontiers in Neurology*. 10, 1363. Research output: Contribution to journal > Article > Academic > peer-review
56. Meijer KA, Steenwijk MD, Douw L, Schoonheim MM & Geurts JJG. Long-range connections are more severely damaged and relevant for cognition in multiple sclerosis., 1 Jan 2020, In: *Brain : a journal of neurology*. 143, 1, p. 150-160 11 p. Research output: Contribution to journal > Article > Academic > peer-review
57. Moccia M, van de Pavert S, Eshaghi A, Haider L, Pichat J, Yiannakas M, Ourselin S, Wang Y, Wheeler-Kingshott C, Thompson A, Barkhof F, Ciccarelli O. Pathologic correlates of the magnetization transfer ratio in multiple sclerosis. *Neurology*. 2020 Dec 1;95(22):e2965-e2976. doi: 10.1212/WNL.000000000010909. Epub 2020 Sep 16. PMID: 32938787.
58. Nauta IM, Kulik SD, Breedt LC, Eijlers AJ, Strijbis EM, Bertens D, Tewarie P, Hillebrand A, Stam CJ, Uitdehaag BM, Geurts JJ, Douw L, de Jong BA, Schoonheim MM. Functional brain network organization measured with magnetoencephalography predicts cognitive decline in multiple sclerosis. *Mult Scler*. 2020 Dec 9:1352458520977160. doi: 10.1177/1352458520977160. Epub ahead of print. PMID: 33295249.
59. Petrova N, Nutma E, Carassiti D, Rs Newman J, Amor S, Altmann DR, Baker D, Schmierer K. Synaptic Loss in Multiple Sclerosis Spinal Cord. *Ann Neurol*. 2020 Sep;88(3):619-625. doi: 10.1002/ana.25835. Epub 2020 Jul 16. PMID: 32608018.
60. Petzold A, Coric D, Balk LJ, Hamann S, Uitdehaag BMJ, Denniston AK, Keane PA, Crabb DP. Longitudinal Development of Peripapillary Hyper-Reflective Ovoid Masslike Structures Suggests a Novel Pathological Pathway in Multiple Sclerosis. *Ann Neurol*. 2020 Aug;88(2):309-319. doi: 10.1002/ana.25782. Epub 2020 Jun 9. PMID: 32426856; PMCID: PMC7496959.
61. Poerwoatmodjo A, Schenk GJ, Geurts JJG, Luchicchi A. Cysteine Proteases and Mitochondrial Instability: A Possible Vicious Cycle in MS Myelin? *Front Cell Neurosci*. 2020 Dec 1;14:612383. doi: 10.3389/fncel.2020.612383. PMID: 33335477; PMCID: PMC7736044.
62. Rietberg M, Beckerman H, van Schie PEM. Gezond bewegen met Multiple sclerose. *FysioPraxis Apr*. 20 25-27
63. Rodríguez-Lorenzo S, Konings J, Van Der Pol S, Kamermans A, Amor S, Van Horsen J, Witte M, Kooij G. & De Vries HE, Inflammation of the choroid plexus in progressive multiple sclerosis: Accumulation of granulocytes and T cells 3 Feb 2020, In: *Acta neuropathologica communications*. 8, 1, 9. Research output: Contribution to journal > Article > Academic > peer-review
64. Rodríguez-Lorenzo S, Ferreira Francisco DM, Vos R, Van Het Hof B, Rijnsburger M, Schroten H, Ishikawa H, Beaino W, Bruggmann R, Kooij G & De Vries HE. Altered secretory and neuroprotective function of the choroid plexus in progressive multiple sclerosis 19 Mar 2020, In: *Acta neuropathologica communications*. 8, 1, 35. Research output: Contribution to journal > Article > Academic > peer-review
65. Rodríguez-Lorenzo S, Koning, J, Van Der Pol S, Kamermans A, Amor S, Van Horsen J, Witte M E, Kooij G & De Vries HE. Erratum: Inflammation of the choroid plexus in progressive multiple sclerosis: Accumulation of granulocytes and T cells (*Acta Neuropathologica Communications* (2020) 8 (9) DOI: 10.1186/s40478-020-0885-1) 26 Feb 2020, In: *Acta neuropathologica communications*. 8, 1, 24. Research output: Contribution to journal > Comment/Letter to the editor > Academic
66. Rohr SO, Greiner T, Joost S, Amor S, Valk PV, Schmitz C, Kipp M. Aquaporin-4 Expression during Toxic and Autoimmune Demyelination. *Cells*. 2020 Sep 28;9(10):2187. doi: 10.3390/cells9102187. PMID: 32998402; PMCID: PMC7601078.

