

Wednesday, 13 October, 2021*Clinical*

12:00 - 13:00 CEST

R1

Hot Topic 1: Disease progression: how to define, how to monitor*Chair:* Eva Kubala Havrdová, CZ*Chair:* Jelena Drulovic, RS

	Introduction by chairs	12:00 - 12:05 CEST
	Clinical assessments and scores	12:05 - 12:15 CEST
	<i>Speaker:</i> Jeremy Hobart, GB	
	MRI techniques in routine practice	12:15 - 12:25 CEST
	<i>Speaker:</i> Christina Azevedo, US	
001	OCT	12:25 - 12:35 CEST
	<i>Speaker:</i> Axel Petzold, GB	
	Live discussion	12:35 - 13:00 CEST

Clinical

12:00 - 13:00 CEST

R2

Hot Topic 2: COVID-19 and MS*Chair:* Andrew Chan, CH*Chair:* Olaf Stuve, US

	Introduction by chairs	12:00 - 12:05 CEST
002	Immunology and virology	12:05 - 12:15 CEST
	<i>Speaker:</i> Renaud Du Pasquier, CH	
	Lessons learned from COVID-19 & MS registries and data gaps	12:15 - 12:25 CEST
	<i>Speaker:</i> Maria Pia Sormani, IT	
003	Treatments in the context of MS: about DMT's and SARS-CoV2	12:25 - 12:35 CEST
	<i>Speaker:</i> Anat Achiron, IL	
	Live discussion	12:35 - 13:00 CEST

Pathogenesis

12:00 - 13:00 CEST

R3

European Charcot Foundation Symposium: The mystery solved project - an MS Initiative of the ECF to foster research on human brain tissue*Chair:* Maria Pia Amato, IT*Chair:* Giancarlo Comi, IT

	The Mystery Solved Program: Aims and Current Status	12:00 - 12:10 CEST
	<i>Speaker:</i> Patrick Vanderdonck, BE	
	What have we learnt from brain biopsies from patients with early MS?	12:10 - 12:25 CEST
	<i>Speaker:</i> Claudia Lucchinetti, US	
	What can a Brain Bank contribute to MS research?	12:25 - 12:40

Scientific program

004	<i>Speaker:</i> Richard Reynolds, GB	CEST
	Live discussion	12:40 - 13:00
	<i>Speaker:</i> Hans Lassmann, AT	CEST
<i>Imaging and non-imaging biomarkers/Translational</i>		
12:00 - 13:00 CEST		
R4		
Hot Topic 3: Imaging pathology in MS		
<i>Chair:</i> Christian Enzinger, AT		
<i>Chair:</i> Kejal Kantarci, US		
	Introduction by chairs	12:00 - 12:05
		CEST
005	Imaging of meninges and the glymphatic system	12:05 - 12:15
	<i>Speaker:</i> Daniel S. Reich, US	CEST
	The central vein sign and its diagnostic contribution to MS	12:15 - 12:25
	<i>Speaker:</i> Nikos Evangelou, GB	CEST
006	Iron pathology on 7T-MRI: short-term effects vs long-term insights	12:25 - 12:35
	<i>Speaker:</i> Assunta Dal-Bianco, AT	CEST
	Live discussion	12:35 - 13:00
		CEST
<i>Therapy / Global views</i>		
12:00 - 13:00 CEST		
R5		
Hot Topic 4: Clinical relevance versus statistical significance – critical appraisal of MS research		
<i>Chair:</i> Anne H. Cross, US		
<i>Chair:</i> Tobias Derfuss, CH		
	Introduction by chairs	12:00 - 12:05
		CEST
007	How to assess and summarize a study	12:05 - 12:15
	<i>Speaker:</i> Elena Hernández Martínez-Lapiscina, ES	CEST
	The p-value – common misconceptions and correct application	12:15 - 12:25
	<i>Speaker:</i> Florian Deisenhammer, AT	CEST
008	Data analyses: new strategies for new trial outcomes	12:25 - 12:35
	<i>Speaker:</i> Carmen Tur, ES	CEST
	Live discussion	12:35 - 13:00
		CEST
<i>Educational Sessions</i>		
12:00 - 13:00 CEST		
R6		
Educational Session 1: MOGAD: differentiating from MS and AQP4 NMOSD		
Supported by an unrestricted educational grant from Horizon Therapeutics		
<i>Chair:</i> Jacqueline Palace, GB		
<i>Chair:</i> Brenda Banwell, US		
	Introduction by chairs	12:00 - 12:05
		CEST
009	Clinical, imaging and epidemiological features	12:05 - 12:20

Scientific program

	<i>Speaker:</i> Jacqueline Palace, GB	CEST
010	Diagnostic assays <i>Speaker:</i> Fabienne Brilot, AU	12:20 - 12:35 CEST
011	Management issues <i>Speaker:</i> Brenda Banwell, US	12:35 - 12:50 CEST
	Live discussion	12:50 - 13:00 CEST

Educational Sessions

12:00 - 13:00 CEST

R7

Educational Session 2: Treatment of relapsing-remitting MS

Supported by an unrestricted educational grant from Merck and Novartis

Chair: Frauke Zipp, DE*Chair:* Maria Trojano, IT

	Introduction by chairs	12:00 - 12:05 CEST
012	Should every relapsing MS patient be treated? <i>Speaker:</i> Jaume Sastre-Garriga, ES	12:05 - 12:20 CEST
013	Switching treatments: when and how? <i>Speaker:</i> Frauke Zipp, DE	12:20 - 12:35 CEST
014	Is there a place for induction treatment? <i>Speaker:</i> Maria Trojano, IT	12:35 - 12:50 CEST
	Live discussion	12:50 - 13:00 CEST

Nurses Sessions

12:00 - 13:00 CEST

R8

Nurses' Session 1 : Nursing role and competencies around the world and symptoms measure and management*Chair:* Miguel Angel Robles, ES*Chair:* Therese Burke, AU

	Introduction by chairs	12:00 - 12:05 CEST
015	Conductors of care: exploring the skillset and definition of the MS nurse role in Australasia <i>Speaker:</i> Therese Burke, AU	12:05 - 12:20 CEST
016	Disease-related knowledge measurement instruments of people affected by multiple sclerosis: a systematic psychometric review <i>Speaker:</i> Marina Gonzalez, ES	12:20 - 12:35 CEST
017	Lower urinary tract dysfunction in patients with multiple sclerosis: a post-void residual analysis of 501 cases <i>Speaker:</i> Roberta Motta, IT	12:35 - 12:50 CEST
	Live discussion	12:50 - 13:00 CEST

Poster Session

12:00 - 21:00 CEST

eP05 - ePoster - Paediatric MS

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| P095 | CONNECT: an open-label, active-controlled dimethyl fumarate study in pediatric patients with relapsing-remitting multiple sclerosis
<i>Speaker:</i> Matt Scaramozza, US | 12:00 - 12:00
CEST |
| P096 | Assessing treatment response in pediatric multiple sclerosis patients
<i>Speaker:</i> Ermelinda De Meo, IT | 12:00 - 12:00
CEST |
| P097 | Using historical relapse rates for the design of an innovative Phase 3 study with ofatumumab and siponimod in paediatric multiple sclerosis
<i>Speaker:</i> Jutta Gärtner, DE | 12:00 - 12:00
CEST |
| P098 | The difference in the blood transcriptional profiles in pediatric and adult multiple sclerosis patients
<i>Speaker:</i> Eitan Shavit, IL | 12:00 - 12:00
CEST |
| P099 | Rituximab in paediatric onset multiple sclerosis - a retrospective observational study
<i>Speaker:</i> Julian Benedikt Reichelt, AT | 12:00 - 12:00
CEST |
| P100 | Neuropsychological tests do not adequately screen for academic impairment in children with multiple sclerosis
<i>Speaker:</i> Wendy Vargas, US | 12:00 - 12:00
CEST |
| P101 | Children with multiple sclerosis struggle academically to a greater extent than is predicted by standard neuropsychological testing
<i>Speaker:</i> Michael Glendinning, US | 12:00 - 12:00
CEST |
| P102 | Innovative phase 3 NEOS study design evaluating efficacy and safety of ofatumumab and siponimod versus fingolimod in paediatric multiple sclerosis
<i>Speaker:</i> Jutta Gärtner, DE | 12:00 - 12:00
CEST |
| P103 | Pediatric-onset multiple sclerosis: differences in disease burden and activity at onset and follow-up in pediatric-onset patients vs adult-onset patients
<i>Speaker:</i> Carmela Capillo, IT | 12:00 - 12:00
CEST |
| P104 | Relapse rates and disability progression in paediatric onset MS patients during the course of the disease
<i>Speaker:</i> David Ellenberger, DE | 12:00 - 12:00
CEST |

Poster Session

12:00 - 21:00 CEST

eP11 - ePoster - MS symptoms

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| P187 | COVID-19 vaccination in patients with multiple sclerosis: what we have learnt by May 2021 | 12:00 - 12:00
CEST |
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	<i>Speaker:</i> Sapir Dreyer-Alster, IL	
P188	Poor sleep: a new symptom of multiple sclerosis? <i>Speaker:</i> Laura Laslett, AU	12:00 - 12:00 CEST
P189	Impact of demographics, socioeconomic status and comorbidities on disability outcomes in African-American and Caucasian patients with multiple sclerosis <i>Speaker:</i> Maria Petracca, US	12:00 - 12:00 CEST
P190	Safety and efficacy of COVID-19 Pfizer-BNT162b2 m-RNA vaccine in young MS population <i>Speaker:</i> Shay Menascu, IL	12:00 - 12:00 CEST
P191	Hidden symptoms in MS: a survey of clinical gaps <i>Speaker:</i> S Christy Rohani-Montez, GB	12:00 - 12:00 CEST
P192	Predictors of self-reported fatigue in a large real world multiple sclerosis cohort <i>Speaker:</i> Simon Englund, SE	12:00 - 12:00 CEST
P193	Cognitive change in the pre- and post-relapse period: Evidence from a nationwide longitudinal cohort study <i>Speaker:</i> Kyla A McKay, SE	12:00 - 12:00 CEST
P194	Morphological correlates of fatigue in patients with multiple sclerosis <i>Speaker:</i> Stefanie Hechenberger, AT	12:00 - 12:00 CEST
P195	Investigating the association of mood and fatigue with objective and subjective cognitive impairment in multiple sclerosis <i>Speaker:</i> Laura Davenport, IE	12:00 - 12:00 CEST
P196	Topographic mismatch between clinical relapse and MRI lesion mapping in multiple sclerosis patients <i>Speaker:</i> Jutta Dünschede, DE	12:00 - 12:00 CEST
P197	Relationship between presence of spinal cord lesion and restless legs syndrome in multiple sclerosis <i>Speaker:</i> Serkan Ozakbas, TR	12:00 - 12:00 CEST
P198	Motor impairment in multiple sclerosis: Analysis from the North American Registry for Care and Research in Multiple Sclerosis (NARCRMS) <i>Speaker:</i> Kottil Rammohan, US	12:00 - 12:00 CEST
P199	Assessment of sexual dysfunction and related factors in female patients with multiple sclerosis <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P200	Real-time assessment of daytime sleepiness in drivers with multiple sclerosis <i>Speaker:</i> Maryam Sadeghi, IR	12:00 - 12:00 CEST
P201	Bright light therapy as a non-pharmacological treatment option for fatigue in multiple sclerosis	12:00 - 12:00 CEST

Scientific program

	<i>Speaker:</i> Lisa Voggenberger, AT	
P202	Assessment of fatigue and related factors patients with multiple sclerosis <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P203	Hypogammaglobulinemia: a possible cause of multiple sclerosis-related fatigue? <i>Speaker:</i> Lara Diem, CH	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP07 - ePoster - Natural Course

P125	Risk factors of early clinical conversion in radiologically isolated syndrome <i>Speaker:</i> Christine Lebrun-Frenay, FR	12:00 - 12:00 CEST
P126	Changes in the epidemiology and prognosis of the Danish multiple sclerosis population <i>Speaker:</i> Melinda Magyar, DK	12:00 - 12:00 CEST
P127	Longitudinal profiling of early NFL and MRI prognostic biomarkers against 15-year outcomes in relapse-onset multiple sclerosis <i>Speaker:</i> Thomas Williams, GB	12:00 - 12:00 CEST
P128	Overcoming COVID-19 vaccine hesitancy in people with multiple sclerosis <i>Speaker:</i> Alon Kalron, IL	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP06 - ePoster - Progressive MS

P105	Cortical lesions at diagnosis predict conversion to secondary progressive multiple sclerosis and accumulation of disability: a 20-year follow-up study <i>Speaker:</i> Gian Marco Schiavi, IT	12:00 - 12:00 CEST
P106	Contributors to secondary progressive multiple sclerosis conversion age – a federated learning analysis across five European MS registries <i>Speaker:</i> Lars Forsberg, SE	12:00 - 12:00 CEST
P107	Results from a multicentre, randomised, double blind, placebo-controlled study of repository corticotropin injection for multiple sclerosis relapse that inadequately responded to corticosteroids <i>Speaker:</i> Aaron E. Miller, US	12:00 - 12:00 CEST
P108	Progression independent of relapse activity in early multiple sclerosis patients and risk of secondary progression: an Italian multicentre study	12:00 - 12:00 CEST

