

POSTER OVERVIEW

THURSDAY, SEPTEMBER 18, 2008

Poster Session 1—Room 220C

Authors are present: 15.30–17.00

CATEGORY	ABSTRACT NUMBERS
Disease Modifying Therapy – Part 1	P1–P89
Epidemiology/Genetics – Part 1	P90–P160
Experimental Disease Models	P161–P217
Imaging – Part 1	P218–P290
Neuroimmunology – Part 1	P291–P363
Rehabilitation and Quality of Life	P364–P429
Symptom Management	P430–P450

Please refer to pp 41-59 for poster titles and authors

FRIDAY, SEPTEMBER 19, 2008

Poster Session 2—Room 220C

Authors are present: 15.30–17.00

CATEGORY	ABSTRACT NUMBERS
Disease Modifying Therapy – Part 2	P451–P537
Epidemiology/Genetics – Part 2	P538–P603
Imaging – Part 2	P604–P677
Neuroimmunology – Part 2	P678–P749
Neuropsychology/Neuropsychiatry	P750–P813
Pathology	P814–P844
Surrogate Markers (non-MRI)	P845–P898

Please refer to pp 60-78 for poster titles and authors

SATURDAY, SEPTEMBER 20, 2008

Poster Session 3—Late Breaking News—Level 5, Viger Foyer

Authors are present: 10.00–10.30

CATEGORY	ABSTRACT NUMBERS
Disease Modifying Therapy	P899–P902
Epidemiology/Genetics	P903–P904
Imaging	P905–P906
Neuroimmunology	P907
Neuropsychology/Neuropsychiatry	P908
Symptom Management	P909

Please refer to p 79 for poster titles and authors

Disease Modifying Therapy—Part 1

- P1** Treatment by glatiramer acetate improves cell therapy in experimental autoimmune encephalomyelitis
R. Aharoni [Rehovot, Israel], R. Sarig, R. Eilam, D. Yaffe, R. Arnon
- P2** Plasma exchange after immunosuppressive treatment failure in neuromyelitis optica
S. Apóstolos-Pereira [São Paulo, Brazil], F. Borlot, F. Kok, D. Callegaro, P. Marchiori for BCTRIMS
- P3** Short-term immunosuppression with mitoxantrone followed by long-term glatiramer acetate vs. glatiramer acetate alone: Results at 36 months in patients with relapsing multiple sclerosis
D. Arnold [Montréal, Québec, Canada], A. Bar-Or, D. Campagnolo, H. Panitch, T. Vollmer
- P4** Use of monthly cyclophosphamide and methylprednisolone in rapidly progressive multiple sclerosis: pilot study
G. Arrambide [Mexico City, Mexico], J. Flores, T. Corona
- P5** Therapeutical approaches in childhood multiple sclerosis
S. Asimiadou [Berlin, Germany], J. Haas
- P6** Comparison of two sources of Interferon B 1a to induce increases in vascular cell adhesion molecule
N. Barroso [Mexico, Mexico], N. Santos, M. De la Maza, J. Perez, L. Nuñez, J. Perez, J. Nader, C. Uribe, J. Revilla, A. Molina
- P7** Intravital 2-photon imaging of encephalitogenic effector cells during fingolimod (FTY720) treatment of experimental autoimmune encephalomyelitis
I. Bartholomäus [Martinsried, Germany], C. Schläger, V. Brinkmann, H. Wekerle, A. Flügel
- P8** Effect of natalizumab on relapses in patients with relapsing multiple sclerosis who experience MRI activity during treatment
D. Bates [Newcastle upon Tyne, United Kingdom], E. Bartholome, A. Pace, R. Hyde, C. Hotermans
- P9** Glatiramer acetate in treatment-naïve and immunomodulatory pre-treated relapsing-remitting multiple sclerosis patients
U. Baumhackl [St. Poelten, Austria], M. Pantev, M. Klasser for the Copaxone Research Group Austria
- P10** Escalating treatment of optic neuritis by repeated high-dose corticosteroid-therapies and plasma exchange in pediatric multiple sclerosis
A. Bayas [Augsburg, Germany], D. Dunstheimer, H. Weihprecht, J. Penzien, M. Naumann, P. Heidemann
- P11** There is no rebound worsening of multiple sclerosis after stopping disease-modifying therapies
K. Bejaoui [Marshfield, Wisconsin, USA], L. Rolak, C. Matti, D. Foss
- P12** Disease modifying therapies prevent secondary progression in multiple sclerosis patients
R. Bergamaschi [Pavia, Italy], M. Amato, S. Quaglini, E. Tavazzi, D. Paolicelli, E. Portaccio, M. Trojano
- P13** Clinical response to glatiramer acetate in interferon beta-resistant relapsing-remitting multiple sclerosis patients
P. Bermejo [Madrid, Spain], C. Oreja-Guevara, A. Miralles, M. Aguilar, E. Diez-Tejedor
- P14** Avonex® 15-year long-term follow-up study of patients with relapsing multiple sclerosis
R. Bermel [Cleveland, Ohio, USA], B. Weinstock-Guttman, D. Bourdette, R. Rudick, H. Zhang, P. Foulds
- P15** Retrospective study to assess the efficacy and safety of mitoxantrone in multiple sclerosis patients with different therapy courses
I. Bonaventura [Terrassa, Spain], M. Marco, S. Romero, S. Quintana, T. Delgado
- P16** Characterization of a novel sphingosine-1-phosphate-1 receptor agonist with activity in experimental autoimmune encephalomyelitis
P. Bousquet [Worcester, Massachusetts, USA], C. Nelson, E. Kuzmin, R. Stoffel, K. Cusack, Y. Tian, W. Waegell, R. Goudreau, S. Fix, D. Konopacki, T. Gordon, M. Hayes, P. Grongsard, X. Zhang, L. Schaffter, G. Wallace, B. McRae
- P17** Alemtuzumab Phase 2 Extension Study Design [CAMMS223]: Assessing long-term outcomes and potential benefits of additional alemtuzumab treatment in patients with relapsing-remitting multiple sclerosis
V. Brinar [Zagreb, Croatia] for the CAMMS223 Study Group
- P18** Estimates of disease-modifying-drug effect size in relapsing-onset multiple sclerosis tend to decline as disability severity, years since onset and treatment years increase
M. Brown [Halifax, Nova Scotia, Canada], S. Kirby, C. Skedgel, I. Sketris, J. Murray, J. Fisk, V. Bhan for the Dalhousie MS Research Group
- P19** Autologous non-myeloablative hematopoietic stem cell transplantation for relapsing-remitting multiple sclerosis
R. Burt [Chicago, Illinois, USA], B. Cohen, D. Stefoski, R. Balabanov, G. Katsamakias, J. Rose, A. Testori, P. Muraro, J. Storek, J. Voltarelli
- P20** A Phase I/II dose-escalation trial of oral vitamin D3 with calcium supplementation in patients with multiple sclerosis
J. Burton [Toronto, Ontario, Canada], S. Kimball, R. Vieth, A. Bar-Or, H. Dosch, L. Thibault, S. Kilborn, C. D'Souza, R. Cheung, M. Ursell, P. O'Connor
- P21** Immunomodulatory therapy reduces the development of inflammatory cortical lesions in relapsing-remitting multiple sclerosis
M. Calabrese [Padova, Italy], V. Bernardi, F. Rinaldi, M. Atzori, I. Mattisi, A. Favaretto, L. Barachino, C. Romualdi, L. Rinaldi, P. Perini, P. Gallo
- P22** An open-label study of high dose cyclophosphamide for moderate to severe refractory multiple sclerosis
D. Callegaro [São Paulo, Brazil], S. Apóstolos-Pereira, M. Scaff, P. Marchiori for BCTRIMS
- P23** Cutaneous necrosis in multiple sclerosis patients: misuse of interferon beta or individual susceptibility?
W. Camu [Montpellier, France], B. Carlander, M. Charif, G. Taieb, C. Geny, E. Thouvenot

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- P24** Evaluating patient satisfaction on transition from subcutaneous interferon beta-1a to a new human serum albumin-free formulation: the TRANSFER study
W. Camu (Montpellier, France) for the TRANSFER Study Group
- P25** Compliance and complications after 5 years of continual therapy with interferon-beta or glatiramer acetate in relapsing-remitting multiple sclerosis
C. Caon (Detroit, Michigan, USA), D. Lisak, R. Penmesta, S. Hreha, K. Xiufang, A. Tselis, R. Lisak, O. Khan
- P26** The impact of long-term treatment with disease modifying therapy on disability progression in relapsing-remitting multiple sclerosis patients
A. Carrá (Buenos Aires, Argentina), P. Onaha, V. Sinay, M. Halfon
- P27** The risk of optic neuritis during immunomodulatory treatment in relapsing-remitting multiple sclerosis patients
A. Carrá (Buenos Aires, Argentina), P. Onaha, P. Goyeneche
- P28** The MS-STAT trial: a Phase II trial of high dose simvastatin in secondary progressive multiple sclerosis
J. Chataway (London, United Kingdom), D. Chan, V. Anderson, B. Polito, C. Kallis, C. Frost, V. Calder, J. Greenwood, R. Nicholas for the Multiple Sclerosis Trials Collaboration (MSTC)
- P29** S1P₁ receptor signaling on cells of astrocytic lineages in experimental autoimmune encephalomyelitis: a role in disease progression and the efficacy of fingolimod (FTY720)
J. Choi, D. Herr, C. Lee, S. Teo, G. Kennedy, J. Chun (La Jolla, California, USA)
- P30** Oral fingolimod (FTY720) versus interferon beta-1a in relapsing-remitting multiple sclerosis: baseline patient demographics and disease characteristics from a Phase III trial (TRANSFORMS)
J. Cohen (Cleveland, Ohio, USA), J. Pelletier, L. Kappos, X. Montalban, H. Hartung, G. Comi, B. Khatri, F. Barkhof, T. Stites, H. Pohlmann, V. Dong for the TRANSFORMS Study Group
- P31** Oral laquinimod in patients with relapsing-remitting multiple sclerosis: 9-month double-blind active extension of the multi-center, randomized, double-blind, parallel-group placebo-controlled study
G. Comi (Milan, Italy), O. Abramsky, T. Arbizu, A. Boyko, R. Gold, E. Havrdová, S. Komoly, K. Selmaj, B. Sharrack, M. Filippi for the LAQ/5062 Clinical Advisory Board and Study Group
- P32** Treatment with glatiramer acetate delays conversion to clinically definite multiple sclerosis in patients with clinically isolated syndrome: subgroup analyses
G. Comi (Milan, Italy), A. Carrá, F. Fazekas, P. Rieckmann, O. Bajenaru, J. Hillert, I. Elovaara, C. Young, D. Wynn, J. King, C. Lubetzki, H. Hartung, K. Myhr, X. Montalban, S. Komoly, M. Filippi for the PreCISe Study Group
- P33** Rationale for the use of multipotent mesenchymal stromal cells in multiple sclerosis
P. Connick (Cambridge, United Kingdom), M. Kolappan, D. Miller, A. Compston, S. Chandran
- P34** DMT adherence in the VHA MS Surveillance Registry
W. Culpepper (Baltimore, Maryland, USA), C. Bever, M. Wallin, T. McDowell, D. Bradham
- P35** Serum ferritin levels and β -interferon treatment in multiple sclerosis: a clue for interferon liver toxicity
D. Dive (Esneux, Belgium), C. Ernon, S. Gillet
- P36** JC virus in multiple sclerosis patients treated with natalizumab
M. Dominguez-Mozo (Madrid, Spain), R. Alvarez-Lafuente, M. Garcia-Montojo, V. De las Heras, F. Bartolome, R. Arroyo
- P37** Mitoxantrone treatment of multiple sclerosis patients enhances in vitro TH2 type cytokine production
A. Dressel (Greifswald, Germany), S. Rosenberg, S. Skrzipek, B. Bröker
- P38** Therapy-related acute leukemia with mitoxantrone: what is the risk and can we minimize it?
R. Ellis (Liverpool, United Kingdom), M. Boggild
- P39** A multicenter, open label, non-comparative trial investigating the recovering of IFN-beta efficacy in breakthrough relapsing-remitting multiple sclerosis patients with neutralizing IFN-beta antibodies (RECOVER)
J. Erälälinna (Turku, Finland), J. Hillert, K. Myhr, C. Madsen, T. Petersen for the RECOVER Study Group
- P40** Evaluation of activity, aggregation and NAB testing with generic interferon beta products: implications for treating multiple sclerosis
R. Farrell (London, United Kingdom), M. Wadhwa, V. Worthington, P. Creeke, R. Thorpe, P. Dilger, G. Giovannoni, A. Meager
- P41** Risk-benefit assessment of concurrent slow dose of mitoxantrone to control active multiple sclerosis under interferon beta-1a: an exploratory study
O. Fernández (Málaga, Spain), R. Arroyo, F. Coret, M. Hernández, G. Izquierdo, D. Muñoz, A. Rodríguez-Antigüedad, J. Correia de Sá, R. Pedrosa for the Iberian Collaborative Group
- P42** Therapeutic plasma exchange for steroid unresponsive multiple sclerosis relapses: a long term follow-up observation
M. Fischer (Bochum, Germany), A. Schröder, G. Ellrichmann, B. Peter, C. Meyer, R. Linker, A. Chan, R. Gold
- P43** Persistency of neutralizing antibodies against interferon beta after discontinued treatment in patients with multiple sclerosis
A. Fogdell-Hahn (Stockholm, Sweden), M. Lundkvist, A. Sominanda, J. Hillert
- P44** Continuous long-term immunomodulatory therapy in relapsing multiple sclerosis: results from the 15-year analysis of the US prospective open-label study of glatiramer acetate
C. Ford (Albuquerque, New Mexico, USA), K. Johnson, N. Kachuck, J. Lindsey, R. Lisak, C. Luzzio, L. Myers, H. Panitch, J. Preiningerova, A. Pruitt, J. Rose, H. Rus, J. Wolinsky for the Copaxone Study Group
- P45** Cognition, fatigue, depression and health-related quality of life in early multiple sclerosis: baseline data from CogniMS, a multinational longitudinal study
S. Fredrikson (Huddinge, Sweden), E. Wicklein, K. Kim, N. Prayoonwiwat, P. Scherer, D. Langdon

- P46** High intensity immunoablation and autologous stem cell treatment for aggressive multiple sclerosis can improve quality of life and fatigue
M. Freedman (Ottawa, Ontario, Canada), H. Atkins, M. Bowman for the Canadian MS Bone Marrow Transplant Group
- P47** Withdrawn
- P48** Clinical effect of the neuroprotectant MN-166 in relapsing multiple sclerosis: year 2 data
R. Gammans (San Diego, California, USA), F. Barkhof, J. Drulovic for the MN-166-CL-001 Investigators
- P49** Three pleiotropic acting recombinant interferon beta agents display pharmacologically varying RNA expression over time
R. Goertsches (Rostock, Germany), M. Hecker, D. Koczan, H. Thiesen, U. Zettl
- P50** Safety profile of BG00012, an oral formulation of dimethyl fumarate for patients with relapsing MS
R. Gold (Bochum, Germany), L. Kappos, D. Miller, E. Havrdova, V. Limmroth, C. Polman, M. Eraksoy, E. Meluzinova, I. Rektor, M. Yang, J. Morganroth, N. Lunde, K. Dawson, G. O'Neill
- P51** Association of interferon beta and inosine in relapsing-remitting multiple sclerosis (ASIIIMS): a multi-centre, randomized, double-blind, placebo-controlled phase II [proof of concept] trial in 157 patients
R. Gonsette (Melsbroek, Belgium), C. Sindic, M. D'Hooghe, R. Medaer, A. Michotte, P. De Deyn, P. Seelldrayers, D. Guillaume, R. Metz, A. Maertens de Noordhout, M. Dupuis, P. Cras, D. Decoo, M. Van Zandijcke for the ASIIIMS Study Group
- P52** Early treatment with interferon beta-1b associated with improved long-term outcome in multiple sclerosis
D. Goodin (San Francisco, California, USA), G. Ebers, A. Reder, A. Traboulsee, D. Langdon, K. Beckmann, A. Konieczny, J. Jones
- P53** Identification and characterization of mefloquine efficacy against JC virus in vitro
M. Brickelmaier, N. Allaire, L. Gorelik (Cambridge, Massachusetts, USA)
- P54** Assessment of the utility of the Canadian Treatment Optimization Recommendations (CanTOR) in the routine care of multiple sclerosis
F. Grand'Maison (Greenfield Park, Québec, Canada), M. Freedman, A. Traboulsee, V. Bhan, M. Myles, D. Patry, D. Selchen for the CanTOR investigators
- P55** Preferential effects of cladribine on lymphocyte subpopulations
J. Guarnaccia (Derby, Connecticut, USA), H. Rinder, B. Smith
- P56** Investigation of the effect of early initiation of therapy with interferon beta-1a [i.m.] on disease course, quality of life and cognition in patients with relapsing-remitting multiple sclerosis
J. Haas (Berlin, Germany) for the Study Group "Frühe Initiale Therapie bei MS" (Early Initial Therapy in MS)
- P57** Long-term follow-up of immunomodulatory therapies in early relapsing-remitting multiple sclerosis
J. Haas (Berlin, Germany)
- P58** Long-term maintenance treatment with glatiramer acetate after mitoxantrone in rapidly progressive multiple sclerosis
Y. Handouk (Ancona, Italy), V. Angelieri, M. Danni, S. De Riso, L. Provinciali
- P59** Feasibility of using autologous neural progenitors as a regenerative strategy in multiple sclerosis
N. Chhwa, P. Good, V. Harris (New York, New York, USA), S. Sadiq
- P60** Risk tolerance in multiple sclerosis patients: a re-survey to assess stability and change
E. Hartman (Cleveland, Ohio, USA), J. Lee, D. Miller, M. Kattan, R. Fox
- P61** Phase 2 follow-up results of the BHT-3009 DNA vaccine for multiple sclerosis
E. Havrdová (Prague, Czech Republic), E. Krasulova, C. Nadj, K. Selmaj, J. Losy, I. Nadj, E. Radue, J. Gianettoni, F. Valone, P. Utz, W. Robinson, L. Steinman, H. Garren for the BHT-3009 Study Group
- P62** Natalizumab increases the proportion of disease-free patients in relapsing multiple sclerosis
E. Havrdova (Prague, Czech Republic), D. Bates, S. Galetta, G. Giovannoni, F. Lublin, P. O'Connor, J. Phillips, C. Polman, D. Stefoski, A. Pace, R. Hyde, R. Kim, M. Panzara
- P63** Acute myelogenous leukemia in MS patients with sequential treatment by mitoxantrone and azathioprine: is there a synergistic or addictive effect?
I. Slesari, O. Heinzlef (Poissy, France), T. De Revel, J. Pelletier
- P64** Long-term follow-up study of very active multiple sclerosis (MS) patients under interferon beta-1b therapy
O. Heinzlef (Poissy, France), I. Slesari, A. Olivier, M. Debouverie, J. Deseze, P. Vermersch, P. Hautecoeur, C. Giannesini
- P65** Immunomodulatory effects on postpartum relapse rate in patients with multiple sclerosis a comparison between three groups
K. Hellwig (Bochum, Germany), C. Beste, S. Schimrigk, A. Chan, R. Gold
- P66** Antibodies to native myelin oligodendrocyte glycoprotein do not predict progression from clinically isolated syndrome to multiple sclerosis: complete analysis of the BEtaferon® in Newly Emerging multiple sclerosis For Initial Treatment (BENEFIT) study
B. Hemmer (Muenchen, Germany), G. Edan, M. Freedman, H. Hartung, L. Kappos, D. Miller, X. Montalban, C. Polman, J. Kuhle, S. Nessler, D. Zhou, L. Bauer, V. Lanius, C. Metzger, C. Pohl, R. Sandbrink
- P67** Antibodies to aquaporin-4 in patients with a clinically isolated syndrome: analyses from the BENEFIT study (BEtaferon® in Newly Emerging multiple sclerosis For Initial Treatment)
A. Horga (Barcelona, Spain), B. Hemmer, G. Edan, M. Freedman, H. Hartung, L. Kappos, D. Miller, X. Montalban, C. Polman, S. Nessler, L. Bauer, V. Lanius, C. Metzger, C. Pohl, R. Sandbrink
- P68** Electronic tool to optimize multiple sclerosis treatment
G. Izquierdo (Sevilla, Spain), J. Ruiz Peña for the OPTIMAX Collaborative Group

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- P69** Breakthrough relapses after rituximab in NMO patients: incidence and other treatment options
A. Javed (Chicago, Illinois, USA), B. Arnason, A. Reder
- P70** Benefit/risk evaluation of mitoxantrone and natalizumab in multiple sclerosis
D. Jeffery (Winston-Salem, North Carolina, USA), D. Wynn, R. Bennett, A. Al-Sabbagh, D. Bandari
- P71** Recurrent autoimmune thrombocytopenia after exposure to interferon beta-1a and natalizumab
D. Jones (Worcester, Massachusetts, USA), C. Ionete
- P72** Oral fingolimod (FTY720) in patients with relapsing multiple sclerosis: 3-year results from a phase II study extension
L. Kappos (Basel, Switzerland), E. Radue, P. O'Connor, X. Montalban, J. Antel, G. Karlsson, H. Pohlmann, A. de Vera, G. Comi for the FREEDOMS Study Group
- P73** Oral fingolimod (FTY720) in relapsing-remitting multiple sclerosis: baseline patient demographics and disease characteristics from a 2-year phase III trial (FREEDOMS)
L. Kappos (Basel, Switzerland), C. Polman, E. Radue, P. O'Connor, P. Calabresi, R. Hohlfeld, C. Agoropoulou, H. Pohlmann, A. de Vera
- P74** Efficacy and safety of natalizumab in children with highly active relapsing-remitting multiple sclerosis
K. Karageorgiou (Athens, Greece), M. Polyzois, M. Tzitzika, I. Xatzi, A. Alexoudi
- P75** Treatment of multiple sclerosis with glatiramer acetate and albuterol: results of a clinical trial
P. Kivisäkk, V. Viglietta, B. Healy, G. Buckle, H. Weiner, D. Hafler, S. Khoury (Boston, Massachusetts, USA)
- P76** Magnetic resonance imaging activity predicts multiple sclerosis patients' response to treatment with interferon beta-1a
R. Kinkel (Boston, Massachusetts, USA), P. O'Connor, J. Simon, J. Carulli, M. del Carmen Castrillo, S. Goelz, R. Hyde, S. Lanker, A. Pace, A. Sandrock, H. Zhang
- P77** Worsening of lupus symptoms after IFN- β 1a injections in a patient with MS and systemic lupus erythematosus
D. Anbarasan, I. Kister (New York, New York, USA), J. Herbert
- P78** Immunoablative therapy with autologous hematopoietic stem cell transplantation in the treatment of poor-risk multiple sclerosis
T. Kozak (Prague, Czech Republic), E. Havrdova, M. Trnny, J. Pitha, E. Krasulova, P. Lhotakova, P. Kobylka, Z. Trnkova, J. Fiedler, V. Koza
- P79** Efficacy of interferon beta treatment and the role of magnetic resonance imaging in Korean multiple sclerosis patients
J. Kwak (Seoul, South Korea), J. An, J. Min, K. Shin, M. Park, B. Kim, K. Lee
- P80** Cladribine exerts a modulatory effect on T-cell activation
B. Laugel (Geneva, Switzerland), J. Challier, C. Siegfried, Y. Chvatchko, R. Weissert, L. Galibert
- P81** Could long-term therapy with interferon beta-1b induce pulmonary arterial hypertension? a case report
A. Ledinek (Ljubljana, Slovenia), U. Rot, S. Segar
- P82** Inappropriate use of immunomodulatory therapy in severely disabled patients with progressive multiple sclerosis
R. Lonergan (Dublin, Ireland), K. Doyle, M. Duggan, S. Jordan, M. Hutchinson, N. Tubridy
- P83** Reactivation of BK virus during natalizumab therapy in relapsing-remitting multiple sclerosis
R. Lonergan (Dublin, Ireland), L. Costelloe, J. Fletcher, C. De Gascun, M. Carr, S. Coughlan, A. Waters, M. Duggan, K. Doyle, S. Jordan, W. Hall, M. Hutchinson, N. Tubridy
- P84** Cerebrospinal fluid cell phenotypic analysis from a phase 2 trial of the BHT-3009 DNA vaccine for multiple sclerosis
C. Nadj (Novi Sad, Serbia), I. Nadj, E. Havrdova, E. Krasulova, K. Selmaj, J. Losy, E. Radue, J. Gianettoni, N. Solvason, K. Tersini, F. Valone, P. Utz, W. Robinson, L. Steinman, H. Garren for the BHT-3009 Study Group
- P85** Effects of subcutaneous interferon beta-1a on disease parameters and cognition in patients with early relapsing-remitting multiple sclerosis: longitudinal clinical and cognitive results from the COGIMUS (COGnition Impairment in MULTiple Sclerosis) study
F. Patti (Catania, Italy), M. Pia Amato, M. Tola, M. Trojano, P. Ferrozza, O. Picconi, S. Bastianello for the COGIMUS Study Group
- P86** Betaferon®/Betaseron® in the early relapsing-remitting multiple sclerosis surveillance trial (BEST): data from all patients completing 2 years of treatment
U. Pohlmann (Basel, Switzerland), L. Kappos, C. Meier
- P87** Oral fingolimod (FTY720) reduces the severity of experimental autoimmune encephalomyelitis and protects against disease progression
A. Schubart (Basel, Switzerland), T. Seabrook, M. Rausch, A. Mir
- P88** In vitro immunomodulation by quercetin and interferon- β in multiple sclerosis patients
Z. Sternberg (Buffalo NY, New York, USA), K. Chadha, A. Lieberman, D. Hojnacki, P. Zamboni, A. Drake, E. Grazioli, B. Weinstock-Guttman, F. Munschauer
- P89** Breakthrough disease in pediatric multiple sclerosis patients: a pediatric network experience
E. Yeh (Buffalo, New York, USA), J. Ness, B. Weinstock-Guttman, A. Belman, Y. Patel, L. Krupp

Epidemiology/Genetics—Part 1

- P90** Epidemiological evidence of multiple sclerosis in Ecuador
E. Abad (Quito, Ecuador), M. Pérez, T. Alarcón, E. Castro, F. Díaz, R. Santibáñez
- P91** NARCOMS Latino cohort
E. Abarca (Phoenix, Arizona, USA), P. Davis, R. Marrie, G. Cutter, D. Campagnolo, T. Vollmer for the CMSC/NARCOMS Registry
- P92** Clinical presentation of relapses in multiple sclerosis during pregnancy and postpartum period: an epidemiological overview in Mexican women
V. Alatraste (Mexico City, Mexico), J. Flores, G. Arrambide, A. Gonzalez, T. Corona