67. Saslow L, Li DKB, Halper J, Banwell B, Barkhof F, Barlow L, Costello K, Damiri P, Dunn J, Giri S, Maes M, Morrow SA, Newsome SD, Oh J, Paul F, Quarterman P, Reich DS, Shewchuk JR, Shinohara RT, Hecke WV & 4 others, An International Standardized Magnetic Resonance Imaging Protocol for Diagnosis and Follow-up of Patients with Multiple Sclerosis, 1 Sep 2020, In: *International journal of MS care*. 22, 5, p. 226-232 7 p. Research output: Contribution to journal > Article > Academic > peer-review
68. Sastre-Garriga J, Pareto D, Battaglini M, Rocca MA, Ciccarelli O, Enzinger C, Wuerfel J, Sormani MP, Barkhof F, Yousry TA, De Stefano N, Tintoré M, Filippi M, Gasperini C, Kappos L, Río J, Frederiksen J, Palace J, Vrenken H, Montalban X. & 2 others, MAGNIMS consensus recommendations on the use of brain and spinal cord atrophy measures in clinical practice, 1 Mar 2020, In: *Nature Reviews Neurology*. 16, 3, p. 171-182 12 p
69. Schoonheim, MM., 1 Collapsing networks: New avenues for functional connectivity analyses in multiple sclerosis May 2020, In: *Swiss Archives of Neurology, Psychiatry and Psychotherapy*. 171, 3, w03110. Research output: Contribution to journal > Review article > Academic > peer-review
70. Sestito C, Brevé JJP, Bol JGJM, Wilhelmus MMM, Drukarch B & van Dam AM., Tissue Transglutaminase contributes to myelin phagocytosis in interleukin-4-treated human monocyte-derived macrophages Apr 2020, In: *Cytokine*. 128, 155024. Research output: Contribution to journal > Article > Academic > peer-review
71. Sol N, Leurs CE, Veld SGI, Strijbis EM, Vancura A, Schweiger MW, Teunissen CE, Mateen FJ, Tannous BA, Best MG, Würdinger T, Killestein J. Blood platelet RNA enables the detection of multiple sclerosis. *Mult Scler J Exp Transl Clin*. 2020 Jul 30;6(3):2055217320946784. doi: 10.1177/2055217320946784. PMID: 32843989; PMCID: PMC7418262.
72. Solanky BS, John NA, DeAngelis F, Stutters J, Prados F, Schneider T, Parker RA, Weir CJ, Monteverdi A, Plantone D, Doshi A, MacManus D, Marshall I, Barkhof F, Gandini Wheeler-Kingshott CAM, Chataway J; MS-SMART Investigators. NAA is a Marker of Disability in Secondary-Progressive MS: A Proton MR Spectroscopic Imaging Study. *AJNR Am J Neuroradiol*. 2020 Dec;41(12):2209-2218. doi: 10.3174/ajnr.A6809. Epub 2020 Nov 5. PMID: 33154071; PMCID: PMC7963233.