	<i>Speaker:</i> Emilio Portaccio, IT	
P109	Demographic and clinical characteristics of treated and untreated patients with secondary progressive multiple sclerosis – analysis from three European registries <i>Speaker:</i> Luigi Pontieri, DK	12:00 - 12:00 CEST
P110	Impact of COVID-19 lockdown on a population of progressive multiple sclerosis patients in Northern Italy <i>Speaker:</i> Chiara Bosa, IT	12:00 - 12:00 CEST
P111	Smoking, cardiovascular risk factors and LRP2 gene variation: associations with disease severity, cognitive function and brain structure in primary progressive multiple sclerosis <i>Speaker:</i> Helene Hoejsgaard Chow, DK	12:00 - 12:00 CEST
P112	A pilot study: identification of cerebrospinal fluid pattern at diagnosis in relapsing-remitting and secondary progressive patients <i>Speaker:</i> Anna Isabella Pisani, IT	12:00 - 12:00 CEST
P113	Estimating the profile of responders to treatment: do different patients show benefits on different outcomes? <i>Speaker:</i> Francesca Bovis, IT	12:00 - 12:00 CEST
P114	Predictive factors for progression in elderly multiple sclerosis patients <i>Speaker:</i> Anne Zinganell, AT	12:00 - 12:00 CEST
P115	Disease modifying treatment ameliorates disability worsening in patients with aggressive PPMS: results from the Big MS Data network <i>Speaker:</i> Johannes Lorscheider, CH	12:00 - 12:00 CEST
P116	A pilot study: The identification of cerebrospinal fluid profile prognostic of secondary progression at diagnosis of relapsing-remitting multiple sclerosis <i>Speaker:</i> Anna Isabella Pisani, IT	12:00 - 12:00 CEST
P117	Real world experience with Ocrelizumab in patients with primary progressive multiple sclerosis: insights from the German NeuroTransData Registry <i>Speaker:</i> Stefan Braune, DE	12:00 - 12:00 CEST
P118	Follow-up of a French cohort of progressive multiple sclerosis patients treated with anti-CD20 antibodies <i>Speaker:</i> Maximilian Einsiedler, FR	12:00 - 12:00 CEST
P119	Development of Your MS Questionnaire: a patient completed? digital tool to monitor multiple sclerosis disease symptoms and their impact on people's life <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P120	The role of the MS specialist nurse in the care for patients with	12:00 - 12:00

	primary progressive multiple sclerosis <i>Speaker:</i> Katelijjn Blok, NL	CEST
P121	Heterogeneity on long-term disability trajectories in secondary progressive MS patients – a latent class analysis from big MS data network <i>Speaker:</i> Alessio Signori, IT	12:00 - 12:00 CEST
P122	Monitoring cognition in relapsing-remitting multiple sclerosis (RRMS) and secondary progressive multiple sclerosis (SPMS) patients <i>Speaker:</i> Sandra Teoh, MY	12:00 - 12:00 CEST
P123	Effect of natalizumab on disability progression in patients with non-active secondary progressive multiple sclerosis in ASCEND <i>Speaker:</i> Zhe Chen, US	12:00 - 12:00 CEST
P124	Disability in primary progressive multiple sclerosis study from Argentinean registry cohort study (RelevarEM) <i>Speaker:</i> Ricardo Alonso, AR	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP09 - ePoster - MS and gender		
P161	Hormone replacement therapy and disease activity in Danish women with multiple sclerosis - a population-based cohort study <i>Speaker:</i> Tine Iskov Kopp, DK	12:00 - 12:00 CEST
P162	Pregnancies are associated with lower risk of multiple sclerosis <i>Speaker:</i> Christiane Gasperi, DE	12:00 - 12:00 CEST
P163	The influence of biological sex on cognitive performance in people with multiple sclerosis <i>Speaker:</i> Manuela Altieri, IT	12:00 - 12:00 CEST
P164	Smoking, early menopause, and early progression in MS <i>Speaker:</i> Burcu Zeydan, US	12:00 - 12:00 CEST
P165	Family planning concerns and unmet need for contraception in women with multiple sclerosis in colombia <i>Speaker:</i> Lorena López-Reyes, CO	12:00 - 12:00 CEST
P166	MS DREAMS: menopause and sleep dysfunction: reports and assessments from multiple sclerosis patients <i>Speaker:</i> Jessica Singh, US	12:00 - 12:00 CEST
P167	The effect of sex and race on delays in multiple sclerosis evaluation and diagnosis: an updated analysis <i>Speaker:</i> Amy Safadi, US	12:00 - 12:00 CEST

Scientific program

Poster Session

12:00 - 21:00 CEST

eP24 - ePoster - Neurobiology

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| P391 | Evaluating the effect of BTK inhibitor tolebrutinib in human microglia
<i>Speaker:</i> Ross Gruber, US | 12:00 - 12:00
CEST |
| P392 | Microfibril-associated protein 4 (MFAP4) as a biomarker for disease activity of optic neuritis associated-inflammatory demyelinating diseases
<i>Speaker:</i> Nasrin Asgari, DK | 12:00 - 12:00
CEST |
| P393 | Hippocampal subfields in RRMS: the modulatory role of gender, fatigue and depression
<i>Speaker:</i> Damiano Mistri, IT | 12:00 - 12:00
CEST |
| P394 | Sex specific changes of mechanical properties of the mouse brain in experimental autoimmune encephalomyelitis
<i>Speaker:</i> Clara Sophie Batzdorf, DE | 12:00 - 12:00
CEST |

Poster Session

12:00 - 21:00 CEST

eP22 - ePoster - Microbiology and virology

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| P371 | Case report of 5 Kaiser Permanente Northern California members diagnosed with CIS or RRMS with initial clinical relapse less than 2 weeks after a COVID19 mRNA vaccine
<i>Speaker:</i> Jacqueline Marcus, US | 12:00 - 12:00
CEST |
| P372 | IMU-838, a small molecule DHODH inhibitor in phase II clinical trial for multiple sclerosis, shows potent Anti-EBV activity in cell-culture-based systems: Potential additional benefits in multiple sclerosis treatment
<i>Speaker:</i> Manfred Marschall, DE | 12:00 - 12:00
CEST |
| P373 | Chitinase-3-like 1 and antiviral serology in primary progressive and relapsing remitting multiple sclerosis patients
<i>Speaker:</i> Roberto Alvarez-Lafuente, ES | 12:00 - 12:00
CEST |
| P374 | pHERV-W ENV/syncytin-1 expression in relapsing-remitting and primary progressive multiple sclerosis patients and healthy controls: differences and possible viral transactivation
<i>Speaker:</i> Roberto Alvarez-Lafuente, ES | 12:00 - 12:00
CEST |
| P375 | Short chain fatty acids in serum and CSF samples of patients with multiple sclerosis and other neurological diseases: correlation with clinical data and the antiviral response
<i>Speaker:</i> Roberto Alvarez-Lafuente, ES | 12:00 - 12:00
CEST |

Poster Session

12:00 - 21:00 CEST

eP03 - ePoster - MOGSD

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| P053 | Heterogeneity of clinical presentations among patients with | 12:00 - 12:00 |
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	MOG-antibody associated disease	CEST
	<i>Speaker:</i> Barbara Willekens, NL	
P054	Demographic and clinical profile of patients with myelin oligodendrocyte glycoprotein antibody-associated disease in Chile	12:00 - 12:00 CEST
	<i>Speaker:</i> Jorge Guzman, CL	
P055	Prevalence, incidence, and seasonal distribution of onset of MOG antibody-associated disease in the province of Verona, Italy	12:00 - 12:00 CEST
	<i>Speaker:</i> Riccardo Orlandi, IT	
P056	Impact of COVID-19 public health measures on myelin oligodendrocyte glycoprotein IgG-associated disorders in children	12:00 - 12:00 CEST
	<i>Speaker:</i> Matsanga Leyila Kaseka, CA	
P057	Clinical characteristics and response to treatment of patients with MOGAD: a multicenter case series	12:00 - 12:00 CEST
	<i>Speaker:</i> Hayet Boudjani, CA	
P058	Cognitive impairment and depression are highly prevalent in MOG-IgG associated antibody disease	12:00 - 12:00 CEST
	<i>Speaker:</i> Ann-Kathrin Kogel, DE	
P059	Clinical and imaging predictors of MOG-antibody persistency in pediatric MOG-associated disorders	12:00 - 12:00 CEST
	<i>Speaker:</i> Edgar Martinez Chavez, CA	
P060	Absence of attack-independent neuroaxonal injury in MOG antibody-associated disease: Longitudinal analysis of serum neurofilament light chain	12:00 - 12:00 CEST
	<i>Speaker:</i> Jae-Won Hyun, KR	
P061	Acute disseminated encephalomyelitis requiring decompressive craniectomy as initial presentation of mog-antibody disorders in adults	12:00 - 12:00 CEST
	<i>Speaker:</i> Alba Chavarria-Miranda, ES	
P062	Volumetric brain loss at diagnosis correlates with a relapsing MOGAD disease course	12:00 - 12:00 CEST
	<i>Speaker:</i> Ariel Rechtman, IL	
P063	Brain volume measures in adults with MOG-antibody associated disease: a longitudinal multicentre study	12:00 - 12:00 CEST
	<i>Speaker:</i> Riccardo Orlandi, IT	

Poster Session
12:00 - 21:00 CEST

eP16 - ePoster - Comorbidity

P289	Racial disparities in hypertension management among multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Devon Conway, US	

Scientific program

P290	Illness perceptions and coping in the relationship between personality, depression, anxiety and illness acceptance in multiple sclerosis <i>Speaker:</i> Rebekah Davenport, AU	12:00 - 12:00 CEST
P291	Vaccine hesitancy among people with multiple sclerosis <i>Speaker:</i> Siew Mei Yap, IE	12:00 - 12:00 CEST
P292	Impact of cancer immunotherapy on multiple sclerosis course and management <i>Speaker:</i> Louise Noroy, FR	12:00 - 12:00 CEST
P293	The role of comorbidities in long term prognosis in the Clinically Isolated Syndrome and early MS Barcelona inception cohort <i>Speaker:</i> Simón Cárdenas-Robledo, CO	12:00 - 12:00 CEST
P294	Impact of comorbidity clusters of MS patients in healthcare resource usage: A latent class analysis <i>Speaker:</i> Simón Cárdenas-Robledo, CO	12:00 - 12:00 CEST
P295	An analysis of main symptoms of COVID-19 in MS patients and related risk factors <i>Speaker:</i> Irene Schiavetti, IT	12:00 - 12:00 CEST
P296	Long COVID among people with MS: A prospective and longitudinal observational study of the UK MS Register <i>Speaker:</i> Afagh Garjani, GB	12:00 - 12:00 CEST
P297	SARS-COV-2 infection impact on patients with multiple sclerosis and neuromyelitis spectrum disorder in a Colombia cohort <i>Speaker:</i> Maria Zuluaga, CO	12:00 - 12:00 CEST
P298	Influence of cardiovascular risk factors in early relapsing remitting multiple sclerosis <i>Speaker:</i> Pablo Arroyo-Pereiro, ES	12:00 - 12:00 CEST
P299	COVID-19 in a neuroimmunology and multiple sclerosis referral unit <i>Speaker:</i> Lluís Ramió-Torrent?, ES	12:00 - 12:00 CEST
P300	MS disease activity following initiation of dupilumab for dyshidrotic eczema: Case report <i>Speaker:</i> Leah Laageide, US	12:00 - 12:00 CEST
P301	Incidence and predisposing factors of COVID-19 in patients living with multiple sclerosis: Results from a prospective multiple sclerosis cohort <i>Speaker:</i> Cavid Baba, TR	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP34 - ePoster - Risk management for disease modifying treatments

