

Supplementary material (Supplementary figures)

Title: Neuronal and glial CSF biomarkers in multiple sclerosis: A systematic review and meta-analysis

Journal: Reviews in the Neurosciences

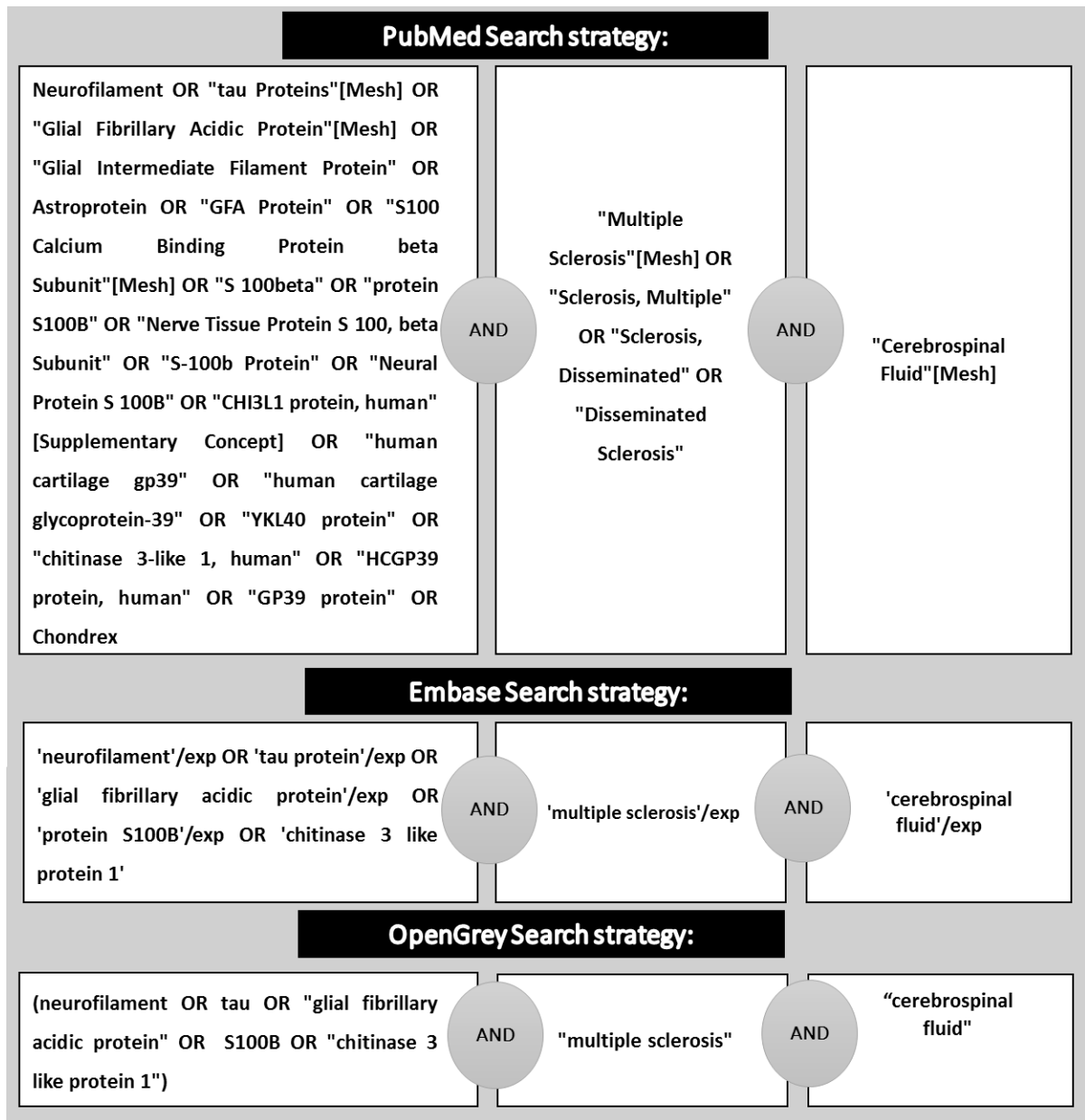
Authors: Sara Momtazmanesh, Parnian Shobeiri, Amene Saghazadeh, Charlotte Teunissen, Joachim Burman, Levente Szalardy, Peter Klivenyi, Ales Bartos, Adelaide Fernandes, Nima Rezaei*

Corresponding author: Nima Rezaei, MD, PhD, Research Center for Immunodeficiencies, Children's Medical Center, Dr. Gharib St, Keshavarz Blvd, Tehran, Iran, E-mail: rezaei_nima@tums.ac.ir

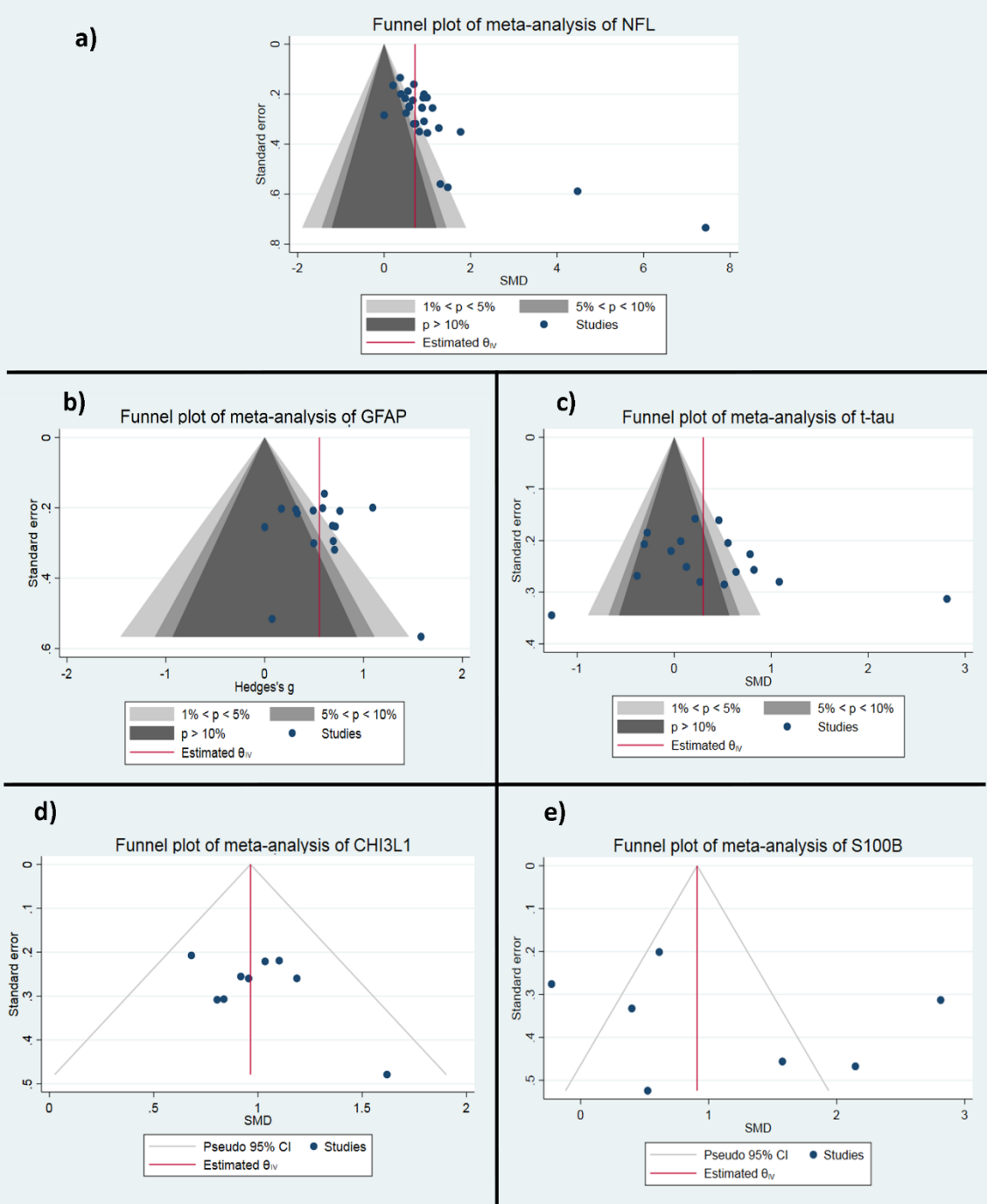
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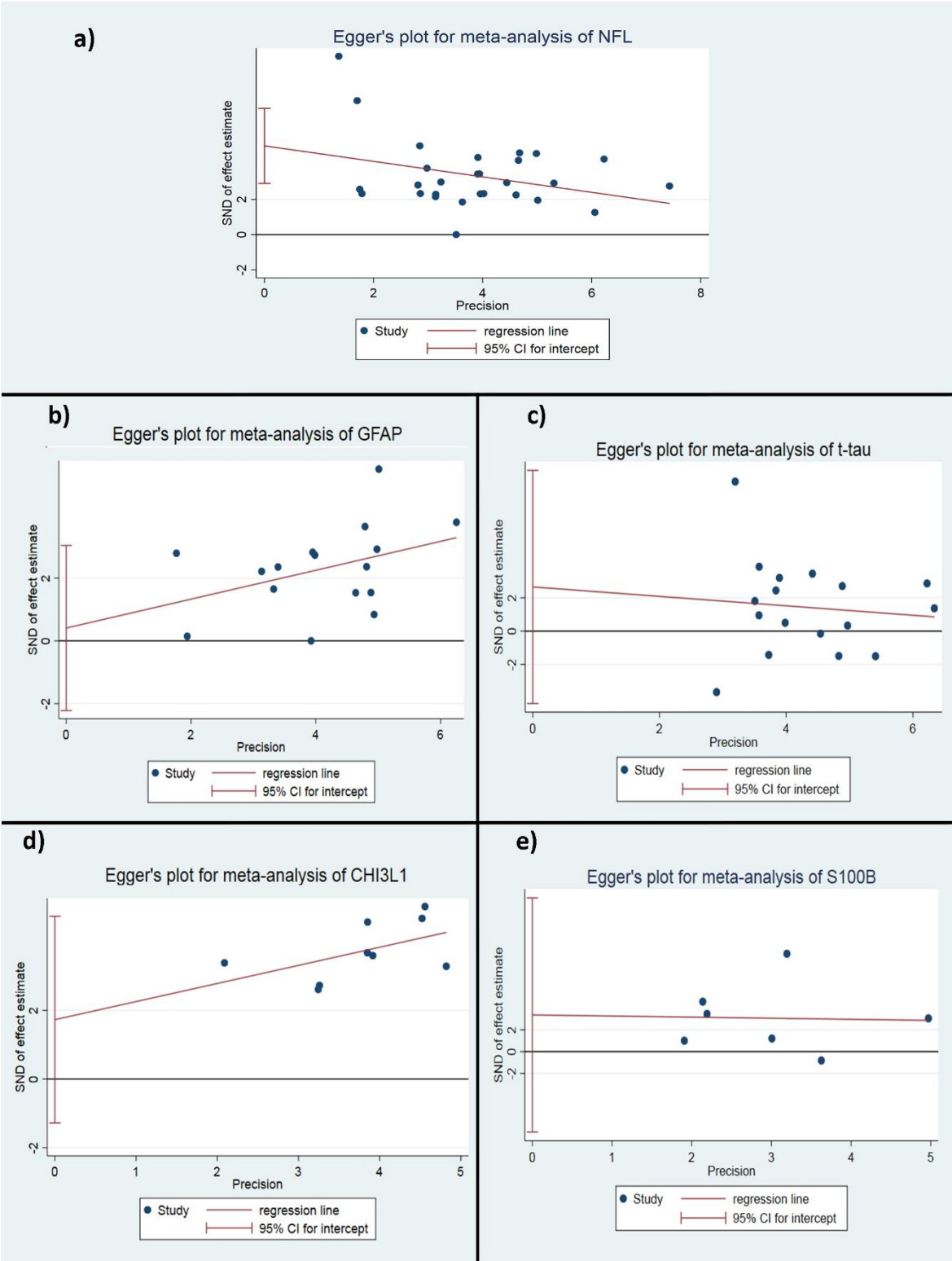
Supplementary Figure S1. Search strategy