- P93** Acute partial transverse myelitis as index events in relapsing neuromyelitis optica: analysis of 60 patients
M. Alvarenga (Rio de Janeiro, Brazil), L. Thuler, R. Papais-Alvarenga
- P94** Association of IL23R functional polymorphisms with multiple sclerosis
M. Cenit, V. De las Heras, R. Alvarez-Lafuente (Madrid, Spain), R. Arroyo, E. De la Concha, M. Fernandez-Arquero, E. Urcelay, A. Martinez
- P95** Profile of asymptomatic contrast sensitivity loss in multiple sclerosis
C. Araujo (Belo Horizonte, Brazil), M. Lana-Peixoto, L. Simao, M. Moreira for BCTRIMS
- P96** Cigarette smoking and sex ratio of multiple sclerosis
A. Ascherio (Boston, Massachusetts, USA), N. Morozova, H. Brønnum-Hansen
- P97** Low-contrast letter acuity scores reflect vision-specific, health-related quality of life in multiple sclerosis
E. Mowry, M. Loguidice, A. Daniels, D. Jacobs, C. Markowitz, S. Galetta, G. Cutter, M. Maguire, L. Balcer (Philadelphia, Pennsylvania, USA)
- P98** Clinical features of acquired demyelination of the central nervous system in Canadian children
B. Banwell (Toronto, Ontario, Canada), J. Kennedy, M. McGowan, S. Magalhaes, D. Sadovnick, D. Arnold, A. Bar-Or for the Canadian Pediatric Demyelinating Network
- P99** Impact of maternity in the progression of disability in multiple sclerosis
M. Mendibe, B. Ibáñez, J. Barcena (Baracaldo, Spain), A. Antigüedad
- P100** TLR4 haplotypes in multiple sclerosis: a case-control study in the Spanish population
F. Blanco-Kelly, F. Bartolome (Madrid, Spain), E. Urcelay, V. De las Heras, R. Arroyo, R. Alvarez-Lafuente, E. De la Concha, A. Martinez
- P101** KIAA0350 polymorphisms: association with multiple sclerosis in the Spanish population
M. Cenit, A. Martinez, E. De la Concha, E. Urcelay, F. Bartolome (Madrid, Spain), V. De las Heras, R. Alvarez-Lafuente, R. Arroyo
- P102** Matrix metalloproteinase-9 and matrix metalloproteinase-2 gene polymorphisms in multiple sclerosis
Y. Benešová (Brno, Czech Republic), A. Vasku, P. Stourac, M. Hladikova, M. Beránek, Z. Kadanka, J. Bednarik
- P103** Neuromyelitis optica in Brazil: a retrospective study of 41 patients
D. Bichuetti (São Paulo, Brazil), D. OLiveira, N. Souza, R. Rivero, E. Oliveira, A. Gabbai
- P104** An extended Flemish pedigree affected by multiple sclerosis: genome-wide linkage analysis and study of clinical features
T. Breban (Leuven, Belgium), A. Goris, B. Van Wijmeersch, M. D'hooghe, B. Dubois for the Laboratory for Neuroimmunology - Leuven
- P105** Infection with specific strains of Epstein-Barr virus are a risk factor for multiple sclerosis
R. Brennan (Brisbane, Australia), J. Burrows, M. Bell, A. Lenarczyk, P. Csurhes, M. Pender, S. Burrows
- P106** Global expression profiling in multiple sclerosis: a disease of the central nervous system, but with relapses triggered in the periphery?
B. Brynedal (Stockholm, Sweden), M. Khademi, E. Wallström, J. Hillert, T. Olsson, K. Duvefelt
- P107** Genetic analysis of caspase 8 polymorphisms in multiple sclerosis
M. Camiña (Barcelona, Spain), E. Julià, M. Tintoré, C. López, X. Montalban, M. Comabella
- P108** Epigenetic marks in the brain of patients with secondary progressive multiple sclerosis
P. Casaccia (New York, New York, USA), F. Mastronardi
- P109** Age modifies multiple sclerosis phenotype at onset
D. Chabas (San Francisco, California, USA), C. McCulloch, J. Strober, D. Ferriero, E. Waubant
- P110** Comparison of the prevalence of sensorineural hearing loss and the impaired speech reception threshold in multiple sclerosis patients and controls
A. Chitsaz (Isfahan, Iran), M. Etemadifar
- P111** Early treatment to prevent conversion of clinically isolated syndrome to clinically defined multiple sclerosis: a Cochrane metanalysis
M. Clerico (Orbassano (TO), Italy), F. Faggiano, G. Rice, J. Palace, M. Tintoré, L. Durelli
- P112** Factors influencing MS outcome in Sardinia: a clinical and genetic study
E. Cocco (Cagliari, Italy), C. Sardu, R. Piras, E. Mamusa, G. Coghe, G. Fenu, J. Frau, L. Lorefice, R. Murru, F. Cucca, M. Marrosu
- P113** Optic neuritis and contrast letter acuity at baseline in CombiRx
S. Cofield (Birmingham, Alabama, USA), T. Jenkins, R. Conwit, G. Cutter, J. Wolinsky, F. Lublin
- P114** Race, ethnicity, country of origin and infections in CombiRx
S. Cofield (Birmingham, Alabama, USA), G. Cutter, R. Conwit, J. Wolinsky, F. Lublin
- P115** Genome-wide association study using high-density single nucleotide polymorphism arrays on pooled genomic DNA from multiple sclerosis patients responders and non-responders to treatment with interferon-beta
M. Comabella (Barcelona, Spain), M. Craig, J. Río, R. Martin, X. Montalban
- P116** Change of demographic data over time in multiple sclerosis. The Lyon Multiple Sclerosis Cohort experience: Part I: sex ratio
M. Debouverie (Vandoeuvre-lès-Nancy, France), S. Vukusic, C. Ritleng, L. Laforest, E. Van Ganse, C. Confavreux
- P117** Change of demographic data over time in multiple sclerosis. The Lyon Multiple Sclerosis Cohort experience: Part II: age of onset
M. Debouverie (Vandoeuvre-lès-Nancy, France), S. Vukusic, C. Ritleng, L. Laforest, E. Van Ganse, C. Confavreux
- P118** Multiple sclerosis: increase over time in the ratio of women to men in patients with an early onset
E. Roger, P. Duquette (Montréal, Québec, Canada)

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- P119** Familial multiple sclerosis in Isfahan, Iran
M. Etemadifar (Isfahan, Iran), A. Maghzi, A. Nemati, S. Sajjadi Jazi, A. Chitsaz
- P120** The risk of multiple sclerosis for the offspring of consanguineous mating
M. Etemadifar (Isfahan, Iran), A. Maghzi, N. Chitsaz, M. Kaji Esfahani
- P121** A study of 718 consecutive Greek patients with multiple sclerosis: demographic characteristics, clinical variables and early predictors of disease severity
M. Evangelopoulos (Athens, Greece), G. Koutsis, G. Karachalios, D. Mandellos, E. Andreadou, G. Papadimas, D. Vassilopoulos, C. Sfagos
- P122** MS register in Germany 2008: symptoms of multiple sclerosis
P. Flachenecker (Bad Wildbad, Germany), K. Stuke, U. Zettl, W. Elias, M. Freidel, J. Haas, D. Pitschnau-Michel, S. Schimrigk, P. Rieckmann
- P123** Quality of life in patients with multiple sclerosis: design and first results of a large cross-sectional study in Germany
P. Flachenecker (Bad Wildbad, Germany), M. Freidel, G. Sommer, H. König, S. Kern
- P124** Multiple sclerosis relapses and meteorological factors in a Portuguese population
C. Cordeiro, A. Fonseca (Lisboa, Portugal), A. Valadas, J. Costa, R. Galdes, J. de Sá
- P125** The French prevalence gradient of multiple sclerosis according to gender
A. Fromont (Dijon, France), J. Adnet, L. Clerc, C. Bonithon Kopp, C. Binquet, T. Moreau
- P126** Antiviral activity of interferon beta treatment in multiple sclerosis patients
M. Garcia-Montojo (Madrid, Spain), R. Alvarez-Lafuente, M. Dominguez-Mozo, V. De las Heras, F. Bartolome, R. Arroyo
- P127** Pregnancy reverts the imbalanced expression of inflammation-related genes: the GEXPRIMS study
F. Gilli (Orbassano, Italy), P. Valentino, M. Capobianco, F. Marnetto, S. Malucchi, A. Bertolotto
- P128** Relapses are more frequent in pediatric-onset than adult-onset multiple sclerosis
M. Gorman (Boston, Massachusetts, USA), B. Healy, M. Polgar-Turcsanyi, T. Chitnis
- P129** Time to regression from trial-defined disease progression in multiple sclerosis is dependent upon baseline Expanded Disability Status Scale
O. Gray (Melbourne, Australia), H. Butzkueven, D. Jolley, M. Hoffmann for the MSBase Investigators
- P130** Withdrawn
- P131** Vestibular evoked myogenic potential in multiple sclerosis patients
M. Harirchian (Tehran, Iran), N. Karimi, S. Nafissi
- P132** Modeling of staying times for multiple sclerosis patients
N. Harner, C. Lederer, L. Fahrmeir, G. Ebers, M. Daumer (Munich, Germany)
- P133** Classical twin studies in multiple sclerosis: time to move on?
C. Hawkes (Romford, United Kingdom), A. MacGregor
- P134** Steps towards validation of a severity-based multiple sclerosis classification system using the Ian McDonald MS Database
M. Güntner, J. Herbert (New York, New York, USA), A. Neuhaus, M. Daumer
- P135** Two polymorphisms of angiotensinogen gene and their association with multiple sclerosis
M. Hladikova (Brno, Czech Republic), P. Stourac, Y. Benešová, A. Vasku
- P136** Risk alleles for multiple sclerosis in a Dutch genetic isolate I. Hoppenbrouwers (Rotterdam, Netherlands), Y. Aulchenko, N. Jafari, G. Ebers, S. Ramagopalan, B. Oostra, C. van Duijn, R. Hintzen
- P137** ApoE ϵ 4 positive multiple sclerosis patients develop more gray matter and whole brain atrophy: a 4-year longitudinal study using the 15-year disease onset model
D. Horakova (Prague, Czech Republic), M. Kyr, E. Havrdova, O. Dolezal, Z. Seidl, M. Vaneckova, L. Pospisilova, M. Dwyer, M. Stosic, J. Cox, N. Bergsland, R. Zivadinov
- P138** Sleep-related disorders in multiple sclerosis
P. Immovilli (Parma, Italy), E. Dalla Bella, L. Parrino, G. Terzano, F. Granella
- P139** The correlation of multiple sclerosis prevalence and distance from a river
N. Jazebi (Isfahan, Iran), M. Saadatnia, M. Davoodi, M. Etemadifar, N. Zaghani, A. Maghzi, N. Nilforooshan
- P140** Sex ratios in multiple sclerosis records are robust epidemiological markers
P. Jensen (Frederiksberg, Denmark), J. Frederiksen
- P141** Environmental factors determine multiple sclerosis risk in migrants to Israel
E. Kahana (Ashkelon, Israel), M. Alter, N. Zilber for the Israeli MS Study Group
- P142** IL7RA polymorphisms and disease severity in multiple sclerosis
O. Kantarci (Rochester, Minnesota, USA), C. O'Doherty, E. Atkinson, K. Vandenbroeck, B. Weinschenker
- P143** Sequencing of IL2RA in multiple sclerosis patients
M. Matiello, B. Weinschenker, J. Schaefer-Klein, O. Kantarci (Rochester, Minnesota, USA)
- P144** Disease course rather than age at onset as the main disability factor in late-onset multiple sclerosis
P. Kerschen (Nancy, France), F. Guillemin, M. Debouverie for LORSEP
- P145** Four familial cases with anti-aquaporin-4 antibody
M. Park, H. Kim (Goyang, South Korea), B. Kim, J. An
- P146** Changes in diagnostic and referral delays in multiple sclerosis could impact incidence and prevalence studies: findings from Western and Eastern Canada
E. Kingwell (Vancouver, British Columbia, Canada), E. Roger, P. Duquette, P. Rieckmann, H. Tremlett
- P147** Prevalence of multiple sclerosis in Lithuania and the influence of immunomodulating treatment on annual hospitalization
R. Kizlaitiene (Vilnius, Lithuania), V. Budrys, G. Kaubrys, I. Runkauskaitė, D. Petrauskienė

P148 A prospective study of the time to conversion to clinically definite multiple sclerosis in 172 Greek patients with clinically isolated syndrome

G. Koutsis (Athens, Greece), M. Evangelopoulos, G. Karachalios, E. Andreadou, D. Mandellos, D. Vassilopoulos, C. Sfagos

P149 Viral triggers of multiple sclerosis attacks

J. Kriesel (Salt Lake City, Utah, USA), W. Sibley, M. McKeough, B. Jones, M. Poritz, P. Murphy, W. Hymas, D. Hillyard

P150 Gender ratio in the National Swedish MS Register

A. Landtblom (Linköping, Sweden), I. Boström, L. Stawiarz, G. Severinson, J. Hillert

P151 2008 update on the French EDMUS databases

R. Marignier (Lyon, France), S. Vukusic, I. Ionescu, M. Debouverie, C. Ritleng, C. Confavreux, G. Edan, M. Clanet, D. Brassat, P. Vermersch, B. Brochet, C. Lubetzki, T. Moreau, C. Lebrun-Frenay, J. De Sèze, P. Clavelou, J. Pelletier, G. Defer, L. Rumbach, W. Camu, O. Heinzlef, A. Creange, L. Magy, J. Camdessanché, S. Wiertlewski for the Observatoire Français de la Sclérose en Plaques

P152 Clinically confirmed varicella and the risk of childhood-onset multiple sclerosis in offspring

Y. Mikaeloff (Le Kremlin-Bicêtre, France), G. Caridade, S. Suissa, M. Tardieu for the KIDSEP study group of French Neuropediatric Society

P153 Multiple sclerosis and subsequent hospitalization with myocardial infarction and stroke: a population-based cohort study

S. Christensen, D. Kormendine Farkas, L. Pedersen, M. Miret (Geneva, Switzerland), H. Toft Sorensen

P154 Physician preferences for the specialty care of multiple sclerosis patients

F. Moore (Montréal, Québec, Canada), J. Uniat, B. Zhu, J. Dupuis, C. Wolfson

P155 Divorce and separation in multiple sclerosis

C. Pflieger (Aalborg, Denmark), N. Koch-Henriksen, H. Brønnum-Hansen

P156 Early retirement in multiple sclerosis

C. Pflieger (Aalborg, Denmark), N. Koch-Henriksen, E. Meulengracht Flachs

P157 A multicenter retrospective study of Thai multiple sclerosis patients

S. Siritho (Bangkok, Thailand), N. Prayoonwiwat

P158 Association of HLA DR2 haplotype DQB1*0602 and DRB1*1501 alleles in Brazilian primary progressive multiple sclerosis

C. Vasconcelos (Rio de Janeiro, Brazil), O. Fernández, L. Fernandez, R. Alvarenga

P159 Change of sex-ratio over time in multiple sclerosis: national and regional data from the French 'Observatoire de la Sclérose en Plaques'

S. Vukusic (Lyon, France), I. Ionescu, M. Debouverie, C. Ritleng, B. Frangoulis, C. Confavreux, G. Edan, M. Clanet, D. Brassat, P. Vermersch, B. Brochet, C. Lubetzki, T. Moreau, C. Lebrun-Frenay, J. De Sèze, P. Clavelou, J. Pelletier, G. Defer, L. Rumbach, W. Camu, O. Heinzlef, A. Creange, L. Magy, J. Camdessanché, S. Wiertlewski for the Observatoire Français de la Sclérose en Plaques

P160 HLA B7/A2, Epstein-Barr Virus antibodies and magnetic resonance imaging in multiple sclerosis: a case for gene-environment interactions

R. Zivadinov (Buffalo, New York, USA), B. Weinstock-Guttman, M. Zorzon, L. Uxa, M. Serafin, A. Bosco, A. Bratina, C. Maggiore, A. Grop, M. Tommasi, B. Srinivasaraghavan, M. Ramanathan

Experimental Disease Models

P161 A potential new therapy to alleviate experimental autoimmune encephalomyelitis symptoms: an animal model of multiple sclerosis

P. Bose (Gainesville, Florida, USA), J. Hou, C. Phadke, Y. Cheng, R. Smith, R. Parmer, P. Hoffman, W. Streit, F. Thompson

P162 Estrogen and progesterone prevent demyelination and affect oligodendrocyte function in the cuprizone model

A. Braun (Aachen, Germany), A. Norkute, S. Johann, S. Komoly, P. Acs, C. Beyer, M. Kipp

P163 Oligodendroglial expression of DCC is required for the organization of paranodal junctions *in vivo*

S. Bull (Montréal, Québec, Canada), M. Almasieh, A. Di Polo, T. Kennedy

P164 A cyclooxygenase 2 inhibitor limits demyelination in a murine model of multiple sclerosis and protects oligodendrocytes from excitotoxic death in culture

N. Carlson (Salt Lake City, Utah, USA), M. Rojas, J. Redd, B. Wood, K. Hill, J. Rose

P165 Longitudinal monitoring of an animal model of opticospinal demyelination by magnetic resonance imaging

N. Collongues (Strasbourg, France), F. Blanc, J. Steibel, B. Guignard, D. Lam, S. Ghandour, J. de Seze

P166 Didox - a pluripotent polyphenol for treating demyelinating disease

C. Campbell, R. Schwartz, D. Feinstein, B. Catania, J. Dupree, H. Sims, H. Elford, G. DeVries (Chicago, Illinois, USA)

P167 Targeted experimental autoimmune encephalomyelitis with persistent demyelination and delayed functional loss

S. Tsai, R. Schwartz, J. Dupree, R. Swanberg, C. Campbell, H. Sims, G. DeVries (Hines, Illinois, USA)

P168 Atacept inhibits disease in multiple forms of experimental autoimmune encephalomyelitis

K. Lewis, P. Sivakumar, S. Okada, K. Bontadelli, M. Maurer, H. Ren, K. Waggie, J. Gross, P. Zaratina, C. Ladel, S. Dillon (Seattle, Washington, USA)

P169 Adaptive angiogenesis in response to normobaric hypoxia is protective in experimental autoimmune encephalomyelitis

P. Dore-Duffy (Detroit, Michigan, USA), M. Wencel, V. Katyshev, X. Wang, K. Cleary, A. Mehedi

P170 Identification of the RNA targets bound by the QUAKING RNA binding proteins

E. Doukhanine (Montréal, Québec, Canada), S. Richard

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- P171** Experimental autoimmune encephalomyelitis induction in mice with cuprizone-induced demyelination leads to cerebral MS-like lesions
A. Escher (Goettingen, Germany), S. Nessler, P. Vollmar, D. Merkler, S. Boretius, W. Bruck, H. Reichardt, F. Luehder, C. Stadelmann
- P172** Transgene expression levels in bone marrow grafts determine its immunogenicity in sublethally myeloablated mice
C. Espejo (Barcelona, Spain), H. Eixarch, A. Gómez, E. Kádár, M. George, A. Martínez, R. Gimeno, X. Montalban, J. Barquinero
- P173** P2x7 deficiency attenuates experimental autoimmune encephalomyelitis
D. Feinstein (Chicago, Illinois, USA), P. Polak, A. Sharp, J. Richardson
- P174** Armed CNS CD8+ T cells promote demyelination through a perforin-independent mechanism
S. Fournier (Montréal, Québec, Canada), J. Estrada, M. N'Diaye, S. Hung, K. Wolak
- P175** The mechanism of experimental autoimmune encephalomyelitis tolerance induced by stress-related chaperone Hsp70 complexed with endogenous peptides depends on H60 and NKG2D interaction
G. Galazka (Lodz, Poland), A. Jurewicz, W. Orlowski, M. Stasiolek, C. Brosnan, C. Raine, K. Selmaj
- P176** Fingolimod reduces axonal loss in relapsing secondary progressive experimental autoimmune encephalomyelitis
S. Jackson, S. Al-Izlik, G. Pryce, G. Giovannoni (London, United Kingdom), D. Baker
- P177** The experimental autoimmune encephalomyelitis model in Lewis rats: can we ignore the concomitant arthritis?
N. Godessart (Sant Feliu Llobregat, Spain)
- P178** Mesenchymal stromal cells derived from bone marrow and Wharton's Jelly as potential sources for cell-based therapies in multiple sclerosis
E. Theunissen, M. Moreels, P. Ponsaerts, I. Lambrichts, P. Stinissen, N. Hellings (Diepenbeek, Belgium)
- P179** Poly(ADP)ribose polymerase inhibitor modifies the activities of various kinase cascades in the cuprizone-induced demyelination model
S. Veto, P. Acs, A. Tapodi, Z. Lendvai, S. Komoly, Z. Illes (Pecs, Hungary), F. Gallyas
- P180** Connexin expression in acute and chronic mouse models of experimental autoimmune encephalomyelitis
S. Karlik (London, Ontario, Canada), D. Carter, W. Roscoe
- P181** Experimental autoimmune encephalomyelitis in interleukin-15 knock out mice
S. Karlik (London, Ontario, Canada), A. Rousseau, W. Roscoe
- P182** Cuprizone treatment induces demyelination in the hippocampus formation
M. Kipp (Aachen, Germany), A. Norkute, A. Hieble, F. Pott, S. Gingele, C. Beyer
- P183** Remyelination is delayed in the gray matter compared with white matter tracts after cuprizone-induced demyelination
M. Kipp (Aachen, Germany), A. Norkute, A. Braun, C. Beyer
- P184** The TGF-beta inhibitor Smad7 controls t cell differentiation and susceptibility to autoimmune encephalomyelitis
I. Kleiter (Regensburg, Germany), J. Song, A. Croxford, D. Lukas, M. Fantini, X. Pedré, M. Hasan, A. Mildner, M. Prinz, C. Becker, A. Steinbrecher, A. Waisman
- P185** p57kip2 is dynamically regulated in experimental autoimmune encephalomyelitis and functions as a negative regulator of postmitotic oligodendroglial differentiation
D. Kremer, A. Heinen, J. Jadasz, K. Zimmermann, S. Jander, H. Hartung, P. Kuery (Duesseldorf, Germany)
- P186** β 1 integrin promotes survival of oligodendrocyte progenitor cells
K. Lee (Ottawa, Ontario, Canada), R. Kothary
- P187** The dominancy of encephalitogenic peptide correlates to its ability to induce potent regulatory T cells
Y. Lin (Kodaira, Japan), S. Miyake, T. Yamamura
- P188** IL-6 trans-signaling modulates the early effector phase of experimental autoimmune encephalomyelitis and targets the blood-brain barrier
R. Linker (Bochum, Germany), F. Lühder, K. Kallen, D. Lee, B. Engelhardt, S. Rose-John, R. Gold
- P189** Hydroxytyrosol improves clinical and neuropathological signs of both relapsing-remitting and chronic non-remitting experimental autoimmune encephalomyelitis
M. Mansilla (Barcelona, Spain), C. Costa, M. Castillo, A. Geerlings, J. Xaus, J. Boza, M. Comabella, X. Montalban, C. Espejo
- P190** Low-dose naltrexone [LDN] prevents development or delays onset and reduces severity of experimental autoimmune encephalomyelitis in mice
K. Rahn, P. McLaughlin (Hershey, Pennsylvania, USA), R. Bonneau, A. Turel, G. Thomas, I. Zagon
- P191** A role for integrin-linked kinase in oligodendrocyte mediated myelination of the central nervous system
J. Michalski (Ottawa, Ontario, Canada), K. Lee, R. O'Meara, R. Kothary
- P192** Depletion of commensal microflora of the gut alters global immune homeostasis and influences the development of experimental autoimmune encephalomyelitis in mice
J. Ochoa-Repáraz (Hanover, New Hampshire, USA), L. Ditrio, D. Mielcarz, L. Kasper
- P193** Oral teriflunomide in patients with relapsing MS: baseline clinical features of patients in the TEMSO phase III trial
P. O'Connor (Toronto, Ontario, Canada), C. Confavreux, G. Comi, L. Kappos, J. Wolinsky, T. Olsson, A. Miller, M. Freedman for the TEMSO Investigator Study Group
- P194** The linked role Of TLR-4 And HO-1 in the experimental autoimmune encephalomyelitis model
D. Oliveira (São Paulo, Brazil), M. Cenedeze, M. Juliano, L. Juliano, A. Gabbai, A. Pacheco-Silva, E. Oliveira, N. Câmara
- P195** Identification of novel integrin-linked kinase interacting proteins in CG4 oligodendrocytes during proliferation and differentiation
R. O'Meara (Ottawa, Ontario, Canada), K. Lee, J. Michalski, R. Kothary

- P196** Proportional changes of T-independent B cell subsets during acute-recovery phases of experimental autoimmune encephalomyelitis
C. Lee Chang, D. LeFranc, C. Faveeuw, P. Vermersch, L. Prin, B. Oxombre - Vanteghem (Lille, France)
- P197** High resolution 1H nuclear magnetic resonance spectroscopic-based metabolomic urine analysis of experimental autoimmune encephalitis, a model disease of multiple sclerosis
H. Parkes (London, United Kingdom), S. Shorter, P. So, D. Baker, G. Pryce, G. Giovannoni, K. Schmierer
- P198** Human endogenous retrovirus W envelope induces a preclinical multiple sclerosis model in C57/B16 myelin oligodendrocyte glycoprotein mouse: therapeutic effect of monoclonal antibody
H. Perron (Plan les Quates, Switzerland), K. Sanhadji, I. Popa, H. Dougier-Reynaud, J. Langlois, C. Bernard, A. Lang, M. Janier, P. Marche, J. Portoukalian
- P199** Human endogenous retrovirus W envelope promotes demyelination in C57/B16 MOG mouse model: effect of specific monoclonal antibody
H. Perron (Plan Les Quates, Switzerland), K. Sanhadji, I. Popa, C. Bernard, J. Langlois, H. Dougier-Reynaud, J. Touraine, M. Janier, P. Marche, J. Boucraut, A. Lang, J. Portoukalian
- P200** Progressive central atrophy precedes the onset of disability in a murine model of multiple sclerosis
I. Pirko (Cincinnati, Ohio, USA), Y. Chen, J. McDole, R. Dunn, D. Lindquist, A. Johnson
- P201** Magnetic resonance imaging quantification of lumbar spinal cord inflammation in mouse experimental autoimmune encephalomyelitis in vivo
J. Ribic (Oslo, Norway), K. Fang, T. Kilpatrick, G. Egan, H. Butzkueven
- P202** Exploring the neuro-vascular niche as potential target for treatment in MS
P. Rieckmann (Vancouver, British Columbia, Canada), B. Kallmann, V. Hummel, A. Mueller, S. Wiese for the Multiple Sclerosis Research Program at UBC Vancouver, Canada
- P203** Axon stress and disruption of the axo-glial complex prior to the onset of disease in experimental allergic encephalomyelitis
J. Rundle (London, United Kingdom), A. Garg, R. Reynolds, O. Howell
- P204** Effects of the anti VLA-4 small molecule inhibitor BI05192 on clinical course and pathology in chronic experimental allergic encephalomyelitis
J. Rundle (London, United Kingdom), D. Papadopoulos, R. Patel, J. Richardson, R. Reynolds
- P205** Monitoring of experimental autoimmune encephalomyelitis pathways during pharmacological modulation
G. Saborio (Geneva, Switzerland), S. Carboni, M. Lamarine, C. Salvat, S. Nock, H. Peixoto, M. Curchod, C. Vignaud, F. Zanoquera, J. Wojcik, H. Abderrahim, P. Vitte
- P206** APOE 4 polymorphism results in early cognitive deficits in the experimental autoimmune encephalomyelitis mouse
J. Shi (Scottsdale, Arizona, USA), J. Tu, T. Vollmer, C. Zhao, S. Kuniyoshi
- P207** Prophylactic and therapeutic suppression of experimental autoimmune encephalomyelitis by a novel bifunctional peptide inhibitor
T. Siahaan (Lawrence, Kansas, USA)
- P208** Rapid induction of VEGF by CD8 T cells precedes central nervous system vascular permeability
G. Suidan (Cincinnati, Ohio, USA), J. Dickerson, K. Seroogy, I. Pirko, A. Johnson
- P209** Neutrophil elastase inhibitor, sivelestat sodium hydrate reduces severity of experimental autoimmune encephalomyelitis
Y. Tomizawa (Bunkyo-ku, Japan), K. Yokoyama
- P210** Fish diet prevents impaired mobility in the murine cuprizone model for multiple sclerosis
O. Torkildsen (Bergen, Norway), L. Brunborg, A. Milde, K. Myhr, L. Bø
- P211** Cuprizone feeding in mice is a model for cortical demyelination
T. Skripuletz, C. Trebst (Hannover, Germany), V. Gudi, A. Kotsiari, N. Garde, D. Moharreggh-Khiabani, M. Stangel
- P212** Treatment with a component of red wine, resveratrol, in a virus-induced murine model for multiple sclerosis
I. Tsunoda (Salt Lake City, Utah, USA), N. Carlson, M. Rojas, F. Hasanovic, J. Rose
- P213** Identification of the interacting proteins with the QUAKING RNA binding protein
Y. Wang (Montréal, Québec, Canada), S. Richard for the Terry Fox Molecular Oncology Group and Bloomfield Center for Research on Aging
- P214** Antigen presentation by dendritic cells is sufficient for full induction of active experimental autoimmune encephalomyelitis with peptide but not protein
G. Wu (Philadelphia, Pennsylvania, USA), T. Laufer
- P215** Repair of myelin by glatiramer acetate following toxin-mediated demyelination in mice
V. Skihar, C. Silva, V. Yong (Calgary, Alberta, Canada)
- P216** The complete blockade of opioid receptors with naltrexone exacerbates experimental autoimmune encephalomyelitis in a mouse model
I. Zagon (Hershey, Pennsylvania, USA), K. Rahn, R. Bonneau, A. Turel, G. Thomas, P. McLaughlin
- P217** Hippocampal neurodegeneration in experimental autoimmune encephalomyelitis
M. Ziehn (Los Angeles, California, USA), S. Tiwari-Woodruff, R. Voskuhl