Scientific program

P756	Risk of cancer with disease-modifying drugs in multiple sclerosis: a new-user cohort design in the French nationwide claims database <i>Speaker:</i> Meritxell Sabidó, DE	12:00 - 12:00 CEST
P757	Personalized B-cell tailored dosing of ocrelizumab in patients with multiple sclerosis during the COVID-19 pandemic <i>Speaker:</i> Zoë Yolante Germieke Jocelyn van Lierop, NL	12:00 - 12:00 CEST
P758	Transitioning from S1P receptor modulators to B-cell depleting therapies in multiple sclerosis: clinical, radiographic and laboratory data <i>Speaker:</i> William Rowles, US	12:00 - 12:00 CEST
P759	Increased risk of death from COVID-19 in multiple sclerosis: a meta-analysis of observational studies <i>Speaker:</i> Luca Prosperini, IT	12:00 - 12:00 CEST
P760	Rituximab treatment prior to pregnancy in women with multiple sclerosis – perinatal outcomes in Swedish cohort <i>Speaker:</i> Agnes Gorczyca, SE	12:00 - 12:00 CEST
P761	Outpatient infections, multiple sclerosis and disease-modifying therapies <i>Speaker:</i> Annette Langer-Gould, US	12:00 - 12:00 CEST
P762	Ocrelizumab-related neutropenia: effects of age, sex and bodyweight using the FDA adverse event reporting system (FAERS) <i>Speaker:</i> Helly Hammer, CH	12:00 - 12:00 CEST
P763	Effect of Total Body Weight and Body Mass Index on lymphocyte counts in scottish multiple sclerosis patients treated with cladribine <i>Speaker:</i> Elizabeth Phuong My Phan, GB	12:00 - 12:00 CEST
P764	Can induction of autoimmune antibodies after alemtuzumab treatment of multiple sclerosis predict secondary autoimmunity? <i>Speaker:</i> Sofia Sandgren, SE	12:00 - 12:00 CEST
P765	Anti-CD20 therapies decrease humoral immune response to SARS-CoV-2 in patients with multiple sclerosis or neuromyelitis optica spectrum disorders <i>Speaker:</i> Michella Ibrahim, LB	12:00 - 12:00 CEST
P766	Post-approval safety of cladribine tablets with particular reference to COVID-19 outcomes: an update <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P767	Incidence of infections and severe lymphopenia in patients newly initiating cladribine tablets or fingolimod for treatment of multiple sclerosis: CLARION study <i>Speaker:</i> Jan Hillert, SE	12:00 - 12:00 CEST

Scientific program

P768	Persistence of seroprotective titers of antibodies against HBV and VZV in MS patients <i>Speaker:</i> Filipa Ladeira, PT	12:00 - 12:00 CEST
P769	Safety of natalizumab reinfusion during active Sars-Cov-2 infection in patients with multiple sclerosis <i>Speaker:</i> Doriana Landi, IT	12:00 - 12:00 CEST
P770	Malignancies risk in patients with immunosuppressive treatment <i>Speaker:</i> Judit Díaz-Díaz, ES	12:00 - 12:00 CEST
P771	Antibody response to SARS-CoV2 vaccination in people with multiple sclerosis <i>Speaker:</i> Sammita Satyanarayan, US	12:00 - 12:00 CEST
P772	Ocrelizumab attenuates the humoral response to SARS-CoV-2 compared with other disease modifying therapies in multiple sclerosis: a case-control study <i>Speaker:</i> William Conte, US	12:00 - 12:00 CEST
P773	Blood pressure excursions with alemtuzumab in Canadian patients with relapsing remitting multiple sclerosis <i>Speaker:</i> Sarah Morrow, CA	12:00 - 12:00 CEST
P774	Comparison of perceived and actual risks of progressive multifocal encephalopathy in patients treated with natalizumab at a single centre <i>Speaker:</i> Rachel Dorsey-Campbell, GB	12:00 - 12:00 CEST
P775	Persistent lymphopenia after dimethyl fumarate and fingolimod treatment <i>Speaker:</i> Isabel Hernández, ES	12:00 - 12:00 CEST
P776	ACAPELLA: hypogammaglobulinemia and JCV status in ocrelizumab-treated patients, year four data <i>Speaker:</i> Elizabeth Douglas, US	12:00 - 12:00 CEST
P777	Design and rationale for an open-label multicenter phase 4 study assessing Immune response to COVID-19 vaccine in patients with relapsing multiple sclerosis treated with ofatumumab <i>Speaker:</i> Tanuja Chitnis, US	12:00 - 12:00 CEST
P778	Management of hepatitis B virus infection prophylaxis in patients treated with disease modifying therapies for multiple sclerosis: a multicentric Italian retrospective study <i>Speaker:</i> Roberta Lanzillo, IT	12:00 - 12:00 CEST
P779	Management of intravenous therapy for MS during COVID-19 pandemic <i>Speaker:</i> Judit Díaz-Díaz, ES	12:00 - 12:00 CEST
P780	Effect of cladribine on COVID-19 serology responses following 2 doses of the BNT162b2 mRNA vaccine in patients with	12:00 - 12:00 CEST

multiple sclerosis		
	<i>Speaker:</i> Ariel Rechtman, IL	
P781	MS patients treated with natalizumab have a positive serology response to SARS-CoV-2 S1/S2 following vaccination with two doses of mRNA COVID-19 vaccine <i>Speaker:</i> Ariel Rechtman, IL	12:00 - 12:00 CEST
P782	Vaccinations in patients with multiple sclerosis: a real-world, single-center, experience <i>Speaker:</i> Elvira Sbragia, IT	12:00 - 12:00 CEST
P783	COVID-19 infections and vaccinations in the Swiss Multiple Sclerosis Cohort study <i>Speaker:</i> Varenka Epple, CH	12:00 - 12:00 CEST
P784	Is multiple sclerosis knowledge related to medication adherence? <i>Speaker:</i> Edward Smith, GB	12:00 - 12:00 CEST
P785	A disease modifying therapy panel for multiple sclerosis: experience of the first 2 years <i>Speaker:</i> Jon McKee, GB	12:00 - 12:00 CEST
P786	Impact of COVID-19 in immunosuppressed children with neuroimmunologic disorders <i>Speaker:</i> Gemma Olivé-Cirera, ES	12:00 - 12:00 CEST
P787	One year of natalizumab extended interval dosing: what have we learned <i>Speaker:</i> Catarina Bernardes, PT	12:00 - 12:00 CEST
P788	Infections and multiple sclerosis: recommendations from the French Multiple Sclerosis Society <i>Speaker:</i> Caroline Papeix, FR	12:00 - 12:00 CEST
P789	Evaluating the efficacy and safety of transitioning patients from Natalizumab to Ocrelizumab <i>Speaker:</i> Kyle Smoot, US	12:00 - 12:00 CEST
P790	Observational study of a novel peri-infusion regimen on the infusion-associated reactions with alemtuzumab in patients with MS in a Canadian clinical setting <i>Speaker:</i> Richard Leckey, CA	12:00 - 12:00 CEST
P791	Prospectively stratifying Infectious risks in multiple sclerosis – first results of the InRIMS study <i>Speaker:</i> Martin Diebold, DE	12:00 - 12:00 CEST
P792	Fulminant neurosyphilis with abscess formation post-ocrelizumab in a patient with relapsing remitting multiple sclerosis <i>Speaker:</i> Sina Marzoughi, CA	12:00 - 12:00 CEST
P793	Evaluation of tolebrutinib animal embryo-foetal developmental data indicates low risk during pregnancy	12:00 - 12:00 CEST

Scientific program

	<i>Speaker:</i> Lynn B Davenport, US	
P794	INFORM – Interferon beta exposure in the 2nd and 3rd trimester of pregnancy - a register-based drug utilisation study in Finland and Sweden	12:00 - 12:00 CEST
	<i>Speaker:</i> Meritxell Sabidó, DE	
P795	ACAPELLA: real-world experience with ocrelizumab - an observational study evaluating safety in patients with relapsing and progressive MS, year four data	12:00 - 12:00 CEST
	<i>Speaker:</i> Elizabeth Douglas, US	

Poster Session

12:00 - 21:00 CEST

eP25 - ePoster - Neurodegeneration

P395	Investigating the effects of diabetes mellitus and hypertension on retinal layer thickness in patients with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Vince Marceau, US	
P396	Advanced diffusion-weighted imaging models better characterize white matter neurodegeneration and clinical outcomes in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Loredana Storelli, IT	
P397	MRI predictors of upper cervical cord grey matter atrophy in multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Raffaello Bonacchi, IT	
P398	Chronic demyelination-induced cell senescence is responsible for motor impairment in a model of MS	12:00 - 12:00 CEST
	<i>Speaker:</i> Irimi Papazian, GR	
P399	Molecular mechanisms of tauopathy upon demyelination process: is neurotoxic cis p-tau one of the central mediators in MS development?	12:00 - 12:00 CEST
	<i>Speaker:</i> Seyed Massood Nabavi, IR	

Poster Session

12:00 - 21:00 CEST

eP19 - ePoster - Experimental models

P321	Characterization of a neuromyelitis optica mice model induced by AQP4 peptide immunization	12:00 - 12:00 CEST
	<i>Speaker:</i> Kenichi Serizawa, JP	
P322	Behavioral consequences of endocrine disruptors in a <i>Xenopus laevis</i> model of inducible-demyelination and myelin regeneration	12:00 - 12:00 CEST
	<i>Speaker:</i> Bernard Zalc, FR	
P323	Investigating the role of astrocytes for the survival of axons in chronic inflammatory lesions	12:00 - 12:00 CEST
	<i>Speaker:</i> Luise Reukauf, DE	

Scientific program

P324	Validation of a new animal model suitable for the investigation of mechanisms and potential therapeutic options of progressive multiple sclerosis <i>Speaker:</i> Michaela Tanja Haindl, AT	12:00 - 12:00 CEST
P325	Vitamin D decreases demyelination and anxiety signs in an animal model resembling the cortical pathology of multiple sclerosis <i>Speaker:</i> Berenice Anabel Silva, AR	12:00 - 12:00 CEST
P326	Age-related changes in the CNS immune response and neuroregeneration in EAE <i>Speaker:</i> María Dema, ES	12:00 - 12:00 CEST
P327	Spinal cord grey matter demyelination in myelin oligodendrocyte glycoprotein-IgG and aquaporin 4-IgG augmented experimental autoimmune encephalomyelitis <i>Speaker:</i> Jana Remlinger, CH	12:00 - 12:00 CEST
P328	A novel approach to better understand phenotypic alterations in the <i>in vivo</i> model of multiple sclerosis at distinct mice age - improved frailty index scale <i>Speaker:</i> Ana Rita Ribeiro, PT	12:00 - 12:00 CEST
P329	Alterations in the expression of cardiac inwardly rectifying potassium channels are related to cardiovascular dysfunctions in a mouse model of multiple sclerosis <i>Speaker:</i> Chiara Villa, IT	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP32 - ePoster - Neuroprotection and Repair		
P706	Hydroxychloroquine is promising for neuroprotection in primary progressive MS: an open label, single arm, Phase II futility trial <i>Speaker:</i> Marcus Koch, CA	12:00 - 12:00 CEST
P707	Transnasal delivery of anti-Nogo-A antibody improves disease symptoms in a mouse model of multiple sclerosis <i>Speaker:</i> Vincent Pernet, CH	12:00 - 12:00 CEST
P708	Bexarotene treatment leads to durable improvements in visual evoked potential latency; a follow-up study of the Cambridge Centre for Myelin Repair trial One <i>Speaker:</i> Nick G Cunniffe, GB	12:00 - 12:00 CEST
P709	Effect of cladribine tablets in highly active MS monitored by global and regional brain atrophy status <i>Speaker:</i> Alaleh Raji, DE	12:00 - 12:00 CEST
P710	Blockade of bone morphogenetic protein-2/4 induces oligodendrogenesis and remyelination in inflammatory and toxic demyelinating disorders <i>Speaker:</i> Karin Fainberg, IL	12:00 - 12:00 CEST

Scientific program

P711	Extended neuroprotective efficacy of ACT-01 in the animal model of lysolecithin induced demyelination in optic nerve <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P712	Ponesimod in CNS modulates astrocytic genes and protects against limbic fiber demyelination via S1P₁-selective modulation <i>Speaker:</i> Jerold Chun, US	12:00 - 12:00 CEST
P713	Synergistic effects of ACT-01 with dimethyl-fumarate or fingolimod for combination therapy in the EAE animal model of MS <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P714	Phase 1 safety, tolerability and pharmacokinetics of ACT-01, a neuroprotective small molecule for the disease modifying treatment of Acute Optic Neuritis and MS <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P715	Amelioration of disease severity in therapeutic siponimod treatment of chronic experimental autoimmune encephalomyelitis is associated with a downregulation of microglial activity <i>Speaker:</i> Leila Husseini, DE	12:00 - 12:00 CEST
P716	Fingolimod efficacy improved by a CNS vitamin B₁₂ mechanism controlling neuroinflammatory genes <i>Speaker:</i> Yasuyuki Kihara, US	12:00 - 12:00 CEST
P717	Analysis of RP-101074 protective capacities on retinal neurodegeneration and visual function in the non-inflammatory animal model of light-induced photoreceptor loss <i>Speaker:</i> Christina Hecker, DE	12:00 - 12:00 CEST
P718	Siponimod protects retina and higher visual pathway in optic nerve injury model, through its direct modulatory actions on neuronal S1PR1 <i>Speaker:</i> Devaraj Basavarajappa, AU	12:00 - 12:00 CEST
P719	Acute optic neuritis as a clinical model to assess efficacy and safety of ACT-01, a novel neurotrophin-like molecule with potential for disease-modifying treatment <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P720	Comparative assessment of effects of resveratrol and its nano-formulation on mesenchymal stem cells from patients with multiple sclerosis <i>Speaker:</i> Arezoo Rajabian, IR	12:00 - 12:00 CEST
P721	Central versus peripheral drug exposure ratio, a key parameter for therapeutic efficacy of S1P receptor modulators in SPMS <i>Speaker:</i> Marc Bigaud, CH	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP30 - ePoster - Other Biomarkers