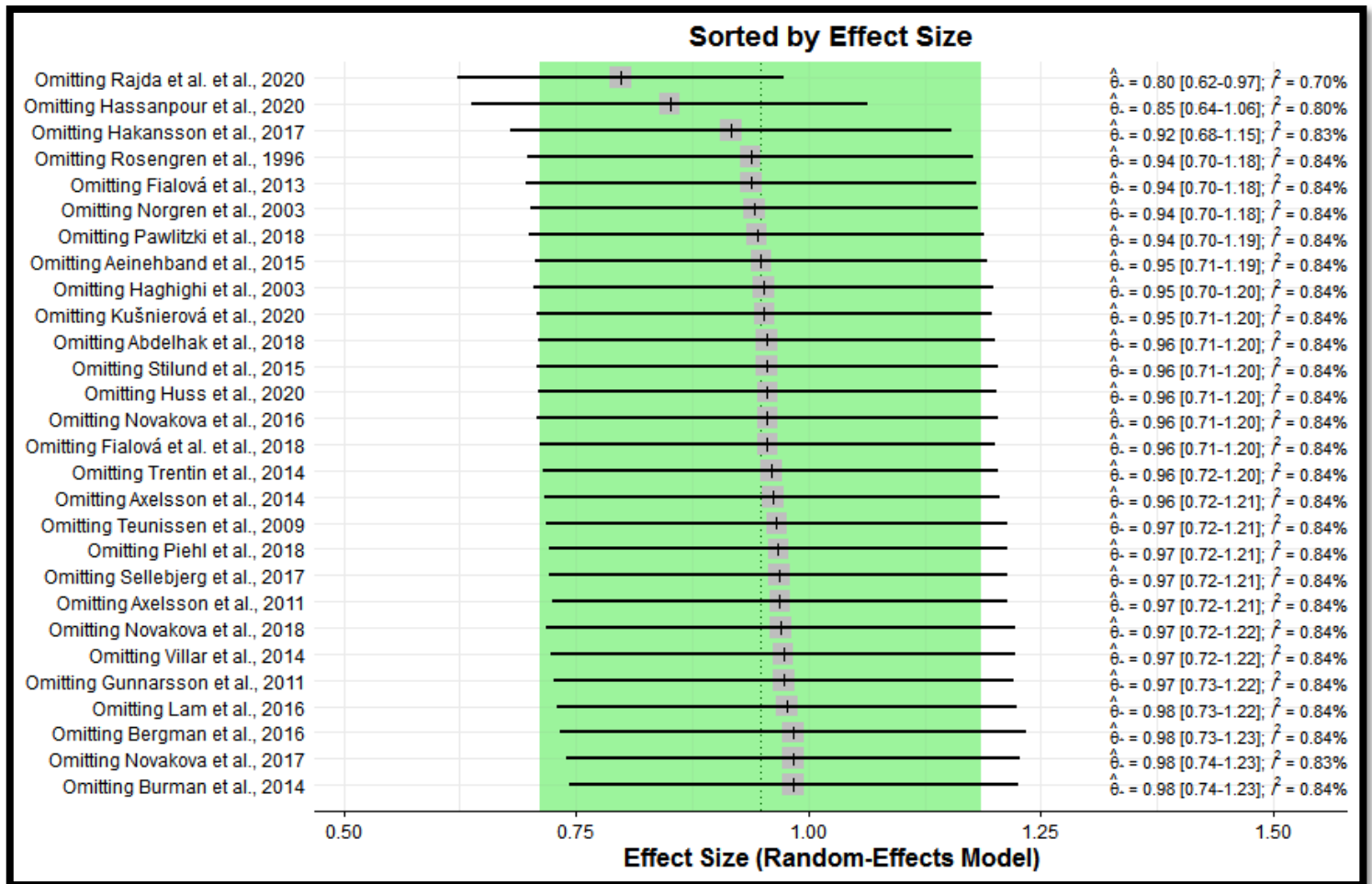
Supplementary Figure S2. Funnel plots of meta-analyses of NFL, GFAP, t-tau, CHI3L1, and S100B



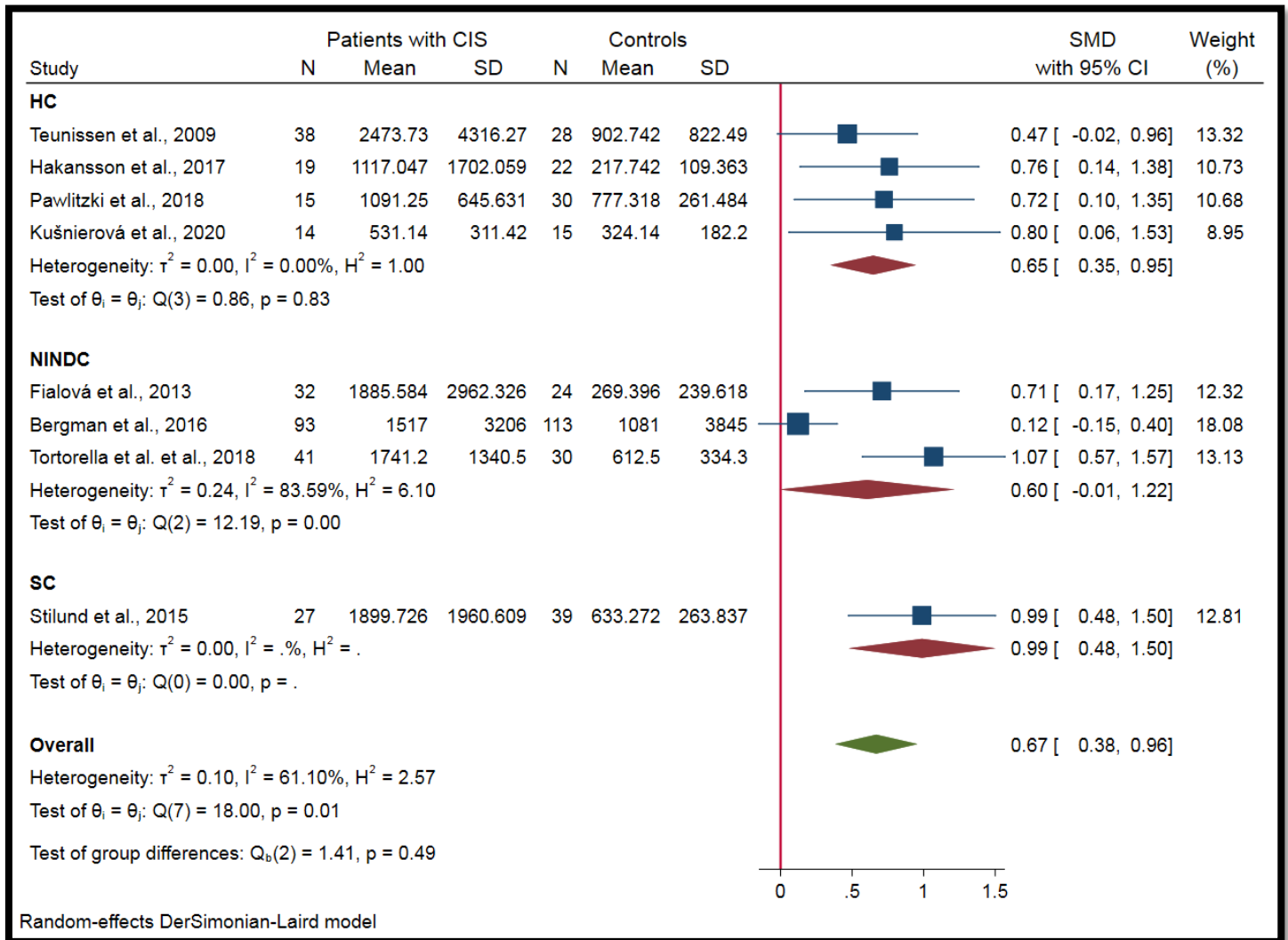
Supplementary Figure S3. Egger's plots of meta-analyses of NFL, GFAP, t-tau, CHI3L1, and S100B