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Imaging—Part 1

- P218** Magnetic resonance spectroscopy in neuromyelitis optica
F. Aboul-Enein (Vienna, Austria), M. Krssak, J. Jecel, D. Prayer, W. Kristoferitsch
- P219** Tactile-associated recruitment of cervical cord is more altered in multiple sclerosis patients with more severe disability
M. Absinta (Milan, Italy), P. Valsasina, F. Agosta, D. Caputo, M. Filippi
- P220** Diffusion tensor imaging in the evaluation of fine structure of giant white matter lesions
A. Achiron (Tel-Aviv, Israel), S. Miron, S. Tal, M. Stern, A. Achiron
- P221** Acute hemorrhagic leukoencephalitis with benign evolution: computed tomography and magnetic resonance imaging features
T. Adoni (São Paulo, Brazil), L. Portela, E. Mutarelli, E. Evaristo, P. da Gama, D. Callegaro for BCTRIMS
- P222** Functional magnetic resonance imaging correlates of neuropsychological impairment in primary progressive multiple sclerosis
F. Agosta (Milan, Italy), M. Rocca, A. Ceccarelli, M. Falautano, M. Rodegher, G. Comi, M. Filippi
- P223** Conventional magnetic resonance and diffusion tensor imaging in recurrent neuromyelitis optica: analysis of 30 patients
M. Alvarenga (Rio de Janeiro, Brazil), G. Santos, L. Brandão, R. Papais-Alvarenga
- P224** Reduced cerebellar grey matter volume is associated with cerebellar dysfunction in multiple sclerosis
V. Anderson (London, United Kingdom), L. Fisniku, D. Altmann, D. Chard, A. Thompson, D. Miller
- P225** Texture analysis of brain magnetic resonance imaging differs in pediatric clinically isolated syndrome patients at low risk and high risk for developing multiple sclerosis
S. Antel (Montréal, Québec, Canada), A. Bar-Or, D. Sadovnick, B. Banwell, D. Arnold for the Canadian Pediatric Demyelinating Disease Study Group
- P226** Gray matter atrophy is present in patients with clinical isolated syndrome suggestive of multiple sclerosis
B. Audoin (Marseille, France), I. Malikova, A. Rico, F. Reuter, P. Cozzone, J. Pelletier, J. Ranjeva
- P227** Deep gray matter atrophy is associated with T2 hypointensity in secondary progressive multiple sclerosis
D. Goldberg-Zimring, M. Neema, J. Sharma, Z. Jaisani, B. Singh, R. Bakshi (Boston, Massachusetts, USA)
- P228** Association of regional gray matter volume loss and progressive white matter lesions in multiple sclerosis
K. Bendfeldt (Basel, Switzerland), P. Kuster, S. Traud, H. Egger, S. Winkhofer, N. Mueller-Lenke, Y. Naegelin, A. Gass, L. Kappos, P. Matthews, T. Nichols, E. Radue, S. Borgwardt
- P229** Basal ganglionic and thalamic volume change in relapsing-remitting multiple sclerosis
N. Denier, K. Bendfeldt (Basel, Switzerland), S. Borgwardt, P. Kuster, S. Traud, N. Mueller-Lenke, Y. Naegelin, A. Gass, L. Kappos, E. Radue
- P230** A diffusion tensor, magnetic resonance imaging study of cervical cord damage in benign and secondary progressive multiple sclerosis patients
B. Benedetti (Milan, Italy), M. Rovaris, M. Rocca, A. Pulizzi, D. Caputo, M. Zaffaroni, R. Capra, A. Bertolotto, V. Martinelli, G. Comi, M. Filippi
- P231** Neuro-axonal brain viability does not differ between benign and early relapsing-remitting multiple sclerosis patients
B. Benedetti (Milan, Italy), M. Rovaris, M. Rocca, A. Pulizzi, D. Caputo, M. Zaffaroni, R. Capra, A. Bertolotto, V. Martinelli, A. Falini, G. Comi, M. Filippi
- P232** Diffusion tensor imaging of white matter in children with multiple sclerosis
A. Bethune (Toronto, Ontario, Canada), D. Mabbott, C. Rockel, J. Sled, R. Ghassemi, S. Narayanan, D. Arnold, B. Banwell for the Canadian Pediatric Demyelinating Disease Study Group
- P233** Early corpus callosum damage predicts progression of disability over 3 years in primary progressive multiple sclerosis
B. Bodini (London, United Kingdom), Z. Khaleeli, M. Cercignani, D. Miller, A. Thompson, O. Ciccarelli
- P234** Association between regional gray matter volume loss and Expanded Disability Status Scale score in relapsing-remitting multiple sclerosis: a longitudinal voxel-based morphometry study
P. Loetscher, S. Borgwardt (Basel, Switzerland), K. Bendfeldt, P. Kuster, S. Traud, Y. Naegelin, A. Gass, L. Kappos, E. Radue
- P235** Is voxel-based morphometry an appropriate method to study associations between regional gray matter volume changes and white matter lesions in the time course of multiple sclerosis?
S. Borgwardt (Basel, Switzerland), P. Kuster, S. Traud, Y. Naegelin, A. Gass, L. Kappos, E. Radue, K. Bendfeldt
- P236** Correlation of disease severity and regional brain tissue loss in relapsing-remitting multiple sclerosis: a voxel-based morphometry study in a large population
V. Brescia Morra (Naples, Italy), A. Prinster, R. Lanzillo, M. Quarantelli, G. Vacca, C. Mollica, V. Schiavone, A. Brunetti, E. Salvatore, B. Alfano, G. Orefice
- P237** Clinical and magnetic resonance imaging dissociation in patients with multiple sclerosis is not explained by loss of brain volume or the presence of spinal cord lesions
G. Buckle (Boston, Massachusetts, USA), B. Healy, E. Ali, B. Glanz, R. Bakshi, C. Guttmann, H. Weiner
- P238** Effects of actual and simulated Z-shifts on T2-lesion volumes in patients with multiple sclerosis
Z. Caramanos (Montréal, Québec, Canada), V. Fonov, S. Francis, D. Collins, S. Narayanan, D. Arnold
- P239** Z-shift effects on segmented brain-tissue volumes
Z. Caramanos (Montréal, Québec, Canada), V. Fonov, M. Derakhshan, D. Collins, S. Narayanan, D. Arnold
- P240** High-field structural magnetic resonance imaging correlates of motor network dysfunction in primary progressive multiple sclerosis
A. Ceccarelli (Milan, Italy), M. Rocca, M. Rodegher, G. Comi, M. Filippi

- P241** Structural and functional magnetic resonance imaging abnormalities of the language network in primary progressive multiple sclerosis: a combined functional magnetic resonance imaging and tractography study
A. Ceccarelli (Milan, Italy), M. Rocca, G. Riccitelli, M. Rodegher, G. Comi, M. Filippi
- P242** Differential degree of blood-brain barrier permeability during experimental autoimmune encephalomyelitis measured by gadolinium-enhancement magnetic resonance imaging
L. Chaabane (Colleretto Giacosa, Italy), T. Adage, S. Aime, B. Greco, P. Zaratini
- P243** An investigation of repair mechanisms after spinal cord relapse in multiple sclerosis using magnetic resonance imaging
O. Ciccarelli (London, United Kingdom), D. Altmann, M. McLean, C. Wheeler-Kingshott, K. Wimpey, D. Miller, A. Thompson
- P244** Increase of cost-benefit ratio of magnetic resonance imaging: an adaptive design for identifying high inflammatory multiple sclerosis patients
M. Daumer (München, Germany), A. Neuhaus, M. Güntner, R. Martin
- P245** A genome scan for loci affecting the rate of brain atrophy in multiple sclerosis
P. De Jager (Boston, Massachusetts, USA), C. Guttmann, B. Healy, R. Zivadinov, D. Horakova, H. Weiner, D. Hafler
- P246** Retinal thickness and optic radiation in neuromyelitis optica: an optic coherence tomography and diffusion tensor magnetic resonance-tractography study
J. Jeantroux, S. Kremer, F. Blanc, N. Collongues, M. Fleury, J. Dietemann, J. de Seze (Strasbourg, France)
- P247** Magnetic resonance spectroscopy evaluation in patients with neuromyelitis optica
J. de Seze (Strasbourg, France), F. Blanc, S. Kremer, N. Collongues, M. Fleury, I. Namer
- P248** Feature-space analysis of multi-contrast magnetic resonance imaging intensities in multiple sclerosis lesions
E. Dell'Oglio (Boston, Massachusetts, USA), D. Meier, M. Sampat, C. Guttmann
- P249** Early brain atrophy and lesion load measures relate to clinical status after six years in patients with clinically isolated syndromes
M. Di Filippo (London, United Kingdom), V. Anderson, D. Altmann, J. Swanton, G. Plant, A. Thompson, D. Miller
- P250** 3T predicts better clinical and demographic outcomes in patients with multiple sclerosis than 1.5T. A preliminary case-control study
C. Di Perri (Buffalo, New York, USA), M. Dwyer, J. Cox, K. Hashmi, D. Wack, S. Hussein, M. Stosic, C. Schirda, D. Honajcki, E. Saluste, C. Mihai, B. Weinstock-Guttman, F. Munschauer, R. Bergamaschi, S. Bastianello, R. Zivadinov
- P251** Lesion characteristics at 1.5 and 3 Tesla in multiple sclerosis patients and healthy controls: a morphological and topological quantitative comparison study
C. Di Perri (Buffalo, New York, USA), M. Dwyer, D. Wack, J. Cox, K. Hashmi, E. Saluste, S. Hussein, M. Stosic, C. Schirda, S. Bastianello, R. Zivadinov
- P252** Development of new magnetic resonance imaging lesions in clinically isolated syndrome patients: a single-center study
V. Durastanti (Rome, Italy), E. Tinelli, G. Barletta, L. Prosperini, S. Santucci, I. Pestalozza, C. Pozzilli
- P253** Evidence for cortical reorganisation in cognitive domains in multiple sclerosis: insights from a 'Go/NoGo' Task
C. Enzinger (Graz, Austria), M. Loitfelder, S. Ropele, C. Neuper, K. Petrovic, E. Aspeck, S. Fuchs, F. Fazekas
- P254** Magnetic resonance imaging results of a 3-year randomized trial comparing two therapeutic strategies in aggressive relapsing-remitting multiple sclerosis: mitoxantrone as induction for 6 months followed by interferon-b-1b versus interferon-b-1b
M. Filippi (Milan, Italy), E. Le Page, E. Leray, G. Edan, G. Comi
- P255** Fluctuations in brain parenchymal fraction: a longitudinal study
E. Fisher (Cleveland, Ohio, USA), J. Lee, R. Rudick
- P256** Pathologic correlates of magnetic resonance imaging-detected diffuse tissue damage in multiple sclerosis brains
E. Fisher (Cleveland, Ohio, USA), N. Mall, S. Thomas, A. Rietsch, K. Nakamura, R. Fox, R. Ransohoff
- P257** Changes in brain lesion load over 20 years and subsequent brain atrophy in clinically isolated syndrome patients
L. Fisniku (London, United Kingdom), P. Brex, D. Chard, J. Jackson, D. Altmann, K. Miszkiel, A. Thompson, D. Miller
- P258** White matter lesion characteristics predict types of gray matter abnormality on magnetic resonance imaging in secondary progressive multiple sclerosis
J. Furby (London, United Kingdom), T. Hayton, K. Smith, D. Altmann, R. Brenner, J. Chataway, R. Hughes, D. Miller, R. Kapoor
- P259** Altered functional adaptation of working memory performance in early relapsing-remitting multiple sclerosis
A. Gass (Basel, Switzerland), L. Doessegger, M. Amann, J. Hirsch, K. Weier, L. Kappos, E. Radue, I. Penner
- P260** Automated quality control of brain magnetic resonance images
E. Gedamu (Montréal, Québec, Canada), L. Collins, D. Arnold
- P261** Patterns of regional brain atrophy and growth in children with clinically isolated syndromes at high and low risk of conversion to multiple sclerosis
P. Giacomini (Montréal, Québec, Canada), M. Derakhshan, S. Narayanan, J. Sled, D. Sadovnick, A. Bar-Or, B. Banwell, D. Arnold for the Canadian Pediatric Demyelinating Disease Study Group
- P262** Pediatric patients with clinically isolated syndromes at high risk of conversion to multiple sclerosis exhibit brain atrophy while those at low risk of conversion exhibit brain growth
P. Giacomini (Montréal, Québec, Canada), S. Francis, S. Narayanan, J. Sled, D. Sadovnick, A. Bar-Or, B. Banwell, D. Arnold for the Canadian Pediatric Demyelinating Disease Study Group
- P263** Normal findings on brain fluid attenuated inversion recovery magnetic resonance imaging scans at 3T
Z. Guss (Boston, Massachusetts, USA), J. Stankiewicz, M. Neema, R. Bakshi

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- P264** Visualization and quantification of iron in multiple sclerosis lesions using susceptibility-weighted imaging
E. Haacke (Detroit, Michigan, USA), O. Khan, M. Makki, S. Hreha, M. Selvan, Z. Latif, Y. Ge
- P265** Improved radio frequency coils for 3T magnetic resonance imaging of the optic nerve
J. Hadley (Salt Lake City, Utah, USA), R. Merrill, E. Minalga, D. Parker, J. Rose
- P266** Comparison of sample size requirements for treatment effects using gray matter, white matter and whole brain volume in patients with multiple sclerosis
B. Healy (Boston, Massachusetts, USA), P. Valsasina, M. Filippi, R. Bakshi
- P267** Evaluation of an automatic change detection method in serial scalar images characterizing diffusion properties of multiple sclerosis patients
B. Hervé (Illkirch, France), V. Noblet, S. Nollet, F. Heitz, F. Cattin, L. Rumbach, J. Armspach
- P268** Optical coherence tomography in patients under 21 years with inflammatory demyelinating conditions
G. Hiremath (Baltimore, Maryland, USA), E. Gordon-Lipkin, J. Ratchford, P. Calabresi
- P269** Blood flow parameters in the ophthalmic artery in acute and chronic phase of optic neuritis - ultrasound evaluation
P. Hradilek (Ostrava, Czech Republic), O. Zapletalova, I. Woznicova, D. Skoloudik
- P270** The motor corpus callosum as a marker of structural, functional and behavioral changes in early relapsing-remitting multiple sclerosis patients
A. Hübers (Frankfurt/Main, Germany), M. Wahl, B. Lauterbach-Soon, B. Bliem, U. Ziemann for the Motor Cortex Laboratory
- P271** Ibudilast reduces conversion of new inflammatory lesions to persistent black holes in active relapsing multiple sclerosis
H. Hulst (Amsterdam, Netherlands), R. Gammans, B. Moraal, F. Barkhof for the MN-166-CL-001 Investigators
- P272** Brain iron quantification in primary-progressive multiple sclerosis: a magnetic field correlation study
M. Inglese (New York, New York, USA), R. Stackhouse, J. Jensen, K. Szulc, J. Babb, J. Herbert, R. Grossman
- P273** Brain tissue sodium concentration in multiple sclerosis: a preliminary study
M. Inglese (New York, New York, USA), N. Desingmann, G. Johnson, J. Herbert
- P274** Optic nerve axonal loss using optical coherence tomography in 93 patients with multiple sclerosis and comparison with healthy subjects
L. Jeanjean (Nimes, France), G. Castelnovo, M. Bouyon, P. Bousquet, F. Mura, M. Villain, G. Dupeyron, J. De Seze, P. Labauge
- P275** Magnetic resonance imaging long-term follow-up of patients with neuromyelitis optica
W. Krampfl, F. Aboul-Enein, J. Jecel (Vienna, Austria), W. Kristoferitsch
- P276** Using structural and functional magnetic resonance imaging to explain visual loss at the onset of acute optic neuritis
T. Jenkins (London, United Kingdom), L. Mancini, O. Ciccarelli, A. Toosy, D. Altmann, K. Chappell, G. Plant, D. Miller, A. Thompson
- P277** The utilization of corpus callosum atrophy as a marker for disease progression in multiple sclerosis
N. Kale (Rochester, Minnesota, USA), J. Agaoglu, G. Onder, O. Tanik
- P278** Distribution of multiple sclerosis plaques in the spinal cord
G. Goldin, D. Kantor (Jacksonville, Florida, USA)
- P279** Can magnetization transfer data from different magnetic resonance imaging scanner/sequence/pulse types be standardized? an application of correction factor function method
A. Kelemen (Buffalo, New York, USA), M. Dwyer, S. Hussein, M. Stosic, Y. Liang, R. Zivadinov
- P280** Measurement of gray matter volume is less susceptible to pseudoatrophy effect than that of white matter or whole brain volume in patients with multiple sclerosis. Results from Avonex-Steroids-Azathioprine combination study
A. Kelemen (Buffalo, New York, USA), M. Dwyer, D. Horakova, M. Vaneckova, E. Havrdova, R. Zivadinov
- P281** Gadolinium enhancing lesions decrease over time in early primary progressive multiple sclerosis
Z. Khaleeli (London, United Kingdom), O. Ciccarelli, K. Miszkiel, A. Thompson, D. Altmann, D. Miller
- P282** Spinal cord atrophy in early and established primary progressive multiple sclerosis: a two-year follow-up
Z. Khaleeli (London, United Kingdom), O. Ciccarelli, F. Manfredonia, D. Altmann, D. Miller, A. Thompson
- P283** Magnetization transfer ratio in multiple sclerosis: axonal loss or demyelination?
A. Klistorner (Sydney, Australia), J. Rao, T. Forster-Anderson, H. Arvind, R. Garrick
- P284** Optic Neuritis as a sentinel lesion to study neuroprotection and repair in a trial of autologous mesenchymal stem cells in multiple sclerosis
M. Kolappan (London, United Kingdom), P. Connick, A. Compston, A. Thompson, S. Chandran, D. Miller
- P285** Diffusion tensor imaging detects clinical and structural alterations in optic neuritis
R. Naismith (Saint Louis, Missouri, USA), J. Xu, N. Tutlam, A. Cross, S. Song
- P286** Short term validity of Barkhof and Swanton magnetic resonance imaging criteria for multiple sclerosis in patients with clinically isolated syndromes
F. Perez Miralles (Valencia, Spain), I. Bosca, M. Magraner, A. Pascual, M. Bosca, F. Coret, B. Casanova
- P287** Functional sensorimotor connectivity is preserved in patients with pediatric multiple sclerosis
M. Rocca (Milan, Italy), M. Absinta, A. Ghezzi, L. Moiola, G. Comi, M. Filippi

P288 The corpus callosum is a primary site of anisotropy changes in patients with optic neuritis
S. Schippling (Hamburg, Germany), M. Bester, C. Heesen, B. Holst, J. Fiehler, R. Martin

P289 Infratentorial lesions are a marker for poor prognosis in multiple sclerosis
M. Tintoré (Barcelona, Spain), A. Rovira, A. León, J. Río, D. Gutiérrez, C. Nos, H. Perkal, J. Castelló, A. Horga, M. Comabella, J. Sastre-Garriga, X. Montalban

P290 Pediatric patients have a higher disease burden at time of multiple sclerosis onset compared with adults
É. Waubant (San Francisco, California, USA), D. Chabas, D. Okuda, O. Glenn, É. Mowry, D. Pelletier

Neuroimmunology—Part 1

P291 Parameters of the immune system activation in patients with clinical diagnosis of neuromyelitis optica
M. Pimentel, G. Sant'Ana, F. Malfetano, V. Pereira, T. Santos, S. Alves-Leon (Rio de Janeiro, Brazil)

P292 Serological tests for neuromyelitis optica: specificity of immunoprecipitation assay for AQP4 autoantibody enhanced by eliminating GFP-Reactive IgG
M. Apiwattanakul (Rochester, Minnesota, USA), A. McKeon, J. Fryer, S. Hinson, S. Pittock, V. Lennon

P293 Antiaquaporin-4 antibodies and infectious myelitis
D. Brum, É. Donadi, A. Santos, O. Takayanagui, W. Marques, A. Barreira (Ribeirão Preto, Brazil)

P294 Glatiramer acetate reduces B cell survival factors in the central nervous system of experimental autoimmune encephalomyelitis induced mice
S. Begum-Haque (Lebanon, New Hampshire, USA), A. Sharma, D. Mielcarz, A. Haque, L. Kasper

P295 Glatiramer acetate regulates retinoic acid enzymes and Th17 cells in the central nervous system of experimental autoimmune encephalomyelitis induced mice
S. Begum-Haque (Lebanon, New Hampshire, USA), A. Sharma, I. Fayed, J. Ochoa-Repáraz, K. Pino-Lagos, D. Mielcarz, A. Haque, L. Kasper

P296 The lymphocyte subpopulation in patients with primary progressive multiple sclerosis and secondary progressive multiple sclerosis
É. Belniak (Lublin, Poland), A. Bojarska-Junak, H. Bartosik-Psujek, K. Mitosek-Szewczyk, M. Kulka, Z. Stelmasiak, J. Rolinski

P297 Clonally-expanded plasma cells in neuromyelitis optica cerebrospinal fluid produce IgG against aquaporin-4
J. Bennett (Denver, Colorado, USA), C. Lam, K. Bautista, C. Dupree, M. Glogowska, D. Case, P. Saikali, J. Antel, S. Reddy, B. Hemmer, G. Owens, D. Gilden

P298 Envelope protein from human endogenous retrovirus W serum antigenemia in multiple sclerosis patients and controls: a multicenter and blind-tested study on large series of multiple sclerosis patients and controls
C. Bernard (Plan-les-Ouates, Switzerland), A. Lang, É. Lucarz, H. Perron, I. Stefas

P299 AQP4 polymorphism in neuromyelitis optica
F. Blanc (Strasbourg, France), I. Dorboz, H. Zephir, R. Marignier, G. Castenovo, M. Fleury, É. Eymard-Pierre, S. Vukusic, P. Vermersch, C. Confavreux, P. Labauge, O. Boespflug, J. de Seze

P300 IgM oligoclonal bands predict an earlier second relapse in patients with clinically isolated syndromes
I. Bosca (Valencia, Spain), A. Pascual, F. Coret, J. Alvarez-Cermeño, M. Simó, M. Magraner, V. Belloch, L. Villar, B. Casanova

P301 Screening for aquaporin-4 antibodies in French-Canadian patients with unusual myelitis, optic neuritis, or both
J. Bouchard (Québec City, Québec, Canada), M. Thibault, P. Duquette, F. Grand'Maison, F. Jacques, P. Grammond

P302 Absence of evidence for varicella zoster virus as a disease-relevant antigen in multiple sclerosis
M. Burgoon (Denver, Colorado, USA), R. Cohrs, J. Bennett, S. Anderson, A. Ritchie, S. Cepok, D. Gilden, G. Owens

P303 Probable pathophysiological association between chronic Chlamydia pneumoniae infection and multiple sclerosis (allergic encephalomyelitis)
S. Celebi (Istanbul, Turkey)

P304 Functional role of brain-derived neurotrophic factor in axon protection during autoimmune demyelination
S. Cetin (Göttingen, Germany), R. Linker, D. Lee, N. Kruse, H. Neumann, M. Sendtner, S. Wiese, F. Lühder, R. Gold

P305 Immunomodulatory aspects of 1,25 Dihydroxyvitamin D3 in multiple sclerosis
J. Correale (Buenos Aires, Argentina), M. Gaitán, M. Ysraelit

P306 The role of CD8+ CD25+FoxP3+ regulatory cells in multiple sclerosis
J. Correale (Buenos Aires, Argentina), A. Villa

P307 Promoting differentiation of human fetal oligodendrocyte progenitors
Q. Cui (Montréal, Québec, Canada), G. Almazan, J. Antel

P308 Relevance of the study of oligoclonal bands as a prognostic factor of the conversion of clinically isolated syndrome into clinically definite multiple sclerosis in daily practice
É. Dionet (Clermont Ferrand, France), F. Taithe, M. Lauxerois, A. Fogli, P. Clavelou

P309 Astrocyte-secreted Sonic Hedgehog bears central nervous system anti-inflammatory activity and promotes optimal human blood-brain barrier functioning
A. Dodelet-Devillers (Montréal, Québec, Canada), I. Ifergan, M. Bernard, H. Kebir, R. Cayrol, K. Wosik, F. Charron, A. Prat

P310 Cerebrospinal fluid screening for evidence of Epstein Barr virus presence in multiple sclerosis
N. Donelan (New York, New York, USA), J. Dinzey, J. Lin, É. Brydon, S. Sadiq

P311 Peroxisome proliferator-activated receptor acts as an endogenous brake on the formation of Th1 and Th17 myelin-reactive cells
S. Dunn (Stanford, California, USA), D. Straus, R. Sobel, A. Johnson, R. Bhat, J. Dugas, A. Chawla, L. Steinman

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- P312** Ready for a new saga? Th17 and not Th1 are selectively increased in active multiple sclerosis and undergo apoptosis with interferon β
L. Durelli (Orbassano (TO), Italy), M. Clerico, L. Conti, G. Contessa, D. Boselli, C. Rivoiro, F. Novelli
- P313** Muscle fatigue resistance during experimental autoimmune encephalomyelitis in rats
B. Eijnde (Hasselt, Belgium), T. Broekmans, G. Alders, J. Hendriks, P. Stinissen
- P314** De Seze criteria: application to a series of 14 patients who presented a first acute severe demyelinating event
B. Eric (Nice, France), C. Lebrun-Frenay
- P315** Genetic predisposition of interaction of HLA-DRB with heat shock protein 70-1 gene polymorphism in Iranian multiple sclerosis patients
M. Shahbazi, D. Fathi (Gorgan, Iran), A. Rashidbaghan, D. Roshandel for MCMRC
- P316** A novel assay to measure effector B cell responses in pediatric clinically isolated syndrome/multiple sclerosis
L. Fawaz (Montréal, Québec, Canada), A. Rieger, A. Dicu, D. Gagne, D. Arnold, D. Sadovnick, U. Allen, R. Tellier, B. Banwell, A. Bar-Or for the Canadian Pediatric Demyelinating Network
- P317** Atorvastatin interference with interferon-beta signaling in human immune cells and in multiple sclerosis
X. Feng (Chicago, Illinois, USA), D. Han, A. Reder
- P318** Serum cytokine profile and disease activity in multiple sclerosis and neuromyelitis optica
X. Feng (Chicago, Illinois, USA), A. Javed, A. Reder2
- P319** Strain- and sex-specific relocation of CXCL12 at the blood-brain barrier may contribute to a relapsing-remitting phenotype during experimental autoimmune encephalomyelitis
A. Finger (St Louis, Missouri, USA), A. Cross, E. McCandless, E. Lyng, R. Klein
- P320** The use of CD39 as a marker for functional regulatory T cells in multiple sclerosis
J. Fletcher (Dublin, Ireland), R. Lonergan, L. Costelloe, C. O'Farrelly, N. Tubridy, K. Mills
- P321** Determination of patterns of oligoclonal bands specific to multiple sclerosis stage by digital image processing
M. García-Sánchez (Seville, Spain), E. Gómez-González, G. Izquierdo Ayuso, C. Cámara-Mora
- P322** Auto-reactive antibodies in primary progressive multiple sclerosis patients
N. Garg (Worcester, Massachusetts, USA), K. Kane, P. Riskind
- P323** Regulatory T cells and Th17 cells in healthy individuals and in patients affected by multiple sclerosis
C. Gasperini (Rome, Italy), D. Di Mitri, A. Diamantini, S. Galgani, D. Centonze, G. Bernardi, L. Battistini, G. Borsellino
- P324** Seven cases of relapsing myelitis with no identified cause
R. Gerales (Lisbon, Portugal), L. Gouveia, A. Luisa, M. Leite, P. Waters, A. Vincent, J. de Sá
- P325** Estriol treatment reduces matrix metalloproteinase-9 activity in multiple sclerosis and experimental autoimmune encephalomyelitis
S. Gold (Los Angeles, California, USA), S. Manda, L. Morales, N. Sicotte, R. Voskuhl
- P326** Dendritic cells express increased osteopontin in both experimental autoimmune encephalomyelitis and multiple sclerosis and amplify IL-17 production by CD4+T cells
M. Gopal (Boston, Massachusetts, USA), A. Mittal, H. Weiner
- P327** Withdrawn
- P328** HLA and KIR genotyping in Italian patients with relapsing-remitting multiple sclerosis
C. Fusco, E. Cosentini, G. Nocera, M. Rovaris, M. Valentino, P. Bruno, M. Clerici, M. Lombardi, F. Guerini (Milan, Italy)
- P329** ATP production in CD4+ positive cells as a measure of immune function in multiple sclerosis patients - possible impact of interferon beta on bioenergetics of immune effector cells
A. Haghikia (Bochum, Germany), M. Perrech, S. Höxtermann, D. Paes, S. Goelz, R. Gold, A. Chan
- P330** Role of the p38 mitogen-activated protein kinase (MAPK)/MAPK-activated protein kinase 2 (MAPKAP-K2) signaling cascade in oligodendrocyte differentiation
J. Haines (Montréal, Québec, Canada), G. Fragoso, J. Fang, W. Mushynski, G. Almazan
- P331** Cathepsins and their endogenous inhibitors cystatins in multiple sclerosis
D. Haves Zburuf (Haifa, Israel), T. Paperna, A. Gour-Lavie, I. Mandel, S. Dishon, L. Glass-Marmor, A. Miller
- P332** Phenotype of cerebrospinal fluid T cells induced by glatiramer acetate
T. Holmøy (Oslo, Norway), F. Vartdal, G. Skorstad, D. Price, A. Hestvik
- P333** Oligoclonal bands in multiple sclerosis: differences in repeated cerebrospinal fluid examinations
E. Idiman (Izmir, Turkey), S. Ozakbas, G. Kosehasanogullari, B. Piri
- P334** Inflamed blood-brain barrier promotes recruitment of effector memory CD8⁺ T lymphocytes and partakes in the pathogenicity of multiple sclerosis
I. Ifergan (Montréal, Québec, Canada), H. Kebir, A. Dodelet-Devillers, N. Arbour, A. Prat
- P335** Decreased T-bet expression in circulating T cells from women affected by multiple sclerosis during pregnancy
R. Iorio (Rome, Italy), G. Frisullo, V. Nociti, A. Patanella, A. Bianco, A. Marti, M. Mirabella, P. Tonalì, A. Batocchi
- P336** Intrathecal anti-Epstein Barr virus responses in distinct multiple sclerosis subgroups
N. Jafari (Rotterdam, Netherlands), J. Middeldorp, R. Hintzen
- P337** Antibody to aquaporin-4: serum levels correlate with clinical disease activity
S. Jarius (Oxford, United Kingdom), F. Aboul-Enein, P. Waters, B. Kuenz, A. Hauser, T. Berger, W. Lang, M. Reindl, A. Vincent, W. Kristoferitsch