P610	Longitudinal analysis of corneal axonal loss and brain atrophy in multiple sclerosis <i>Speaker:</i> Dhabia Al-Merekhi, QA	12:00 - 12:00 CEST
P611	Postural stability provides additional clinical value as a disability metric compared with brain atrophy in progressive multiple sclerosis <i>Speaker:</i> Siew Mei Yap, IE	12:00 - 12:00 CEST
P612	Sensor-based gait analyses identify qualitative improvement in gait parameters after short-time rehabilitation in a Norwegian MS rehabilitation unit <i>Speaker:</i> Pål Berg-Hansen, NO	12:00 - 12:00 CEST
P613	Microstates in multiple sclerosis: an electrophysiological signature of altered hubs functioning? <i>Speaker:</i> Arianna Sartori, IT	12:00 - 12:00 CEST
P614	B and T cell immunity in MS with anti-CD20 therapy: Gene expression and protein profiles <i>Speaker:</i> Anthony Reder, US	12:00 - 12:00 CEST
P615	Insights into the disconnection patterns in MS by multimodal assessment of structural and functional damage <i>Speaker:</i> Serena Ruggieri, IT	12:00 - 12:00 CEST
P616	Myeloid-derived suppressor cells are biomarkers of milder relapses in a murine model of relapsing remitting multiple sclerosis <i>Speaker:</i> Celia Camacho-Toledano, ES	12:00 - 12:00 CEST
P618	Longitudinal analysis of corneal immune cells in multiple sclerosis <i>Speaker:</i> Karen John, QA	12:00 - 12:00 CEST
P619	Longitudinal analysis of central corneal axonal loss in multiple sclerosis <i>Speaker:</i> Fatima Al-Shibani, QA	12:00 - 12:00 CEST
P620	Clinical predictors of positive autoantibody screening in chronic inflammatory CNS diseases <i>Speaker:</i> Ilya Ayzenberg, DE	12:00 - 12:00 CEST
P621	Identification and investigation of novel peripheral blood biomarkers using scRNA-Seq and 21-color flow cytometry for prediction of disease activity, disease progression and treatment response in multiple sclerosis <i>Speaker:</i> Karine Thai, CA	12:00 - 12:00 CEST
P622	Oral teriflunomide effect on visual function in multiple sclerosis: multifocal electroretinogram responses after 12 months of treatment	12:00 - 12:00 CEST

Scientific program

	<i>Speaker:</i> Anna Camos-Carreras, ES	
P623	Ipsilateral silent period is associated with the ability of the box and block test in patients with multiple sclerosis <i>Speaker:</i> Matthias Grothe, DE	12:00 - 12:00 CEST
P624	Assessing cognitive impairment in multiple sclerosis using smartphone-based training games: Results of a feasibility study <i>Speaker:</i> Silvan Pless, CH	12:00 - 12:00 CEST
P625	The cognition in MS patients is related to the redox state of the plasma <i>Speaker:</i> Anna Gil, ES	12:00 - 12:00 CEST
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP27 - eposter - MRI & PET		
P404	Machine learning-based prediction of new multiple sclerosis lesion formation using radiomic features from pre-lesion normal-appearing white matter <i>Speaker:</i> Bastien Caba, FR	12:00 - 12:00 CEST
P405	Decreased neuroaxonal integrity in early relapse onset multiple sclerosis is associated with long-term disability at 15 years <i>Speaker:</i> Nevin A John, GB	12:00 - 12:00 CEST
P406	Decreased functional dynamics of thalamocortical states in cognitively impaired multiple sclerosis patients <i>Speaker:</i> Stefanos Enricos Prouskas, NL	12:00 - 12:00 CEST
P407	Long-term suppression of MRI disease activity and reduction of global/regional volume loss: results from OPERA I/II and ORATORIO open-label extension <i>Speaker:</i> Douglas L Arnold, CA	12:00 - 12:00 CEST
P408	Defining the spinal cord reserve concept in multiple sclerosis - measurement and association with disability of the spinal cord canal area <i>Speaker:</i> Jaume Sastre-Garriga, ES	12:00 - 12:00 CEST
P409	Brain disconnectome mapping and axonal damage in multiple sclerosis: a prospective longitudinal multicenter study employing brain MRI and serum neurofilament light level <i>Speaker:</i> Einar August Høgestøl, NO	12:00 - 12:00 CEST
P410	Myelin heterogeneity index is sensitive to longitudinal myelin changes in multiple sclerosis <i>Speaker:</i> Poljanka Johnson, CA	12:00 - 12:00 CEST
P411	A brain white matter atlas of probabilistic lesion distribution in all forms of multiple sclerosis <i>Speaker:</i> Colm Elliott, CA	12:00 - 12:00 CEST
P412	T₁ relaxometry abnormalities in white matter tracts predict	12:00 - 12:00

	functional systems scores in MS <i>Speaker:</i> Veronica Ravano, CH	CEST
P413	Cognitive diagnostic criteria lead to distinct patterns of functional connectivity in secondary progressive MS <i>Speaker:</i> Anisha Doshi, GB	12:00 - 12:00 CEST
P414	Spinal cord anterior horn atrophy: a new biomarker in progressive multiple sclerosis <i>Speaker:</i> Charidimos Tsagkas, CH	12:00 - 12:00 CEST
P415	Spinal cord imaging markers and disease progression in MS <i>Speaker:</i> Matthias Bussas, DE	12:00 - 12:00 CEST
P416	Predicting disability progression with patterns of white matter and grey matter changes in secondary progressive multiple sclerosis using standardised T1w/T2w maps <i>Speaker:</i> Elisa Colato, GB	12:00 - 12:00 CEST
P417	Spinal cord lesions and brain grey matter atrophy independently predict clinical worsening in multiple sclerosis: a 5-year, multicentre study <i>Speaker:</i> Maria Assunta Rocca, IT	12:00 - 12:00 CEST
P418	Atrophy quantification in multiple sclerosis: application to the multicenter INNI dataset <i>Speaker:</i> Loredana Storelli, IT	12:00 - 12:00 CEST
P419	Early prediction of CAL evolution from newly developing MS lesions using 7T MRI <i>Speaker:</i> Matthew K. Schindler, US	12:00 - 12:00 CEST
P420	Hypothalamic subregional volumes are associated with fatigue, depression, and sleep disturbance in a large cohort of patients with multiple sclerosis <i>Speaker:</i> Lindsay Ross, US	12:00 - 12:00 CEST
P421	Software-dependent effects of physiological changes on GM and WM volumes: implications for interpretation of brain atrophy rates in MS <i>Speaker:</i> Marco Battaglini, IT	12:00 - 12:00 CEST
P422	Hippocampal atrophy is relevant to memory deficits in early Relapsing Remitting MS patients <i>Speaker:</i> Ludovico Luchetti, IT	12:00 - 12:00 CEST
P423	Investigating microstructural changes in white matter in multiple sclerosis: a systematic review and individual participant data meta-analysis of neurite orientation dispersion and density imaging <i>Speaker:</i> Abdulmajeed Alotaibi, GB	12:00 - 12:00 CEST
P424	MEM_{FC}: a summary metric of memory network functional connectivity alterations in MS <i>Speaker:</i> Victoria Leavitt, US	12:00 - 12:00 CEST

Scientific program

P425	Histopathological validation of artificial double inversion recovery images for MR cortical lesion detection <i>Speaker:</i> Piet M. Bouman, NL	12:00 - 12:00 CEST
P426	Associations of disease severity and outcomes with MRI-based 'SuStaln' disease subtypes in secondary progressive MS <i>Speaker:</i> Arie Gafson, US	12:00 - 12:00 CEST
P427	Clinical impact of microstructural brain damage in multiple sclerosis: a qMRI study <i>Speaker:</i> Maria Petracca, US	12:00 - 12:00 CEST
P428	Evaluating DMT escalation based on isolated MRI activity <i>Speaker:</i> Katharina Riedl, AT	12:00 - 12:00 CEST
P429	Using the central vein sign and diffusion MRI to differentiate demyelinating from lesions due to small vessel disease in multiple sclerosis <i>Speaker:</i> Caterina Lapucci, IT	12:00 - 12:00 CEST
P430	Development and Interrelation of whole-brain atrophy and lesion volume during 5 years' treatment with subcutaneous interferon beta-1a in patients with a first clinical demyelinating event in the REFLEX/ION study <i>Speaker:</i> Rozemarijn M Mattiesing, NL	12:00 - 12:00 CEST
P431	Global network properties in microstructure-weighted connectomes are altered in cognitive impaired patients <i>Speaker:</i> Antonia L. Wenger, CH	12:00 - 12:00 CEST
P432	Detecting brain gadolinium retention in MS with MRI: a comparison of 2D Spin Echo, 3D gradient echo, quantitative susceptibility mapping and magnetization transfer <i>Speaker:</i> Carmen Cananau, SE	12:00 - 12:00 CEST
P433	Paramagnetic rims in treatment naïve persons around the time of multiple sclerosis diagnosis <i>Speaker:</i> Margareta Clarke, US	12:00 - 12:00 CEST
P434	Decoupling of structural and functional connectivity towards progressive MS is related to cognitive impairment but not disability <i>Speaker:</i> Maureen van Dam, NL	12:00 - 12:00 CEST
P435	Spatial features of brain demyelinating lesions as prognostic factors in the clinically isolated syndrome <i>Speaker:</i> Llucia Coll, ES	12:00 - 12:00 CEST
P436	Altered functional brain states predict cognitive deficits 5 years after a clinically isolated syndrome <i>Speaker:</i> Ismail Koubiyr, FR	12:00 - 12:00 CEST
P437	Restriction spectrum imaging in multiple sclerosis: an advanced MRI diffusion case-control study and a multi-site harmonization	12:00 - 12:00 CEST

	<i>Speaker:</i> Daniel A. Rinker, NO	
P438	Multimodal imaging with ¹¹C-PBR28 MR-PET and synthetic MRI reveals a direct association between activated microglia and myelin content in the MS brain white matter <i>Speaker:</i> Valeria Barletta, US	12:00 - 12:00 CEST
P439	Sensitivity of ultra-low-field magnetic resonance imaging for white matter lesions and leptomeningeal enhancement in multiple sclerosis <i>Speaker:</i> Serhat V. Okar, US	12:00 - 12:00 CEST
P440	Clinical relevance of multiparametric MRI assessment of cerebellar damage in multiple sclerosis <i>Speaker:</i> Raffaello Bonacchi, IT	12:00 - 12:00 CEST
P441	7T MRI leptomeningeal enhancement and brain atrophy are associated with alterations in the IL-23 metabolic pathway in patients with multiple sclerosis <i>Speaker:</i> Jonathan Zurawski, US	12:00 - 12:00 CEST
P442	Cortical lesions detected with 7T MRI are associated with disruption of local cortical function and area specific symptoms <i>Speaker:</i> Mads Alexander Just Madsen, DK	12:00 - 12:00 CEST
P443	Multimodal quantitative and semiquantitative MRI assessment of cortical grey matter demyelination: a neuropathology-MRI study <i>Speaker:</i> Agnese Tamanti, IT	12:00 - 12:00 CEST
P444	Medulla oblongata atrophy as a possible biomarker for neurodegeneration in early relapsing multiple sclerosis <i>Speaker:</i> Laura Sander, CH	12:00 - 12:00 CEST
P445	Modern machine learning algorithm to unveil the relationship between different types of multiple sclerosis lesions and cortical atrophy <i>Speaker:</i> Constantina Treaba, US	12:00 - 12:00 CEST
P446	Machine learning-based detection of slowly expanding lesions using radiomic features from cross-sectional brain MRI <i>Speaker:</i> Bastien Caba, FR	12:00 - 12:00 CEST
P447	Multiple sclerosis lesion burden estimates using portable ultra-low-field magnetic resonance imaging <i>Speaker:</i> T. Campbell Arnold, US	12:00 - 12:00 CEST
P448	Long term myelin water imaging in treated relapsing remitting MS patients <i>Speaker:</i> Caroline Koehler, DE	12:00 - 12:00 CEST
P449	Patterns of disease-related cortical and subcortical grey matter in early relapsing-remitting multiple sclerosis <i>Speaker:</i> Sarah Levy, US	12:00 - 12:00 CEST
P450	Accelerated brain aging in multiple sclerosis: a large	12:00 - 12:00