73. Spaas J, van Veggel L, Schepers M, Tiane A, van Horsen J, Wilson DM 3rd, Moya PR, Piccart E, Hellings N, Eijnde BO, Derave W, Schreiber R, Vanmierlo T. Oxidative stress and impaired oligodendrocyte precursor cell differentiation in neurological disorders. *Cell Mol Life Sci*. 2021 Mar 10. doi: 10.1007/s00018-021-03802-0. Epub ahead of print. PMID: 33751149.
74. Steinheimer S, Dorn JF, Morrison C, Sarkar A, D'Souza M, Boisvert J, Bedi R, Burggraaff J, Kontschieder P, Dahlke F, Sellen A, Uitdehaag BMJ, Kappos L, Kamm CP. Setwise comparison: efficient fine-grained rating of movement videos using algorithmic support - a proof of concept study. *Disabil Rehabil*. 2020 Sep;42(18):2640-2646. doi: 10.1080/09638288.2018.1563832. Epub 2019 Feb 20. PMID: 30782055.
75. Strijbis EMM, Nij Bijvank JA & Killestein J, 4-aminopyridine is not just a symptomatic therapy, it has a neuroprotective effect - Yes 1 Oct 2020, In: *Multiple Sclerosis Journal*. 26, 11, p. 1309-1310 2 p. Research output: Contribution to journal > Article > Academic > peer-review
76. Strik M, Chard DT, Dekker I, Meijer KA, Eijlers AJ, Pardini M, Uitdehaag BM, Kolbe SC, Geurts JJ, Schoonheim MM. Increased functional sensorimotor network efficiency relates to disability in multiple sclerosis. *Mult Scler*. 2020 Oct 26:1352458520966292. doi: 10.1177/1352458520966292. Epub ahead of print. PMID: 33104448.
77. Tacchino A, Ponzio M, Pedullà L, Podda J, Bragadin MM, Pedrazzoli E, Konrad G, Battaglia MA, Mokkink L, Bricchetto G. Italian validation of the Arm Function in Multiple Sclerosis Questionnaire (AMSQ). *Neurol Sci*. 2020 Nov;41(11):3273-3281. doi: 10.1007/s10072-020-04363-z. Epub 2020 May 12. PMID: 32394274.

78. Tewarie P, Prasse B, Meier JM, Santos FAN, Douw L, Schoonheim MM, Stam CJ, Van Mieghem P & Hillebrand A. Mapping functional brain networks from the structural connectome: Relating the series expansion and eigenmode approaches. 1 Aug 2020, In: *NeuroImage*. 216, 116805. Research output: Contribution to journal > Article > Academic > peer-review
79. Thompson AJ, Cohen JA, Kim HJ & Geurts J. MSJ 2020 - Editorial comment 1 Feb 2020, In: *Multiple Sclerosis Journal*. 26, 2, p. 134 1 p. Research output: Contribution to journal > Editorial > Academic > peer-review
80. Timmermans ST, de Groot V, Beckerman H. Ten-year disease progression in multiple sclerosis: walking declines more rapidly than arm and hand function. *Mult Scler Relat Disord*. 2020 Oct;45:102343. doi: 10.1016/j.msard.2020.102343. Epub 2020 Jun 26. PMID: 32674028.
81. Tur C, Grussu F, Prados F, Charalambous T, Collorone S, Kanber B, Cawley N, Altmann DR, Ourselin S, Barkhof F, Clayden JD, Toosy AT, Wheeler-Kingshott CAG, Ciccarelli O. A multi-shell multi-tissue diffusion study of brain connectivity in early multiple sclerosis. *Mult Scler*. 2020 Jun;26(7):774-785. doi: 10.1177/1352458519845105. Epub 2019 May 10. PMID: 31074686.
82. Twose J, Licitra G, McConchie H, Lam KH, Killestein J. Early-warning signals for disease activity in patients diagnosed with multiple sclerosis based on keystroke dynamics. *Chaos*. 2020 Nov;30(11):113133. doi: 10.1063/5.0022031. PMID: 33261343.