Supplementary Figure S4. Results of Sensitivity analysis (leave-one-out analysis) of meta-analysis of CSF NFL levels in MS vs. controls

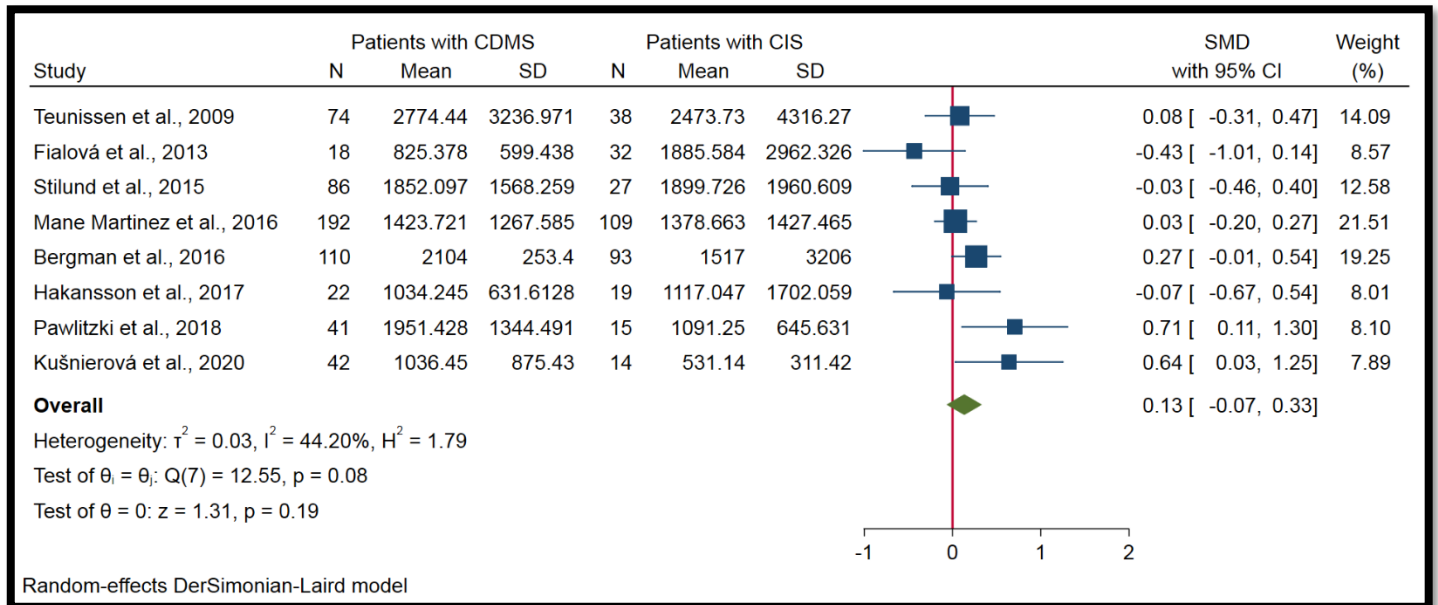


Supplementary Figure S5. CSF NFL levels in clinically isolated syndrome vs. controls



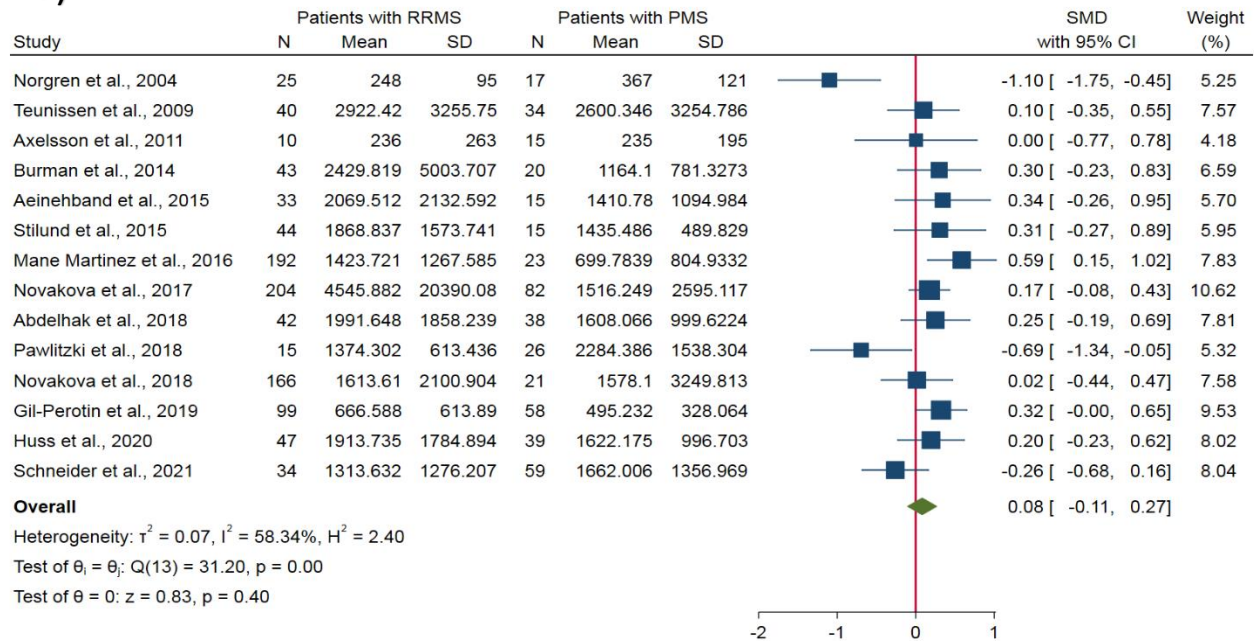
*HC= Healthy controls, NINDC= Non-inflammatory neurological disease controls, SC= Symptomatic controls

Supplementary Figure S6. CSF NFL levels in clinically isolated syndrome vs. MS



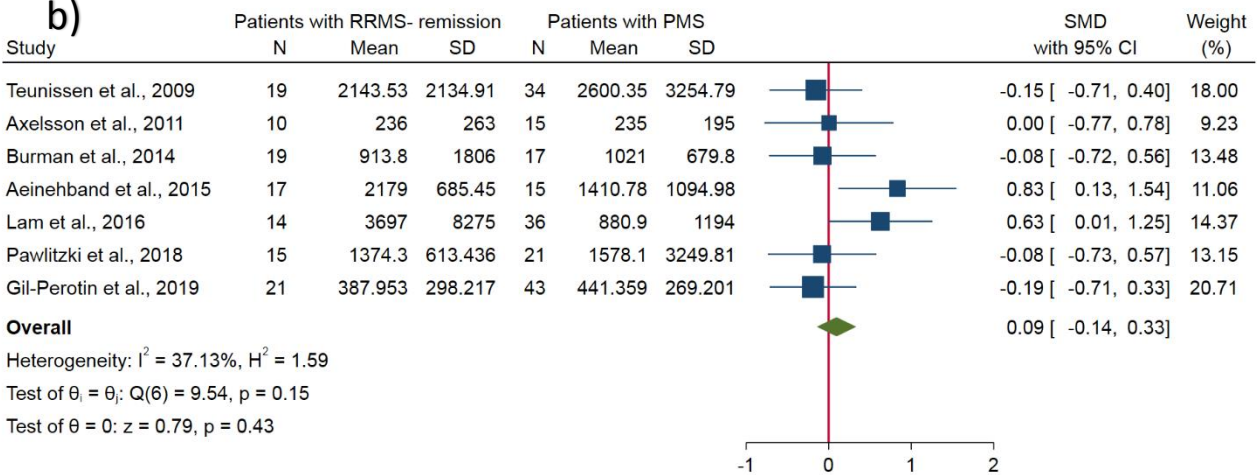
Supplementary Figure S7. CSF NFL levels in relapsing- remitting MS vs. progressive MS

a)