- P338** Evaluation of biomarkers for the response to interferon- β treatment in multiple sclerosis
P. Jensen (Copenhagen, Denmark), F. Sellebjerg, M. Krakauer, L. Ryder, I. Alsing, D. Hesse, N. Koch-Henriksen, A. Svejgaard, P. Sorensen
- P339** VEGF-A induces blood-brain barrier permeability via downregulation of endothelial CLN-5
A. Argaw, B. Gurfein, Y. Zhang, A. Zameer, G. John (New York, New York, USA)
- P340** Interferon- β treatment of multiple sclerosis patients induces SHP-1 expression and modulates pro-inflammatory gene expression in peripheral blood mononuclear cells in vivo
B. Jubelt (Syracuse, New York, USA), G. Christophi, C. Mihai, L. Mejico, P. Massa
- P341** Suppression of experimental autoimmune encephalomyelitis by selective inhibition of Notch3 receptor in myelin-reactive T cells
M. Jurynczyk (Lodz, Poland), A. Jurewicz, C. Raine, K. Selmaj
- P342** Glatiramer acetate treated B cells suppress experimental autoimmune encephalomyelitis
M. Kala (Phoenix, Arizona, USA), S. Rhodes, W. Piao, D. Campagnolo, F. Shi, T. Vollmer
- P343** Defective regulation of BDNF, NGF and NT3 mRNA production after CD40 stimulation in immune cells of patients with relapsing-remitting multiple sclerosis
N. Urshansky, K. Mausner, A. Karni (Tel Aviv, Israel)
- P344** Immediate broad spectrum immunomodulating effects induced by bone marrow derived stem cells (MSC), in MS patients transplanted with MSC in a phase I/II clinical trial
A. Vaknin-Dembinsky, I. Kassis, C. Karageorgiou, B. Gowda-Kurkalli, J. Rachmilewitz, Y. Libster, T. Ben-Hur, S. Slavin, D. Karussis (Jerusalem, Israel)
- P345** Identification of double negative T cells expressing IL-17 in multiple sclerosis
I. Kawachi (Niigata, Japan), M. Arakawa, K. Yanagawa, M. Nishizawa
- P346** Human T_H17 memory lymphocytes promote blood-brain barrier disruption and infiltration of inflammatory T cells into the central nervous system
H. Kebir (Montréal, Québec, Canada), K. Kreymborg, I. Ifergan, A. Dodelet-Devillers, R. Cayrol, N. Arbour, B. Becher, A. Prat
- P347** B-cell driven humoral immune response in clinically aggressive African-American multiple sclerosis: a rational disease model for B-cell depleting therapy
O. Khan (Detroit, Michigan, USA), J. Perumal, S. Hreha, C. Caon, F. Bao, R. Penmesta, Z. Latif, I. Zak, M. Makki, A. Tselis, S. Millis, B. Cree, J. Oksenberg, S. Hauser
- P348** Increased severity of experimental autoimmune encephalomyelitis in B cell activating factor receptor-deficient mice is associated with elevated B cell activating factor expression
S. Kim (Davis, California, USA), D. Richman, S. Zamvil, M. Agius
- P349** Distinct cerebrospinal fluid cytokine/chemokine profiles in optospinal multiple sclerosis, atopic myelitis and other causes of myelitis
J. Kira (Fukuoka, Japan), M. Tanaka, T. Matsushita, T. Matsuoka, T. Tateishi, M. Minohara
- P350** $\gamma\delta$ T cell-derived IL-1 β alters the pattern of expression of CXCL12 at the blood-brain barrier during central nervous system autoimmunity
E. McCandless, J. Lees, D. Dorsey, J. Russell, R. Klein (St. Louis, Missouri, USA)
- P351** Ablation of peroxisome proliferator-activated receptor gamma in CD4+ T cells results in enhanced central nervous system autoimmunity caused by an increase in antigen specific T helper 17 cells
L. Klotz (Bonn, Germany), I. Dani, W. Kolanus, A. Waisman, T. Klockgether, P. Knolle
- P352** Prohibitin: prohibiting inflammation in glatiramer acetate-treated multiple sclerosis patients?
M. Knop (Munich, Germany), V. Vargal-Leal, H. Faber, S. Lutz, F. Müller-Sarnowski, J. Hornung, C. Turck, F. Weber
- P353** Evidence of specific T-cell priming from the first-in-man single ascending dose study of peptide copolymer PI-2301 for the treatment of multiple sclerosis
J. Kovalchin (Cambridge, Massachusetts, USA), J. Krieger, K. Collins, K. Rafuse, T. Avril, G. Gandon, A. Patat, N. Fauchoux, U. Patel, E. Mascioli, E. Zanelli
- P354** Changes in adhesion molecule expression induced by natalizumab treatment in multiple sclerosis
J. Kraus (Salzburg, Austria), G. Pilz, P. Wipfler, S. Afazel, E. Haschke-Becher, M. Huemer, M. Jakob, M. Ritter, G. Ladurner for the Research Group of Neuroimmunology and Multiple Sclerosis
- P355** Low-dose subcutaneous alemtuzumab effectively reduces key lymphocyte subpopulations in patients with severe relapsing-remitting multiple sclerosis
S. Kuckert (Cologne, Germany), C. Nickenig, V. Limmroth
- P356** Cerebrospinal fluid B cells correlate with early brain inflammation in multiple sclerosis
B. Kuenz (Innsbruck, Austria), A. Lutterotti, R. Ehling, C. Gneiss, M. Haemmerle, M. Schocke, T. Berger, M. Reindl
- P357** IL -7 Receptor Alpha Chain discriminates between a normal regulatory and a hyperproliferative proinflammatory T cell subset in patients with relapsing-remitting multiple sclerosis
D. Laplaud (Nantes, France), L. Michel, L. Berthelot, S. Pettre, S. Wiertelowski, F. Lefrere, S. Brouard, J. Souillou
- P358** Posterior reversible encephalopathy syndrome in neuromyelitis optica spectrum disorders
M. Matiello (Rochester, Minnesota, USA), S. Magana, S. Pittock, V. Lennon, A. McKeon, O. Kantarci, E. Shuster, A. Rabinstein, C. Lucchinetti, B. Weinshenker
- P359** Pregnancy as a natural modulator of innate immunity in MS. Data from the Rotterdam Pregnancy MS Study
R. Neuteboom (Rotterdam, Netherlands), E. Verbraak, J. Voerman, M. Van Meurs, A. Wieringa, E. Steegers, C. De Groot, J. Laman, R. Hintzen

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P360 Aquaporin-4 autoantibodies define autoimmune optic neuritis
A. Petzold (London, United Kingdom), S. Pittock, V. Lennon, C. Maggione, B. Weinschenker, G. Plant

P361 Natural naive regulatory T cell development and function are disturbed in multiple sclerosis patients
K. Venken, N. Hellings, K. Hensen, J. Rummens, P. Stinissen (Diepenbeek, Belgium)

P362 Immunological and clinical status 14 months after cessation of natalizumab therapy
O. Stuve (Dallas, Texas, USA), P. Cravens, K. Treadaway, T. Phillips, G. Remington, G. von Geldern, S. Cepok, M. Singh, J. Cohen Tervaert, M. De Baets, D. MacManus, D. Miller, E. Radue, E. Cameron, N. Monson, R. Kim, B. Hemmer, M. Racke

P363 FOXP3 and cytokine profile in patients with optic neuritis
A. Tsakiri (Glostrup, Denmark), D. Tsiantoulas, S. Ravanidis, J. Frederiksen, N. Grigoriadis

Rehabilitation and Quality of Life

P364 A comparison of two community-based leg strengthening programs for persons with multiple sclerosis
L. Adamson (Thunder Bay, Ontario, Canada), C. Tombs

P365 Comparison of fatigue and quality of life in relapsing-remitting multiple sclerosis, primary progressive multiple sclerosis and neuromyelitis optica: analysis of 100 Brazilian patients
H. Alvarenga-Filho (Rio de Janeiro, Brazil), L. Nogueira, S. Ferreira, R. Papais-Alvarenga, K. Lopes, F. Nobrega

P366 Pulmonary function in relapsing-remitting multiple sclerosis without respiratory complaints
H. Alvarenga-Filho (Rio de Janeiro, Brazil), R. Dias, F. Chacur, S. Carvalho, R. Papais-Alvarenga

P367 Fatigued patients with multiple sclerosis have impaired central motor activation and timed walking compared with non-fatigued patients
A. Andreasen (Aarhus, Denmark), H. Andersen, J. Jakobsen

P368 The effects of high-voltage pulsed galvanic stimulation on fatigue in multiple sclerosis patients
N. Cetisli Korkmaz, K. Armutlu (Ankara, Turkey), I. Keser, N. Kirdi, R. Karabudak

P369 From efficacy to effectiveness: does a nurse-led cognitive behavior therapy intervention work in patients with multiple sclerosis in the real-life clinical setting?
S. Askey-Jones (London, United Kingdom), E. Silber, A. David, T. Chalder, P. Shaw, R. Gray

P370 Expanding the role of exercise in the lives of persons with multiple sclerosis
A. Blumer (Edmonton, Alberta, Canada), G. Wheeler, S. Rattray, K. Johnson

P371 www.msinfowiki.ca: stay connected online
A. Blumer (Edmonton, Alberta, Canada)

P372 Analysis of an intensive neurorehabilitation therapy in MS: a clinical trial
J. Cabrera-Gomez (Havana, Cuba), Y. Real-Gonzalez, R. Diaz-Marquez, A. Echemendia Del Valle, A. Gonzalez-Quevedo, G. Martinez-Aching, M. Lopez-Hernandez, J. Torres Izquierdo, R. Gomez-Perez, N. Torriente-Herrera, Y. Valle-Ramos

P373 Are there relationships between fatigue, subjective sleep quality and depression in MS patients?
R. Montenegro-Rodrigues, L. Calia (São Paulo, Brazil), G. Calia, J. Santos, A. Carlesse

P374 Racial disparities in adherence to disease-modifying agents and quality of life in patients with MS
M. Cergnet (Detroit, Michigan, USA), L. Schultz, E. Dobie, J. Reuther, S. Elias, J. Elston Lafata

P375 Sociological characteristics of MS patients
L. Dezmalj Grbelja (Zagreb, Croatia), R. Covic Negovetic, V. Demarin

P376 DELPHI-QOL: a study of physicians' opinions about the diagnosis, treatment and quality of life management of multiple sclerosis
M. Dhooghe (Melsbroek, Belgium), D. Decoo, D. Dive, E. Bartholomé, A. Vanderperre

P377 Evaluation of a computerized cognitive training program in patients with impaired working memory functions
L. Doessegger (Basel, Switzerland), A. Vogt, M. Stöcklin, P. Calabrese, K. Opwis, L. Kappos, I. Penner

P378 Occurrence of restless legs syndrome in multiple sclerosis
A. Doneva (Bitola, Macedonia), V. Daskalovska

P379 Psychometric validation of daily life scale aimed at evaluating living abilities in multiple sclerosis patients
T. Moreau, O. Heinzlef, P. Clerson, M. Dubois (Lys Lez Lannoy, France)

P380 Working memory in multiple sclerosis: methodological discussion of a cognitive rehabilitation intervention
A. Legrand, N. Ehrlé (Reims, France), A. Tourbah, M. Chaunu, J. Visy, J. Vaunaize, S. Bakchine

P381 Iranian network of multidisciplinary clinics for multiple sclerosis, a view of existing experiences and future horizons
H. Ekhtari (Tehran, Iran), H. Sikaroodi, M. Sahraian, M. Oghabian, J. Lotfi, M. Noroozian, H. Soltanian Zadeh, H. Safaei, A. Mokri, S. Zarei, N. Khalili Mahani

P382 Walking and Expanded Disability Status Scale: are self-estimated walking distances accurate?
K. Armutlu, K. Balci, A. Fil (Ankara, Turkey), R. Karabudak

P383 Sensory re-education reduces sensory deficits in multiple sclerosis patients
S. Gelav (Ramat-Gann, Israel), M. Greenberg-Abrahami, A. Achiron

P384 The use of acupuncture in multiple sclerosis patients with pain: a retrospective review
M. Giacomo (Sao Paulo, Brazil), L. Russo

P385 Effects of a high-intensity resistance training program on strength, mobility and fatigue in moderately severe individuals with multiple sclerosis
H. Hayes (Salt Lake City, Utah, USA), E. Gappmaier, L. Dibble, P. LaStayo for the Skeletal Muscle Exercise Research Facility

- P386 Safety and feasibility of a high-intensity resistance training program for individuals with multiple sclerosis**
H. Hayes (Salt Lake City, Utah, USA), E. Gappmaier, L. Dibble, P. LaStayo for the Skeletal Muscle Exercise Research Facility
- P387 Motivational interviewing intervention to preserve employment in multiple sclerosis: promoting self-efficacy in the workplace**
K. Johnson (Seattle, Washington, USA), A. Bamer, R. Fraser
- P388 Development of International Classification of Functioning, Disability, and Health Core Sets for multiple sclerosis**
J. Kesselring (Valens, Switzerland), M. Coenen, L. Holper, S. Kus, A. Weise, A. Leib, G. Stucki, A. Cieza
- P389 Fatigue and depression in pediatric multiple sclerosis and monophasic variants**
I. Ketelslegers (Rotterdam, Netherlands), R. Neuteboom, M. Boon, C. Catsman-Berrevoets, R. Hintzen
- P390 Withdrawn**
- P391 Effects of pregnancy on the disease course in Iranian multiple sclerosis patients**
J. Lotfi, M. Sahraian, S. Khorramnia (Tehran, Iran), M. Mohammad Ebrahim
- P392 Health-related quality of life in 1269 patients with multiple sclerosis: dissociation between physical and psychological wellbeing**
C. Knorr (Mannheim, Germany), P. Flachenecker, H. Geiger, H. Meissner, S. Schwarz
- P393 Effect of a single dose of intrathecal baclofen on spasticity, muscle strength and walking speed in multiple sclerosis**
P. Koch (Cleveland, Ohio, USA), F. Bethoux, D. Stough
- P394 Health care needs of patients with multiple sclerosis in the first year after diagnosis**
J. Eggers, T. Deister, D. Pöhlau, U. Hofstadt-van Oy, J. von Schrader, H. Wilhelmi, K. Mattes, S. Fischbeck, J. Koehler (Hamburg, Germany)
- P395 Assessment protocol for music therapy in patients with optic neuritis**
C. Loureiro (Belo Horizonte, Brazil), M. Lana-Peixoto, L. Simao, C. Araujo, L. Talim, G. Teixeira for the CIEM MINAS UFMG Center for Investigation of Multiple Sclerosis
- P396 Early effects of music therapy on the visual quality of life in optic neuritis**
C. Loureiro (Belo Horizonte, Brazil), M. Lana-Peixoto, L. Simao, C. Araujo, L. Talim, G. Teixeira for the CIEM MINAS UFMG Center for Investigation of Multiple Sclerosis
- P397 Self-reported fatigue and quality of life in pediatric multiple sclerosis**
W. MacAllister (New York, New York, USA), T. Preston, R. Troxell, C. Christodoulou, M. Milazzo, Y. Patel, A. Belman, L. Krupp
- P398 Does an innovative automated recruitment process generate an unbiased study sample from a pool of eligible patients?**
D. Miller (Cleveland, Ohio, USA), R. Fox, A. Atreya, S. Moore, A. Jain, A. Fu, J. Lee, W. Sapue, S. Chakraborty, R. Rudick
- P399 The Neuro-QoL project: implications for multiple sclerosis research**
D. Miller (Cleveland, Ohio, USA), D. Victorson, C. Nowinski, A. Peterman, D. Cella
- P400 Oral fingolimod (FTY720) in relapsing multiple sclerosis: impact on health-related quality of life in a phase II study**
X. Montalban (Barcelona, Spain), G. Comi, J. Antel, P. O'Connor, S. Gold, A. de Vera, G. Rapatz, B. Eckert, L. Kappos
- P401 Familiarity of family physicians with relapse evaluation and treatment in patients with multiple sclerosis**
S. Morrow (London, Ontario, Canada), M. Kremenichutsky
- P402 Health-related quality of life is reduced in children with multiple sclerosis**
E. Mowry (San Francisco, California, USA), L. Julian, D. Chabas, S. Im-Wang, J. Strober, P. Katz, E. Waubant
- P403 Single treatment with inflatable pressure splint improves short distance gait velocity in patients with multiple sclerosis**
D. Nitzani (Tel-Hashomer, Israel), R. Tzemah, S. Liraz Zaltsman, A. Kalron, A. Achiron
- P404 Socioeconomic impact of multiple sclerosis in the Mississippi Delta**
A. Pande (Jackson, Mississippi, USA)
- P405 Experience of an out-patient multidisciplinary approach in disabled multiple sclerosis patients**
C. Papeix (Paris, France), P. Charles, A. Kopf, K. Youssov, L. Mailhan, R. Assouad, B. Stankoff, O. Lyon-Caen, C. Lubetzki
- P406 Quality of life in multiple sclerosis: the role of social support**
M. Pattini (Fidenza, Italy), I. Pesci, L. Manneschi, A. Guareschi, F. Cenci, E. Montanari
- P407 Transcultural adaptation and validation of the Six Spot Step Test in a Brazilian population**
K. Pavan (Sao Paulo, Brazil), C. Tilbery for the Comite de Etica em Pesquisa Santa Casa
- P408 Association between the number of years with the diagnosis of multiple sclerosis and perception of autonomy and participation in persons with the disease**
L. Pedro (Lisbon, Portugal), J. Pais Ribeiro
- P409 Visuo-proprioceptive rehabilitation improve postural control in patients with multiple sclerosis**
L. Prosperini (Rome, Italy), P. De Carli, M. Mannocchi, D. Riva, F. Rocca, G. Cavaniglia, C. Pozzilli
- P410 Quality of life in 1000 patients with relapsing-remitting multiple sclerosis and the impact of treatment initiation with intramuscular interferon beta-1a**
N. Putzki (Essen, Germany), H. Hartung for the Study Group Mensch im Mittelpunkt
- P411 Changes of clinical functions after neurorehabilitation and aerobic training correlate with changes of the brain activity pattern as a reaction to complex motor stimulation in multiple sclerosis**
K. Rasova (Prague, Czech Republic), J. Tintera, D. Zimova, A. Herbenova, H. Kalistova, L. Sobotkova, P. Brandejsky, R. Jech, M. Rasova, J. Zeman, P. Zemanova, O. Smitkova, I. Ibrahim, P. Martinkova, D. Dolezil, D. Jandova

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- P412** Patient perspectives on quality in mental health care for people with multiple sclerosis
D. Rintell (Brookline, Massachusetts, USA), D. Frankel
- P413** Employment discrimination experiences of adults with multiple sclerosis
R. Roessler (Fayetteville, Arkansas, USA), P. Rumrill
- P414** A prospective study on clinical outcome of inpatient versus outpatient rehabilitation in subjects with multiple sclerosis
B. Ciccone, F. Martinelli Boneschi, E. Judica, P. Rossi (Milano, Italy), P. Vivo, M. Comola, G. Griso, C. Crisci, G. Comi
- P415** The relationship between baseline clinical measures and quality of life in patients with relapsing multiple sclerosis: analyses from the phase 3 trial of intramuscular interferon beta-1a
R. Rudick (Cleveland, Ohio, USA), D. Miller, B. Weinstock-Guttman, D. Bourdette, P. Foulds, X. You
- P416** Hippotherapy for multiple sclerosis - pilot study assessing effects on balance, spasticity, ability to walk and quality of life
A. Sager (Cologne (Köln), Germany), M. Drache, B. Schaar, D. Pöhlau
- P417** Efficacy of a computer-based cognitive training program on the cognitive performance of patients with multiple sclerosis
E. Shatil (Yokneam Ilit, Israel), O. Horowitz, A. Metzger, A. Miller
- P418** Development and evaluation of a self-management cognitive program for multiple sclerosis
E. Shevil (Tel Aviv, Israel)
- P419** Quality of visual life outcomes in Brazilian multiple sclerosis patients
L. Simao (Belo Horizonte, Brazil), M. Lana-Peixoto, C. Araujo, M. Moreira
- P420** Gait and balance improved in patients with multiple sclerosis after inpatient physiotherapy
T. Smedal (Bergen, Norway), K. Myhr, B. Gjelsvik, A. Beiske, S. Glad, A. Skår, K. Huser, J. Aarseth, L. Strand
- P421** Factors associated with change in quality of life, disease level and functional status since natalizumab initiation
J. Stephenson (Wilmington, Delaware, USA), K. Rajagopalan, S. Kamat
- P422** Longitudinal individualized analysis of computer-based cognitive rehabilitation in multiple sclerosis
R. Chaliman, F. Perez, G. Suarez (Houston, Texas, USA), V. Rivera, G. Hutton
- P423** WHO/MSIF Atlas of MS: multiple sclerosis resources across the world
A. Thompson (London, United Kingdom), P. Rompani, T. Dua, I. Douglas, M. Battaglia, B. Porter
- P424** Quality adjusted life years: quantifying the impact of disease progression on the quality of life of persons with multiple sclerosis
K. Turpin (Edmonton, Alberta, Canada), S. Warren, G. Wheeler, K. Warren
- P425** Is fatigue a predictor of the efficacy of rehabilitation in multiple sclerosis patients?
D. Ungaro (Milano, Italy), E. Judica, L. Merlino, F. Martinelli Boneschi, P. Rossi, M. Comola, G. Comi
- P426** Quality and needs assessment for collaborative palliative care in the progressive multiple sclerosis population
K. Waspe (Burnaby, British Columbia, Canada), R. Reebye, G. Vorobeychik
- P427** The functional index for living with multiple sclerosis: development and preliminary results
J. Wesson (Berkeley, California, USA), J. Cooper, J. Barber, S. Lockhart, K. Draney, J. Dalio, A. Linton
- P428** Women's health and pregnancy in patients with multiple sclerosis
A. Wundes (Seattle, Washington, USA), A. Bamer, R. Salem, V. Warner, D. Amtmann
- P429** First results from a randomized-controlled trial of a group-based intervention intended to promote knowledge and self-management strategies in patients with multiple sclerosis
S. Kern, W. Schrempf, T. Schultheiss, H. Schneider, H. Reichmann, T. Ziemssen (Dresden, Germany)

Symptom Management

- P430** Gait apraxia in multiple sclerosis
N. Abou Zeid (Rochester, Minnesota, USA), B. Weinshenker, M. Keegan
- P431** Menstrual cycle and menopause in patients with multiple sclerosis. How do these affect the symptoms of disease?
M. Avila (Houston, Texas, USA), G. Suarez, D. Brandt, J. Ramirez, G. Hutton, V. Rivera
- P432** Anxiety in multiple sclerosis: prevalence and associated factors in a large community sample
A. Bamer (Seattle, Washington, USA), D. Amtmann, D. Ehde, K. Johnson
- P433** Use of antidepressants for treatment of depression, pain, fatigue, and sleep in multiple sclerosis
A. Bamer (Seattle, Washington, USA), V. Warner, K. Johnson
- P434** Clinical and radiological findings in patients with multiple sclerosis and pain
L. Grau (Barcelona, Spain), S. Sierra, E. Martínez-Cáceres, C. Ramo-Tello
- P435** Urodynamic profile and urinary symptoms in a multiple sclerosis population
S. Galgani, G. Bolla, S. Haggiag (Rome, Italy), C. Gasperini
- P436** Use of a self-reported questionnaire to describe the impact of multiple sclerosis on patients' disability and daily functioning
S. Hum (Montréal, Québec, Canada), C. Renoux, Y. Lapierre
- P437** Investigation of retinal nerve fiber layer in multiple sclerosis with optical coherence tomography
I. Aydin Canturk, O. Arici Duz, T. Aydin, N. Isik (Istanbul, Turkey), N. Yildiz, F. Candan, S. Ari Yaylali, A. Ardagil Akçakaya, H. Acar, H. Erbil

- P438** Myelopathy associated with Sjögren's syndrome: comparison with neuromyelitis optica and longitudinally extensive transverse myelitis
S. Kim (Sung-Nam, South Korea), S. Kim, S. Oh, K. Park, S. Park
- P439** Bone mineral density, motor function, and vitamin D status in fully ambulatory persons with relapsing-remitting multiple sclerosis - population based cross-sectional data
S. Mellgren (Tromsø, Norway), L. Steffensen, M. Kampman
- P440** A randomized placebo-controlled double-blind study reconsidering modafinil for treatment of fatigue in multiple sclerosis
F. Moeller (Hamburg, Germany), J. Poettgen, F. Broemel, A. Bach, C. Restemeyer, A. Moench, C. Heesen
- P441** Symptom cluster as a predictor of physical activity in multiple sclerosis: preliminary evidence
R. Motl (Urbana, Illinois, USA), E. McAuley
- P442** Complementary and alternative therapy use in multiple sclerosis: counting the cost
S. Murphy (Dublin, Ireland)
- P443** Efficacy results of a study of THC:CBD in central neuropathic pain due to multiple sclerosis
S. Ratcliffe (Blackpool, United Kingdom), L. Metz, Z. Ambler
- P444** Relationship between fatigue, sleep and symptoms of multiple sclerosis
E. Reilly (Egham, United Kingdom), D. Langdon, E. Silber
- P445** Can head and neck cooling improve symptoms of multiple sclerosis?
L. Reynolds (Cleveland, Ohio, USA), S. Cheung, C. Short, D. Westwood
- P446** Premature ovarian failure prevention during mitoxantrone treatment in women with multiple sclerosis
C. Rivoiro (Orbassano, Italy), M. Clerico, G. Contessa, A. Cucci, P. Barbero, A. Tavella, F. Bruno, L. Durelli
- P447** Influence of 5-year glatiramer acetate therapy on prevalence of lower urinary tract dysfunction in relapsing-remitting multiple sclerosis
P. Shvarts (Moscow, Russian Federation), I. Zavalishin
- P448** Clinical characteristics of multiple sclerosis associated with uveitis
E. Thouvenot (Montpellier, France), M. De verdal, C. Schneider, F. Mura, B. Carlander, M. Charif, G. Taieb, C. Geny, W. Camu
- P449** Sleep abnormalities in multiple sclerosis patients
D. Trojan (Montréal, Québec, Canada), D. Da Costa, A. Bar-Or, A. Benedetti, Y. Lapierre, D. Arnold, A. Robinson, A. Venturini, M. Kaminska, K. Schwartzman, R. Kimoff
- P450** Service provision and symptom management for multiple sclerosis patients in a British supraregional multiple sclerosis service
C. Young (Liverpool, United Kingdom), A. Nandhra, M. Calabresi

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Disease Modifying Therapy—Part 2