83. van Beek JJW, van Wegen EEH, Rietberg MB, Nyffeler T, Bohlhalter S, Kamm CP, Nef T, Vanbellingen T. Feasibility of a Home-Based Tablet App for Dexterity Training in Multiple Sclerosis: Usability Study. *JMIR Mhealth Uhealth*. 2020 Jun 9;8(6):e18204. doi: 10.2196/18204. PMID: 32515747; PMCID: PMC7312262.
84. van Dongen L, Westerik B, van der Hiele K, Visser LH, Schoonheim MM, Douw L, Twisk JWR, de Jong BA, Geurts JGG & Hulst HE. Introducing Multiple Screener: An unsupervised digital screening tool for cognitive deficits in MS 1 Feb 2020, In: *Multiple Sclerosis and Related Disorders*. 38, 101479. Research output: Contribution to journal > Article > Academic > peer-review
85. van Faals NL, Dekker I, Balk LJ, Moraal B, Barkhof F, Uitdehaag BMJ, Killestein J, Wattjes MP. Clinico-radiological dissociation of disease activity in MS patients: frequency and clinical relevance. *J Neurol*. 2020 Nov;267(11):3287-3291. doi: 10.1007/s00415-020-09991-1. Epub 2020 Jun 20. PMID: 32564152.
86. van Kempen ZLE, Hoogervorst ELJ, Wattjes MP, Kalkers NF, Mostert JP, Lissenberg-Witte BI, de Vries A, Ten Brinke A, van Oosten BW, Barkhof F, Teunissen CE, Uitdehaag BMJ, Rispen S, Killestein J. Personalized extended interval dosing of natalizumab in MS: A prospective multicenter trial. *Neurology*. 2020 Aug 11;95(6):e745-e754. doi: 10.1212/WNL.0000000000009995. Epub 2020 Jul 20. PMID: 32690785.
87. van Kempen ZLE, Kryscio RJ, Dalla Costa G. Serum neurofilament light as a prognostic marker for MS disability: Are we there yet? *Neurology*. 2020 Jun 9;94(23):1013-1014. doi: 10.1212/WNL.0000000000009576. Epub 2020 May 20. PMID: 32434864.
88. van Munster CEP, Kaya L, Obur, M, Kalkers NF & Uitdehaag BMJ. Minimal clinically important difference of improvement on the Arm Function in Multiple Sclerosis Questionnaire (AMSQ) 1 Apr 2020, In: *Multiple Sclerosis Journal*. 26, 4, p. 505-508 4 p. Research output: Contribution to journal > Article > Academic > peer-review
89. van Munster CEP, Kaya L, Lam KH, Kalkers NF, Killestein J & Uitdehaag BMJ. Responder rates to fampridine differ between clinical subgroups of MS patients and patient reported outcome influences treatment decision making Feb 2020, In: *Multiple Sclerosis and Related Disorders*. 38, p. 101489 101489. Research output: Contribution to journal > Article > Academic > peer-review

90. van Pamel J, van Olst L, Budding AE; BIA Study Group, de Vries HE, Visser LH. Alterations of Gut Microbiota and the Brain-Immune-Intestine Axis in Patients With Relapsing-Remitting Multiple Sclerosis After Treatment With Oral Cladribine: Protocol for a Prospective Observational Study. *JMIR Res Protoc.* 2020 Jul 29;9(7):e16162. doi: 10.2196/16162. PMID: 32723709; PMCID: PMC7424462.