Random-effects DerSimonian-Laird model

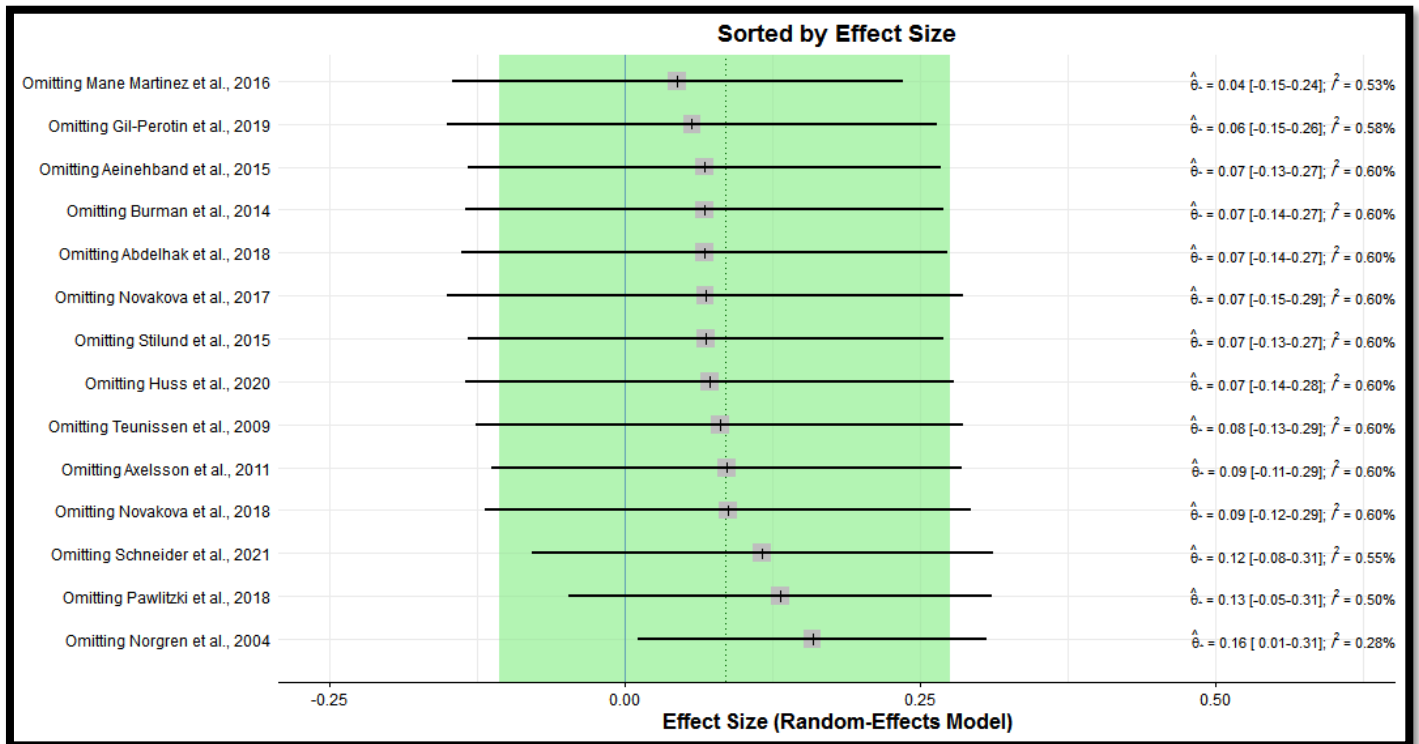
b)



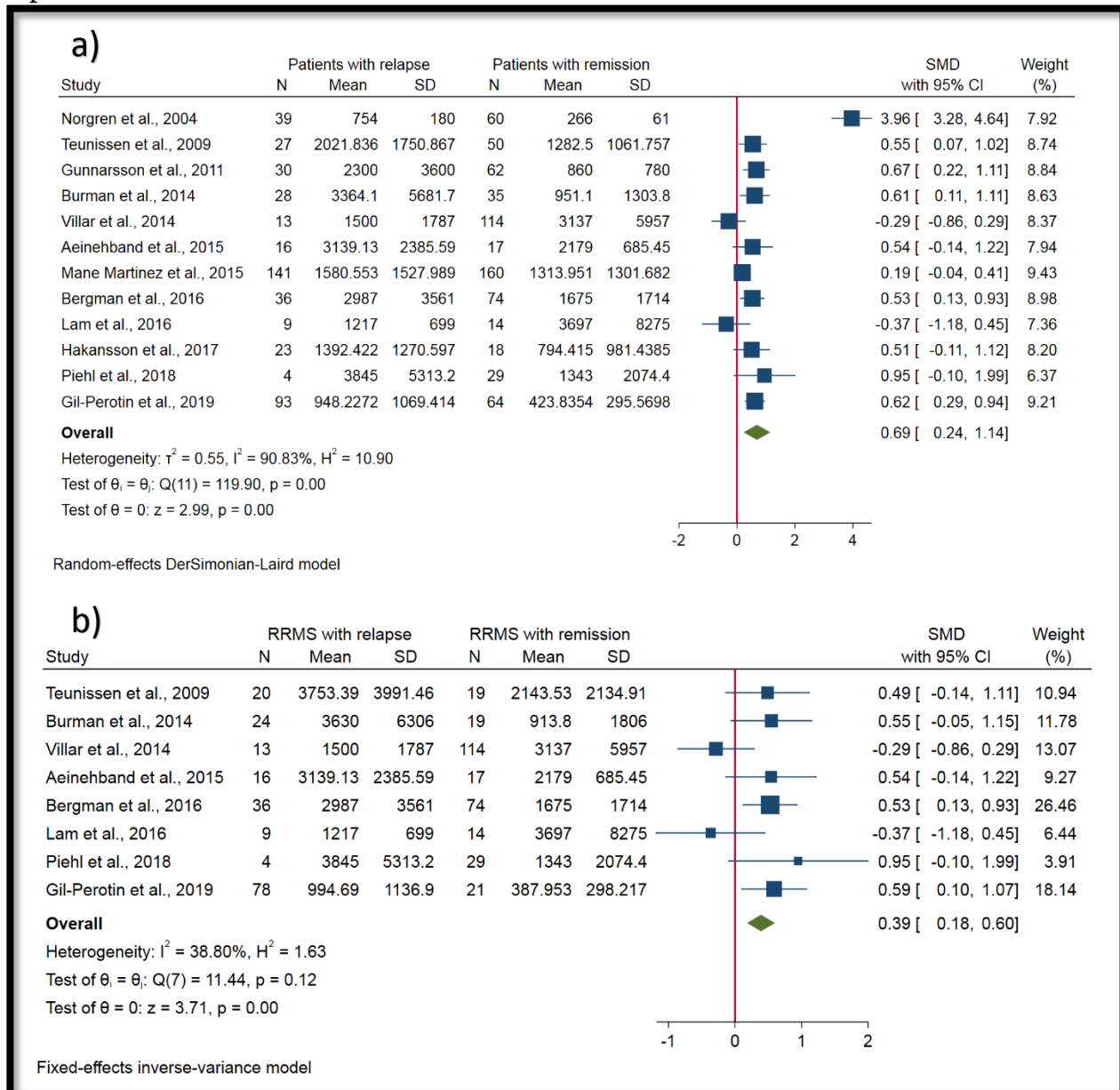
Fixed-effects inverse-variance model

* a) Studies investigating RRMS patients (whether they were in relapse, remission, or their disease activity was not stated) were included; b) Only studies that had reported NFL levels in RRMS patients in remission were included to remove the potential bias caused by including RRMS patients in relapse

Supplementary Figure S8. Results of Sensitivity analysis (leave-one-out analysis) of meta-analysis of CSF NFL levels in relapsing- remitting MS vs. progressive MS