- P451** An open-label multi-center safety and efficacy study of oral recombinant ovine interferon tau (IFN τ) administered daily in relapsing-remitting multiple sclerosis
G. Buckle (Brookline, Massachusetts, USA), D. Bourdette, E. Waubant, N. Kachuck, B. Healy, R. Bakshi, C. Guttmann, H. Weiner
- P452** MxA and MMP-9/TIMP-1 ratio as biomarkers of treatment efficacy and disease activity in multiple sclerosis patients
M. Garcia-Montojo (Madrid, Spain), R. Alvarez-Lafuente, M. Dominguez-Mozo, V. De las Heras, F. Bartolome, R. Arroyo
- P453** Cladribine tablets in relapsing-remitting multiple sclerosis: study design of the 2-year, Phase IIIb CLARITY (CLAdRibine tablets Treating multiple sclerosis orally) extension study
P. Rieckmann, G. Giovannoni (London, United Kingdom), S. Cook, S. Greenberg, P. Chang, G. Comi, P. Soelberg Sorensen, P. Vermersch for the CLARITY Study Group
- P454** Glatiramer acetate reduces multiple sclerosis severity: analysis of patients from the US pivotal study using the Multiple Sclerosis Severity Score
J. Herbert (New York, New York, USA) for the US Pivotal Glatiramer Acetate Atudy Group
- P455** Interferon- β upregulates brain-derived neurotrophic factor secretion from peripheral blood mononuclear cells of relapsing-remitting multiple sclerosis patients through a CD40-dependent mechanism
D. Azoulay, K. Mausner, N. Urshansky, A. Karni (Tel Aviv, Israel)
- P456** Absolute metabolite concentrations in cerebral white matter of multiple sclerosis patients with beta interferon treatment
A. Landtblom (Linköping, Sweden), J. Jaworski, O. Leinhard Dahlqvist, M. Gustafsson, P. Lundberg
- P457** Safety, tolerance and efficacy of Pravastatine in MS-STEP in multiple sclerosis: a randomized double-blind placebo controlled pilot study
D. Laplaud (Nantes, France), F. Lefrere, E. Auffray-Calvier, J. Nguyen, G. Edan, E. Le Page, P. Damier, S. Wiertlewski
- P458** Lupus-like syndrome induced by interferon beta-1b treatment- a case report
B. Lubenova (Olomouc, Czech Republic)
- P459** The effect of BG00012 on conversion of gadolinium-enhancing lesions to T1-hypointense lesions
D. MacManus (London, United Kingdom), D. Miller, L. Kappos, R. Gold, E. Havrdova, V. Limmroth, C. Polman, K. Schmierer, T. Yousry, M. Eraksoy, E. Meluzinova, I. Rektor, M. Yang, K. Dawson
- P460** A profile of multiple sclerosis patients treated for at least five years with the same disease-modifying agent at the Syracuse MS Clinic
S. Manda (Syracuse, New York, USA), B. Jubelt, C. Mihai for the Syracuse Multiple Sclerosis Clinic
- P461** Oligoclonal band pattern during interferon beta therapy of patients with multiple sclerosis
J. Mares (Olomouc, Czech Republic), R. Herzig, V. Sladkova, K. Urbanek, V. Bekarek, J. Sklenarova, J. Zapletalova, D. Dolezil, P. Kanovsky
- P462** Skin lesions in multiple sclerosis patients on immunomodulatory treatment
M. Martinez Gines (Madrid, Spain), M. Campos, P. de la Cueva, A. Esquivel, M. Martin Barriga, C. de Andres
- P463** A retrospective analysis in patients with relapsing-remitting multiple sclerosis
M. Mäurer (Erlangen, Germany), M. Lang, W. Elias, S. Ries, S. Reifschneider, W. Käßlerlein, S. Windhagen, C. Wernsdörfer, G. Niemczyk, P. Schicklmaier, S. Schwab for the TYPIC Study Group
- P464** Spasticity in multiple sclerosis: a pilot study to evaluate the efficacy of glatiramer acetate
J. Meca-Lallana (Murcia, Spain)
- P465** Assessing cost-effectiveness determinants between 2 monoclonal antibodies and interferon beta for relapsing multiple sclerosis
L. Mehta (Rochester, New York, USA), S. Schwid
- P466** Recurrent granuloma annulare occurring during treatment with daclizumab
L. Mehta (Rochester, New York, USA), J. Rose
- P467** Treatment of multiple sclerosis with natalizumab and interferon-beta-1a subcutaneous: a healthcare utilization study
C. Fincher, B. Nordstrom, K. Fraeman, J. Collins, R. Bennett, A. Al-Sabbagh, D. Meletiche (Rockland, Massachusetts, USA)
- P468** Mycophenolate mofetil in multiple sclerosis: a retrospective study
L. Michel (Nantes, France), S. Wiertlewski, D. Laplaud
- P469** Effectiveness of beta interferon on the first attack after confirmed multiple sclerosis in childhood: a comparative cohort study
Y. Mikaeloff (Le Kremlin-Bicêtre, France), G. Caridade, M. Tardieu, S. Suissa for the KIDSEP Study Group of the French Neuropediatric Society
- P470** Multiple sclerosis and risk of venous thromboembolism: a 30-year population-based cohort study
S. Christensen, D. Kormendine Farkas, L. Pedersen, M. Miret (Geneva, Switzerland), H. Toft Sorensen
- P471** Seven years of mitoxantrone therapy follow-up in an Italian multiple sclerosis centre: evaluation of clinical, magnetic resonance imaging aspects, side effects and impact on disability
E. Montanari (Fidenza- Parma, Italy), L. Manneschi, A. Guareschi, P. Pattoneri, I. Pesci
- P472** CoMPaRe - comparing MUsiQoL and MSQoL-54 in multiple sclerosis patients on long-term Rebif[®] therapy
F. Moore (Montréal, Québec, Canada), L. Lee, M. Myles, B. Vickrey, A. Feinstein, R. Verjee, P. Moriarty
- P473** Efficacy of mycophenolate mofetil in the treatment of multiple sclerosis: a retrospective analysis
S. Pawate, H. Moses (Nashville, Tennessee, USA)
- P474** Natalizumab significantly increases the cumulative probability of sustained improvement in physical disability
F. Munschauer (Buffalo, New York, USA), G. Giovannoni, F. Lublin, P. O'Connor, J. Phillips, C. Polman, A. Pace, R. Kim, M. Panzara

- P475** Cinnovex vs. Avonex: a double-blind, randomized, non-inferiority trial, preliminary results
S. Nafissi (Tehran, Iran), A. Azimi, K. Majidzadeh, F. Mahboudi
- P476** Rituximab as add-on therapy for breakthrough disease: clinical effects over 24 weeks
R. Naismith (Saint Louis, Missouri, USA), K. Trinkaus, M. Fairbairn, J. Lauber, L. Piccio, A. Cross
- P477** A Comparison of fatigue and cognition in relapsing-remitting multiple sclerosis patients receiving interferon medication
C. Gramlich, M. Melanson, M. Doupe, D. Ruhlen, L. Wong, K. Bergen, M. Klowak, M. Namaka (Winnipeg, Manitoba, Canada)
- P478** Fatigue in relapsing-remitting multiple sclerosis - assessment of clinical, neuropsychological and immunological parameters in patients treated with glatiramer acetate
D. Neuhaus (Sigmaringen, Germany), T. Dehmel, B. Kieseier, H. Hartung
- P479** Daclizumab exhibits efficacy in multiple sclerosis subjects positive for interferon-beta neutralizing antibodies
L. Neyer (Redwood City, California, USA), R. Singer, H. Wang, I. Caras
- P480** New non-myeloablative conditioning regimen for multiple sclerosis patients undergoing autologous hematopoietic stem cell transplantation
A. Novik (Moscow, Russian Federation), A. Kuznetsov, V. Melnichenko, D. Fedorenko, T. Ionova, R. Kruglina, A. Kartashov, G. Gorodokin
- P481** Immunoabsorption plasma pheresis for the treatment of neuromyelitis optica spectrum disorder
T. Ohashi (Shinjuku, Japan), K. Ota, Y. Shimizu, K. Ohara, C. Takeuchi, S. Kubo, S. Uchiyama
- P482** Central nervous system vasculitis in a subject with multiple sclerosis on daclizumab monotherapy
J. Ohayon (Bethesda, Maryland, USA), U. Oh, N. Richert, H. McFarland
- P483** Demographic and clinic characteristics of patients treated with Tysabri in the real situation of prescription compared with AFFIRM study
J. Ongagna (Strasbourg, France), J. De seze
- P484** Therapeutic efficacy of natalizumab (Tysabri) in multiple sclerosis patients with high disease activity: a Danish nationwide study
A. Oturai (Copenhagen, Denmark), T. Petersen, N. Koch-Henriksen, P. Jensen, F. Sellebjerg, P. Sorensen
- P485** Atorvastatin combined with interferon beta 1a in relapsing-remitting multiple sclerosis: preliminary results of a 24 month randomized open-label clinical trial
N. Oztekin (Ankara, Turkey), F. Oztekin, O. Munis
- P486** The effects of interferons and copaxone on MMP-9/TIMP-1 ratio and TIMP-2 levels and on new enhancing lesions on magnetic resonance imaging in patients with relapsing-remitting multiple sclerosis
N. Oztekin (Ankara, Turkey), F. Oztekin, G. Orhan, F. Ak
- P487** The UK long-term cost-effectiveness study of disease-modifying therapies in multiple sclerosis: lessons from the first analysis
J. Palace (Oxford, United Kingdom), M. Boggild, T. Bregenzer, N. Russel
- P488** Natalizumab utilization and safety in patients with relapsing multiple sclerosis: updated results from TOUCH™ and TYGRIS
M. Panzara (Cambridge, Massachusetts, USA), F. Baldinetti, G. Belcher, C. Bozic, R. Hyde, R. Kim, F. Lynn, M. Kooijmans-Coutinho
- P489** Epigallocatechin-gallate in relapsing-remitting multiple sclerosis (SunIMS study)
F. Paul (Berlin, Germany), O. Aktas, J. Dörr, C. Infante-Duarte, C. Pfüller, M. Bock, J. Würfel, F. Zipp
- P490** Intense immunosuppression as the initial disease-modifying therapy in clinically active relapsing multiple sclerosis
J. Perumal (Detroit, Michigan, USA), S. Hreha, C. Caon, F. Bao, R. Penmesta, A. Tselis, I. Zak, O. Khan
- P491** Evaluation of the myocardial performance index for early detection of anthracycline-induced cardiotoxicity in patients with multiple sclerosis: a three-year follow-up
I. Pesci (Fidenza- Parma, Italy), L. Manneschi, A. Guareschi, P. Pattoneri, E. Montanari
- P492** Medical and indirect costs of employees with multiple sclerosis: effect of multiple sclerosis therapies
H. Birnbaum, J. Ivanova, S. Samuels, M. Davis, A. Phillips (Rockland, Massachusetts, USA), R. Bennett, A. AL-Sabbagh, D. Meletiche
- P493** Design of a four-arm, randomized, placebo-controlled phase II study of 36 weeks of atacept monotherapy in relapsing multiple sclerosis
T. Plitz (Geneva, Switzerland), M. Freedman, H. Hartung, A. Boiko, F. Dahlke, L. Kappos for the ATAMS Study Group
- P494** Safety and effectiveness of natalizumab re-dosing and treatment in the STRATA study
C. Polman (Amsterdam, Netherlands), A. Goodman, L. Kappos, F. Lublin, P. O'Connor, R. Rudick, S. Jurgensen, N. Lucas, A. Abdul-Ahad, M. Panzara
- P495** Monitoring of natalizumab therapy with cerebrospinal fluid activation markers
C. Poopatana (New York, New York, USA), S. Chowdhury, K. Barrett, J. Dinzey, S. Sadiq
- P496** Interferon beta therapy and pregnancy outcomes in patients with multiple sclerosis
E. Portaccio (Florence, Italy), A. Ghezzi, A. Rizzo, V. Zipoli, B. Hakiki, F. Pellegrini, L. De Giglio, C. Pozzilli, A. Fuiani, M. Trojano, L. Musu, M. Marrosu, T. Cavallaro, F. Patti, C. Milanese, L. La Mantia, E. Capello, G. Mancardi, A. Protti, M. Tola, V. Di Tommaso, A. Lugaesi, V. Martinelli, G. Comi, M. Amato for the MS Study Group of the Italian Neurological Society
- P497** Post-marketing reports of acute leukemia in mitoxantrone-treated multiple sclerosis patients
K. Rammohan (Columbus, Ohio, USA), M. Kita, D. Lynn, D. Dawson, R. Bennett, A. AL-Sabbagh

POSTER SESSION 2

- P498** Glatiramer acetate following mitoxantrone induction in relapsing-remitting multiple sclerosis: extended experience
J. RAMTAHAL (Liverpool, United Kingdom), M. Boggild
- P499** Clinical and magnetic resonance imaging measures in the assessment of the response to interferon beta
J. Río (Barcelona, Spain), A. Rovira, E. Huerga, L. Nonell, M. Comabella, J. Sastre-Garriga, J. Castelló, A. Horga, M. Tintoré, X. Montalban
- P500** RENEW study update XVIII: ongoing evaluation of the safety and tolerability of mitoxantrone in worsening multiple sclerosis
V. Rivera (Houston, Texas, USA), A. AL-Sabbagh, R. Bennett, P. Coyle, S. Elias, D. Mikol, H. Panitch, L. Rolak, W. Sheremata, B. Weinstock-Guttman, E. Fox for the RENEW Study Group
- P501** Treatment with glatiramer acetate reduces T1 and T2-weighted magnetic resonance imaging activity in patients with clinically isolated syndrome suggestive of MS
M. Rocca (Milan, Italy), G. Comi, A. Carra, F. Fazekas, P. Rieckmann, O. Bajenaru, J. Hillert, I. Elovaara, C. Young, D. Wynn, J. King, C. Lubetzki, H. Hartung, K. Myhr, X. Montalban, S. Komoly, M. Filippi for the PreCISe Study Group
- P502** Withdrawn
- P503** Treatment with disease-modifying drugs does not alter disability in relapsing-remitting multiple sclerosis
L. Rolak (Marshfield, Wisconsin, USA), K. Bejaoui, C. Matti, D. Foss
- P504** Predictors of long-term disability in relapsing multiple sclerosis: 8- and 15-year analyses from the phase 3 clinical trial of intramuscular interferon beta-1a
R. Rudick (Cleveland, Ohio, USA), J. Lee, R. Bermel, B. Weinstock-Guttman, D. Bourdette, H. Zhang, X. You, R. Hyde
- P505** JC and BK virus in natalizumab-treated patients
K. Barrett, L. Puccio, E. Brydon, S. Sadiq (New York, New York, USA)
- P506** Ten-year experience of bone marrow transplantation for multiple sclerosis
J. Sánchez-Manso (Valencia, Spain), I. Bosca, A. Pascual, M. Magraner, F. Coret, F. Perez-Miralles, J de la Rubia, B Casanova
- P507** Oral fingolimod (FTY720), 0.5 or 1.25 mg, for 14 days has no effect on cardiac function
R. Schmouder (East Hanover, New Jersey, USA), C. Liu, O. David, N. Wang
- P508** Design of an exploratory two-arm, randomized, placebo-controlled Phase II study of 36 weeks of atacept treatment in patients with optic neuritis as clinically isolated syndrome
R. Sergott (Philadelphia, Pennsylvania, USA), J. Bennett, X. Montalban, P. Rieckmann, F. Dahlke, T. Plitz for the ATON Study Group
- P509** Clinical and magnetic resonance imaging analysis of dietary intervention in early relapsing-remitting multiple sclerosis
P. Shah (Glasgow, United Kingdom), L. Gold, J. O'Riordan
- P510** Effects of glucosamine sulfate on multiple sclerosis progression: a randomized, placebo-controlled trial
V. Shaygannejad (Isfahan, Iran), F. Ashtari, M. Janghorbani
- P511** High-dose immunosuppressive therapy with autologous hematopoietic stem cell transplantation for multiple sclerosis treatment: results of prospective phase II multi-center study
Y. Shevchenko (Moscow, Russian Federation), A. Novik, A. Kuznetsov, B. Afanasyev, I. Lisukov, O. Rykavich, A. Myasnikov, T. Ionova, V. Melnichenko, D. Fedorenko, A. Zdorov, A. Kishtovich, R. Kruglina, A. Kartashov, R. Ivanov, G. Gorodokin
- P512** Discontinuation of interferon beta therapy in multiple sclerosis leads to prompt return to previous disease activity
M. Siger (Lodz, Poland), A. Durko, A. Nicpan, K. Maria, K. Selmaj
- P513** REFORMS: the Rebif new formulation versus Betaseron tolerability study
B. Singer (St. Louis, Missouri, USA), C. Sheppard, S. Glyman, J. Huddleston, R. Schapiro, M. Zarif, D. Jeffery, T. Miller, R. Bennett, A. AL-Sabbagh for the REFORMS Study Group
- P514** The efficacy of cladribine in patients with relapsing-remitting multiple sclerosis but without the need for ambulatory assistance: magnetic resonance imaging data from a phase II trial
J. Sipe (La Jolla, California, USA), J. Gardner, E. Beutler
- P515** Oral fingolimod (FTY720) pharmacokinetics and pharmacodynamics are similar between Caucasian and Asian subjects
A. Slade (East Hanover, New Jersey, USA), R. Schmouder, J. Kovarik, Y. Sugita
- P516** Natalizumab utilization and safety in the TYGRIS program in the European Union
M. Stangel (Hannover, Germany), P. Soelberg Soerensen, T. Petersen, P. Vermersch, J. De Seze, C. Confavreux
- P517** Intracerebral hemorrhage during treatment with natalizumab in a patient with multiple sclerosis and tumefactive demyelinating lesions
O. Stich (Freiburg, Germany), D. Janowitz, S. Rauer
- P518** Induction of IL-27 in dendritic cells treated with IFN β
C. Sweeney (Dublin 2, Ireland), R. Lonergan, N. Tubridy, J. Fletcher, K. Mills
- P519** Interferon β 1b treatment in neuromyelitis optica
M. Tanaka (Kyoto, Japan), M. Komori, K. Tanaka
- P520** Three-year favorable outcome of relapsing Devic disease after 6-monthly infusions of mitoxantrone
R. Tanasescu (Bucharest, Romania), M. Ticmeanu, I. Cojocar, D. Luca, A. Nicolau, C. Baicus, M. Debouverie
- P521** Exposure-response relationship of daclizumab added to interferon-beta for treatment of multiple sclerosis during a phase 2 study
M. Tang (Redwood City, California, USA), C. Wang, J. Sheridan, L. Neyer, A. Fong
- P522** Immunoablation with high-dose cyclophosphamide for refractory multiple sclerosis
S. Tilwalli (Chicago, Illinois, USA), R. Balabanov, D. Stefoski, G. Katsamakis, M. Ko, J. Shammo, S. Gregory

- P523** A multivariate analysis of factors that influence adherence with disease-modifying therapy in multiple sclerosis
K. Treadaway (Dallas, Texas, USA), G. Cutter, S. Lynch, J. Corboy, J. Simsarian, D. Jeffery, B. Cohen, K. Mankowski, J. Guarnaccia, L. Schaeffer, D. Brandes, C. Kaufman, D. Duncan, E. Marder, A. Allen, J. Harney, J. Cooper, D. Woo, M. Racke, O. Stuve, R. Kanter, E. Frohman
- P524** Safety and tolerability of oseltamivir in patients with multiple sclerosis: a pilot study
A. Tselis (Detroit, Michigan, USA), V. Harrison, M. McKenzie, O. Khan
- P525** Marked amelioration of experimental autoimmune encephalomyelitis in mice by a PEGylated murine recombinant interferon- β with improved pharmacokinetic properties
H. Tsuchiyama (Kamakura, Japan), Y. Torii, K. Mori, K. Yamashita, Y. Miyauchi, M. Uchida, A. Izawa, J. Tanabe, H. Mochizuki, K. Okano, T. Taniguchi, H. Narumi, T. Suzuki
- P526** Lack of interferon beta bioactivity is associated with the occurrence of relapses in multiple sclerosis
L. van der Voort (Amsterdam, Netherlands), A. Visser, C. Oudejans, D. Knol, C. Polman, J. Killestein
- P527** Neutralising antibodies against IFN β persist long after cessation of therapy
L. van der Voort (Amsterdam, Netherlands), F. Gilli, A. Bertolotto, D. Knol, C. Polman, J. Killestein
- P528** Early treatment of multiple sclerosis with alemtuzumab significantly improves patient functioning and self-reported quality of life compared with subcutaneous interferon beta 1a
A. Vladic (Zagreb, Croatia) for the CAMMS223 Study Group
- P529** TYSEDMUS: National cohort of multiple sclerosis patients treated with natalizumab using the French EDMUS (European Database for Multiple Sclerosis) network
S. Vukusic (Lyon-Bron, France), N. Passante, L. Zanetti, C. Ritleng, L. Laforest, E. Van Ganse, F. Rocher, M. Clanet, A. Castot, C. Confavreux for the TYSEDMUS Study Group
- P530** A phase II study of neuroprotective agent riluzole in early relapsing-remitting multiple sclerosis
E. Waubant (San Francisco, California, USA), L. Julian, D. Okuda, A. Green, D. Chabas, E. Kornyejeva, D. Bissonnette, E. Mowry, D. Pelletier
- P531** Natalizumab use in a large multiple sclerosis center: ascertaining the therapeutic benefit and the causes for treatment discontinuation
N. Batra, M. Ramanathan, D. Hojnacki, C. Miller, M. Umhauer, M. Stosic, K. Hashmi, R. Zivadinov, F. Munschauer, B. Weinstock-Guttman (Buffalo, New York, USA)
- P532** Volumetric analysis of change in FLAIR burden of disease over 2 years in patients with early forms of multiple sclerosis randomized to interferon β -1b or glatiramer acetate in the BECOME study
L. Wolansky (Newark, New Jersey, USA), J. Cheriyan, D. Cadavid, S. Kim, A. Merkulov, S. Cook
- P533** ATX-MS1467, a therapeutic peptide vaccine for treatment of multiple sclerosis
H. Streeter, S. Pillai, N. Scolding, D. Wraith (Bristol, United Kingdom)
- P534** Varicella zoster meningitis in a multiple sclerosis patient after twenty doses of natalizumab
S. Wray (Knoxville, Tennessee, USA)
- P535** Osteonecrosis in patients with multiple sclerosis
D. Gokce, N. Isik, N. Yildiz (Istanbul, Turkey), I. Aydin Canturk, M. Cakmak, F. Candan, O. Duz, T. Aydin
- P536** Interferon therapy in Japanese multiple sclerosis and AQP4-antibody-associated neuromyelitis optica syndrome
K. Yokoyama (Tokyo, Japan), Y. Tomizawa, N. Hattori
- P537** Glatiramer acetate-specific T lymphocytes regulate oligodendrocyte progenitor cell numbers in vitro
Y. Zhang (New York, New York, USA), G. Cosentino, L. Hayardeny, J. Antel, A. Bar-Or, G. John

Epidemiology/Genetics—Part 2

- P538** The role of aquaporin-4 antibodies in longitudinally extensive transverse myelitis in Brazil
S. Apóstolos-Pereira (São Paulo, Brazil), D. Callegaro, P. Marchiori, L. Machado, F. Kok for BCTRIMS
- P539** Withdrawn
- P540** EDSS Natural History Atlas: multiple sclerosis disability progression in Nova Scotia 1979 - 2004
M. Brown (Halifax, Nova Scotia, Canada), P. Andreou, S. Kirby, J. Murray for the Dalhousie MS Research Group
- P541** Towards a web-based analysis tool with access to important observational studies
M. Daumer (München, Germany), A. Neuhaus, M. Güntner, S. Otten, N. Harner, S. Seemueller, C. Lederer, G. Egan, H. Tremlett, G. Ebers for the EBDiMS Study Group
- P542** The clinical features of serum anti-aquaporin 4 antibody-positive patients
S. Kubo (Tokyo, Japan), T. Ohashi, Y. Shimizu, T. Takahashi, K. Ota, S. Uchiyama
- P543** Ambulation-related disability in Devic's neuromyelitis optica
M. Lana-Peixoto (Belo Horizonte, Brazil), D. Callegaro, M. Moreira, A. Lino, P. da Gama, R. Morales, T. Rozenthal for BCTRIMS
- P544** Comorbid autoimmune and allergic conditions in multiple sclerosis: a comprehensive population-based case-control study
A. Langer-Gould (Stanford, California, USA), K. Albers, S. Van Den Eeden, L. Nelson
- P545** Prevalence of vitamin D-, herpesvirus family- and hormonally-related diseases in multiple sclerosis: a comprehensive population-based case-control study
A. Langer-Gould (Stanford, California, USA), K. Albers, L. Nelson, S. Van Den Eeden

POSTER SESSION 2

- P546** Analysis of relapse frequency and severity in relation to single and multiple pregnancies among women with multiple sclerosis
C. Larochelle (Montréal, Québec, Canada), N. Mayo, P. Duquette
- P547** The intake of selected foods in multiple sclerosis: a possible interaction with late childhood infections
K. Lauer (Griesheim, Germany), M. Geilenkeuser, A. Wahl, W. Firnhaber, D. Claus
- P548** The mortality rate of multiple sclerosis 1975-1995 in the State of Lower Saxony, northern Germany
É. Darmstädter, W. Firnhaber, K. Lauer (Griesheim, Germany)
- P549** Human leukocyte antigen class I risks in multiple sclerosis: A rather than C
J. Link (Stockholm, Sweden), A. Lorentzen, I. Kockum, K. Duvefelt, I. Mero, E. Celius, H. Harbo, J. Hillert, B. Brynedal
- P550** Protection against multiple sclerosis conferred by carriage of the inhibitory killer immunoglobulin-like receptors (KIRs) ligand HLA-Bw4
A. Lorentzen (Oslo, Norway), T. Karlsen, M. Olsson, I. Mero, B. Woldseth, J. Sun, D. Senitzer, E. Celius, E. Thorsby, A. Spurkland, B. Lie, H. Harbo
- P551** Association between actinic damage, a biomarker of lifetime sun exposure, and first clinical diagnosis of central nervous system demyelination: the Ausimmune Study
R. Lucas (Canberra, Australia), A. Ponsonby, C. Chapman, A. Coulthard, K. Dear, T. Dwyer, T. Kilpatrick, A. McMichael, M. Pender, B. Taylor, P. Valery, I. van der Mei, D. Williams
- P552** Latitudinal variation in incidence of first demyelinating events: descriptive analyses of case participants in the Ausimmune Study
R. Lucas (Canberra, Australia), B. Taylor, A. Ponsonby, C. Chapman, A. Coulthard, K. Dear, T. Dwyer, T. Kilpatrick, A. McMichael, M. Pender, P. Valery, I. van der Mei, D. Williams
- P553** Vitamin D status in children with multiple sclerosis
N. Makhani (Toronto, Ontario, Canada), S. Magalhaes, C. Fairbrother, B. Banwell
- P554** Prevalence of JCV viral sequences in cerebrospinal fluid cells of multiple sclerosis patients
R. Mancuso (Milan, Italy), A. Hernis, F. Guerini, M. Saresella, D. Caputo, M. Clerici
- P555** Smokers with multiple sclerosis are more likely to report comorbid autoimmune diseases
R. Marrie (Winnipeg, Manitoba, Canada), G. Cutter, T. Tyry, D. Campagnolo, T. Vollmer
- P556** Changing referral patterns in a tertiary multiple sclerosis clinic
J. Marriott (Toronto, Ontario, Canada), P. O'Connor
- P557** Multiple sclerosis and pregnancy: relationship with progression of disability
S. Maserà (Turin, Italy), L. Prosperini, N. Petsas, A. Mattioda, M. Vercellino, P. Cavalla, C. Pozzilli
- P558** Familial neuromyelitis optica
M. Matiello (Rochester, Minnesota, USA), D. Brum, A. Barreira, D. Kingsbury, B. Weinshenker
- P559** Osteoporosis in veterans with multiple sclerosis
T. McDowell (Baltimore, Maryland, USA), W. Culpepper, C. Bever, D. Bradham
- P560** Sex differences related to marital status in patients with multiple sclerosis
C. Mihai (Buffalo, New York, USA), B. Teter, B. Weinstock-Guttman, B. Apatoff, P. Coyle, N. Batra, A. Drake, S. Gauthier, A. Goodman, M. Gottesman, J. Herbert, R. Holub, B. Jubelt, I. Kister, L. Krupp, M. Lenihan, F. Lublin, A. Miller, N. Nealon, A. Perel, S. Schwid, D. Snyder, M. Tullman, R. Zivadinov, F. Munschauer
- P561** A comparison of the characteristics of elderly multiple sclerosis patients to younger patients at a tertiary multiple sclerosis center
A. Miller (New York, New York, USA), D. Schick, C. Farrell, S. Zhovtis, C. Hannigan, K. Pandey, H. Sadowsky, F. Lublin
- P562** The presentation and long-term prognosis of a first demyelinating event, optic neuritis, evaluated by neuro-ophthalmologists
S. Morrow (London, Ontario, Canada), M. Kremenchutzky, D. Nicolle, A. Proulx
- P563** Age, race, and initial demyelinating events with fewer affected functional systems predict an increased hazard of early relapse in multiple sclerosis
É. Mowry (San Francisco, California, USA), M. Pesic, S. Deen, B. Grimes, P. Bacchetti, E. Waubant
- P564** Does acute disseminated encephalomyelitis without encephalopathy exist?
R. Neuteboom (Rotterdam, Netherlands), M. Boon, C. Catsman-Berrevoets, J. Vles, R. Gooskens, H. Stroink, J. Vermeulen, J. Rotterveel, I. Ketelslegers, E. Peeters, B. Poll The, J. De Rijk-Van Andel, A. Verrips, R. Hintzen
- P565** The clinical features, prognosis and magnetic resonance imaging of Japanese patients with anti-AQP4 antibody seropositivity
T. Nishiyama (Yokohama, Japan), Y. Higashiyama, H. Kishida, A. Tomita, T. Takahashi, Y. Kuroiwa
- P566** OAS genotype predicts responsiveness to beta-interferon therapy
M. O'Brien (Dublin, Ireland), R. Lonergan, L. Costelloe, J. Fletcher, C. O'Farrelly, K. O'Rourke, M. Hutchinson, N. Tubridy
- P567** Ten years outcome of the South Atlantic project on multiple sclerosis in Rio de Janeiro (Brazil)
R. Papais-Alvarenga (Rio de Janeiro, Brazil), S. Camargo, E. Batista, C. Vasconcelos, M. Alvarenga, H. Alvarenga, C. Miranda-Santos for the Grupo de neuroimunologia da Academia Brasileira de Neurologia (1994-1998)
- P568** The influence of the pregnant-puerperal cycle in the natural history of recurrent neuromyelitis optica
R. Papais-Alvarenga (Rio de Janeiro, Brazil), M. Alvarenga, M. Vasconcelos, M. Ritto
- P569** HLA-DRB1 allelic frequencies in multiple sclerosis patients in Argentina
L. Patrucco (Buenos Aires, Argentina), M. Redal, E. Cristiano, J. Larriba, P. Argibay