91. Vendrik KEW, Ooijevaar RE, de Jong PRC, Laman JD, van Oosten BW, van Hilten JJ, Ducarmon QR, Keller JJ, Kuijper EJ & Contarino MF. Fecal Microbiota Transplantation in Neurological Disorders 24 Mar 2020, In: *Frontiers in Cellular and Infection Microbiology.* 10, 98. Research output: Contribution to journal > Review article > Academic > peer-review
92. Walton C, King R, Rechtman L, Kaye W, Leray E, Marrie RA, Robertson N, La Rocca N, Uitdehaag B, van der Mei I, Wallin M, Helme A, Angood Napier C, Rijke N, Baneke P. Rising prevalence of multiple sclerosis worldwide: Insights from the Atlas of MS, third edition. *Mult Scler.* 2020 Dec;26(14):1816-1821. doi: 10.1177/1352458520970841. Epub 2020 Nov 11. PMID: 33174475; PMCID: PMC7720355.
93. Weeda MM, Pruis IJ, Westerveld ASR, Brouwer I, Bellenberg B, Barkhof F, Vrenken H, Lukas C, Schneider R, Pouwels PJW. Damage in the Thalamocortical Tracts is Associated With Subsequent Thalamus Atrophy in Early Multiple Sclerosis. *Front Neurol.* 2020 Nov 17;11:575611. doi: 10.3389/fneur.2020.575611. PMID: 33281710; PMCID: PMC7705066.
94. Wijburg MT, Warnke C, Killestein J, Wattjes MP. Application of "Mentzer's PML case definition" to natalizumab-treated patients in the setting of strict MRI-based pharmacovigilance. *J Neurol.* 2020 Sep;267(9):2599-2602. doi: 10.1007/s00415-020-09880-7. Epub 2020 May 8. PMID: 32385682.
95. Yousuf MS, Samtleben S, Lamothe SM, Friedman TN, Catuneanu A, Thorburn K, Desai M, Tenorio G, Schenk GJ, Ballanyi K, Kurata HT, Simmen T, Kerr BJ. Endoplasmic reticulum stress in the dorsal root ganglia regulates large-conductance potassium channels and contributes to pain in a model of multiple sclerosis. *FASEB J.* 2020 Sep;34(9):12577-12598. doi: 10.1096/fj.202001163R. Epub 2020 Jul 17. PMID: 32677089.
96. Zhuo Z, Duan Y, Tian D, Wang X, Gao C, Ding J, Zheng F, Zhang T, Zhang X, Barkhof F, Shi F-D & Liu Y., Brain structural and functional alterations in MOG antibody disease, 15 Oct 2020, In: *Multiple Sclerosis.* p. 1352458520964415
97. Ziemssen T, Bass AD, Berkovich R, Comi G, Eichau S, Hobart J, Hunter SF, LaGanke C, Limmroth V, Pelletier D, Pozzilli C, Schippling S, Sousa L, Traboulsee A, Uitdehaag BMJ, Van Wijmeersch B, Choudhry Z, Daizadeh N, Singer BA; CARE-MS I, CARE-MS II, CAMMS03409, and TOPAZ investigators. Efficacy and Safety of Alemtuzumab Through 9 Years of Follow-up in Patients with Highly Active Disease: Post Hoc Analysis of CARE-MS I and II Patients in the TOPAZ Extension Study. *CNS Drugs.* 2020 Sep;34(9):973-988. doi: 10.1007/s40263-020-00749-x. PMID: 32710396; PMCID: PMC7447657.
98. Zierfuss B, Weinhofer I, Buda A, Popitsch N, Hess L, Moos V, Hametner S, Kemp S, Köhler W, Forss-Petter S, Seiser C, Berger J. Targeting foam cell formation in inflammatory brain diseases by the histone modifier MS-275. *Ann Clin Transl Neurol.* 2020 Nov;7(11):2161-2177. doi: 10.1002/acn3.51200. Epub 2020 Sep 30. PMID: 32997393; PMCID: PMC7664285.

Editorial

1. Heesen C, de Groot V. Guest Editorial. *Int J MS Care.* 2020 Nov- Dec;22(6):xii-xiii. doi: 10.7224/1537-2073-22.6.xii. PMID: 33536853; PMCID: PMC7780703.