	multicentre study harmonizing structural imaging data across scanners and site <i>Speaker:</i> Einar August Høgestøl, NO	CEST
P451	Leptomeningeal inflammation in multiple sclerosis and other neurological diseases: a systematic review and meta-analysis <i>Speaker:</i> Benjamin V. Ineichen, SE	12:00 - 12:00 CEST
P452	Could cerebral autoregulatory collapse explain cognitive impairment in MS? <i>Speaker:</i> Dinesh Sivakolundu, US	12:00 - 12:00 CEST
P453	Structural network alterations in inferomedial temporal regions distinguishing relapsing-remitting multiple sclerosis from neuromyelitis optica spectrum disorder <i>Speaker:</i> Eun Bin Cho, KR	12:00 - 12:00 CEST
P454	Diffusely abnormal white matter in clinically isolated syndrome is associated with parenchymal loss and elevated neurofilament levels <i>Speaker:</i> Irene Vavasour, CA	12:00 - 12:00 CEST
P455	Disentangling cortical lesions properties with multi-shell diffusion, quantitative T1, magnetization transfer, and myelin water imaging <i>Speaker:</i> Muhamed Barakovic, CH	12:00 - 12:00 CEST
P456	The relation of sarcopenia and disability in multiple sclerosis <i>Speaker:</i> Lukas Haider, GB	12:00 - 12:00 CEST
P457	q-Space myelin map imaging for longitudinal analysis of remyelination in multiple sclerosis patients treated with dimethyl fumarate, follow-up results <i>Speaker:</i> Kenji Kufukihara, JP	12:00 - 12:00 CEST
P458	Development and interrelation of spatiotemporal patterns of brain atrophy and lesions during 5 years' treatment with subcutaneous interferon Beta-1a in patients with a first clinical demyelinating event in the REFLEX/ION study <i>Speaker:</i> Giordano Gentile, IT	12:00 - 12:00 CEST
P459	Posterior and attentional network functional connectivity changes predict cognitive impairment in secondary progressive MS <i>Speaker:</i> Anisha Doshi, GB	12:00 - 12:00 CEST
P460	Quantitative spinal cord MRI as a biomarker of treatment response to dimethyl fumarate in MS <i>Speaker:</i> Heejun Kang, CA	12:00 - 12:00 CEST
P461	An assessment of intra-scanner reproducibility of myelin-sensitive MRI measures <i>Speaker:</i> Reza Rahmzadeh, CH	12:00 - 12:00 CEST
P462	Thalamic glutamate concentrations relate to cognitive	12:00 - 12:00

	functioning in multiple sclerosis <i>Speaker:</i> Marijn Huiskamp, NL	CEST
P463	Applying multilayer analysis into morphological, structural and functional brain networks in multiple sclerosis <i>Speaker:</i> Jordi Casas-Roma, ES	12:00 - 12:00 CEST
P464	Structural connectivity measures in cognitively impaired people with multiple sclerosis following cognitive rehabilitation <i>Speaker:</i> Joana Frieske, ES	12:00 - 12:00 CEST
P465	Cortical lesion detection using FLAWS in multiple sclerosis <i>Speaker:</i> Jannis Müller, CH	12:00 - 12:00 CEST
P466	Neuroinflammation and neurodegeneration in MS at age 53: descriptions from a birth cohort <i>Speaker:</i> Lodewijk Reinier Johannes De Ruiter, NL	12:00 - 12:00 CEST
P467	Defining the clinical radiological paradox using quantitative performance and MRI metrics <i>Speaker:</i> Daniel Ontaneda, US	12:00 - 12:00 CEST
P468	Regional analysis of atrophy in multiple sclerosis in a large multicenter dataset <i>Speaker:</i> Maria Assunta Rocca, IT	12:00 - 12:00 CEST
P469	Improved assessment of longitudinal spinal cord atrophy in multiple sclerosis using a registration-based approach: relevance for clinical studies <i>Speaker:</i> Maria Assunta Rocca, IT	12:00 - 12:00 CEST
P470	Cognitive phenotypes and their associated MRI patterns <i>Speaker:</i> Piet M. Bouman, NL	12:00 - 12:00 CEST
P471	Network alterations underlying anxiety symptoms in early multiple sclerosis <i>Speaker:</i> Erik Ellwardt, DE	12:00 - 12:00 CEST
P472	NODDI enables detection of subtle WM changes that lead to thalamic atrophy in subjects with RRMS <i>Speaker:</i> Merline Maria Weeda, NL	12:00 - 12:00 CEST
P473	Choroid plexus are enlarged and inflamed in clinically-defined and pre-symptomatic multiple sclerosis: 3T MRI and translocator protein PET study <i>Speaker:</i> Vito Antonio Gerardo Ricigliano, FR	12:00 - 12:00 CEST
P474	Clinical longitudinal study of iron rim in white matter lesions in MS <i>Speaker:</i> Amjad Altokhis, GB	12:00 - 12:00 CEST
P475	Automated central vein sign detection for the diagnosis of multiple sclerosis – a multi-center validation study <i>Speaker:</i> Abigail R Manning, US	12:00 - 12:00 CEST
P476	Lesion-level morphological features on 3T imaging accurately	12:00 - 12:00

	predict multiple sclerosis diagnosis <i>Speaker:</i> Carolyn Lou, US	CEST
P477	Improved standardisation of T1w/FLAIR ratio to evaluate myelin integrity in MS patients <i>Speaker:</i> Sarah Cappelle, BE	12:00 - 12:00 CEST
P478	Clinical, radiological and quantitative imaging analysis reveals distinct subgroups in the antibody-negative neuromyelitis optica/multiple sclerosis overlap cohort <i>Speaker:</i> Maciej Jurynczyk, GB	12:00 - 12:00 CEST
P479	MRI enlarged perivascular spaces in MS <i>Speaker:</i> Pietro Maggi, BE	12:00 - 12:00 CEST
P480	Slowly evolving lesions showed less myelin content than non-slowly evolving lesions: insights from a substudy of OPERA II <i>Speaker:</i> Shannon Kolind, CA	12:00 - 12:00 CEST
P481	Multi-modal quantitative MRI of brain and spinal cord microstructure using matched sequences improves predictions of clinical disability in MS <i>Speaker:</i> Carmen Tur, ES	12:00 - 12:00 CEST
P482	Leptomeningeal enhancement under different immunotherapies – a monocentric retrospective cohort study of 215 patients <i>Speaker:</i> Christoph Friedli, CH	12:00 - 12:00 CEST
P483	MRI correlates of apathy in multiple sclerosis: a clinical-radiological study <i>Speaker:</i> Francesco Tazza, IT	12:00 - 12:00 CEST
P484	Contribution of tissue inflammation and blood-brain barrier disruption to brain softening in a mouse model of multiple sclerosis <i>Speaker:</i> Rafaela Silva, DE	12:00 - 12:00 CEST
P485	Estimation of the spinal cord area from brain and spine MRI studies. Agreement of the measures obtained with the spinal cord toolbox <i>Speaker:</i> Deborah Pareto, ES	12:00 - 12:00 CEST
P486	Fully automatic method for state-of-the-art spinal cord compartment segmentation in multiple sclerosis <i>Speaker:</i> Charidimos Tsagkas, CH	12:00 - 12:00 CEST
P487	MS-specific deep learning segmentation of deep gray matter <i>Speaker:</i> Hugo Vrenken, NL	12:00 - 12:00 CEST
P488	The effect of dimethyl fumarate on white matter integrity and cognitive functioning 6-18 months after initiation of treatment in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Marike R. van Lingen, NL	12:00 - 12:00 CEST
P489	Cortical diffusion abnormalities in multiple sclerosis and their correlation with cortical volume and white matter	12:00 - 12:00 CEST

	hyperintensities in the UK Biobank Imaging Study? <i>Speaker:</i> Steven A Chance, GB	
P490	Development of a brain venography algorithm using susceptibility-weighted images <i>Speaker:</i> Francesc Xavier Aymerich, ES	12:00 - 12:00 CEST
P491	Paramagnetic rim and central vein sign as complementary biomarkers in MS <i>Speaker:</i> Tim Robert-Fitzgerald, US	12:00 - 12:00 CEST
P493	Automated brain MRI assessments for monitoring MS activity in routine practice <i>Speaker:</i> Hagen H Kitzler, DE	12:00 - 12:00 CEST
P494	Dynamic functional connectivity between the cerebellum and dorsolateral prefrontal cortex explains variability in memory ability in multiple sclerosis <i>Speaker:</i> Mark Zuppichini, US	12:00 - 12:00 CEST
P495	The histopathological characteristics of the central vein sign in multiple sclerosis lesions <i>Speaker:</i> Sargis Manukyan, US	12:00 - 12:00 CEST
P496	Impact of teriflunomide on innate immune cell activation in RRMS patients with limited signs of CNS pathology <i>Speaker:</i> Taruliina Parkkali, FI	12:00 - 12:00 CEST
P497	Reliability of template or atlas-based corticospinal tracts compared to individual tract segmentations at 7T for the assessment of motor disability <i>Speaker:</i> Vanessa Wiggermann, DK	12:00 - 12:00 CEST
P499	Leman-PV as a clinical decision-support tool to assess MS activity: a multicentric longitudinal study at 1.5T and 3T MRI <i>Speaker:</i> Ramona-Alexandra Todea, CH	12:00 - 12:00 CEST
P500	CLaiMS-Net: cortical lesions assessment in multiple sclerosis patients via a convolutional neural network and a single 3T MRI acquisition <i>Speaker:</i> Francesco La Rosa, CH	12:00 - 12:00 CEST
P501	The vital role of neuroradiology input in the management of patients with multiple sclerosis <i>Speaker:</i> Stephen Ramsay, GB	12:00 - 12:00 CEST
P502	Automated detection of cortical lesions with single and multi-contrast 7T MRI <i>Speaker:</i> Francesco La Rosa, CH	12:00 - 12:00 CEST
P503	Development and validation of a simple and practical tool for differentiating MS from other idiopathic inflammatory demyelinating diseases of CNS with brain MRI <i>Speaker:</i> Jasmin Patel, US	12:00 - 12:00 CEST
P504	Post-mortem correlates of Virchow-Robin spaces detected on in-	12:00 - 12:00

	vivo MRI	CEST
	<i>Speaker:</i> Lukas Haider, GB	
P505	Practical issues concerning the use of magnetic resonance imaging in multiple sclerosis in Latin America	12:00 - 12:00 CEST
	<i>Speaker:</i> Ethel Ciampi, CL	
P506	Toward fully automated assessment of the central vein sign using deep learning	12:00 - 12:00 CEST
	<i>Speaker:</i> Till Huelnhagen, CH	
P507	Standardized T1/T2 ratio predicts ongoing pathological damage in multiple sclerosis patients under natalizumab therapy	12:00 - 12:00 CEST
	<i>Speaker:</i> Maria Petracca, US	
P508	Investigating the impact of slowly expanding lesions (SEL) on normal appearing grey matter (NAGM) and normal appearing white matter (NAWM) seen in advanced MRI in multiple sclerosis (MS) patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Samiksha Srivastava, US	
P509	The clinical relevance of whole brain atrophy patterns in patients with longstanding multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Samantha Noteboom, NL	
P510	Dissociation between brain atrophy and lesion burden in patients with multiple sclerosis: a new definition	12:00 - 12:00 CEST
	<i>Speaker:</i> Tomas Uher, CZ	
P511	Structure-function coupling of long-range connections in the theta band relates to cognitive impairment in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Menno M. Schoonheim, NL	
P512	Central vein sign is associated with relapse risk in multiple sclerosis: a 3-year longitudinal study	12:00 - 12:00 CEST
	<i>Speaker:</i> Omar Al-Louzi, US	
P513	Periventricular gradients of T₁ z-scores correlate with disability in early multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Manuela Vaneckova, CZ	
P514	Whole brain axonal diameter mapping unveils increased vulnerability of frontal lobe normal appearing white matter in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Silvia De Santis, ES	
P515	Microstructural white matter damage in the cerebellum is related to cognitive impairment in patients with relapsing-remitting multiple sclerosis: a 3T MRI study	12:00 - 12:00 CEST
	<i>Speaker:</i> Elisabetta Mancuso, IT	
P516	The role of brain network functional connectivity and machine learning for the classification and characterization of disease phenotypes in patients with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Maria Assunta Rocca, IT	