- P570** Incidence and prevalence of multiple sclerosis in Corsica: a 3-year study
J. Pelletier (Marseille, France), I. Malikova, B. Audoin, A. Rico, C. Lebrun Frenay, J. Arrighi, K. Barrau, P. Auquier for the EGMS Corsica Study Group
- P571** Comparison of optic-spinal multiple sclerosis with conventional multiple sclerosis: clinical and laboratory features
S. Ozakbas, T. Poyraz (Izmir, Turkey), O. Sagut, D. Kaya, E. Idiman
- P572** Acceptability and cross-cultural feasibility of a self-administered questionnaire on past exposure to putative environmental risk factors for multiple sclerosis
M. Pugliatti (Bergen, Norway), I. Casetta, P. Cossu, R. De Gennaro, J. Drulovic, E. Granieri, T. Holmøy, M. Kampman, A. Landtblom, K. Lauer, K. Myhr, T. Pekmezovic, T. Riise, C. Wolfson
- P573** An international case-control study of risk factors for multiple sclerosis
M. Pugliatti (Bergen, Norway), I. Casetta, P. Cossu, R. De Gennaro, J. Drulovic, E. Granieri, T. Holmøy, M. Kampman, A. Landtblom, K. Lauer, K. Myhr, T. Pekmezovic, T. Riise, C. Wolfson
- P574** Increased disease severity among African-Americans in a pediatric multiple sclerosis cohort
J. Rinker (Birmingham, Alabama, USA), Y. Harris, P. Ghuge, S. Dowdy, K. Bashir, J. Ness
- P575** Apolipoprotein E genotypes and rapid progression on the expanded disability status score in multiple sclerosis
E. Rio (Porto, Portugal), B. Lima, M. Dias, C. Pereira, H. Alves
- P576** The occurrence of angiotensin-converting enzyme polymorphism in patients with multiple sclerosis and optic neuritis
H. Roed (Glostrup, Denmark), M. Christiansen, A. Langkilde, F. Sellebjerg, J. Frederiksen
- P577** Epidemiological characteristics of multiple sclerosis in Peru
E. Rojas Huerto (Lima, Peru), J. Renteria, O. Gonzales, A. Martinez, M. Cordova, S. Cabrejos, S. Teran, L. Tudela
- P578** The role of relapses affecting the long-term disability outcome in multiple sclerosis in the London Ontario database
A. Scalfari (London, United Kingdom), A. Degenhardt, A. Neuhaus, N. Harner, S. Seemueller, R. Nicholas, P. Muraro, M. Daumer, G. Ebers
- P579** The London Ontario Database: a descriptive analysis of 25 years of follow-up
A. Scalfari (London, United Kingdom), A. Neuhaus, N. Harner, S. Seemueller, R. Nicholas, G. Ebers, M. Daumer, P. Muraro
- P580** Nutritional status in patients with acute exacerbation of multiple sclerosis: a controlled study
C. Schmidt (Mannheim, Germany), H. Leweling, T. Bertsch, N. Kuehn-Velten, S. Schwarz
- P581** Risk factors for short-term prognosis in the first decade of relapsing-remitting multiple sclerosis
T. Scott, C. Schramke (Pittsburgh, Pennsylvania, USA)
- P582** The role of interleukin-2 in the development and course of multiple sclerosis is influenced by HLA-DRB alleles in the Iranian population
M. Shahbazi (Gorgan, Iran), H. Ebadi, D. Roshandel, M. Mohammadhosseini for the MCMRC
- P583** Features of multiple sclerosis in Iran
H. Sikaroodi (Tehran, Iran), J. Lotfi, H. Ekhtiari, H. Safaei, H. Ganjgahi
- P584** Smoking as an independent risk factor for multiple sclerosis: considering possible combined effects with the human leukocyte antigen DR15 genotype and anti-EBNA antibody titers
K. Simon (Boston, Massachusetts, USA), I. Van der Mei, K. Munger, A. Ponsonby, J. Dickinson, T. Dwyer, P. Sundström, A. Ascherio
- P585** Gene expression profiling from T cells in patients with a first demyelinating episode
O. Skibina (Melbourne, Australia), V. Perreau, H. Butzkueven, G. Smyth, Y. Hu, T. Kilpatrick
- P586** Withdrawn
- P587** Confirmed association between multiple sclerosis and gene variations in interleukin-2 and interleukin-7 receptors in Danish multiple sclerosis patients
H. Søndergaard (Copenhagen, Denmark), F. Sellebjerg, A. Nielsen, L. Ryder, P. Sørensen, A. Oturai
- P588** Increased release of ATP from erythrocytes of people with multiple sclerosis
D. Spence (East Lansing, Michigan, USA)
- P589** Brain manifestations in Japanese relapsing neuromyelitis optica
M. Tahara (Kyoto, Japan), M. Tanaka, K. Tanaka, M. Matsui, H. Sawada, T. Konishi
- P590** A potentiation of the adverse effect of human leukocyte antigen-DR15 on the risk of multiple sclerosis by low infant sibling exposure: a population based case-control study
I. van der Mei, A. Ponsonby, B. Taylor (Hobart, Australia), J. Stankovich, J. Dickinson, S. Foote, A. Kemp, T. Dwyer
- P591** Prevalence of multiple sclerosis in New Zealand
B. Taylor (Hobart, Australia), A. Richardson, D. Mason, E. Willoughby, D. Abenethy, C. Sabel
- P592** Clinical and demographic features of pediatric multiple sclerosis: preliminary data from a Latin American multinational collaborative study group
S. Tenenbaum (Buenos Aires, Argentina), M. Moreira, N. Morales, D. Callegaro, M. Lana-Peixoto, J. Peña, A. D'Onghia, J. Sosa Maldonado, J. Ruiz Chavez, J. Rueda Velazquez, F. Cebada Lopez, E. Espinoza, G. Gonzalez Rabelino for the LACTRIMS Pediatric MS Study Group
- P593** Parity, education and sun exposure may predict long-term disability in female patients with multiple sclerosis
B. Teter (Buffalo, New York, USA), B. Weinstock-Guttman, C. Mihai, B. Apatoff, P. Coyle, S. Gauthier, A. Goodman, M. Gottesman, C. Granger, J. Herbert, R. Holub, B. Jubelt, I. Kister, L. Krupp, M. Lenihan, F. Lublin, A. Miller, N. Nealon, A. Perel, S. Schwid, D. Snyder, M. Tullman, R. Zivadinov, F. Munschauer

POSTER SESSION 2

- P594** Pregnancy and multiple sclerosis: a complete literature review
B. Thing (Copenhagen NV, Denmark), J. Frederiksen
- P595** Monthly ambient sunlight, vitamin D, infections and relapse rates in multiple sclerosis
H. Tremlett (Vancouver, British Columbia, Canada), I. van der Mei, F. Pittas, L. Blizzard, G. Paley, D. Mesaros, R. Woodbaker, M. Nunez, T. Dwyer, B. Taylor, A. Ponsonby
- P596** Clinical features and natural history of primary progressive multiple sclerosis
C. Tur (Barcelona, Spain), J. Sastre-Garriga, J. Castelló, M. Tintoré, C. Nos, J. Río, I. Galan, A. Horga, N. Téllez, H. Perkal, M. Comabella, A. Rovira, X. Montalban
- P597** Apolipoprotein E4 genotype does not influence multiple sclerosis phenotype, severity, cognition or brain atrophy in a large Australian cohort
A. van der Walt (Melbourne, Australia), J. Stankovich, M. Bahlo, B. Taylor, I. Van der Mei, S. Foote, J. Rubio, T. Kilpatrick, H. Butzkueven
- P598** Risk of developing multiple sclerosis is associated with variants in the ST8SIA1 gene
S. Husain, C. Yildirim - Toruner, G. Mahon, J. Rubio, J. Field, T. Genetics Consortium, S. Cook, M. Devoto, E. Vitale (Newark, New Jersey, USA)
- P599** Low-contrast letter acuity and retinal nerve fiber layer thickness measured by optical coherence tomography in pediatric multiple sclerosis
A. Waldman (Philadelphia, Pennsylvania, USA), M. Loguidice, E. O'Connor, G. Tennekoon, S. Galetta, M. Maguire, L. Balcer
- P600** Multiple sclerosis in United States veterans of the Vietnam era and later service: multiple sclerosis in Alaska
M. Wallin (Washington, District of Columbia, USA), W. Page, J. Kurtzke
- P601** Six-year follow-up of familial multiple sclerosis in Germany: a population-based survey
A. Wellek (Marburg, Germany), C. Korsukewitz, C. Eienbröker, B. von Hagen, S. Schock, W. Oertel, N. Sommer, B. Tackenberg for the Clinical Neuroimmunology Group
- P602** The paraoxonases 2 gene polymorphisms and clinical course of multiple sclerosis
B. Zakrzewska-Pniewska (Warsaw, Poland), M. Nojszewska, T. Rog, M. Styczynska, M. Dorobek, J. Pniewski, A. Slowik, M. Barcikowska, H. Kwiecinski for the Polish MS Genetics Study Group
- P603** Mortality rate and cause of death in patients with multiple sclerosis in Isfahan, Iran
N. Zarghami (Isfahan, Iran), M. Etemadifar, N. Jazebi for the Isfahan Research Center of Multiple Sclerosis (IRCOMS)
- P604** Apparent diffusion coefficient imaging characteristics of biopsy-proven acute inflammatory demyelinating brain lesions
N. Abou Zeid (Rochester, Minnesota, USA), B. Erickson, S. Weigand, K. Thomsen, J. Parisi, L. Linbo, C. Lucchinetti
- P605** Diffusion tensor imaging detects abnormality of the optic tracts following unilateral optic neuritis
R. Bermel (Cleveland, Ohio, USA), N. Frost, J. Cohen, K. Sakaie, J. Lin, M. Phillips, M. Lowe
- P606** Cortical lesion load predicts atrophy in the cortex of primary progressive multiple sclerosis: a longitudinal magnetic resonance imaging study
M. Calabrese (Padova, Italy), M. Atzori, V. Bernardi, I. Mattisi, A. Favaretto, C. Romualdi, F. Rinaldi, L. Barachino, L. Rinaldi, P. Perini, P. Gallo
- P607** Initial brain magnetic resonance imaging presentation in pediatric multiple sclerosis patients from White non-Hispanic and other ethnic backgrounds
D. Chabas (San Francisco, California, USA), O. Glenn, J. Strober, E. Waubant
- P608** Cortical adaptation in patients with clinically isolated syndrome; perspectives for predicting multiple sclerosis
M. Harirchian (Tehran, Iran), M. Oghabian, A. Rezvanizade, M. Fakhri
- P609** Six-year prospective multi-voxel brain magnetic resonance spectroscopy study of two cohorts of relapsing-remitting multiple sclerosis to examine the effect of glatiramer acetate on neuronal/axonal metabolic injury
O. Khan (Detroit, Michigan, USA), S. Hreha, Y. Shen, Y. Xuan, C. Caon, F. Bao, R. Penmesta, A. Tselis, Z. Latif, I. Zak
- P610** Optic nerve volume and diffusivity jointly predict multifocal visual evoked potential amplitude after optic neuritis
S. Kolbe (Melbourne, Australia), C. Chapman, T. Nguyen, C. Bajraszewski, P. Mitchell, L. Johnston, H. Butzkueven, M. Paine, T. Kilpatrick, G. Egan
- P611** Reduced diffusion anisotropy in optic radiation correlates with optic nerve atrophy after optic neuritis
S. Kolbe (Parkville, Australia), C. Bajraszewski, C. Chapman, T. Nguyen, P. Mitchell, L. Johnston, H. Butzkueven, M. Paine, T. Kilpatrick, G. Egan
- P612** Brain volume evaluation in neuromyelitis optica
F. Rousseau, S. Kremer (Strasbourg, France), F. Blanc, N. Collongues, M. Fleury, J. Dietemann, J. Armspach, J. de Seze
- P613** Unexpected multiple sclerosis: a 5-year follow-up of 65 patients with magnetic resonance imaging and clinical conversion profile
C. Lebrun-Frenay (Nice, France), C. Bensa, S. Wiertlewsky, D. Brassat, M. Debouverie, L. Rumbach, J. de Seze, B. Brochet, P. Labauge, J. Pelletier, P. Clavelou for the CFSEP Club Francophone de la Sclérose En Plaques
- P614** Catastrophic onset of central nervous system demyelinating disease: acute disseminated encephalomyelitis or multiple sclerosis?
S. Lejarreta (Girona, Spain), L. Ramió-Torrentà, M. Aguirregomezcorra, R. Pelayo, J. Vilanova, S. Remollo, L. Martín, M. Vallès
- P615** Magnetic resonance imaging with non-contrast T1-weighted fat-suppression sequence
S. Llufriu Duran (Barcelona, Spain), D. Cadavid, L. Wolansky, S. Cook

Imaging—Part 2

- P616** Diffusion tensor imaging measures of forniceal damage correlate with episodic memory dysfunction in patients with multiple sclerosis
M. Phillips, K. Koenig, E. Beall, L. Stone, J. Zimbelman, R. Marrie, K. Sakaie, S. Rao, M. Lowe (Cleveland, Ohio, USA)
- P617** Patients with multiple sclerosis and trigeminal neuropathy: magnetic resonance imaging findings
S. Lunskens (Brugge, Belgium), J. Casselman, L. Vanopdenbosch
- P618** Diffusion-weighted imaging in non-compressive myelopathies: a 32-patient study
C. Marcel (Strasbourg, France), S. Kremer, F. Blanc, J. Dietemann, J. De Sèze
- P619** Cognitive impairment in early multiple sclerosis: role of conventional and multimodal quantitative magnetic resonance imaging
M. Matzke (Magdeburg, Germany), A. Apel, K. Baum, D. Dähne, R. Deppe, L. Daume, T. Götken, F. Hoffmann, W. Köhler, A. Kunkel, G. Prawdzyk, S. Scheerschmidt, H. Schilling, J. Faiss, U. Zettl, M. Sailer for the Fidcogms-Study Group
- P620** Apparent diffusion coefficient demonstrates greater sensitivity to multiple sclerosis lesions than fractional anisotropy and conventional magnetic resonance imaging
J. McNulty (Dublin, Ireland), R. Lonergan, P. Brennan, R. O'Laoide, N. Tubridy
- P621** Voxel-based analysis of diffusion tensor magnetic resonance imaging-metrics of the corpus callosum in benign multiple sclerosis: relation to cognitive impairment
S. Mesaros (Milan, Italy), M. Rocca, M. Rovaris, E. Pagani, D. Caputo, A. Ghezzi, R. Capra, A. Bertolotto, G. Riccietelli, M. Falautano, V. Martinelli, G. Comi, M. Filippi
- P622** Magnetic resonance disease severity scale for patients with multiple sclerosis: a longitudinal study
J. Moodie (Brookline, Massachusetts, USA), M. Neema, B. Healy, G. Buckle, S. Gauthier, B. Glanz, S. Khoury, C. Guttmann, H. Weiner, R. Bakshi
- P623** Statistical modelling of magnetic resonance imaging T2 parameters to determine precise cut-off points predictive for a second clinical event in clinically isolated syndrome patients at high risk
A. Neuhaus, M. Guentner, M. Filippi, S. Morrissey (Rennes, France)
- P624** Migration of transplanted neural precursors during the chronic phase of experimental allergic encephalomyelitis is reduced compared with the acute phase
N. Muja (Baltimore, Maryland, USA), M. Cohen, A. Gilad, P. Walczak, J. Zhang, T. Ben-Hur, J. Bulte
- P625** Longitudinal cortical thickness measurement in patients with multiple sclerosis
K. Nakamura (Cleveland, Ohio, USA), R. Rudick, E. Fisher
- P626** 3T magnetic resonance imaging relaxometry detects T2 prolongation in the global and regional brain normal-appearing white matter in multiple sclerosis
M. Neema (Boston, Massachusetts, USA), D. Goldberg-Zimring, Z. Guss, B. Healy, M. Hautchens, H. Weiner, D. Alsop, R. Bakshi
- P627** Choice of echo time in the study of metabolic alterations in normal appearing white matter
M. Otaduy (São Paulo, Brazil), D. Callegaro, L. Bacheschi, C. Leite for the LIM 44 Laboratório de Ressonância Magnética em Neuroradiologia
- P628** N-acetyl aspartate decrease in normal appearing white matter: neuronal damage or T2 effect?
M. Otaduy (São Paulo, Brazil), D. Callegaro, L. Bacheschi, C. Leite for the LIM 44 Laboratório de Ressonância Magnética em Neuroradiologia
- P629** Conventional and non-conventional quantitative magnetic resonance imaging outcomes differ when comparing multiple definitions of benign multiple sclerosis
J. Passanese (Buffalo, New York, USA), A. Kelemen, B. Weinstock-Guttman, B. Teter, C. Mihai, D. Hojnacki, F. Munschauer, N. Abdelrahman, M. Stosic, R. Zivadinov
- P630** Protective clinical, demographic and conventional and non-conventional magnetic resonance imaging predictors of benign multiple sclerosis: a large cohort study
J. Passanese (Buffalo, New York, USA), A. Kelemen, B. Weinstock-Guttman, B. Teter, C. Mihai, D. Hojnacki, F. Munschauer, N. Abdelrahman, M. Stosic, R. Zivadinov
- P631** SepINRIA v1.7.2: multiple sclerosis brain magnetic resonance imaging visualization, comparison and analysis software
E. Pernod (Sophia-Antipolis, France), J. Souplet, M. Cohen, N. Toussaint, C. Lebrun, G. Malandain
- P632** Comparison between T2-weighted fast spin echo and fast short time inversion recovery pulse sequences in the depiction of cervical cord multiple sclerosis plaque
E. Rahimian (Tehran, Iran), M. Tahsini, R. Abolfazli, M. Nabavi
- P633** Symptomatic demyelinating lesions located at the middle cerebellar peduncles are associated with good prognosis?
L. Ramió-Torrentà (Girona, Spain), M. Aguirregomezcorra, A. Quiles, L. Martín, D. Genís
- P634** Regional diffusion tensor imaging differences in multiple sclerosis patients with little focal damage and the relation to neurocognition
S. Roosendaal (Amsterdam, Netherlands), J. Geurts, H. Vrenken, K. Cover, J. Castelijns, P. Pouwels, F. Barkhof
- P635** Clinical and conventional magnetic resonance imaging features of non-disabling multiple sclerosis: a large-scale, multicenter, multinational, cross-sectional study
M. Rovaris (Milan, Italy), L. Fisniku, B. Benedetti, M. Calabrese, M. Stromillo, M. Sombekke, A. Rovira, D. Miller, P. Gallo, N. De Stefano, F. Barkhof, C. Polman, C. Espejo, M. Filippi
- P636** Optimizing diffusion measurements for large-scale, multicenter multiple sclerosis trials: a pan-European study
M. Rovaris (Milan, Italy), J. Hirsch, E. Pagani, E. Perego, A. Gass, P. Pouwels, S. Roosendaal, F. Barkhof, F. Agosta, D. Caputo, A. Giorgio, J. Palace, S. Marino, N. De Stefano, F. Fazekas, S. Ropele, M. Filippi

POSTER SESSION 2

- P637** Comparative value of different criteria for dissemination in space and time in patients with a clinically isolated syndrome affecting the spinal cord
A. Ruet (Bordeaux, France), S. Molinier, M. Deloire, O. Anne, R. Lassalle, V. Dousset, B. Brochet
- P638** Predictive features of conversion to multiple sclerosis in clinically demyelinating isolated syndromes affecting the spinal cord
A. Ruet (Bordeaux, France), S. Molinier, M. Deloire, O. Anne, R. Lassalle, V. Dousset, B. Brochet
- P639** Cortical thinning in patients with multiple sclerosis: a follow-up study after 8 years
M. Sailer (Magdeburg, Germany), C. Tempelmann, E. Stadler, M. Matzke, A. Schoenfeld, H. Heinze
- P640** Ultra-high field phase contrast imaging in patients with multiple sclerosis
M. Sailer (Magdeburg, Germany), C. Tempelmann, K. Zhong, M. Matzke, H. Heinze, O. Speck
- P641** Cortical lesions in patients with multiple sclerosis: their relation with cortical atrophy and impact on physical and cognitive impairment
Z. Salman (Bethesda, Maryland, USA), I. Evangelou, S. Talagala, V. Ikonomidou, S. Stern, R. Hill, A. Gallo, J. Ohayon, R. Kane, H. McFarland, F. Bagnato
- P642** Predicting conversion to secondary progressive multiple sclerosis using magnetic resonance imaging-based regional atrophy measures
M. Sampat (Boston, Massachusetts, USA), A. Berger, B. Healy, P. Hildenbrand, S. Khoury, H. Weiner, C. Guttmann
- P643** Statistical parametric mapping of ^{99m}Tc-ethyl cysteinate dimer SPECT in neuromyelitis optica: first results
C. Sanchez-Catasus (Havana, Cuba), J. Cabrera-Gomez, R. Diaz-Moreno, A. Aguila-Ruiz Angel, R. Rodriguez Rojas, Y. Real-González, D. Grass-Fernandez, K. Romero-García
- P644** Tissue-specific atrophy changes on disease modifying drug therapy
J. Sastre-Garriga (Barcelona, Spain), J. Rio, A. Rovira, M. Tintoré, E. Hueriga, C. Nos, N. Tellez, C. Tur, M. Comabella, X. Montalban
- P645** Multiple sclerosis patients reveal neural compensation during information processing with no additional performance decline: a longitudinal functional magnetic resonance imaging study
C. Scherling (Ottawa, Ontario, Canada), A. Smith, L. Walker, M. Hogan, M. Freedman
- P646** Neural compensation in cognitively impaired patients with multiple sclerosis during a response inhibition task
C. Scherling (Ottawa, Ontario, Canada), A. Smith, L. Walker, M. Hogan, M. Freedman
- P647** Multiple sclerosis lesion characterization with 7 Tesla magnetic resonance imaging
P. Schmalbrock (Columbus, Ohio, USA), M. Racke, K. Rammohan, A. Boster, D. Chakeres, A. Abduljalil, J. Shah, S. Sammet, M. Knopp
- P648** T2 in normal-appearing gray matter in multiple sclerosis measured at 3 Tesla and 7 Tesla magnetic resonance imaging
P. Schmalbrock (Columbus, Ohio, USA), M. Racke, K. Rammohan, A. Boster, F. Aguila, J. Shah, S. Sammet, M. Knopp
- P649** Magnetization transfer ratio: a predictor of neuronal loss in multiple sclerosis cortical gray matter?
K. Schmierer (London, United Kingdom), H. Parkes, P. So, S. An, S. Brandner, D. Miller, T. Youstry
- P650** Multiple sclerosis cortical grey matter changes following fixation detected by multimodal magnetic resonance imaging
K. Schmierer (London, United Kingdom), J. Thavarajah, H. Parkes, D. Miller, D. Tozer
- P651** Three dimensional surface mapping of subregional hippocampal atrophy in multiple sclerosis: correlation with clinical variables
N. Sicotte (Los Angeles, California, USA), Y. Shi, K. Kern, B. Giesser, M. Montag, A. Arshanapalli, A. Toga
- P652** Combined diffusion tensor and magnetization transfer magnetic resonance imaging of the human optic nerve in multiple sclerosis
S. Smith (Baltimore, Maryland, USA), D. Reich, E. Gordon-Lipkin, P. van Zijl, P. Calabresi
- P653** Whole spinal cord lesion detection with 1.5T and 3T MRI and clinical correlation in patients with multiple sclerosis
J. Stankiewicz (Brookline, Massachusetts, USA), M. Neema, D. Alsop, B. Healy, A. Arora, G. Buckle, T. Chitnis, C. Guttmann, D. Hackney, R. Bakshi
- P654** Development of positron emission tomography imaging techniques to visualize central nervous system myelin
B. Stankoff (Paris, France), M. Bottlaender, M. Aigrot, A. Baron Van-Evercooren, F. Lachapelle, F. Dolle, A. Williams, Y. Wang, C. Lubetzki, B. Zalc
- P655** Quantification of neuronal loss in progressive multiple sclerosis: a positron emission tomography study with [¹¹C]-flumazenil
B. Stankoff (Paris, France), C. Leroy, F. Sureau, J. Delforge, R. Assouad, A. Tourbah, D. Galanaud, C. Papeix, C. Comtat, C. Lubetzki, R. Trebossen, M. Bottlaender
- P656** Phosphorus spectroscopy of normal-appearing white matter in multiple sclerosis
C. Steen (Groningen, Netherlands), M. Koch, J. Mostert, J. De Keyser
- P657** Does multiple sclerosis become an ischemic disease over time? A 3-year follow-up study of patients positive for the presence of anti-phospholipid antibodies
M. Stosic (Buffalo, New York, USA), B. Weinstock-Guttman, B. Vutla, J. Ambrus, M. Ramanathan, F. Munschauer, S. Hussein, K. Hashmi, M. Dwyer, R. Zivadinov
- P658** Differentiating multiple sclerosis from other causes of demyelination using diffusion weighted imaging of the normal appearing corpus callosum
R. Straus Farber (New York, New York, USA), L. DeVilliers, A. Miller, F. Lublin, M. Law, G. Fatterpekar, B. Delman, T. Naidich

- P659** Diffusion tensor imaging of the corpus callosum and cognitive deficits in multiple sclerosis
R. Straus Farber (New York, New York, USA), H. Chaudhry, L. DeVilliers, A. Miller, M. Law, F. Lublin
- P660** Magnetic resonance imaging findings in patients with clinically isolated syndrome suggestive of multiple sclerosis
G. Suarez (Houston, Texas, USA), M. Avila, D. Brandt, V. Rivera, G. Hutton
- P661** Predicting disability in patients presenting with optic neuritis: the role of early magnetic resonance imaging parameters
J. Swanton (London, United Kingdom), F. Kryshani, C. Dalton, K. Miszkiel, D. Altmann, G. Plant, D. Chard, A. Thompson, D. Miller
- P662** Diffusion tensor imaging of giant lesions in multiple sclerosis
S. Tal (Ramat-Gan, Israel), S. Miron, Y. Nissan, R. Moskovitch, A. Achiron
- P663** The demographic, clinical and magnetic resonance imaging features of transverse myelitis in children
T. Thomas (Kota Kinabalu, Malaysia), H. Branson, M. Shroff, D. Stephens, B. Banwell
- P664** Magnetic resonance imaging markers of brainstem neuronal injury or inflammation are not significantly associated with multiple sclerosis fatigue
D. Trojan (Montréal, Québec, Canada), S. Narayanan, A. Bar-Or, D. Da Costa, A. Bernasconi, S. Shapiro, A. Wong, M. Tartaglia, R. Ghassemi, J. Le Cruguel, A. Robinson, Z. Caramanos, Y. Lapierre, D. Arnold
- P665** Neurobrucellosis mimicking demyelinating disease
R. Türkoglu (Istanbul, Turkey), N. Ceran, M. Gencer, K. Tutkavul, H. Tireli
- P666** Cerebral atrophy is an independent and detectable outcome measure within a 6-month period in patients with relapsing-remitting multiple sclerosis
I. van den Elskamp (Amsterdam, Netherlands), B. Boden, V. Dattola, B. Uitdehaag, C. Polman, C. Pohl, F. Barkhof
- P667** Magnetization transfer ratio histogram parameter best reflects the differences between normal and relapsing-remitting multiple sclerosis patients and the course of disease
M. Vecino (Porto Alegre, Brazil), A. Mazzola, F. Aesse, C. Vidor, C. Pinheiro, T. Jaques
- P668** Lesion probability maps: clinical correlations of brain lesion distributions in multiple sclerosis
M. Vellinga (Amsterdam, Netherlands), J. Geurts, B. Uitdehaag, C. Polman, F. Barkhof, H. Vrenken
- P669** Diffusely abnormal white matter in multiple sclerosis: relationship to disease progression in an 8-year long-term follow-up
A. Vertinsky (Vancouver, British Columbia, Canada), V. Miropoulos, G. Zhao, Y. Zhao, A. Traboulsee, D. Li
- P670** A measure of region of interest reproducibility dependence with lesion load
D. Wack (Buffalo, New York, USA), M. Dwyer, J. Durfee, S. Hussein, C. Caiola, R. Zivadinov
- P671** Lesion outlining using minimum area contour change
D. Wack (Buffalo, New York, USA), M. Dwyer, J. Durfee, S. Hussein, R. Zivadinov
- P672** Visualization and quantitative assessment of normal-appearing white matter changes in multiple sclerosis patients: Q-space analysis of the slow diffusion component at 3 Tesla
K. Weier (Basel, Switzerland), R. Gruener, J. Hirsch, Y. Naegelin, M. Guenther, M. Amann, L. Kappos, E. Radue, A. Gass
- P673** Electrophysiological changes in the fellow eye of optic neuritis patients: evidence for early subclinical inflammation in multiple sclerosis
C. Yiannikas (Sydney, Australia), H. Arvind, A. Klistorner
- P674** Column-specific spinal cord magnetization transfer, not T2*w, imaging relates to sensorimotor function in multiple sclerosis
K. Zackowski (Baltimore, Maryland, USA), S. Smith, D. Reich, E. Gordon-Lipkin, B. Chodkowski, D. Sambandan, M. Shteyman, A. Bastian, P. van Zijl, P. Calabresi
- P675** Increased coarseness of MRI texture in acute MS lesions affects their subsequent recovery
Y. Zhang (Calgary, Alberta, Canada), H. Zhu, J. Mitchell, L. Metz
- P676** Diffusion tensor imaging detects early axonal injury in a rat spinal cord axotomy model
J. Zhang (Baltimore, Maryland, USA), M. Jones, C. Deboy, D. Reich, P. Hoffman, K. Sheikh, S. Mori, P. Calabresi
- P677** Short-term change of new contrast enhancing lesion activity in secondary progressive multiple sclerosis without treatment
Y. Zhao (Vancouver, British Columbia, Canada), A. Traboulsee, J. Petkau, W. Hunter, D. Li