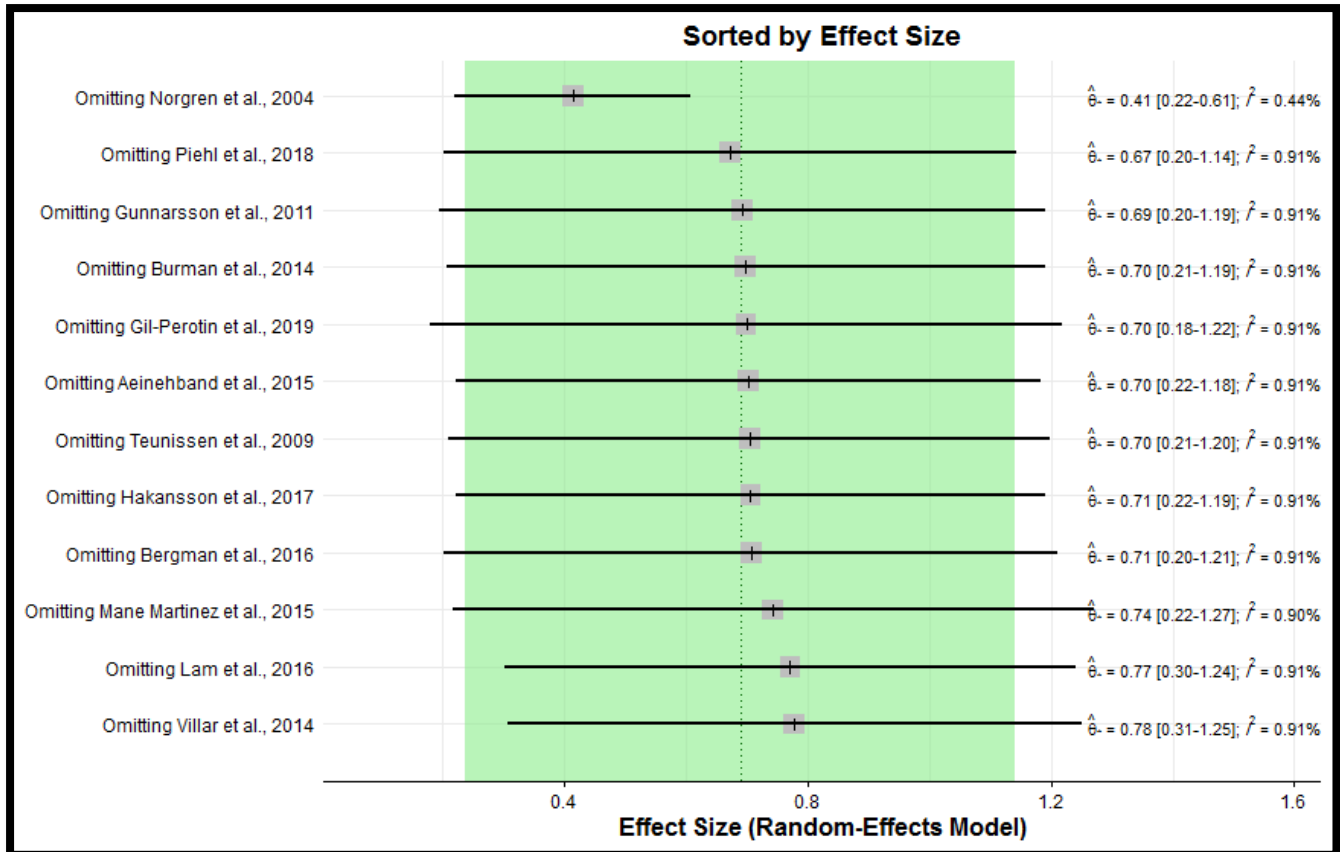


Supplementary Figure S9. CSF NFL levels in MS patients in relapse vs. MS patients in remission



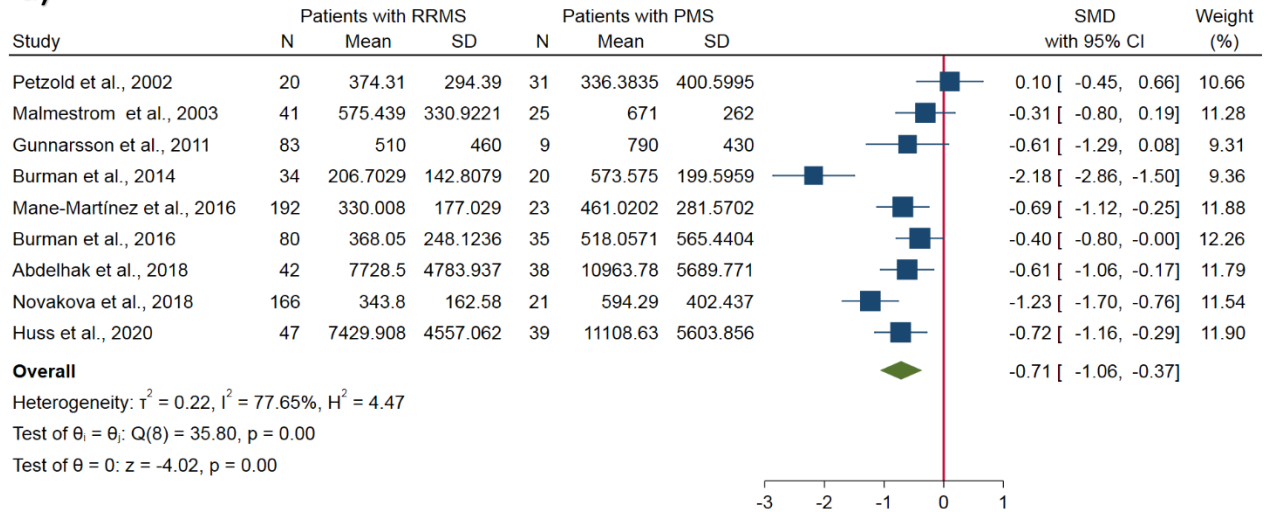
* a) Studies investigating MS patients (without considering their subtype) were included; b) Only studies that had included RRMS patients were included to eliminate the bias and heterogeneity caused by including different subtypes

Supplementary Figure S10. Results of Sensitivity analysis (leave-one-out analysis) of meta-analysis of CSF NFL levels in MS patients in relapse vs. MS patients in remission



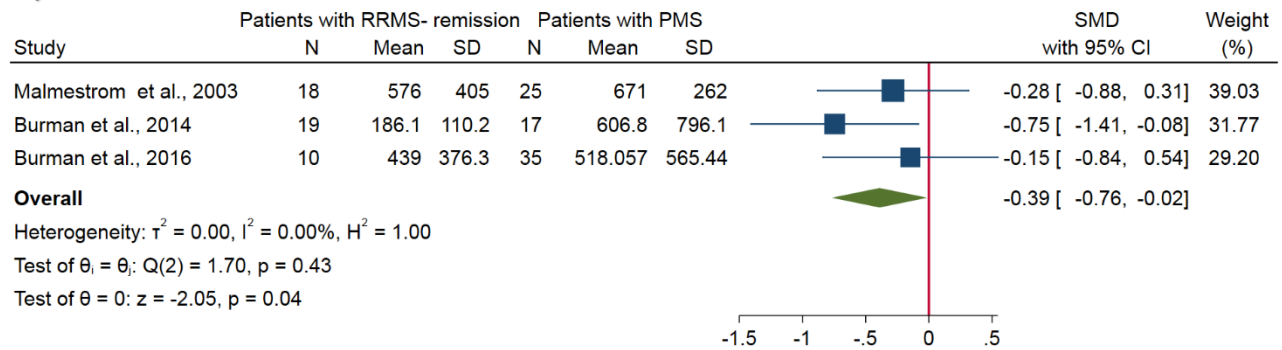
Supplementary Figure S11. CSF GFAP levels in MS patients in relapsing-remitting MS vs. progressive MS

a)



Random-effects DerSimonian-Laird model

b)

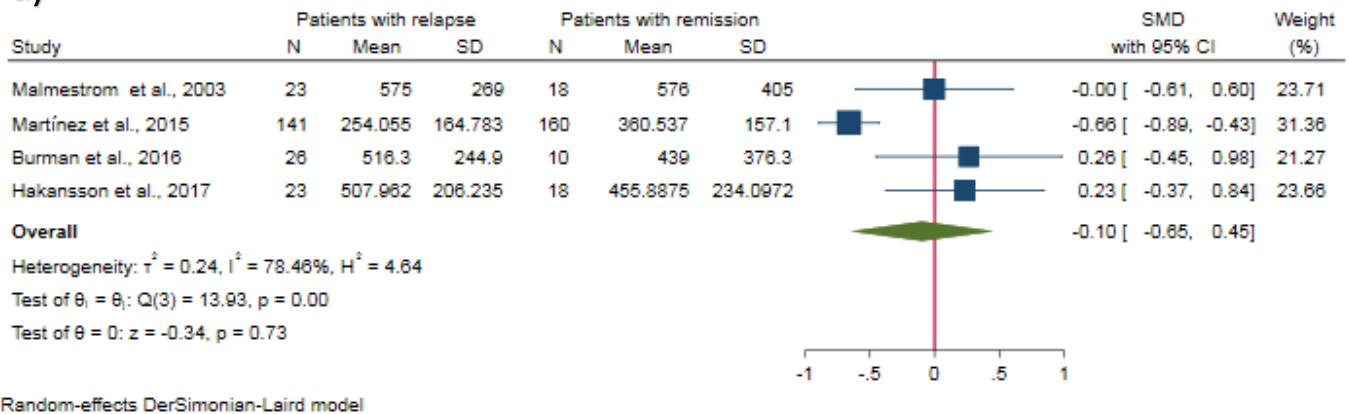


Random-effects DerSimonian-Laird model

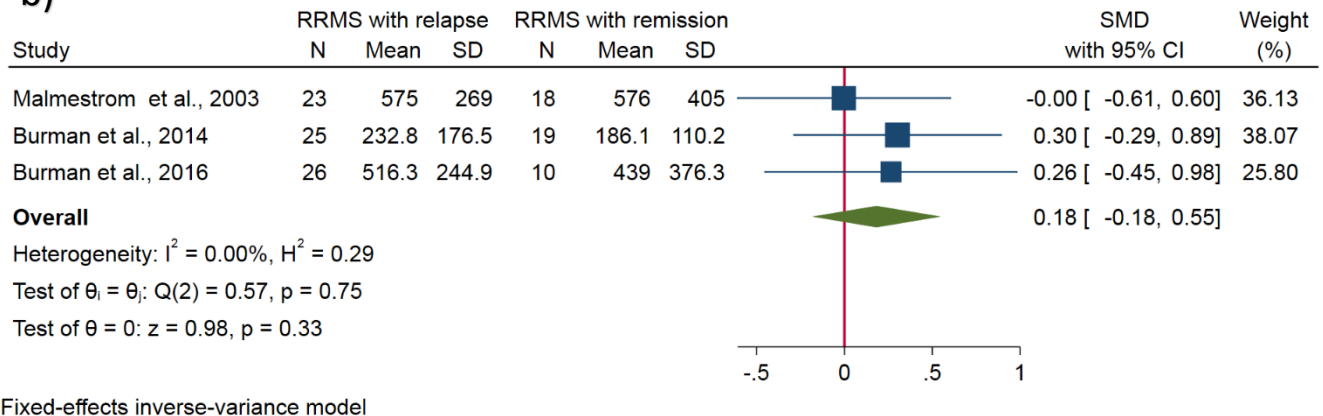
* a) Studies investigating RRMS patients (whether they were in relapse, remission, or their disease activity was not stated) were included; b) Only studies that had reported GFAP levels in RRMS patients in remission were included to remove the potential bias caused by including RRMS patients in relapse