Scientific program

P517	The effect of gadolinium-based contrast-agents on automated atrophy measurements by FreeSurfer in patients with multiple sclerosis <i>Speaker:</i> Ingrid Anne Lie, NO	12:00 - 12:00 CEST
P518	Retrospective case-control study of the spinal cord grey and white matter changes in MS and NMO using routine clinical MR images <i>Speaker:</i> Amba Margarete Frese, DE	12:00 - 12:00 CEST
P519	Probing brain effective connectivity in early MS patients with Granger causality analysis of task-fMRI <i>Speaker:</i> João Valente Duarte, PT	12:00 - 12:00 CEST
P520	Combining morphological and topographic characteristics of white matter lesions to differentiate multiple sclerosis from vascular mimics <i>Speaker:</i> Rosa Cortese, IT	12:00 - 12:00 CEST
P521	⁶⁴Cu-FBP8 in vivo imaging of fibrin deposition in multiple sclerosis patients: initial data <i>Speaker:</i> Constantina Treaba, US	12:00 - 12:00 CEST
P522	Asymmetry of magnetization transfer ratio (MTR) measurements in the cervical spinal cord of MS patients <i>Speaker:</i> Soizic Leguy, FR	12:00 - 12:00 CEST
P523	Implementation of a 3D convolutional network to predict impairment of multiple sclerosis subjects based on structural disconnection <i>Speaker:</i> Emily Olafson, US	12:00 - 12:00 CEST
P524	Evaluating the use and impact of magnetic resonance imaging in the management of multiple sclerosis in Northern Ireland <i>Speaker:</i> Stephen Ramsay, GB	12:00 - 12:00 CEST
P525	Validation of an automated cervical spinal cord segmentation in brain MRI <i>Speaker:</i> Manuela Van??ková, CZ	12:00 - 12:00 CEST
P526	Improved cortical, cervical cord and optic nerve lesion detection in multiple sclerosis with a prototype 3D Turbo Spin Echo MRI sequence for Double Inversion Recovery <i>Speaker:</i> Mauro Costagli, IT	12:00 - 12:00 CEST
P527	Using 3D Amide Proton Transfer imaging at 3T to investigate and characterize lesions and normal-appearing white matter in multiple sclerosis <i>Speaker:</i> Ibrahim Khormi, AU	12:00 - 12:00 CEST
P528	Quantitative T1-mapping of contrast-enhancing lesions in multiple sclerosis using magnetic resonance fingerprinting <i>Speaker:</i> Mauro Costagli, IT	12:00 - 12:00 CEST
P529	Multiple sclerosis or fabry disease? The central vein sign as	12:00 - 12:00

	diagnostic aid	CEST
	<i>Speaker:</i> Valentina Virginia Iuzzolino, IT	
P530	Chronic active MRI lesions in multiple sclerosis patients undergoing anti-CD20 antibody therapies	12:00 - 12:00 CEST
	<i>Speaker:</i> Amina Sellimi, BE	
P531	Imaging features to distinguish AQP4-positive NMOSD and MS at disease onset: a retrospective analysis in a single-center cohort	12:00 - 12:00 CEST
	<i>Speaker:</i> Tobias Zrzavy, AT	
P533	Effect of ofatumumab on brain volume loss vs historical placebo in relapsing multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Bernd Kieseier, CH	
P534	In-vivo characterization of macro- and microstructural injury of the subventricular zone in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Nicol? Bruschi, IT	
P535	Alterations in the microstructure of the normal-appearing white matter in the Corpus Callosum reflect distant focal damage in relapsing-remitting multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Lester Melie-Garcia, CH	
P536	Assessing the usability of synthetic images to improve the detection of new T2 lesions	12:00 - 12:00 CEST
	<i>Speaker:</i> Liliana Valencia, ES	
P537	North American imaging in multiple sclerosis cooperative – Imaging repository (NAIMS – IR)	12:00 - 12:00 CEST
	<i>Speaker:</i> Anthony Traboulsee, CA	
P538	Lesion location in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Viola Pongratz, DE	
P539	Inter-scanner brain MRI volumetric biases persist in a harmonized multi-subject study of multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Kelly Clark, US	
P540	Changes in brain functional connectivity associated with impaired verbal memory in patients with early multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Joao Jose Cerqueira, PT	
P541	Baseline MRI predicts disability in relapsing multiple sclerosis: data from a nationwide registry in Argentina	12:00 - 12:00 CEST
	<i>Speaker:</i> Javier Pablo Hryb, AR	

Poster Session

12:00 - 21:00 CEST

eP28 - ePoster - OCT

P542	Optical coherence tomography demonstrates more severe peripapillary retinal nerve fiber layer thickening in acute optic neuritis from myelin oligodendrocyte glycoprotein antibody	12:00 - 12:00 CEST
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	associated disorder than multiple sclerosis <i>Speaker:</i> John Chen, US	
P543	Microglia activation in the inner retina associates and predicts brain inflammatory disease activity in multiple sclerosis <i>Speaker:</i> Marta Pengo, IT	12:00 - 12:00 CEST
P544	Differences in age-related retinal and cortical atrophy rates in multiple sclerosis <i>Speaker:</i> Christian Cordano, US	12:00 - 12:00 CEST
P545	Siponimod preserves retinal thickness, a marker of neurodegeneration, in patients with SPMS: Findings from the EXPAND OCT substudy <i>Speaker:</i> Patrick Vermersch, FR	12:00 - 12:00 CEST
P546	Effects of myopia on longitudinal changes of retinal layer thicknesses in multiple sclerosis measured by optical coherence tomography <i>Speaker:</i> Grigorios Kalaitzidis, US	12:00 - 12:00 CEST
P547	Occurrence of peripapillary hyper-reflective ovoid masslike structures in patients with relapsing remitting and primary progressive multiple sclerosis <i>Speaker:</i> Rebecca Wicklein, DE	12:00 - 12:00 CEST
P548	Retinal vessel loss indicates disability and grey matter atrophy in patients with relapsing remitting multiple sclerosis <i>Speaker:</i> Eva Feodora Romahn, DE	12:00 - 12:00 CEST
P549	Retinal thickness by optic coherence tomography and the risk of cognitive decline in patients with multiple sclerosis <i>Speaker:</i> Elisabet Lopez-Soley, ES	12:00 - 12:00 CEST
P550	The performance of optical coherence tomography in secondary progressive multiple sclerosis: Results from the MS-SMART trial <i>Speaker:</i> Floriana De Angelis, GB	12:00 - 12:00 CEST
P551	Absence of astrocytic outer retinal layer thinning in AQP4-IgG seropositive neuromyelitis optica spectrum disorders <i>Speaker:</i> Angelo Lu, DE	12:00 - 12:00 CEST
P552	Retinal layer thinning after optic neuritis as a predictor of future relapse remission in relapsing multiple sclerosis <i>Speaker:</i> Gabriel Bsteh, AT	12:00 - 12:00 CEST
P553	Structural visual metrics associate with moderate to vigorous physical activity in youth with pediatric-onset neuroinflammatory disorders <i>Speaker:</i> Juweiriya Ahmed, CA	12:00 - 12:00 CEST
P554	Retinal OCT as a biomarker of conversion to SPMS: a prospective longitudinal study <i>Speaker:</i> Hadi Sabbagh, LB	12:00 - 12:00 CEST

Scientific program

P555	Ganglion cell-inner plexiform layer is a marker of brain neuronal loss in multiple sclerosis <i>Speaker:</i> Alessandro Cagol, CH	12:00 - 12:00 CEST
P556	CNS involvement in chronic inflammatory demyelinating polyneuropathy: subtle retinal changes in optical coherence tomography <i>Speaker:</i> Jens Ingwersen, DE	12:00 - 12:00 CEST
P557	Investigating the relationship between clinical disability, retinal integrity, and choroid plexus volume in relapsing-remitting multiple sclerosis patients <i>Speaker:</i> Samiksha Srivastava, US	12:00 - 12:00 CEST
P558	Retinal nerve fiber layer as a biomarker of axonal damage in multiple sclerosis patients using machine learning techniques <i>Speaker:</i> Alberto Montolío, ES	12:00 - 12:00 CEST
P559	Retinal degeneration in myelin oligodendrocyte glycoprotein-associated disease: a single centre Italian study <i>Speaker:</i> Eleonora Rigoni, IT	12:00 - 12:00 CEST
P560	Association of the retinal vasculature and intrathecal immunity during relapsing remitting multiple sclerosis <i>Speaker:</i> Christina Noll, DE	12:00 - 12:00 CEST
P561	Effect of ocrelizumab treatment on retinal atrophy: preliminary results from a single-center prospective observational study <i>Speaker:</i> Maria Cellerino, IT	12:00 - 12:00 CEST
P562	Defining subclinical optic neuritis: Optical coherence tomography calls for MRI <i>Speaker:</i> Marco Puthenparampil, IT	12:00 - 12:00 CEST
P563	Optical coherence tomography in primary progressive multiple sclerosis: INL thinning as a possible biomarker of response to ocrelizumab <i>Speaker:</i> Alessandro Miscioscia, IT	12:00 - 12:00 CEST
P564	Spectral-domain optical coherence tomography assessment in treatment-naïve patients with clinically isolated syndrome and different multiple sclerosis types: findings and relationship with the disability status <i>Speaker:</i> ?ukasz Rzepi?ski, PL	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP40 - ePoster - Neurobiology & Rehabilitation

P893	Interhemispheric substrates of clinical disability and upper limb motor function in multiple sclerosis patients: a structural and functional MRI study <i>Speaker:</i> Claudio Cordani, IT	12:00 - 12:00 CEST
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Poster Session

12:00 - 21:00 CEST

eP23 - ePoster - Environmental factors

P376	Factors affecting the risk of relapsing- and progressive-onset multiple sclerosis <i>Speaker:</i> Tomas Olsson, SE	12:00 - 12:00 CEST
P377	DRB1-environment interactions in multiple sclerosis etiology; results from two Swedish case-control studies <i>Speaker:</i> Lars Alfredsson, SE	12:00 - 12:00 CEST
P378	Epstein-Barr Virus infection and serum neurofilament light chain levels before MS onset <i>Speaker:</i> Kjetil Bjornevik, US	12:00 - 12:00 CEST
P379	The impact of PM2.5 on COVID-19 severity among Italian MS patients <i>Speaker:</i> Marta Ponzano, IT	12:00 - 12:00 CEST
P380	Association between exposome and subsequent multiple sclerosis outcomes <i>Speaker:</i> Shruthi Venkatesh, US	12:00 - 12:00 CEST
P381	Mediterranean diet consumption predicts better objective and patient-reported function in multiple sclerosis <i>Speaker:</i> Ilana Katz Sand, US	12:00 - 12:00 CEST
P382	Smoking and Epstein-Barr virus infection in multiple sclerosis development <i>Speaker:</i> Lars Alfredsson, SE	12:00 - 12:00 CEST
P383	High levels of Epstein-Barr virus nuclear antigen-1 specific antibodies and infectious mononucleosis act both independently and synergistically to increase multiple sclerosis risk <i>Speaker:</i> Tomas Olsson, SE	12:00 - 12:00 CEST
P384	Obesity and aspects of Epstein-Barr virus infection in multiple sclerosis etiology <i>Speaker:</i> Tomas Olsson, SE	12:00 - 12:00 CEST
P385	Low fish consumption is associated with a small increased risk for multiple sclerosis <i>Speaker:</i> Lars Alfredsson, SE	12:00 - 12:00 CEST
P386	Smoking, infectious mononucleosis, early-life exposures and risk of progressive-onset multiple sclerosis: a case-control study <i>Speaker:</i> Ying Li, AU	12:00 - 12:00 CEST
P387	Developing a tool to assess environmental exposures in the Italian pediatric-onset multiple sclerosis (PEQ-IT) <i>Speaker:</i> Silvy Pilotto, IT	12:00 - 12:00 CEST
P388	Using Bayesian networks to understand multiple sclerosis risk	12:00 - 12:00

	factor interactions	CEST
	<i>Speaker:</i> Morghan Hartmann, GB	
P389	Cytomegalovirus but not Epstein-Barr Virus antibody titers are related to brain atrophy in a cohort of multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Evelin Sabrina Heck, AR	
P390	Determining the effect of sun exposure and physical activity on the incidence of primary progressive multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Sajjad Ghane Ezabadi, IR	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP29 - ePoster - Fluid Biomarkers		
P565	Factors influencing serum neurofilament light chain levels in normal ageing	12:00 - 12:00 CEST
	<i>Speaker:</i> Michael Khalil, AT	
P566	Assessment of the correlation between T-cell repertoire diversity and measures of disease activity and severity in multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Laura Ferrè, IT	
P567	Kappa free light chains in cerebrospinal fluid predict early multiple sclerosis disease activity	12:00 - 12:00 CEST
	<i>Speaker:</i> Harald Hegen, AT	
P568	Prognostication of confirmed disease progression in patients with primary progressive MS (PPMS) by serum neurofilament light chain levels and multimodal evoked potentials	12:00 - 12:00 CEST
	<i>Speaker:</i> Martin Hardmeier, CH	
P569	High or increasing serum NfL predicts impending multiple sclerosis relapses	12:00 - 12:00 CEST
	<i>Speaker:</i> Simon Thebault, CA	
P570	Relationships between on-treatment changes in glial fibrillary acidic protein levels and clinical outcomes in patients with relapsing multiple sclerosis: post hoc analysis of the phase 3 ozanimod SUNBEAM trial	12:00 - 12:00 CEST
	<i>Speaker:</i> Sarah Harris, US	
P571	Different sNfL level cut-offs at the time of the CIS predict inflammatory and disability outcomes when used as a surrogate biomarker of MRI	12:00 - 12:00 CEST
	<i>Speaker:</i> Georgina Arrambide, ES	
P572	Increased serum neurofilament light in asymptomatic individuals preceding clinical onset of multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Daniel Jons, SE	
P573	Serum neurofilament light as a biomarker of disability and neurodegeneration in MS patients of the same age	12:00 - 12:00 CEST