Neuroimmunology—Part 2

- P678** Plasma chitotriosidase activity in patients with multiple sclerosis
M. Comabella (Barcelona, Spain), C. Domínguez, J. Río, P. Martín-Gallán, A. Vilches, C. Espejo, X. Montalban
- P679** Effect of interferon β and the development of neutralising antibodies, on reactivation of latent EBV, in patients with multiple sclerosis
R. Farrell (London, United Kingdom), D. Antony, D. Clark, J. Garson, D. Miller, G. Giovannoni
- P680** Reactivity to myelin peptides in a selected group of patients with relapsing-remitting multiple sclerosis
L. Grau (Barcelona, Spain), M. Naranjo, D. Raich, C. Ramo, R. Martin, R. Pujol-Borrell, F. Borràs, E. Martínez-Cáceres
- P681** Neuroprotective and immunomodulatory effects of leukemia inhibitory factor during neuroinflammatory responses in multiple sclerosis
H. Slaets, J. Hendriks, P. Stinissen, N. Hellings (Diepenbeek, Belgium)

POSTER SESSION 2

- P682** TRAIL and BAFF serial serum levels during interferon β therapy in patients with multiple sclerosis
A. Kurne (Ankara, Turkey), H. Canpinar, O. Aydin, G. Sayat, M. Yörübulut, D. Güç, R. Karabudak
- P683** Assessment of CD4+CD25+ T regulatory (Treg) cells and Foxp3-expressing cells in patients with multiple sclerosis
Y. Libster (Jerusalem, Israel), D. Karussis
- P684** Measuring the cellular immune response against Epstein-Barr virus in multiple sclerosis
J. Lindsey (Houston, Texas, USA), L. Hatfield
- P685** Effects of cytokine mixtures typical of Th1 and Th2 cells and monocyte/macrophages on early gene expression in CNS neurons: differential modulation of signaling pathways
R. Lisak (Detroit, Michigan, USA), J. Benjamins, L. Nedelkoska, B. Bealmear, W. Xu
- P686** Ectopic germinal centres in the brain of people with multiple sclerosis
C. Maggiore (London, United Kingdom), G. Trillo-Pazos, G. Keir, G. Pizzolato, P. Edomi, A. Nissim, G. Giovannoni
- P687** Tight junction proteins in immune cells: new players in multiple sclerosis?
I. Mandel (Haifa, Israel), T. Paperna, L. Glass-Marmor, S. Dishon, A. Miller
- P688** NMO-IgG antibodies targets astrocytes in contact with oligodendrocytes in the optic nerves and the spinal cord
R. Marignier (Lyon, France), P. Giraudon, C. Watrin, G. Cavillon, V. Rogemond, S. Vukusic, J. Honorat, C. Confavreux
- P689** Differential gene and protein expression profiles in patients with CIS
X. Zhang, Y. Tang, S. Rogan, J. Jin, D. Speer, S. Markovic-Plese (Chapel Hill, North Carolina, USA)
- P690** Interferon- β modulates STAT6-activated inflammatory gene expression through the induction of SHP-1 in multiple sclerosis PBMCs
P. Massa (Syracuse, New York, USA), G. Christophi, C. Mihai, L. Mejico, B. Jubelt
- P691** Specific inhibition of peptidylarginine deiminase attenuates demyelination
F. Mastronardi (Toronto, Ontario, Canada), H. Lei, Z. Li, S. Winer, Y. Chan, H. Tsui, C. Ackerley, Z. Li, R. Rajmakers
- P692** Multiple sclerosis patients resisted to glucocorticoids therapy: Abnormal expression of hsp90 in the GR complex
M. Matysiak (Lodz, Poland), A. Walczak, B. Makosa, K. Selmaj
- P693** Stem cells ameliorate experimental autoimmune encephalomyelitis via an indoleamine 2,3-dioxygenase (IDO) mechanism
M. Matysiak (Lodz, Poland), M. Stasiolek, W. Orlowski, S. Janczar, A. Jurewicz, C. Raine, K. Selmaj
- P694** A molecular approach for determining the CD8+ T cell epitopes in a murine model of multiple sclerosis
J. McDole (Cincinnati, Ohio, USA), A. Johnson
- P695** NMO-IgG immunofluorescence sensitivity exceeds aquaporin-4 IgG immunoprecipitation: combined assays improve sensitivity
A. McKeon (Rochester, Minnesota, USA), J. Fryer, M. Apiwattanakul, S. Hinson, T. Kryzer, C. Lucchinetti, B. Weinshenker, D. Wingerchuk, E. Shuster, V. Lennon, S. Pittock
- P696** Opioid growth factor and low dose naltrexone inhibit immunological responses associated with experimental autoimmune encephalomyelitis
K. Rahn, R. Bonneau, A. Turel, G. Thomas, P. McLaughlin (Hershey, Pennsylvania, USA), I. Zagon
- P697** Oral fingolimod (FTY720) treatment reduces peripheral IL-17-producing TH17 cells in patients with multiple sclerosis
M. Mehling (Basel, Switzerland), R. Lindberg, J. Kuhle, C. Vedrine, L. Kappos, V. Brinkmann
- P698** WIN 55,212-2 downregulates VCAM-1 in a viral model of multiple sclerosis
L. Mestre (Madrid, Spain), S. Ortega-Gutierrez, F. Docagne, F. Correa, F. Loria, M. Hernangómez, J. Borrell, C. Guaza
- P699** Visualization and characterization of cytotoxic T cell-neuron interactions: antigen-presentation determines specific CD8 T cell locomotion and separates an immediate and a delayed pathway of acute neuronal injury
S. Meuth (Wuerzburg, Germany), A. Herrmann, O. Simon, S. Bittner, T. Budde, H. Wiendl
- P700** Glatiramer acetate induces interleukin-1 receptor antagonist and inhibits the induced production of interleukin-1 β in human monocytes
N. Molnarfi (San Francisco, California, USA), M. Weber, K. Brandt, T. Prod'homme, M. Chofflon, S. Zamvil, P. Lalive, D. Burger
- P701** The relationship between oxidative burst and severity of multiple sclerosis
N. Mossberg (Gothenburg, Sweden), C. Movitz, T. Bergström, K. Hellstrand, S. Nilsson, O. Andersen
- P702** Heat shock protein 70 is critically involved in myelin antigen specific CD4 T cell autoreactive responses
M. Mycko (Lodz, Poland), H. Cwiklinska, A. Walczak, C. Raine, K. Selmaj
- P703** Prognostic value of intrathecal IgG synthesis in multiple sclerosis
M. Najafi (Esfahan, Iran), F. Najafi, M. Ghaffarpour, A. Aghamohammadi, M. Saadatnia
- P704** Effects of glial cell-derived cytokines on human B cells: implication for pathogenesis of multiple sclerosis
I. Nakashima (Montréal, Québec, Canada), A. Rieger, N. Lebeurrier, P. Saikali, C. Lambert, L. Fawaz, J. Antel, Y. Itoyama, A. Bar-Or
- P705** Aquaporin-4-antibody seroconversion occurs before the onset of neuromyelitis optica
S. Nishiyama (Sendai, Japan), A. Kikuchi, N. Suzuki, K. Jin, M. Aoki, T. Takahashi, T. Misu, K. Fujihara, Y. Itoyama

- P706 Multiple sclerosis: predictive value of cerebrospinal fluid findings**
C. Dehninger (Montevideo, Uruguay), J. Alcántara, R. Buzó, C. Scotti, A. Gómez-Añón for the Demyelinating Diseases Group of the Institute of Neurology (SEDIN)
- P707 A qualitative comparison of anti-IFN β antibodies in patients with and without neutralizing antibodies using Biacore™ technology**
E. Gibbs, J. Oger (Vancouver, British Columbia, Canada)
- P708 Neutralizing antibodies to interferons in a Vancouver multiple sclerosis clinic: by straightening-up some parameters, the field would be less controversial**
J. Oger (Vancouver, British Columbia, Canada), R. Lam, E. Gibbs, T. Aziz, S. Grossberg, P. at UBC for the University of British Columbia MS Clinic
- P709 CD8low frequency: a marker for disease prognosis and progression in multiple sclerosis?**
L. Ottoboni (Boston, Massachusetts, USA), B. Healy, P. Kivisäkk, D. Soler-Ferran, E. Izmailova, D. Hafler, H. Weiner, S. Khoury, P. De Jager
- P710 Recombinant antibodies derived from plasma cell clones in multiple sclerosis cerebrospinal fluid do not react with myelin proteins**
G. Owens (Denver, Colorado, USA), J. Bennett, A. Ritchie, A. Shearer, C. Lam, H. Lassman, K. O'Connor, D. Hafler, M. Burgoon, D. Gilden
- P711 Molecular mechanism involved in the recombinant alpha IFN treatment in patients with multiple sclerosis**
G. Penton-Rol (Havana City, Cuba), M. Cervantes-Llanos, J. Cabrera-Gómez, C. Valenzuela-Silva, D. Gómez-Chavez, P. López-Saura for the Multiple Sclerosis Project
- P712 Neurologic manifestations of Behçet disease: description of 15 patients in Valencia (Spain)**
F. Perez Miralles (Valencia, Spain), I. Bosca, M. Magraner, M. Bosca, A. Pascual, F. Coret, B. Casanova
- P713 Loss of therapeutic effects of glatiramer acetate in CX3CR1 $^{-/-}$ mice**
W. Piao (Phoenix, Arizona, USA), M. Wang, D. Campagnolo, F. Shi, T. Vollmer for the Department of Neuroimmunology, BNI.
- P714 Myelin modulates adhesion and migration of immune cells**
M. Pool (Montréal, Québec, Canada), I. Rambaldi, A. Bar-Or, A. Fournier
- P715 Diagnostic value of IgG and free light chain quantification in cerebrospinal fluid of patients with MS**
S. Presslauer (Vienna, Austria), D. Milosavljevic, T. Bruecke, P. Bayer, W. Huebl
- P716 The inhibitory function of CD4CD25 $^{+}$ T regulatory cells is impaired in relapsing remitting multiple sclerosis but not in primary progressive multiple sclerosis**
N. Putzki (Essen, Germany), R. Kamou, M. Kumar, E. Kreuzfelder
- P717 Cerebrospinal fluid Baff levels in multiple sclerosis and other neurological diseases**
S. Ragheb (Detroit, Michigan, USA), K. Simon, R. Lisak
- P718 Signaling mechanisms that regulate oligodendrocyte precursor migration**
S. Rajasekharan (Montréal, Québec, Canada), J. Correia, J. Antel, T. Kennedy
- P719 The activating zeta chain of the T cell receptor is increased on multiple sclerosis lymphocytes**
E. Khatibi, A. Reder (Chicago, Illinois, USA)
- P720 Beneficial effects of pregnancy in multiple sclerosis reflected by cytokine pattern and prolactin**
P. Rieckmann (Vancouver, British Columbia, Canada), N. Kruse, B. Kallmann, V. Leussink, M. Maeurer, F. Then Bergh, T. Weber for the Clinical Research Unit for Multiple Sclerosis and Neuroimmunology
- P721 Toll-like receptor modulation of multiple sclerosis relevant B cell responses**
A. Rieger (Montréal, Québec, Canada), L. Fawaz, I. Nakashima, A. Bar-Or
- P722 Increased CD5 $^{+}$ B cell number and IgM levels in cerebrospinal fluid of early multiple sclerosis patients correlate with cortical inflammation**
L. Rinaldi (Padova, Italy), M. Calabrese, L. Federle, F. Attanasio, A. Laroni, M. Varagnolo, M. Plebani, V. Bernardi, M. Atzori, A. Favaretto, F. Grassivaro, P. Perini, P. Gallo
- P723 Vitamins D and A levels and regulatory T cells in patients with multiple sclerosis**
W. Royal (Baltimore, Maryland, USA), Y. Mia, H. Li
- P724 Diminished myelin-specific T cell activation associated with increase in CTLA4 and Fas molecules in multiple sclerosis patients treated with interferon beta**
D. Hallal-Longo, S. Mirandola, E. Oliveira, A. Farias, F. Pereira, I. Metze, Carlos Otavio Brandão, H. Ruocco (Campinas, Brazil), B. Damasceno, L. Santos
- P725 Imatinib mesylate reduced production of extracellular matrix and connective tissue growth factor by astrocytes**
C. Cudrici, C. Tegla, V. Rus, H. Rus (Baltimore, Maryland, USA)
- P726 Absence of Epstein-Barr virus RNA and Epstein-Barr virus-specific intrathecal antibody production in multiple sclerosis cerebrospinal fluid**
A. Shearer, A. Ritchie, S. Sargsyan (Denver, Colorado, USA), J. Bennett, D. Gilden, G. Owens
- P727 Roles of interleukin-15 in multiple sclerosis: enhanced peripheral expression and greater impact on CD8 T cell cytotoxicity**
R. Schneider (Montréal, Québec, Canada), P. Saikali, C. Pittet, T. Yaneva, P. Duquette, N. Arbour
- P728 Expression of brain-derived neurotrophic factor is regulated by fingolimod (FTY720) in cultured neurons**
R. Deogracias, C. Klein, T. Matsumoto, M. Yazdani, M. Bibel, Y. Barde, A. Schubart (Basel, Switzerland)
- P729 Gene expression analysis identifies Th1, Th17 and IL10-related immune activation in multiple sclerosis**
F. Sellebjerg (Copenhagen, Denmark), M. Krakauer, H. Lund, I. Alsing, H. Sondergaard, L. Ryder, A. Svejgaard, P. Sorensen

POSTER SESSION 2

P730 Peroxisome proliferator-activated receptors (PPARs) in relapsing-remitting multiple sclerosis patients and the influence of immunomodulatory therapy

A. Sena (Lisboa, Portugal), A. Tavares, V. Ferret-Sena, R. Pedrosa, C. Araújo, M. Morais, B. Derudas, G. Chinetti, B. Staels

P731 The primary analysis of signal nerve ending proteins as possible markers of axonal damage

D. Skulyabin (St. Petersburg, Russian Federation), M. Odinak, M. Mosevitsky, G. Bisaga, A. Volnitsky

P732 From experimental autoimmune encephalomyelitis to multiple sclerosis: IL-16 regulates inflammation and axonal damage in autoimmune diseases of the central nervous system

D. Skundric (Detroit, Michigan, USA), W. Cruikshank, D. Gveric

P733 sRAGE: A potential biomarker of multiple sclerosis disease severity

Z. Sternberg (Buffalo NY, New York, USA), B. Weinstock-Guttman, K. Chadha, A. Lieberman, D. Hojnacki, P. Zamboni, R. Zivadinov, L. Kazim, A. Drake, E. Grazioli, F. Munschauer

P734 Characterization of HHV-6 U24 protein and its possible implication in multiple sclerosis

A. Tait (Vancouver, British Columbia, Canada), S. Straus

P735 NMO-IgG and anti-aquaporin 4 antibody simultaneously examined in a large series of Japanese neuromyelitis optica

K. Tanaka (Kahoku-Gun, Japan), T. Tani, M. Tanaka, M. Nishizawa, K. Sakimura, M. Matsui

P736 Ninjurin-1 as a putative adhesion molecule of the blood-brain barrier

S. Terouz (Montréal, Québec, Canada), H. Kebir, A. Dodelet-Devillers, I. Ifergan, M. Bernard, R. Cayrol, D. Stanimirovic, A. Prat

P737 NMO-IgG and AQP-4 antibodies in different demyelinating disease phenotypes: correlations with clinical and paraclinical parameters

C. Tortorella (Bari, Italy), M. Ruggieri, G. Zimatore, A. Frigeri, A. Lia, E. Di Monte, A. Ghezzi, A. Rizzo, M. Amato, B. Hakiki, F. Patti, A. Lugaresi, E. Merelli, P. Sola, V. Di Renzo, P. Livrea, M. Svelto, M. Trojano

P738 Phase I safety study of RTL1000, a recombinant T-cell receptor ligand specific for MOG peptide, in multiple sclerosis

A. Vandenbark (Portland, Oregon, USA), G. Burrows, E. Ravey, H. Offner

P739 Immunological changes in peripheral blood in two doses of methylprednisolone therapy of multiple sclerosis relapse and correlation with sex

W. Wicha (Warsaw, Poland)

P740 Interferon-beta induced restoration of regulatory T-cell function in multiple sclerosis is prompted by an increase of newly generated naïve Treg

B. Wildemann (Heidelberg, Germany), M. Korporal, B. Balint, A. Schwarz, J. Haas

P741 Direct evidence of a thymic abnormality in relapsing-remitting multiple sclerosis

J. Williams (Montréal, Québec, Canada), H. Mason, Y. Lapierre, J. Antel, D. Haegert

P742 Cytokine and chemokine profiles in the cerebrospinal fluid and serum of multiple sclerosis

X. Wu (Tampere, Finland), M. Ukkonen, R. Paalavuo, H. Kuusisto, B. Reipert, I. Elovaara

P743 Peripheral T cells are the therapeutic targets of high dose glucocorticoids in experimental autoimmune encephalomyelitis

S. Wüst (Göttingen, Germany), J. van den Brandt, J. Tuckermann, R. Gold, H. Reichardt, F. Lühder

P744 EMMPRIN: A novel regulator of neuroinflammation in multiple sclerosis

S. Agrawal, V. Yong (Calgary, Alberta, Canada)

P745 Impaired hypothalamo-pituitary-adrenal axis activity in multiple sclerosis patients

M. Ysrraelit (Buenos Aires, Argentina), M. Gaitán, J. Correale

P746 Withdrawn

P747 A novel type of proinflammatory human dendritic cell (slan-DC) in neuroinflammatory central nervous system disease: first data on the presence and function in multiple sclerosis

K. Thomas, T. Kuhlmann, W. Brück, H. Tumani, K. Schäkel, T. Ziemssen (Dresden, Germany)

P748 Epstein-Barr virus is associated with gray matter atrophy and lesion injury in multiple sclerosis

R. Zivadinov (Buffalo, New York, USA), M. Zorzon, B. Weinstock-Guttman, M. Serafin, A. Bosco, A. Bratina, C. Maggiore, A. Grop, M. Tommasi, B. Srinivasaraghavan, M. Ramanathan

P749 Identification of a new antigen candidate of multiple sclerosis using an open reading frame selected phage display library

S. Bembich, A. Cortini, C. Maggiore, A. Bratina, M. Zorzon (Trieste, Italy), M. Catalan, L. Zugna, G. Servillo, G. Pizzolato, R. Marzari, P. Edomi

Neuropsychology/Neuropsychiatry

P750 Efficacy of the cognitive stimulation in patients with multiple sclerosis

A. Aguayo Arellis (Guadalajara, Mexico), B. Rabago Barajas, S. Ruiz Soto, B. Hernandez-Baez, M. Lopez Rodriguez, G. Rizo Curiel, M. Macias for the Mexican Foundation for Multiple Sclerosis

P751 Cognitive profile of multiple sclerosis in the Mexican population

A. Aguayo Arellis (Guadalajara, Mexico), B. Rabago Barajas, B. Hernandez-Baez, S. Ruiz Soto, M. Lopez Rodriguez, M. Macias-Islas for the Mexican Foundation for Multiple Sclerosis

P752 Neuropsychiatric symptoms in the early stage of multiple sclerosis

M. Aguirregomez (Girona, Spain), L. Ramio-Torrenta, M. Garcia-Gil, J. Pagonabarraga, M. Castellanos

- P753** Early cognitive impairment in patients with clinically isolated syndrome suggestive of multiple sclerosis: a 1-year follow-up
M. Arévalo (Barcelona, Spain), J. Sastre-Garriga, C. Nos, J. Porcel, M. Tintoré, X. Montalban
- P754** Psychiatric and cognitive onset in multiple sclerosis
R. Assouad (Paris, France), C. Louapre, A. Tourbah, C. Papeix, F. Sedel, N. Benoit, D. Galanaud, S. Lehericy, B. Fontaine, O. Lyon-Caen, C. Lubetzki, B. Stankoff
- P755** Cortical activation changes are present in patients with clinically isolated syndrome during both unconscious and conscious processing
F. Reuter, A. Del Cul, I. Malikova, A. Rico, P. Cozzone, J. Ranjeva, J. Pelletier, S. Dehaene, B. Audoin (Marseille, France)
- P756** Happiness and personal growth are preserved in interferon-beta-1a treated patients with multiple sclerosis
Y. Barak (Bat-Yam, Israel), M. Grotto, A. Achiron
- P757** Memory impairment in multiple sclerosis: correlation with deep gray matter and mesial temporal atrophy
R. Benedict (Buffalo, New York, USA), D. Ramasamy, F. Munschauer, B. Weinstock-Guttman, R. Zivadinov
- P758** Does immunomodulating therapy have stabilizing effects on cognition in multiple sclerosis?
P. Calabrese (Basel, Switzerland), K. Potratz, I. Penner
- P759** Impact of the topographic lesion distribution on different cognitive deficit patterns
P. Calabrese (Basel, Switzerland), L. Tiemann, I. Penner
- P760** Affective and cognitive aspects in relapsing-remitting multiple sclerosis patients 24-months follow-up of the ITACA Study
S. Canale (Milan, Italy), M. Falautano, V. Martinelli, C. Di Serio, M. Radaelli, L. Moiola, G. Comi for the ITACA study group
- P761** Foreign accent syndrome as first sign of multiple sclerosis
J. Chanson (Strasbourg, France), S. Kremer, F. Blanc, C. Marescaux, I. Namer, J. de Seze
- P762** Sensitivity of neuropsychological tests to cognitive impairment in multiple sclerosis
C. Christodoulou (Stony Brook, New York, USA), P. Melville, W. Scherl, W. MacAllister, R. Troxell, L. Krupp
- P763** Withdrawn
- P764** Verbal fluency as a brief clinical screening tool for cognitive impairment in multiple sclerosis: an alternative to the Paced Auditory Serial Addition Test?
P. Connick (Cambridge, United Kingdom), M. Kolappan, D. Miller, A. Compston, S. Chandran
- P765** Association of retinal nerve fibre layer thinning with cognitive impairment in multiple sclerosis
J. Conway (Philadelphia, Pennsylvania, USA), M. Loguidice, D. Jacobs, C. Markowitz, S. Galetta, M. Maguire, L. Balcer
- P766** Attentional network efficiency in early multiple sclerosis
L. Crivelli (Buenos Aires, Argentina), C. Gonzalez, M. Fiol, R. Leiguarda, J. Correale
- P767** Decision-making under ambiguous and risky conditions in early multiple sclerosis
L. Crivelli (Buenos Aires, Argentina), C. Gonzalez, E. Roldán Gerchovich, D. Cerquetti, R. Leiguarda, J. Correale
- P768** The differential relationship between expanded disability status scale scores and neurocognitive impairment
A. Davis (Muncie, Indiana, USA), A. Gupta, R. Williams, A. Mazur-Mosiewicz
- P769** Cognitive evolution over 5 years can be predicted by magnetic resonance imaging in early relapsing-remitting multiple sclerosis
M. Deloire (Bordeaux, France), B. Brochet, M. Bonnet, E. Salort-Campana, J. Ouallet, D. Hamel, J. Jové, V. Dousset
- P770** Cognitive aging in patients with multiple sclerosis: an analysis of processing speed
A. Bodling, D. Denney (Lawrence, Kansas, USA), S. Lynch
- P771** The Symbol-Digit Modalities Test more accurately reflects multiple sclerosis patient-perceived cognitive impairment compared to the Paced Auditory Serial Addition Test
A. Drake (Buffalo, New York, USA), E. Schwartz, B. Weinstock-Guttman, F. Munschauer, R. Benedict
- P772** Conservative behavior in multiple sclerosis, a reflection of prefrontal cortex dysfunction
H. Ekhtiari (Tehran, Iran), A. Jannati, H. Sikaroodi, S. Zarei, A. Behzadi, H. Ganjgahi, P. Jangouk, M. Sahraian, A. Mokri, J. Lotfi
- P773** Diffusion tensor imaging abnormalities in depressed multiple sclerosis patients
N. Akbar, L. Moradzadeh, N. Lobaugh, P. O'Connor, A. Feinstein (Toronto, Ontario, Canada)
- P774** Emotional perception, memory and reaction in multiple sclerosis patients
S. Fuso (São Paulo, Brazil), D. Callegaro, R. Ribeiro, O. Bueno for the Brazilian Committee for Treatment and Research in Multiple Sclerosis
- P775** Mitoxantrone does not worsen cognitive function in patients with multiple sclerosis
A. Gil (Barcelona, Spain), M. Arévalo, J. Sastre-Garriga, J. Porcel, N. Téllez, M. Tintoré, C. Nos, A. Sánchez-Betancourt, J. Río, I. Pericot, X. Montalban
- P776** Brain magnetic resonance imaging lesion volume correlates with physical disability and cognitive impairment in multiple sclerosis: comparison of 1.5T and 3T
B. Glanz (Boston, Massachusetts, USA), J. Stankiewicz, B. Healy, R. Benedict, A. Arora, M. Neema, Z. Guss, G. Buckle, M. Houtchens, S. Khoury, H. Weiner, C. Guttmann, R. Bakshi
- P777** Usefulness of mismatch negativity for simple cognitive dysfunction assessment in multiple sclerosis patients
E. Hainque (Caen, France), F. Daniel, N. Lebrun, O. Etard, G. Defler
- P778** Complex pathological pathways of altered social cognition in multiple sclerosis
A. Feldmann, M. Banati, A. Peterfalvi, P. Kosztolanyi, E. Illes, R. Herold, Z. Illes (Pecs, Hungary)
- P779** Pathological laughing and crying in five patients with multiple sclerosis
M. Cakmak, N. Isik (Istanbul, Turkey), O. Arici Duz, N. Yildiz, I. Aydin Canturk, T. Aydin, F. Candan
- P780** Learning and memory in pediatric multiple sclerosis
L. Julian (San Francisco, California, USA), S. Im-Wang, D. Chabas, E. Mowry, J. Strober, E. Waubant