Supplementary Figure S12. CSF GFAP levels in MS patients in relapse vs. MS patients in remission

a)

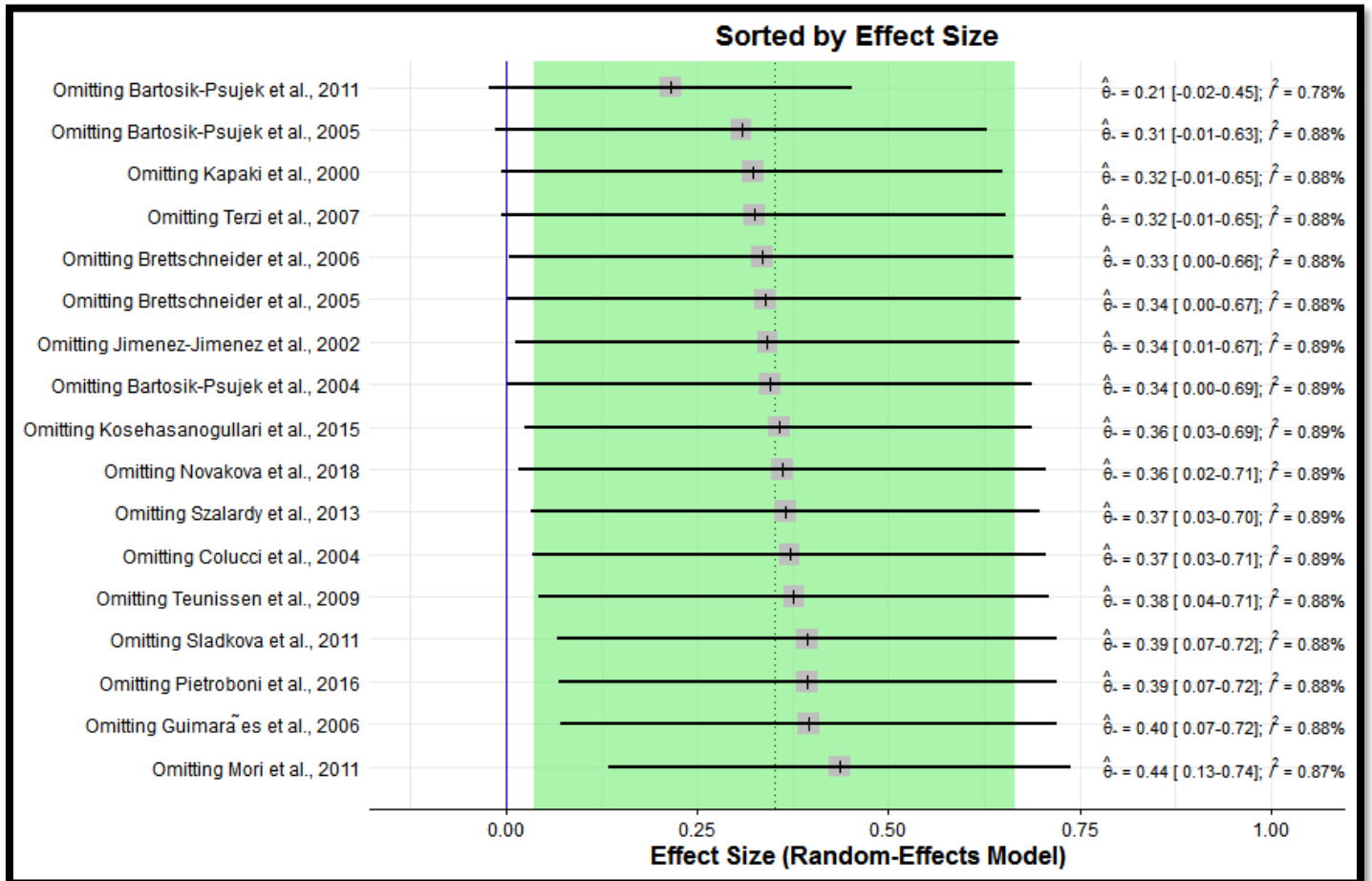


b)

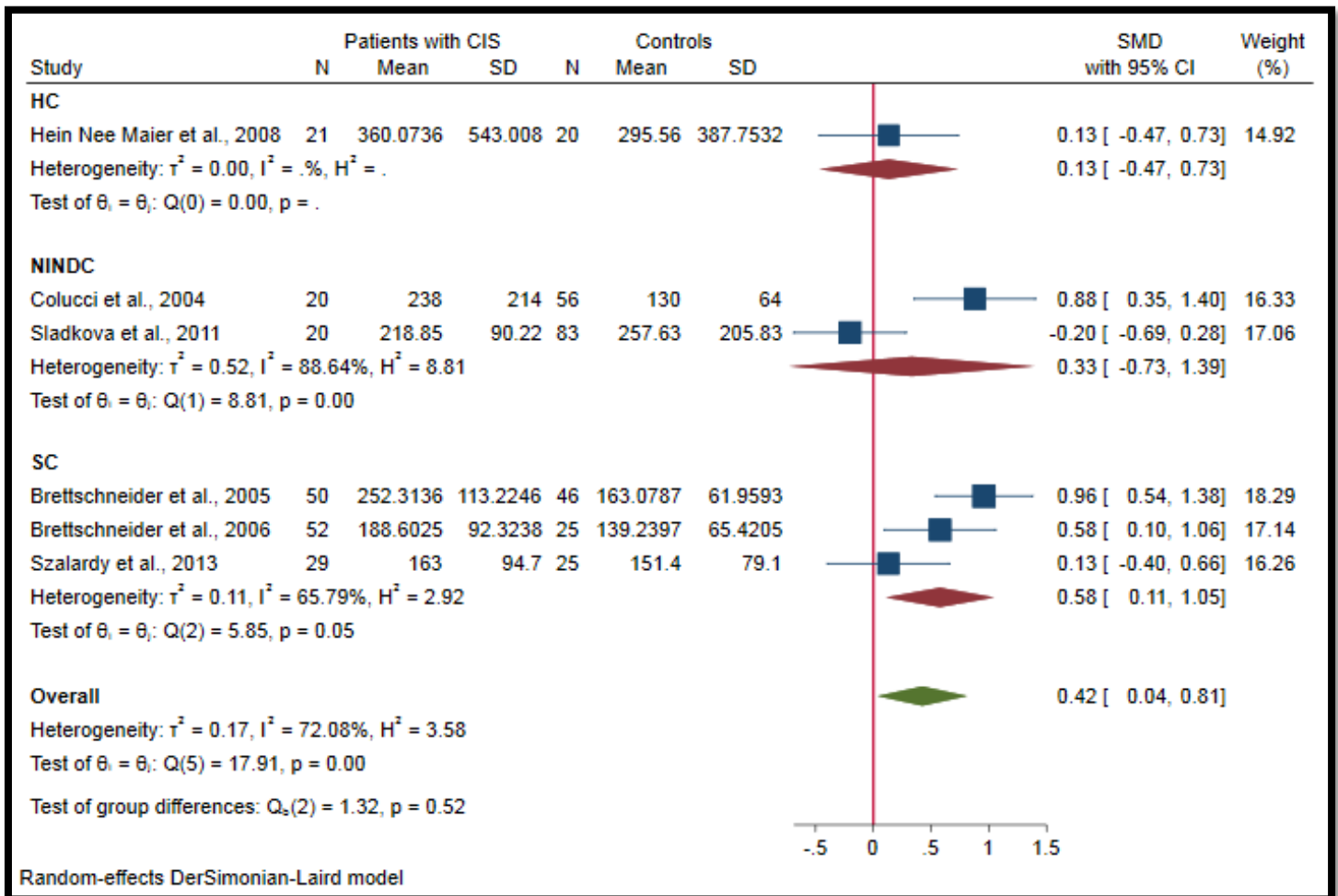


* a) Studies investigating MS patients (without considering their subtype) were included; b) Only studies that had included RRMS patients were included to eliminate the bias and heterogeneity caused by including different subtypes