	<i>Speaker:</i> Floor C. Loonstra, NL	
P574	Clinical validation study results of a multivariate proteomic serum based assay for disease activity assessments in MS <i>Speaker:</i> Ferhan Qureshi, US	12:00 - 12:00 CEST
P575	Improved prediction of early cognitive impairment in multiple sclerosis using combinations of blood and imaging biomarkers <i>Speaker:</i> Tobias Brummer, DE	12:00 - 12:00 CEST
P576	B cell-related immunophenotyping and protein profile of cerebrospinal fluid in multiple sclerosis patients at diagnosis <i>Speaker:</i> Roberta Magliozzi, IT	12:00 - 12:00 CEST
P577	Clustering is associated with poor response to teriflunomide in multiple sclerosis patients <i>Speaker:</i> Sunny Malhotra, ES	12:00 - 12:00 CEST
P578	Analysis of extracellular vesicles in plasma using flow cytometry reveals increased lymphocyte-derived particles in multiple sclerosis <i>Speaker:</i> Stephanie N. Blandford, CA	12:00 - 12:00 CEST
P579	Revisiting cerebrospinal fluid findings in patients with multiple sclerosis: what novel population-based reference limits change <i>Speaker:</i> Klaus Berek, AT	12:00 - 12:00 CEST
P580	Factors contributing to CSF NfL reduction over time in people with multiple sclerosis starting treatment: an observational study <i>Speaker:</i> Ide Smets, GB	12:00 - 12:00 CEST
P581	Predicting aggressive multiple sclerosis with intrathecal IgM synthesis: a comparative study between quantitative and qualitative methods <i>Speaker:</i> Enric Monreal, ES	12:00 - 12:00 CEST
P582	Plasma neurofilament light chain in children with relapsing MS receiving teriflunomide or placebo: A post hoc analysis of the randomised TERIKIDS trial <i>Speaker:</i> Jens Kuhle, CH	12:00 - 12:00 CEST
P583	Neurofilament light chain as serum biomarker in multiple sclerosis, MOG-antibody disease and neuromyelitis optica spectrum disorders <i>Speaker:</i> Luca Bollo, IT	12:00 - 12:00 CEST
P584	Molecular biomarker signature associated with cladribine treatment <i>Speaker:</i> Nicolás Fissolo, ES	12:00 - 12:00 CEST
P585	Real life experience of cladribine effects on lymphocyte subsets and serum neurofilament light chains levels changes <i>Speaker:</i> Damiano Paolicelli, IT	12:00 - 12:00 CEST
P586	Serum neurofilament and GFAP remain elevated in MS patients	12:00 - 12:00

	following mesenchymal stem cell transplantation for multiple sclerosis <i>Speaker:</i> Simon Thebault, CA	CEST
P587	Circulating microRNAs in RRMS patients treated with dimethyl fumarate in the phase 4 TREMEND trial <i>Speaker:</i> Maria Louise Elkjaer, DK	12:00 - 12:00 CEST
P588	Age-sensitive peripheral blood immune markers in multiple sclerosis and healthy controls <i>Speaker:</i> Catherine Larochelle, CA	12:00 - 12:00 CEST
P589	Peripheral haemolysis in relation to iron rim formation in multiple sclerosis <i>Speaker:</i> Nik Krajnc, AT	12:00 - 12:00 CEST
P590	Swedish MS registry data improvement and evaluation study: Which CSF variable reflects best MRI activity in MS patients <i>Speaker:</i> Adnan Adel Masood, SE	12:00 - 12:00 CEST
P591	Vitamin D levels are not associated with retinal thinning in multiple sclerosis <i>Speaker:</i> Nik Krajnc, AT	12:00 - 12:00 CEST
P592	Clinical and subclinical treatment effect is associated with serum neurofilament decrease in fingolimod treated people with multiple sclerosis <i>Speaker:</i> Katja Akgün, DE	12:00 - 12:00 CEST
P593	Prognostic impact of cerebrospinal fluid parameters on retinal layer thickness in multiple sclerosis – the CSFViennOCTiMS study <i>Speaker:</i> Nik Krajnc, AT	12:00 - 12:00 CEST
P594	CSF inflammatory profile in clinically isolated syndrome and definite multiple sclerosis patients <i>Speaker:</i> Albulena Bajrami, IT	12:00 - 12:00 CEST
P595	Ponesimod shows improved effect on Brain Volume compared with other DMTs, a model-based meta-analysis <i>Speaker:</i> Maria Ait-Tihyaty, US	12:00 - 12:00 CEST
P596	Extracellular vesicles as biomarkers of cell-specific activity in MS patients with chronic active lesions <i>Speaker:</i> Jennifer Linden, US	12:00 - 12:00 CEST
P597	Basal levels of serum neurofilament light in normal aging and multiple sclerosis patients <i>Speaker:</i> Raquel Gasque Rubio, ES	12:00 - 12:00 CEST
P598	Serum neurofilament light chain levels in progressive multiple sclerosis: preliminary results of a prospective longitudinal study <i>Speaker:</i> Diana Ferraro, IT	12:00 - 12:00 CEST
P599	Decrease of neurofilament is associated with reduction of	12:00 - 12:00

	clinical disease activity in glatiramer acetate treated people with multiple sclerosis <i>Speaker:</i> Urszula Konofalska, DE	CEST
P600	Blood parameter analysis in pediatric MOG-antibody-associated disorders <i>Speaker:</i> Christian Lechner, AT	12:00 - 12:00 CEST
P601	CSF and serum inflammatory mediators' profiles in MS patients at time of diagnosis: partial correlation between peripheral and intrathecal inflammation <i>Speaker:</i> Francesco Pezzini, IT	12:00 - 12:00 CEST
P602	Cerebrospinal fluid kappa free light chains and IgM index for diagnosis and prognosis in multiple sclerosis <i>Speaker:</i> Sara Gil-Perotin, ES	12:00 - 12:00 CEST
P603	Eomesodermin positive cytotoxic T lymphocytes are associated with an aggressive course of primary progressive multiple sclerosis <i>Speaker:</i> Simon Faissner, DE	12:00 - 12:00 CEST
P604	Research of biomarkers to reduce the risk of progressive multifocal leukoencephalopathy in RRMS patients under natalizumab treatment <i>Speaker:</i> Silvia Presas-Rodríguez, ES	12:00 - 12:00 CEST
P605	Cerebrospinal fluid lymphocytic pleocytosis at MS diagnosis does not predict a worse long-term disability prognosis <i>Speaker:</i> Cris S. Constantinescu, GB	12:00 - 12:00 CEST
P606	Examination of tear fluid in patients with pre-diagnosis of MS <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P607	Cognitive impairment in early stages of multiple sclerosis is associated with high cerebrospinal fluid levels of Tau protein <i>Speaker:</i> Eleonora Virgilio, IT	12:00 - 12:00 CEST
P608	Using circulatory biomarkers to predict disease progression in multiple sclerosis (MS) <i>Speaker:</i> Nitzan Haham, IL	12:00 - 12:00 CEST
P609	Longitudinal analysis of autoreactive T cells in a cohort of multiple sclerosis patients treated with natalizumab <i>Speaker:</i> Barbara Willekens, NL	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP26 - ePoster - Repair mechanisms

P400	Brain network centrality abnormalities in multiple sclerosis: implications for disease course and clinical disability <i>Speaker:</i> Antonio Carotenuto, IT	12:00 - 12:00 CEST
P401	Dynamic functional connectivity of thalamic sub-regions shows	12:00 - 12:00

	divegent patterns in multiple sclerosis phenotypes	CEST
	<i>Speaker:</i> Antonio Carotenuto, IT	
P402	Increased expression of ephrins on immune cells of patients with relapsing-remitting multiple sclerosis affects oligodendrocyte differentiation	12:00 - 12:00 CEST
	<i>Speaker:</i> Maya Golan, IL	
P403	Nano-hesperetin enhances the functional recovery and endogenous remyelination of the optic pathway in focal demyelination model	12:00 - 12:00 CEST
	<i>Speaker:</i> Saeideh Baradaran, IR	

Poster Session
12:00 - 21:00 CEST

eP36 - ePoster - Symptomatic treatment

P812	Nabiximols efficacy in MS spasticity: treatment effects on spasticity Numeric Rating Scale and muscle spasm frequency in 2 randomised clinical trials	12:00 - 12:00 CEST
	<i>Speaker:</i> Sajida Javaid, GB	
P813	Is there 'wearing off' with Ocrelizumab? Preliminary results of Symptom Burden on Ocrelizumab, a Longitudinal Study (SymbOLS)	12:00 - 12:00 CEST
	<i>Speaker:</i> Rose-Marie Jungquist, US	
P814	Multiple sclerosis and poststroke spasticity: any difference in botulinum toxin injections treatment?	12:00 - 12:00 CEST
	<i>Speaker:</i> Arianna Sartori, IT	

Poster Session
12:00 - 21:00 CEST

eP35 - ePoster - Tools for detecting therapeutic response

P796	Predictive value of NEDA for long-term disability in multiple sclerosis: A systematic review and meta-analysis	12:00 - 12:00 CEST
	<i>Speaker:</i> Dalia L. Rotstein, CA	
P797	Assessing treatment response to oral drugs for multiple sclerosis in real world setting: a MAGNIMS study	12:00 - 12:00 CEST
	<i>Speaker:</i> Serena Ruggieri, IT	
P798	Optical coherence tomography changes one year after treatment onset and its relation to treatment response scores	12:00 - 12:00 CEST
	<i>Speaker:</i> Paula Tagliani, ES	
P799	Acapella: B-cell repletion in ocrelizumab-treated patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Rose-Marie Jungquist, US	
P800	Changes in the immune cell profile associated with response to ocrelizumab in PPMS	12:00 - 12:00 CEST
	<i>Speaker:</i> Jose Ignacio Fernandez-Velasco, ES	
P801	Cognition as a parameter that should not be ignored when	12:00 - 12:00

	evaluating the effect of relapse treatment: A prospective controlled study <i>Speaker:</i> Bilge Cinar, TR	CEST
P802	Dimethyl fumarate and fingolimod utilization and costs for multiple sclerosis: a population-based study in the Campania Region of Italy <i>Speaker:</i> Marcello Moccia, GB	12:00 - 12:00 CEST
P803	Neurometabolic changes in RRMS: comparison between fingolimod and injectables therapies <i>Speaker:</i> Oun Al-iedani, AU	12:00 - 12:00 CEST
P804	Clinical, life-style and genetic determinants of response to natalizumab: a 13-year nationwide Phase IV study <i>Speaker:</i> Ali Manouchehrinia, SE	12:00 - 12:00 CEST
P805	Immunoglobulin repertoire analysis in multiple sclerosis patients reveals distinct treatment effects after initiation of dimethyl fumarate or teriflunomide therapy <i>Speaker:</i> Christoph Ruschil, DE	12:00 - 12:00 CEST
P806	micro-RNA expression profile in PBMCs changes after alemtuzumab treatment in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Anne Ladwig, DE	12:00 - 12:00 CEST
P807	Assessing predictors of no-evidence of disease activity in RRMS patients initiating dimethyl fumarate in a real-world setting <i>Speaker:</i> Sarmad Al-Araji, GB	12:00 - 12:00 CEST
P808	First two-year composite of NEDA-3 status and MAGNIMS score predict long-term disability: a “real-world” single centre cohort study <i>Speaker:</i> Maximilian Pistor, CH	12:00 - 12:00 CEST
P809	Multiple sclerosis, natalizumab, cognition: multi-domain cognitive NEDA <i>Speaker:</i> Olivia Kaczmarek, US	12:00 - 12:00 CEST
P810	Assessing the immune response to SARS-CoV-2 mRNA vaccines in patients with secondary progressive multiple sclerosis treated with siponimod (AMA-VACC clinical trial) <i>Speaker:</i> Tjalf Ziemssen, DE	12:00 - 12:00 CEST
P811	CSF inflammatory markers: prediction of treatment response in early relapsing remitting multiple sclerosis? <i>Speaker:</i> Damiano Marastoni, GB	12:00 - 12:00 CEST