POSTER SESSION 2

- P781** Executive dysfunction represents an underestimated component of cognitive impairment in multiple sclerosis
M. Khalil (Graz, Austria), C. Enzinger, K. Petrovic, M. Loitfelder, M. Tscherner, M. Jehna, M. Wallner-Blazek, S. Ropele, R. Schmidt, S. Fuchs, F. Fazekas
- P782** Evaluation and correlation of cognitive event-related potentials (P300) and neuropsychological tests in patients with clinically isolated syndrome
B. Kocer (Ankara, Turkey), T. Unal, B. Nazliel, Z. Biyikli, Z. Yesilbudak, S. Karakas, C. Irkec
- P783** Withdrawn
- P784** Withdrawn
- P785** Cognitive functioning in pediatric patients with acute inflammatory disorders of the central nervous system
L. Krupp (Stony Brook, New York, USA), Y. Patel, R. Troxell, T. Preston, W. MacAllister, M. Milazzo, C. Christodoulou, D. Madigan, S. Turner, A. Belman
- P786** Magnetic resonance imaging indices of brain pathology in multiple sclerosis predict executive control deficits
A. Kuznetsova (Halifax, Nova Scotia, Canada), J. Fisk, R. Klein, S. Darvesh, V. Bhan, M. Schmidt, J. de Jong
- P787** Cognition, fatigue and health-related quality of life in clinically isolated syndrome suggestive of multiple sclerosis in an international study - baseline data from CogniCIS
D. Langdon (Surrey, United Kingdom), E. Wicklein, N. Prayoonwiwat, P. Scherer, S. Fredrikson
- P788** Evolution of performance in the Paced Auditory Serial Addition Test with "Dyad score" in different subtypes of multiple sclerosis
B. Lenne (Lomme, France), C. Crinquette, A. Mackowiak, P. Gallois, P. Hauteceur
- P789** The combined use of CNS-Vital Signs™ computerized test battery and California verbal learning test yields complementary findings in the assessment of cognitive impairment in relapsing-remitting multiple sclerosis
D. Maimone (Catania, Italy), G. Zappalà, M. Bianca, A. Pavone
- P790** A new score of cerebral functional system: proposition established among the LORSEP cohort
S. Mathilde (Nancy, France), B. Hélène, L. Clotilde, D. Céline, D. Marc
- P791** Duloxetine in multiple sclerosis patients with depression, pain and bladder dysfunction
A. Merola (Turin, Italy), A. Mattioda, S. Masera, M. Vercellino, P. Macario, G. Emanuela, G. Zullo, D. Munno, P. Cavalla
- P792** Factors influencing depression in the multiple sclerosis population in Vojvodina
C. Nadj (Novi Sad, Serbia), S. Radanovic, I. Nadj, N. Delibasic, A. Kopitovic, M. Semnic, S. Banic-Horvat, D. Stefanovic, M. Krkljes, M. Ilin, E. Dincic, D. Radojicic, L. Szakalas
- P793** Mental health co-morbidities in pediatric multiple sclerosis
S. Rubin, J. Ackerson, K. Bashir, J. Rinker, S. Dowdy, Y. Harris, P. Ghuge, J. Ness (Birmingham, Alabama, USA)
- P794** Sexual dysfunction in multiple sclerosis
B. Celik, E. Coskuner Poyraz, A. Bingol, S. Ozakbas (Izmir, Turkey), E. Idiman
- P795** Relationship between magnetic resonance imaging measures and presence or absence of depressive symptoms and cognitive impairment in relapsing-remitting multiple sclerosis: the COGIMUS (COGnition Impairment in MULTiple Sclerosis) study
F. Patti (Catania, Italy), M. Pia Amato, M. Tola, M. Trojano, P. Ferrazza, O. Picconi, S. Bastianello, V. Brescia Morra for the COGIMUS Study Group
- P796** The role of education and depression on different aspects of multiple sclerosis related fatigue
I. Penner (Basel, Switzerland), M. Stöcklin, L. Kappos, K. Opwis, P. Calabrese
- P797** Multi-parametric magnetic resonance imaging correlates of cognitive impairment in early multiple sclerosis
S. Penny (London, United Kingdom), M. Summers, J. Swanton, M. Ron, D. Miller, L. Cipolotti
- P798** Alexia without agraphia followed by thunderclap headache as the presenting feature of rapidly evolving severe multiple sclerosis: case report
O. Pearson, T. Pickersgill (Cardiff, United Kingdom)
- P799** "I am not the only person with this problem": exploring the experiences of persons with multiple sclerosis in a cognitive rehabilitation group
A. Rose (Liverpool, United Kingdom), L. Derriscott
- P800** How appropriate is cognitive behavioural therapy computer software for the treatment of depression in people with multiple sclerosis?
A. Rose (Liverpool, United Kingdom), C. Cooper, D. Hind, A. O' Cathain, G. Parry, L. Martin, C. Issac, B. Sharrack
- P801** Insomnia, fatigue and somatic symptoms overestimate the frequency of depression in the Beck inventory
S. Ruiz Soto (Guadalajara, Mexico), A. Aguayo Arelis, B. Rabago Barajas, M. Lopez Rodriguez, P. Acosta-Aguila, B. Hernandez-Baez, M. Macias for the Mexican Foundation for Multiple Sclerosis A.C.
- P802** Information processing in multiple sclerosis: accuracy versus speed
K. Steiger (Lawrence, Kansas, USA), D. Denney, S. Lynch
- P803** Multiple sclerosis: cognitive dysfunction study in Brazilian patients
C. Tauil (Brasília, Brazil), E. Corrêa, P. Campos, K. Waldrich, E. Maciel
- P804** Corpus callosum volume and fiber integrity as correlates of processing speed in children and adolescents with multiple sclerosis
C. Till (Toronto, Ontario, Canada), A. Bethune, C. Fairbrother, C. Rockel, M. Desrocher, J. Sled, D. Mabbott, D. Arnold, B. Banwell
- P805** The effect of memory training on the quality of life in patients with multiple sclerosis
S. Tjon Eng Soe (Nijmegen, Netherlands), L. Fasotti, P. Jongen, C. Zwanikken

- P806** Cognitive impairment, social functioning and fatigue in patients with relapsing-remitting multiple sclerosis: the COGIMUS (COGNition Impairment in MULTiple Sclerosis) study
F. Patti, M. Amato, M. Tola (Ferrara, Italy), M. Trojano, P. Ferrazza, O. Picconi, S. Bastianello, P. Gallo for the COGIMUS Study Group
- P807** Information processing in multiple sclerosis patients
S. Vanotti (Buenos Aires, Argentina), J. Kamienskowski, M. Winograd, M. Saladino, M. Sigman, F. Caceres
- P808** Neuropsychology of primary progressive multiple sclerosis a study of Brazilian patients from Rio de Janeiro
R. Paes, C. Vasconcelos (Rio de Janeiro, Brazil), M. Negreiros, R. Alvarenga
- P809** Cognitive decline predicts disability progression in relapsing-remitting multiple sclerosis
P. Vermersch (Lille, France), D. Leuse, M. Cabaret, O. Dutteryck, J. de Seze, K. Dujardin, H. Zéphir
- P810** How does a single neuropsychological session lasting different times modify cognitive performance and fatigue in multiple sclerosis patients?
B. Viti (Ancona, Italy), L. Pierfederici, L. Bacci, L. Catena, C. Morici, A. Morgantini
- P811** Cognitive dysfunction in patients with early relapsing remitting multiple sclerosis, Expanded Disability Status Scale ≤ 3.0 and high educational level
A. Vogt (Basel, Switzerland), C. Arn, P. Calabrese, L. Kappos, K. Opwis, I. Penner
- P812** Cognitive impairment in multiple sclerosis correlates highly with a delayed P3 component in event-related potential testing
R. Whelan (Dublin, Ireland), R. Lonergan, I. Killane, R. Reilly, M. Hutchinson, N. Tubridy
- P813** COMT Val158Met genotype and pain perception in patients with multiple sclerosis
H. Wishart (Lebanon, New Hampshire, USA), A. Saykin, H. Rhodes, L. Kasper, B. Oliver, C. Fadul, J. Seville, G. Tsongalis, T. McAllister
- P814** Tumor-like lesion in neuromyelitis optica
F. Aboul-Enein (Vienna, Austria), R. Hoftberger, H. Lassman, H. Budka, W. Kristoferitsch
- P815** Diffuse inflammation in the spinal cord of progressive multiple sclerosis patients
G. Arodias (Lyon, France), M. Chanal, R. Reynolds, C. Confavreux, S. Nataf
- P816** Influence of factors present in the cerebrospinal fluid of patients with multiple sclerosis on the axonal damage
É. Beltran (Valencia, Spain), A. Hernandez, É. Lafuente, P. Carrasco, F. Correa, M. Agullo, B. Casanova, I. Bosca, F. Coret, M. Burgal
- P817** Increased expression of HERV-H Env and HERV-W Env epitopes on the surface of peripheral blood mononuclear cells from patients with active multiple sclerosis
T. Brudek (Aarhus, Denmark), T. Christensen, T. Petersen, H. Hansen, A. Møller-Larsen
- P818** Influence of cerebrospinal fluid from multiple sclerosis patients on voltage sodium channels in cerebellar granular cell culture of rats
M. Burgal (Valencia, Spain), F. Correa, P. Carrasco, É. Lafuente, A. Hernandez, É. Beltran, F. Coret, B. Casanova, I. Bosca, M. Agullo
- P819** Myelinating oligodendrocytes in the adult human cortex and cortical lesions of patients with multiple sclerosis
A. Chang (Cleveland, Ohio, USA), S. Staugaitis, C. Batt, M. Smith, R. Dutta, B. Trapp
- P820** Coenzyme Q10 in the cerebrospinal fluid of patients with multiple sclerosis
É. Cocco (Cagliari, Italy), A. Naini, C. Sardu, J. Frau, L. Lorefice, M. Murru, O. Akman, S. DiMauro, M. Marrosu
- P821** Butyrylcholinesterase activity in multiple sclerosis
S. Darvesh (Halifax, Nova Scotia, Canada), G. Reid, A. LeBlanc, V. Bhan, J. Fisk, R. Macaulay
- P822** Gene expression profiling of grey matter lesions in secondary progressive multiple sclerosis
P. Durrenberger (London, United Kingdom), S. Fernando, S. Kashefi, D. Dexter, R. Reynolds
- P823** Hippocampal demyelination and memory deficit in patients with multiple sclerosis
R. Dutta (Cleveland, Ohio, USA), A. Chang, S. Staugaitis, É. Fisher, M. Lowe, M. Phillips, S. Rao, B. Trapp
- P824** Peripheral arterial compliance is compromised in young multiple sclerosis patients
C. Fjeldstad (Oklahoma City, Oklahoma, USA), G. Pardo, A. Fjeldstad, C. Frederiksen, M. Bemben
- P825** Association of multiple sclerosis and amyotrophic lateral sclerosis
A. Framont (Dijon, France), C. Scherer Gagou, P. Soichot, C. Confavreux, T. Moreau
- P826** The link between quaking proteins and P53 in myelination
C. Gavino (Montréal, Québec, Canada), S. Richard
- P827** Expression of chemokine-like receptor-1 (CMKLR1) and chemerin within the central nervous system: implications for regulation of experimental autoimmune encephalomyelitis
K. Graham (Stanford, California, USA), S. Loghavi, R. Pachynski, B. Zabel, É. Butcher
- P828** The UK Multiple Sclerosis Tissue Bank: resource for research
D. Gveric (London, United Kingdom), R. Nicholas, F. Roncaroli, S. Gentleman, R. Reynolds
- P829** The role of Fas in toxin-induced demyelination
A. Hesse (Muenster, Germany), J. Held, A. Waisman, T. Kuhlmann

Pathology

POSTER SESSION 2

P830 Substantial pyramidal cell loss in the motor cortex of secondary progressive multiple sclerosis cases with meningeal B-cell follicles

O. Howell (London, United Kingdom), R. Magliozzi, R. Nicholas, F. Roncaroli, F. Aloisi, R. Reynolds

P831 Immune phenotype and aquaporin staining in inflammatory infiltrates in minor salivary glands of patients with neuromyelitis optica, peripheral Sjögren's disease, and multiple sclerosis

A. Javed (Chicago, Illinois, USA), P. Pytel, K. Rezanian, B. Arnason, A. Reder

P832 T cell- and macrophage-associated pathology correlates with response to corticosteroids

F. König (Göttingen, Germany), I. Metz, C. Lucchinetti, W. Brück

P833 Extensive myelin deposition in the meninges of patients with multiple sclerosis

E. Kooi (Amsterdam, Netherlands), J. van Horssen, M. Witte, S. Amor, L. Bo, C. Dijkstra, P. van der Valk, J. Geurts

P834 Meningeal inflammation in multiple sclerosis

E. Kooi (Amsterdam, Netherlands), L. Bo, J. van Horssen, J. Geurts, P. van der Valk

P835 Does the anatomical localization of multiple sclerosis lesions influence the extent of remyelination?

T. Goldschmidt, W. Brück, J. Antel, T. Kuhlmann (Münster, Germany)

P836 Mitochondrial dysfunction within chronically demyelinated axons in multiple sclerosis

D. Mahad (Newcastle upon Tyne, United Kingdom), I. Zibaveva, G. Campbell, P. Hanson, H. Lassman, D. Turnbull

P837 Central nervous system vasculitis with selective involvement of the left cerebral and infratentorial structures

M. Radaelli (Milan, Italy), V. Martinelli, F. Esposito, M. Terreni, W. Bruck, M. Rodegher, L. Maiola, G. Comi

P838 Diffuse mitochondrial and neuronal damage in the temporal cortex of multiple sclerosis patients is associated with increased occurrence of seizures

R. Nicholas, R. Magliozzi, D. Mahad, A. Polito, F. Roncaroli, R. Reynolds (London, United Kingdom)

P839 Natalizumab decreases the numbers of dendritic cells and CD4+ T cells in cerebral perivascular spaces

M. del Pilar Maring, P. Cravens, R. Winger, K. Treadaway, M. Racke, T. Eagar, S. Zamvil, M. Weber, B. Hemmer, N. Karandikar, B. Kleinschmidt-DeMasters, O. Stuve (Dallas, Texas, USA)

P840 Acute demyelination of corpus callosum axons leads to severe axonal conduction deficit and cortical neuronal cell death

S. Tiwari-Woodruff (Los Angeles, California, USA), D. Crawford, M. Mangiardi

P841 Patterns of demyelination, inflammation and neurodegeneration in deep grey matter

M. Vercellino (Turin, Italy), B. Votta, C. Condello, S. Masera, A. Mattioda, E. Capello, G. Mancardi, R. Mutani, M. Giordana, P. Cavalla

P842 Laquinimod given before and after disease onset reduces inflammatory cell infiltration and demyelination in experimental autoimmune encephalomyelitis

C. Wegner (Goettingen, Germany), C. Stadelmann, J. Kaye, T. Fine, A. Mayk, E. Raymond, W. Brück

P843 Caveat mTOR: mTOR and LC3 as markers of axonal pathology in multiple sclerosis

E. Young (Cleveland, Ohio, USA), B. Trapp

P844 Alternatively and classically activated macrophages migrate differently in organotypic central nervous system cultures

E. Vereyken, C. Dijkstra, C. Teunissen (Amsterdam, Netherlands)

Surrogate Markers (non-MRI)

P845 Development of a multiplex assay for simultaneous measurement of neurofilament subunits in cerebrospinal fluid of patients with multiple sclerosis

M. Koel-Simmelink, E. Elk, N. Norgren, C. Dijkstra, C. Teunissen (Amsterdam, Netherlands)

P846 Glial fibrillary acidic protein in cerebrospinal fluid is a marker for progression in multiple sclerosis

M. Axelsson (Gothenburg, Sweden), C. Malmeström, S. Haghighi, L. Rosengren, J. Lycke

P847 Viral seroprevalence among Canadian children with clinically isolated syndromes

B. Banwell (Toronto, Ontario, Canada), R. Tellier, J. Kennedy, M. McGowan, S. Magalhaes, D. Arnold, D. Sadovnick, A. Bar-Or for the Canadian Pediatric Demyelinating Network

P848 The timed 100-meter walk test: an easy-to-use sensitive tool to detect and evaluate restricted walking capacities in multiple sclerosis

S. Belachew (Liège, Belgium), P. Calay, V. Delvaux, R. Hyde, C. Hotermans, A. Pace, G. Moonen

P849 Intrathecal IgM response against S-nitrosocysteine in multiple sclerosis

S. Vujicic, J. Aasly, L. White, A. Othman, K. Petry, A. Boullerne (Chicago, Illinois, USA)

P850 Neuromyelitis optica (NMO) positive antibodies confer a worse course in relapsing-NMO in Cuba and French West Indies

J. Cabrera-Gomez (Havana, Cuba), C. Philippe, A. Saiz, M. Robinson-Agramonte, A. Gonzalez-Quevedo, R. Marignier, S. Olindo, C. Ugarte-Sanchez, J. Jordan, J. De la Nuez, R. Tellez, L. Quevedo/Sotolongo, R. Rodriguez Rojas, D. Grass-Fernandez, Y. Real-Gonzalez, D. Del Risco Ramos, D. Ugarte, R. Macias-Betancourt, R. Galvizu-Sanchez, K. Romero-Garcia

P851 Lachrymal isofocusing: an adapted method for diagnosis of multiple sclerosis

G. Calais (Lille, France), G. Forzy, C. Crinquette, A. Mackowiak, J. De Sèze, C. Lebrun-Frenay, B. Hennache, H. Zephir, P. Vermersch, P. Hauteceur

- P852** Measuring upper limb functioning in multiple sclerosis: is the Disabilities of Arm, Shoulder and Hand (DASH) fit for purpose?
S. Cano (London, United Kingdom), L. Barrett, A. Pace, J. Zajicek, J. Hobart for the Clinical Neurology Research Group
- P853** Use of a customized TaqMan low density array to investigate the effects of interferon beta neutralizing antibodies demonstrates a differential inhibition of gene expression
P. Paz, S. Velichko, T. Tran, K. Yamaguchi, F. Aswad, A. Reder, E. Croze (Richmond, California, USA)
- P854** Influence of time of day on Expanded Disability Status Scale, motor, and psychological fatiguability in patients multiple sclerosis
S. Demetz, F. Deisenhammer (Innsbruck, Austria)
- P855** Search of new biological markers of interferon-beta therapy
M. Fernández (Barcelona, Spain), L. Nonell, F. Deisenhammer, C. Costa, X. Montalban, M. Comabella
- P856** Serum levels of the B cell chemokine attractant CXCL13 are predictive of the presence and number of enhancing lesions on brain magnetic resonance images in patients with multiple sclerosis
E. Festa (Newark, New Jersey, USA), L. Wolansky, S. Cook, D. Cadavid
- P857** Neural cell adhesion molecule as a biomarker of neuroregeneration in experimental autoimmune encephalomyelitis
S. Gnanapavan (London, United Kingdom), S. Jackson, D. Grant, G. Keir, G. Giovannoni
- P858** Increase of serum uric acid levels in multiple sclerosis during treatment with natalizumab
Y. Handouk (Ancona, Italy), V. Angeleri, M. Danni, S. De Riso, L. Provinciali
- P859** Biomarkers of disease activity in multiple sclerosis patients treated with immunomodulatory agents
D. Hesse (Copenhagen, Denmark), M. Krakauer, H. Lund, A. Langkilde, F. Sellebjerg, P. Sorensen
- P860** Lessons from the Cannabinoids in Multiple Sclerosis (CAMS) Study: Part 2 - what happens when the Ashworth scale makes the grade?
J. Hobart (Plymouth, United Kingdom), A. Pace, L. Barrett, J. Zajicek, S. Cano for the Clinical Neurology Research Group
- P861** Optic coherence tomography in cases with optic neuritis
S. Kasar, F. Idiman, E. Idiman (Izmir, Turkey), S. Ozakbas, A. Saatci, O. Zengin, E. Karahan
- P862** Performance of an anti-GAGA4 IgM assay in distinguishing multiple sclerosis patients from control groups in a US cohort: a cross sectional retrospective study
T. Jaskowski (Salt Lake City, Utah, USA), D. Husebye, H. Seraj, J. Yarden, L. Spector, E. Fire, N. Dotan, H. Hill, J. Rose
- P863** Quantification of the retinal nerve fiber layer during acute unilateral optic neuritis and association with tests of visual function
K. Kallenbach (Glostrup, Denmark), B. Sander, M. Larsen, J. Frederiksen
- P864** Does soluble CD40L represent a marker for disability in multiple sclerosis?
A. Keegan (Sarasota, Florida, USA), G. Ait-Ghezala, L. Abdullah, D. Paris, C. Volmar, J. Parrish, M. Mullan
- P865** Low sensitivity and specificity of AQP4 IgG in multiple sclerosis and neuromyelitis optica in Australians
A. Kermode (Perth, Australia), J. Wu, T. Matsushita, W. Carroll, J. Kira, F. Mastaglia
- P866** Clinical and magnetic resonance imaging features of patients with anti-aquaporin-4 antibody
H. Kim (Goyang, South Korea), M. Park, I. Jung, J. Cho, O. Kwon
- P867** Electrophysiologically-eloquent pontine inflammatory lesion causes reversible loss of wave V on brainstem auditory evoked response
I. Kister (New York, New York, USA), J. Herbert
- P868** Withdrawn
- P869** Composite methylation profiles of blood DNA as biomarkers for multiple sclerosis
A. Melnikov, D. Scholtens, A. Reder, R. Balabanov, D. Stefoski, V. Levenson (Chicago, Illinois, USA)
- P870** Prediction of development of neutralizing antibodies to interferon-beta in patients with multiple sclerosis
L. Nonell (Barcelona, Spain), J. Río, J. Sánchez, F. Deisenhammer, R. Martin, X. Montalban, M. Comabella
- P871** Evidence of axonal loss in clinically isolated syndromes by optical coherence tomography?
O. Dutterryck (Lille, France), M. Mouyon, H. Zephir, S. Defoort, P. Debruyne, I. Bouacha, A. Lacour, D. Ferriby, P. Labalette, J. de Seze, P. Vermersch
- P872** Lessons from the Cannabinoids in Multiple Sclerosis (CAMS) Study: Part 1 - did Ashworth's scale make the grade?
A. Pace (Plymouth, United Kingdom), S. Cano, L. Barrett, J. Zajicek, J. Hobart for the Clinical Neurology Research Group
- P873** Serum neurofilament levels suggest axonal damage is more extensive in neuromyelitis optica than in neuromyelitis optica or multiple sclerosis optic neuritis
A. Petzold (London, United Kingdom), C. Maggiore, G. Plant
- P874** Early diagnosis and biomarker discovery from mass spectral profiles: application to multiple sclerosis
T. Rajalahti (Bergen, Norway), R. Arneberg, F. Berven, A. Kroksveen, M. Berle, K. Myhr, C. Vedeler, R. Ulvik, O. Kvalheim
- P875** Optical coherence tomography after acute optic neuritis: a potential outcome measure for neuroprotection trials
J. Ratchford (Baltimore, Maryland, USA), G. Hiremath, P. Calabresi
- P876** Anti-thyroid antibodies identify a subgroup of patients with multiple sclerosis
J. Rose (Salt Lake City, Utah, USA), T. Jaskowski, H. Seraj, D. Husebye, H. Hill, N. Carlson
- P877** Serum N-acetyl-aspartate in relapsing-remitting multiple sclerosis
M. Ruggieri (Bari, Italy), C. Tortorella, R. Leante, E. Ceci, E. Di Monte, P. Iaffaldano, V. Di Renzo, P. Livrea, M. Trojano

POSTER SESSION 2

- P878** Motor cortex excitability alterations in patients with clinically isolated syndrome and early relapsing-remitting multiple sclerosis
S. Schippling (Hamburg, Germany), S. Grossmann, M. Bester, R. Martin
- P879** Effect of interferon- β alone or in combination with atorvastatin on active MMP-9 and TIMP-1: results from the Swiss Atorvastatin and Betaferon in Multiple Sclerosis (SWABIMS) Trial
J. Sellner (München, Germany), I. Greeve, S. Leib, H. Mattle
- P880** Comparison of optical coherence tomography and scanning laser polarimetry in subgroups of multiple sclerosis
D. Siepmann (Rotterdam, Netherlands), M. Wefers Bettink-Remeijer, R. Hintzen
- P881** A comparison of multiple sclerosis patients who have negative cerebrospinal fluid oligoclonal bands to those with positive testing: baseline characteristics and prognosis
S. Siritho (Ottawa, Ontario, Canada), M. Freedman
- P882** Comparison of the degenerative and inflammatory markers in cerebrospinal fluid in multiple sclerosis patients with relapsing-remitting course of disease and after clinically isolated syndrome
V. Sládková (Olomouc, Czech Republic), J. Mareš, B. Luběnová, K. Kollárová, P. Kanovský
- P883** Systemic mitochondrial membrane hyperpolarisation in primary progressive multiple sclerosis
M. Slee (Adelaide, South Australia, Australia), P. McArdle, N. Sims, T. Chataway, D. Thyagarajan
- P884** Autoantibody profiling in multiple sclerosis: characterization of novel antigenic candidates
V. Somers, C. Govarts, R. Hupperts, R. Medaer, P. Stinissen (Diepenbeek, Belgium)
- P885** Quantitative cerebrospinal fluid peptide profiling of multiple sclerosis patients by mass spectrometry
M. Stoop (Rotterdam, Netherlands), L. Dekker, P. Burgers, R. Lamers, M. Titulaer, P. Sillevius Smitt, T. Luiders, R. Hintzen
- P886** Marked increase of cerebrospinal fluid glial fibrillary acidic protein in neuromyelitis optica: an astrocytic damage marker
R. Takano (Sendai, Japan), T. Misu, K. Fujihara, T. Takahashi, S. Sato, Y. Itoyama
- P887** Proteomic analysis in cerebrospinal fluid of patients with clinically isolated syndromes suggestive of multiple sclerosis
M. Tintoré (Barcelona, Spain), S. Rivera, E. Borràs, E. Julià, J. Sastre-Garriga, R. Martin, X. Montalban, M. Comabella
- P888** Serum uric acid levels are decreased in patients with relapsing-remitting multiple sclerosis, in particular during relapses
A. Tsakiri (Glostrup, Denmark), D. Tsiantoulas, J. Frederiksen
- P889** Cerebrospinal fluid oligoclonal bands and/or an elevated IgG index does not increase the risk of clinically definite multiple sclerosis in clinically isolated syndrome patients with brain magnetic resonance imaging lesions
J. Smrtka, C. Riley, S. Wang, M. Tullman (New York, New York, USA)
- P890** A successful validation of the ability of anti-GAGA4 IgM antibody assay to differentiate multiple sclerosis patients from other neurological diseases patients in a German cohort: a cross-sectional retrospective analysis
J. Brettschneider, S. Abdul, E. Fire, J. Yarden, L. Spector, N. Dotan, H. Tumani (Ulm, Germany)
- P891** Cerebrospinal fluid proteome profile in patients with clinically isolated syndrome and relapsing-remitting multiple sclerosis
H. Tumani (Ulm, Germany), D. Rau, C. Palm, J. Brettschneider, S. Süsmuth, V. Lehmsiek
- P892** Characterization of the peripheral milieu in children with acquired inflammatory central nervous system demyelination
S. Venkateswaran (Montréal, Québec, Canada), D. Gagne, M. McGowan, D. Sadovnick, D. Arnold, B. Banwell, A. Bar-Or for the Canadian Pediatric Demyelinating Network
- P893** Genetic variation in IFN signaling is associated with responsiveness to IFN- β in multiple sclerosis
S. Vosslander (Amsterdam, Netherlands), L. van der Voort, L. van Baarsen, R. Heijmans, J. Crusius, J. Killestein, C. Polman, C. Verweij
- P894** Evaluation of modified Montréal cognitive assessment in multiple sclerosis: a pilot study
K. Waspe (Winnipeg, Manitoba, Canada), G. Vorobeychik, N. Beauregard
- P895** NMO-IgG diagnostic and prognostic performance
M. Matiello, B. Weinschenker (Rochester, Minnesota, USA)
- P896** Effect of heat exposure on cortical excitability and fatigue in patients with multiple sclerosis
A. White (Salt Lake City, Utah, USA), S. Davis, L. Wendt
- P897** Fetuin-A is a biomarker for disease activity and treatment efficacy in multiple sclerosis
Q. Yan (New York, New York, USA), N. Donelan, J. Dinzey, M. Rammal, S. Sadiq
- P898** Retinal nerve fiber thickness in inflammatory demyelinating diseases of childhood onset
E. Yeh (Buffalo, New York, USA), B. Weinstock-Guttman, J. Reynolds, N. Lincoff, N. Agarwal, P. Buch, M. Karpinski, M. Ramanathan

POSTER SESSION 3 - LATE BREAKING NEWS

Disease Modifying Therapy

- P899** Low dose naltrexone improves quality of life in patients with multiple sclerosis: a randomized, masked, placebo-controlled trial
B. Cree (San Francisco, California, USA), D. Goodin, M. Ross, E. Kornyejeva
- P900** Efficacy of a new formulation of subcutaneous interferon beta-1a in patients with relapsing-remitting multiple sclerosis: results at 16 weeks from a double-blind, placebo-controlled study
N. De Stefano (Sienna, Italy)
- P901** Impact of early interferon beta-1b treatment on disease evolution over five years in patients with a first event suggestive of multiple sclerosis
M. Freedman (Ottawa, Ontario, Canada), L. Kappos, C. Polman, G. Edan, H. Hartung, D. Miller, X. Montalban, F. Barkhof, L. Bauer, V. Lanius, C. Metzigg, C. Pohl, R. Sandbrink
- P902** Randomized, prospective, rater-blinded, four-year, pilot study to compare the effect of daily versus every-other-day glatiramer acetate 20 mg subcutaneous injections in relapsing-remitting multiple sclerosis
D. Khan (Detroit, Michigan, USA), C. Caon, I. Zak, Z. Latif, R. Penmesta, F. Bao, S. Rageb, A. Hudson, A. Tselis

Epidemiology/Genetics

- P903** The expanding genetic overlap between multiple sclerosis and type 1 diabetes
M. Ban (Cambridge, United Kingdom), F. Multiple Sclerosis Genetics Consortium
- P904** Infections and vaccinations and the risk of multiple sclerosis: a population-based study
S. Ramagopalan (Oxford, United Kingdom), W. Valdar, D. Dymment, G. DeLuca, I. Yee, G. Giovannoni, G. Ebers, D. Sadovnick

Imaging

- P905** Predictive value of magnetic resonance imaging for future clinical outcome
B. Boden (Amsterdam, Netherlands), I. van den Elskamp, B. Uitdehaag, F. Barkhof
- P906** Upper cervical cord atrophy reflects disease subtype and disability in patients with multiple sclerosis followed up 20 years from disease onset with a clinically isolated syndrome
U. Bonati (London, United Kingdom), L. Fisniku, M. Yiannakas, D. Altmann, J. Furby, A. Thompson, D. Miller

Neuroimmunology

- P907** Confocal live imaging reveals direct damage of myelinated axons by antigen-specific CD8+ T cells
B. Sobottka, M. Harrer, U. Ziegler, K. Goebel, S. Meuth, B. Becher, T. Hünig, H. Wiendl, N. Goebels (Zurich, Switzerland)

Neuropsychology/Neuropsychiatry

- P908** Intracortical lesion detection by advanced magnetic resonance imaging and correlation with cognitive impairment related to multiple sclerosis
F. Nelson (Houston, Texas, USA), F. Perez, M. Morales, P. Narayana, J. Wolinsky

Symptom Management

- P909** Sustained-release fampridine consistently improves walking speed and leg strength in multiple sclerosis: a phase 3 trial
A. Goodman (Rochester, New York, USA), S. Schwid, T. Brown, L. Krupp, R. Schapiro, L. Marinucci, R. Cohen, A. Blight