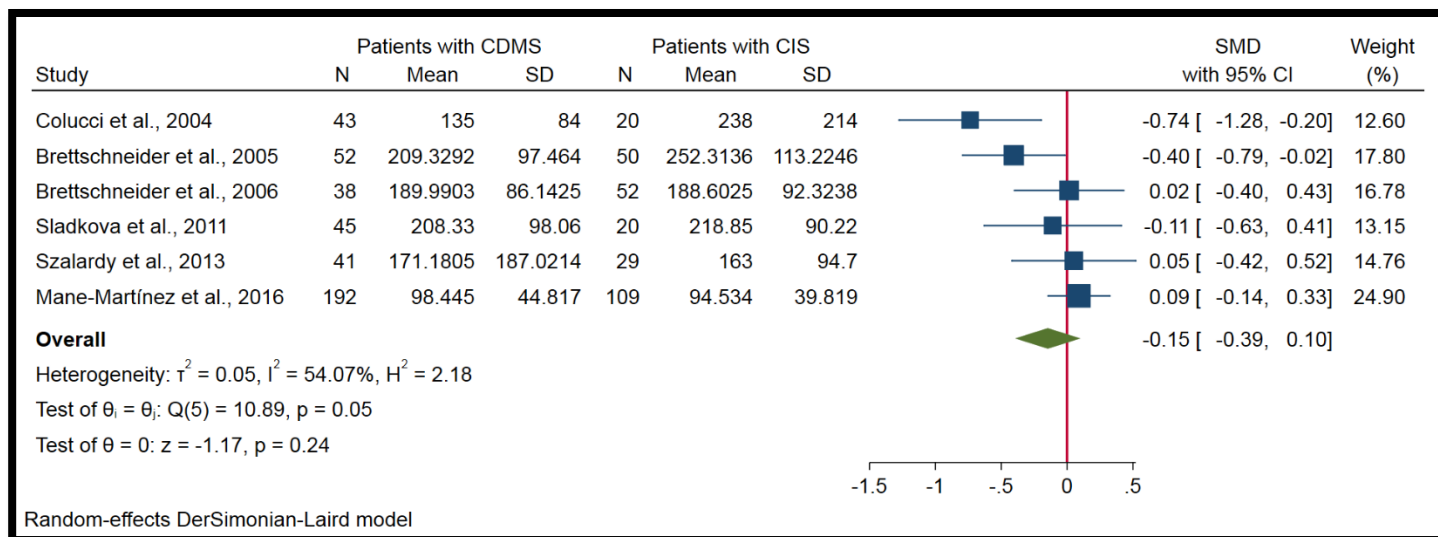
Supplementary Figure S13. Results of Sensitivity analysis (leave-one-out analysis)
of meta-analysis of CSF total tau levels in MS vs. controls



Supplementary Figure S14. CSF total tau levels in clinically isolated syndrome vs. controls

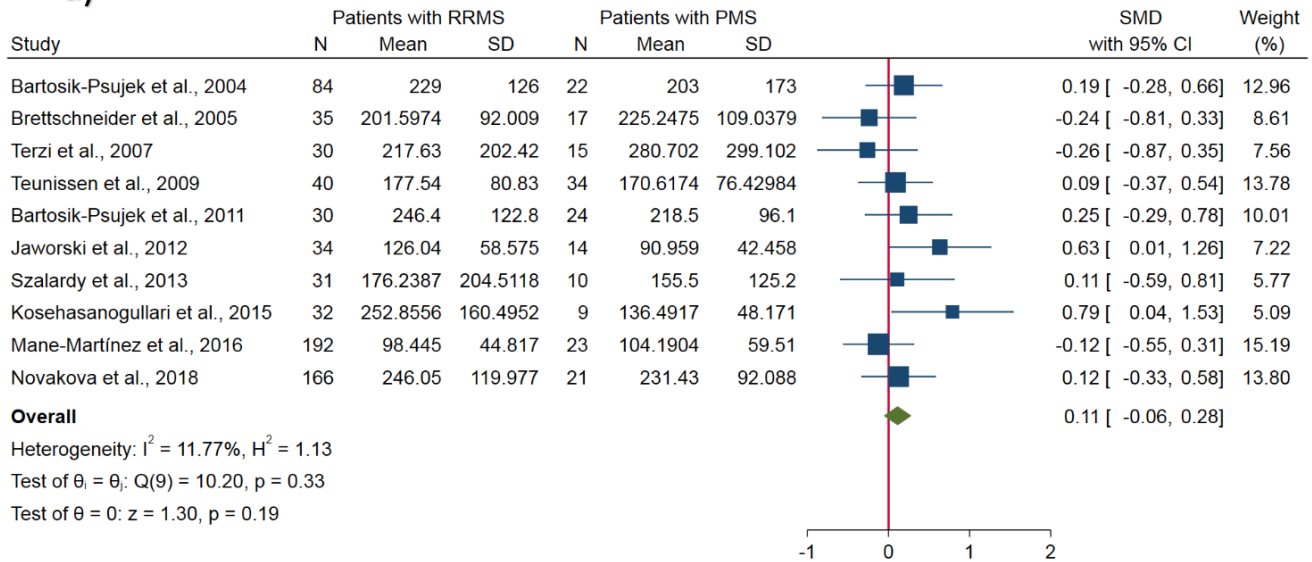


Supplementary Figure S15. CSF total tau levels in clinically isolated syndrome vs. MS



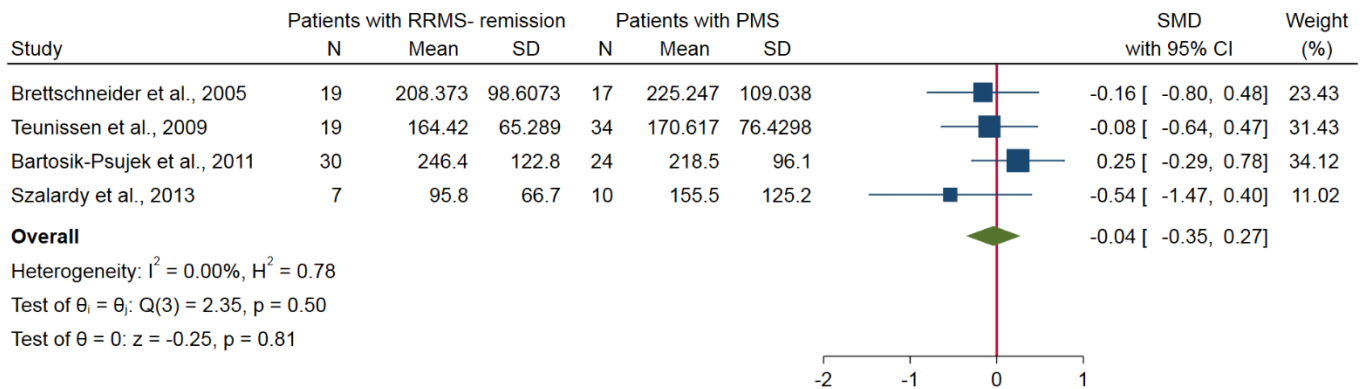
Supplementary Figure S16. CSF total tau levels in MS patients in relapsing-remitting MS vs. progressive MS

a)



Fixed-effects inverse-variance model

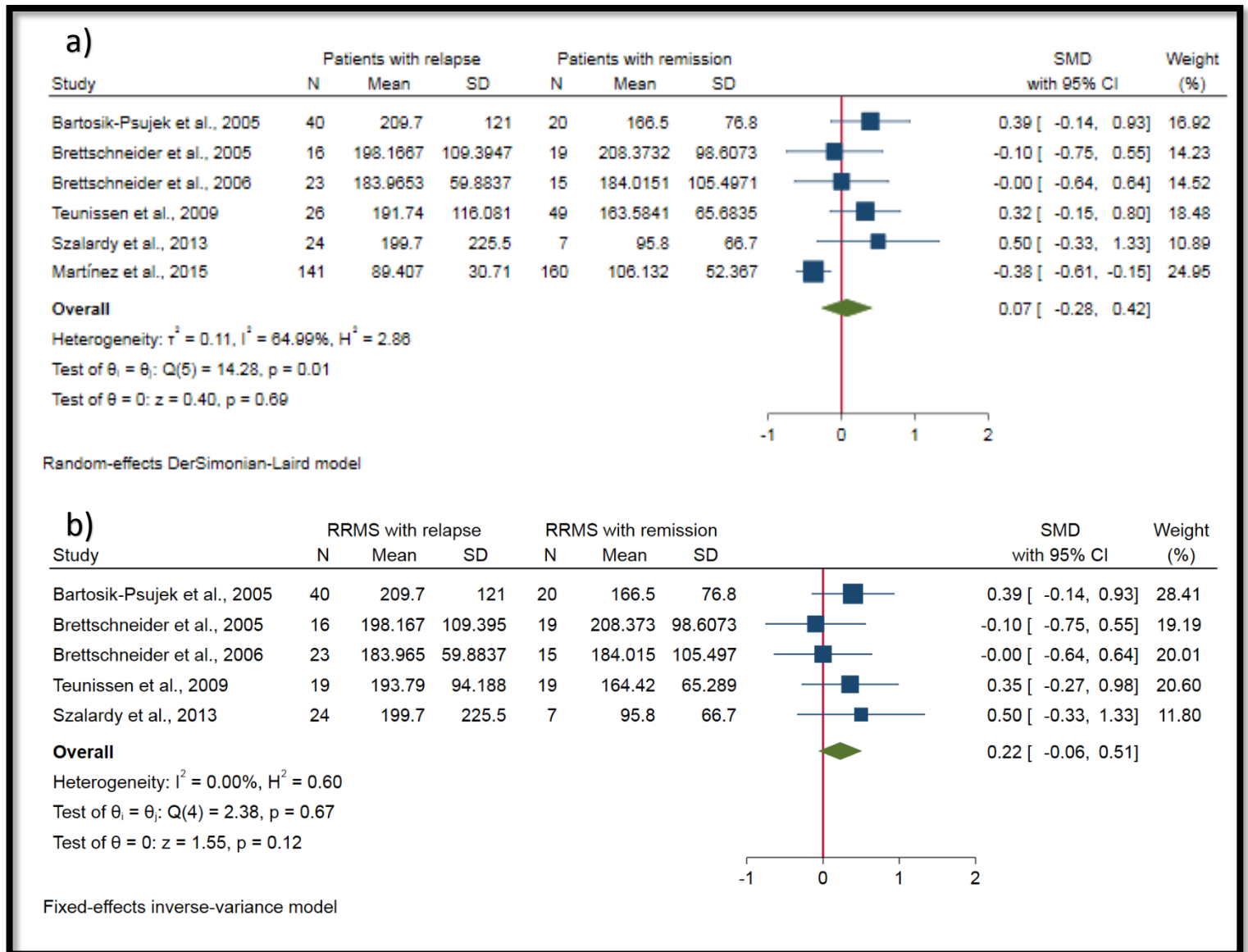
b)



