

POSTER SESSION 2

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

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- 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. Castilló, 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. Rykavicin, 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

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- 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. Landt-blom, 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. Landt-blom, 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. Tenembaum (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. Dertel, 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. Prawdzik, 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. Houry, 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. Aguirregomozcorta (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. Defier
- P778** Complex pathological pathways of altered social cognition in multiple sclerosis
A. Feldmann, M. Banati, A. Peterfalvi, P. Kosztołanyi, 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

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- 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. Vujcic, 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