Fixed-effects inverse-variance model

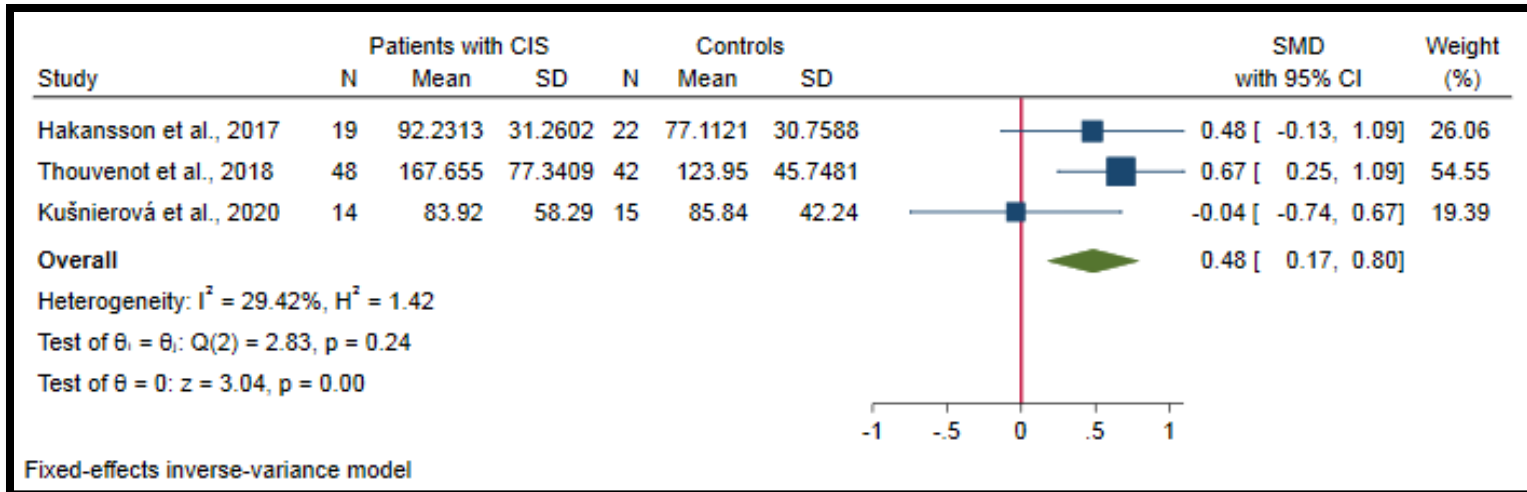
* a) Studies investigating RRMS patients (whether they were in relapse, remission, or their disease activity was not stated) were included; b) Only studies that had reported total tau levels in RRMS patients in remission were included to remove the potential bias caused by including RRMS patients in relapse

Supplementary Figure S17. CSF total tau levels in MS patients in relapse vs. MS patients in remission

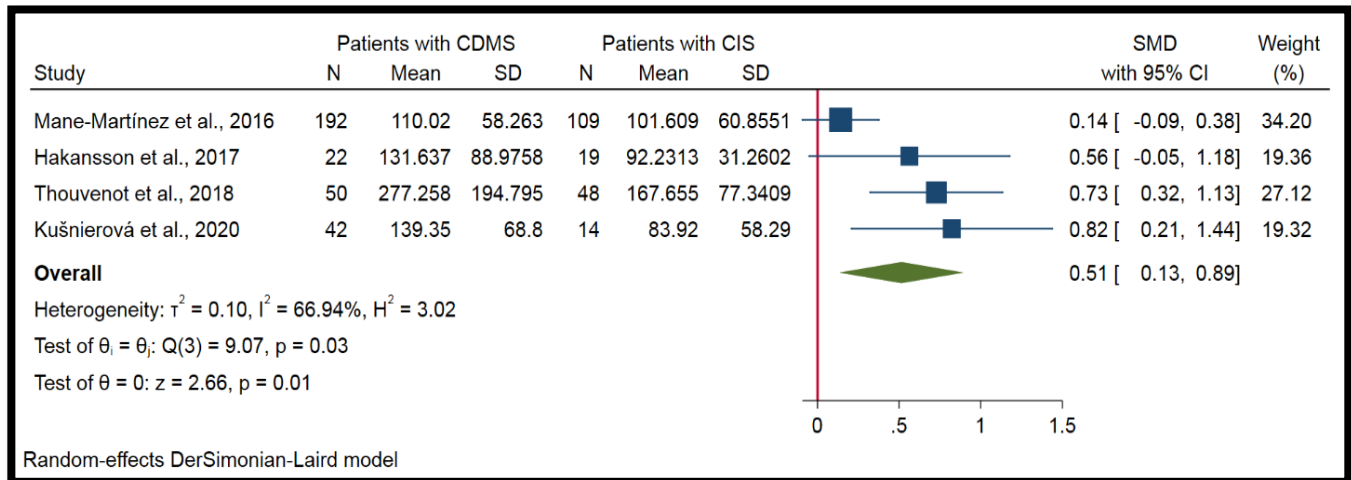


* a) Studies investigating MS patients (without considering their subtype) were included; b) Only studies that had included RRMS patients were included to eliminate the bias and heterogeneity caused by including different subtypes

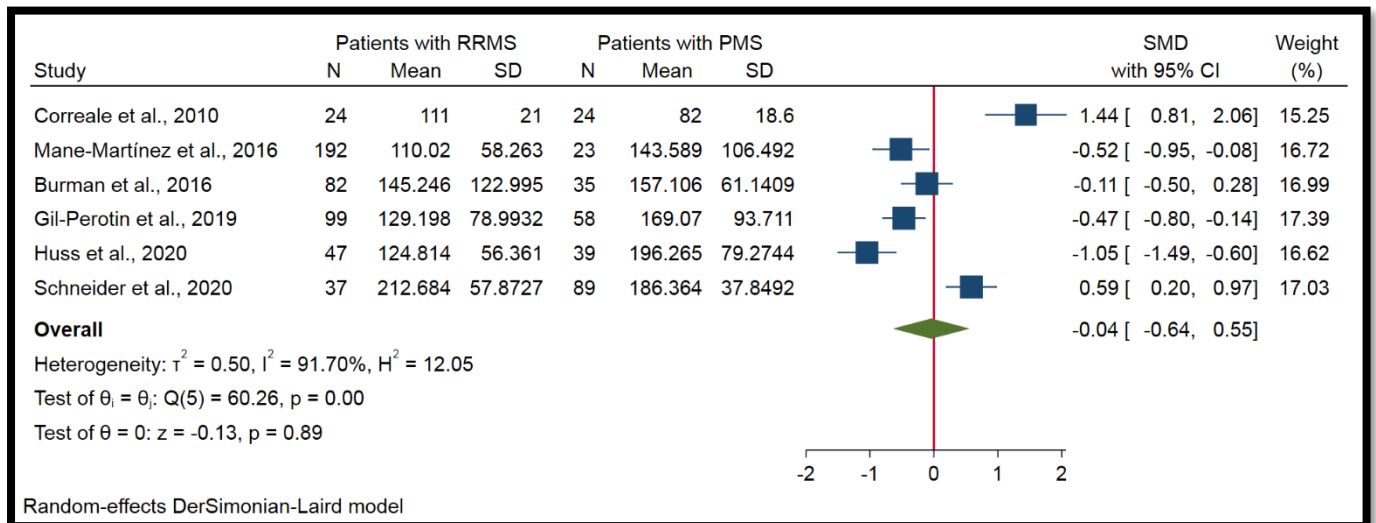
Supplementary Figure S18. CSF CHI3L1 levels in clinically isolated syndrome
vs. controls



Supplementary Figure S19. CSF CHI3L1 levels in clinically isolated syndrome vs. MS



Supplementary Figure S20. CSF CHI3L1 levels in MS patients in relapsing-remitting MS vs. progressive MS



Supplementary Figure S21. CSF CHI3L1 levels in MS patients in relapse vs. MS patients in remission