Poster Session
12:00 - 21:00 CEST

eP20 - ePoster - Genetics/Epigenetics

P330	A genome-wide association study of plasma neurofilament light	12:00 - 12:00
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	levels in multiple sclerosis <i>Speaker:</i> Thomas Moridi, SE	CEST
P331	Stronger together: machine learning accurately predicts multiple sclerosis severity where genome-wide association fails <i>Speaker:</i> Vilija G. Jokubaitis, AU	12:00 - 12:00 CEST
P332	Back to the roots - from phenotype to genotype in monozygotic twins discordant for multiple sclerosis <i>Speaker:</i> Claudia Janoschka, DE	12:00 - 12:00 CEST
P333	Differentially regulated pathways by endogenous vitamin D in multiple sclerosis identified by transcriptomics of immune cell subsets <i>Speaker:</i> Wei Yeh, AU	12:00 - 12:00 CEST
P334	Multiple sclerosis risk variants influence the B cell composition early in life: a population-based study in children <i>Speaker:</i> Louk de Mol, NL	12:00 - 12:00 CEST
P335	Impact of mitochondrial genome variability in features of multiple sclerosis onset <i>Speaker:</i> Maxim Kozin, RU	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP38 - ePoster - Multi-disciplinary rehabilitation		
P878	Is the multiple sclerosis population of the rehabilitation centers vulnerable during the COVID-19 pandemic? <i>Speaker:</i> Michela Ponzio, IT	12:00 - 12:00 CEST
P879	Promoting physical activity in patients with MS: a needs assessment survey of Canadian neurologists <i>Speaker:</i> Simon Thebault, CA	12:00 - 12:00 CEST
P880	MS Nurse care: Patterns of access and impact on health outcomes <i>Speaker:</i> Ingrid van der Mei, AU	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP15 - ePoster - Neuro-ophthalmology		
P282	Are eye movements and brain networks connected in multiple sclerosis? <i>Speaker:</i> J.A. Nij Bijvank, NL	12:00 - 12:00 CEST
P283	The effect of time to initiation and dose of methylprednisolone on outcome in optic neuritis <i>Speaker:</i> Daniel Golan, IL	12:00 - 12:00 CEST
P284	Primary progressive optic neuropathy may cause early bilateral	12:00 - 12:00

	visual failure in multiple sclerosis <i>Speaker:</i> Iris Kleerekooper, GB	CEST
P285	Lateral geniculate nucleus: the “pit stop” of anterograde trans-synaptic degeneration in very early RRMS <i>Speaker:</i> Silvia Mianta, IT	12:00 - 12:00 CEST
P286	Longitudinal changes of the inner nuclear layer in multiple sclerosis: a marker for burn out of retinal inflammation? <i>Speaker:</i> J.A. Nij Bijvank, NL	12:00 - 12:00 CEST
P287	Prevalence of internuclear ophthalmoplegia in a population-based cohort of patients with multiple sclerosis <i>Speaker:</i> S.N. Hof, NL	12:00 - 12:00 CEST
P288	Reliability of mobile video oculography in a prospective cohort of MS patients <i>Speaker:</i> Mikael Cohen, FR	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP08 - ePoster - Epidemiology		
P129	Concomitant autoimmunity and risk of multiple sclerosis disability worsening <i>Speaker:</i> Stefanie Binzer, SE	12:00 - 12:00 CEST
P130	Management of vascular risk in people with multiple sclerosis in England: a population-based matched cohort study <i>Speaker:</i> Raffaele Palladino, GB	12:00 - 12:00 CEST
P131	Global incidence of multiple sclerosis has not increased in the last three decades: a systematic review (1985-2020) <i>Speaker:</i> Jo Lane, AU	12:00 - 12:00 CEST
P132	No differences in days of absence or grades during upper secondary school in a Norwegian multiple sclerosis case control study <i>Speaker:</i> Cecilia Simonsen, NO	12:00 - 12:00 CEST
P133	Incidence of multiple sclerosis relapses and pseudo-relapses following mRNA COVID-19 vaccination <i>Speaker:</i> Scott Chou, US	12:00 - 12:00 CEST
P134	Smoking is a risk factor for relapses in patients with relapsing-remitting multiple sclerosis under fingolimod treatment <i>Speaker:</i> Eizo Tanaka, JP	12:00 - 12:00 CEST
P135	Impact of first dose COVID-19 Pfizer and AstraZeneca vaccination in multiple sclerosis: a study from the UK MS Register <i>Speaker:</i> Richard Nicholas, GB	12:00 - 12:00 CEST
P136	Trajectories of disability accrual according to age in DMT treated multiple sclerosis cohorts from the Italian MS registry	12:00 - 12:00 CEST

	<i>Speaker:</i> Pietro Iaffaldano, IT	
P137	Differences in MS clinical and epidemiological characteristics between Ashkenazi and Non-Ashkenazi Jewish patients in Israel – a retrospective single center study <i>Speaker:</i> Gil Ben Noon, IL	12:00 - 12:00 CEST
P138	Population-based prospective study of delivery mode and the risk for adult-onset multiple sclerosis <i>Speaker:</i> Akash Kapali, NO	12:00 - 12:00 CEST
P139	Incidence and prevalence of multiple sclerosis (MS) in Wales – algorithmic case finding in routine data <i>Speaker:</i> Rod Middleton, GB	12:00 - 12:00 CEST
P140	Emergency department visits by persons with MS: a population-based study <i>Speaker:</i> Jonas Graf, CA	12:00 - 12:00 CEST
P141	Comparison of two large German MS cohorts derived from different settings to analyze early disability progression <i>Speaker:</i> Jeremias Motte, DE	12:00 - 12:00 CEST
P142	COVID-19 prevalence and outcomes in people with MS taking disease modifying therapies: a population study using NHS England data <i>Speaker:</i> Nikos Evangelou, GB	12:00 - 12:00 CEST
P143	COVID-19 lockdown impact on labor and psychosocial aspects in multiple sclerosis patients <i>Speaker:</i> Helena Martínez Hervés, ES	12:00 - 12:00 CEST
P144	Wellbeing gap: one-size MS service does not fit all <i>Speaker:</i> Agne Straukiene, GB	12:00 - 12:00 CEST
P145	Characteristics of MS misdiagnosis in a reference MS center in Latin América <i>Speaker:</i> María Inés Gaitán, AR	12:00 - 12:00 CEST
P146	Epidemiology of COVID-19 among MS population: population-based registry study in Iran <i>Speaker:</i> Sajjad Ghane Ezabadi, IR	12:00 - 12:00 CEST
P147	Prognostic factors related to the risk of COVID-19 infection in MS patients <i>Speaker:</i> Federico Montini, IT	12:00 - 12:00 CEST
P148	Effects of the modifiable risk factors, alcohol and smoking, on disease risk and neurodegeneration in multiple sclerosis; a large UK community-based cross-sectional cohort study <i>Speaker:</i> Iris Kleerekooper, GB	12:00 - 12:00 CEST
P149	Pro-inflammatory diet is associated with worse long-term depression and anxiety levels but not fatigue in MS <i>Speaker:</i> Alice Saul, AU	12:00 - 12:00 CEST

Scientific program

P150	Age at onset of relapsing-remitting multiple sclerosis increased over the last decades <i>Speaker:</i> Lucía Romero-Pinel, ES	12:00 - 12:00 CEST
P151	Bayesian structural time series of multiple sclerosis projection in Tehran, Iran <i>Speaker:</i> Sajjad Ghane Ezabadi, IR	12:00 - 12:00 CEST
P152	The trend of incidence, prevalence, and DALY of multiple sclerosis in the Middle East and Northern Africa region compared to global, West Europe and, Iran's corresponding values during 1990–2017: Retrieved from global burden of diseases data <i>Speaker:</i> Mohammad Hossein Harirchian, IR	12:00 - 12:00 CEST
P153	SARS-CoV-2 infection and multiple sclerosis: experience in Albacete (Spain) <i>Speaker:</i> María Palao Rico, ES	12:00 - 12:00 CEST
P154	The impact of socioeconomic factors on fatigue in multiple sclerosis <i>Speaker:</i> Line Broch, NO	12:00 - 12:00 CEST
P155	Late onset multiple sclerosis Isfahan Iran <i>Speaker:</i> Sama Ayramlou, IR	12:00 - 12:00 CEST
P156	Pharmacovigilance program for ozanimod, a recently approved treatment for relapsing forms of multiple sclerosis <i>Speaker:</i> Sonia Afsari, US	12:00 - 12:00 CEST
P157	Familial multiple sclerosis risk in Iran: a population-based registry study <i>Speaker:</i> Sajjad Ghane Ezabadi, IR	12:00 - 12:00 CEST
P158	COVID-19 in patients with multiple sclerosis and neuromyelitis optica spectrum disorder in Colombia <i>Speaker:</i> María Zuluaga Rodas, CO	12:00 - 12:00 CEST
P159	Vitamin D in multiple sclerosis Albanian patients <i>Speaker:</i> Jera Kruja, AL	12:00 - 12:00 CEST
P160	Characterizing multiple sclerosis in the African American population: Interim data from the National African American Multiple Sclerosis Registry (NAAMSR) <i>Speaker:</i> Mitzi Williams, US	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP31 - ePoster - Immunomodulation/Immunosuppression

P626	Effect of disease modifying therapies on progressive multiple sclerosis: a meta-analysis of randomized clinical trials <i>Speaker:</i> Mirko Capanna, IT	12:00 - 12:00 CEST
P627	Efficacy and safety of ocrelizumab in patients with RRMS with	12:00 - 12:00

	suboptimal response to prior disease-modifying therapies: 3-year data from CASTING and LIBERTO 1-year interim results????	CEST
	<i>Speaker:</i> Bart Van Wijmeersch, BE	
P628	Recently diagnosed early-stage RRMS: NEDA, ARR, disability progression, serum neurofilament and safety: full cohort 1-year data from the ocrelizumab Phase IIIb ENSEMBLE study	12:00 - 12:00 CEST
	<i>Speaker:</i> Hans-Peter Hartung, DE	
P629	Incomplete depletion of B-cells after induction therapy with ocrelizumab in MS	12:00 - 12:00 CEST
	<i>Speaker:</i> Alexander Wuschek, DE	
P630	Disease-modifying therapy effect on COVID-19 vaccine response in multiple sclerosis patients: data from two New York State Multiple Sclerosis Consortium centers	12:00 - 12:00 CEST
	<i>Speaker:</i> Bianca Weinstock-Guttman, US	
P631	Up to 6 years follow-up of people with MS (n=250) receiving cladribine	12:00 - 12:00 CEST
	<i>Speaker:</i> Kimberley Allen-Philbey, GB	
P632	Impact of the COVID-19 pandemic on disease-modifying therapy utilization and perceptions in multiple sclerosis: a retrospective insurance claims analysis and survey study of people with MS and healthcare providers	12:00 - 12:00 CEST
	<i>Speaker:</i> Ethan Meltzer, US	
P633	Multiparametric phenotyping of immune cell dynamics under ocrelizumab: a one-year longitudinal study in MS patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Amandine Mathias, CH	
P634	International multicenter retrospective study suggests maintenance intravenous immunoglobulin is effective in preventing relapse in adults with myelin oligodendrocyte glycoprotein antibody associated disorder	12:00 - 12:00 CEST
	<i>Speaker:</i> John Chen, US	
P635	Low dose interleukin-2 in relapsing-remitting multiple sclerosis: A randomized double-blinded placebo-controlled trial	12:00 - 12:00 CEST
	<i>Speaker:</i> Celine Louapre, FR	
P636	Retained efficacy with extended rituximab dosing intervals in relapsing-remitting multiple sclerosis: a Swedish single-centre observational study	12:00 - 12:00 CEST
	<i>Speaker:</i> Chiara Starvaggi Cucuzza, SE	
P637	Analyses of the effect of baseline age on the efficacy and safety of siponimod in patients with active secondary progressive multiple sclerosis from the EXPAND study	12:00 - 12:00 CEST
	<i>Speaker:</i> Le H. Hua, US	
P638	Updated open-label extension clinical data and new magnetization transfer ratio imaging data from a Phase I study	12:00 - 12:00 CEST

	of ATA188, an off-the-shelf, allogeneic Epstein-Barr virus-targeted T-cell immunotherapy for progressive multiple sclerosis	
	<i>Speaker:</i> Amit Bar-Or, US	
P639	Clinical impact of delaying ocrelizumab infusions during the SARS-COV-2 pandemic	12:00 - 12:00 CEST
	<i>Speaker:</i> Kyle Smoot, US	
P640	Anti-CD20 therapies are associated with decreased seropositivity in patients with multiple sclerosis and related diseases: one-year pandemic experience of the <u>New York C</u> <u>OVID-19 Neuroimmunology Consortium (NYCNIC)</u>	12:00 - 12:00 CEST
	<i>Speaker:</i> Sylvia Klineova, US	
P641	Pregnancy and infant outcomes in women receiving ocrelizumab for the treatment of multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Ruth Dobson, GB	
P642	Oral delivery of non-live preparation of <i>Veillonella parvula</i> modulates CNS inflammation via the small intestinal axis: a novel approach to treating neuroinflammatory diseases	12:00 - 12:00 CEST
	<i>Speaker:</i> Holly E. Ponichtera, US	
P643	BTK inhibition results in reduction of pro-inflammatory human B-cell responses both in <i>vitro</i> and in <i>vivo</i>	12:00 - 12:00 CEST
	<i>Speaker:</i> Rui Li, US	
P644	Comprehensive profiling of ATA188, an off-the-shelf, allogeneic Epstein-Barr virus-specific T-cell immunotherapy for progressive multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Monica Moreno, US	
P645	Safety and tolerability of IMU-838, a next-generation DHODH inhibitor in EMPHASIS: a randomized, placebo-controlled phase 2 trial in relapsing multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Robert J. Fox, US	
P646	A short pause in ponesimod treatment completely restores the ability to mount post-vaccination antibody titers in mice	12:00 - 12:00 CEST
	<i>Speaker:</i> Krista Spiller, US	
P647	Comparison of multiple disease modifying therapies in multiple sclerosis with marginal structural models	12:00 - 12:00 CEST
	<i>Speaker:</i> Ibrahima Diouf, AU	
P648	Real-world efficacy data of azathioprine in AQP4-IgG seropositive neuromyelitis optica spectrum disorder	12:00 - 12:00 CEST
	<i>Speaker:</i> Rasha Saleem, DK	
P649	Humoral immune response to the influenza vaccine in multiple sclerosis patients treated with cladribine or rituximab	12:00 - 12:00 CEST
	<i>Speaker:</i> Åslaug Rudjord Lorentzen, NO	
P650	Humoral and cellular immune responses to SARS-CoV-2 mRNA	12:00 - 12:00

	vaccination in patients with multiple sclerosis treated with high-efficacy disease-modifying therapies <i>Speaker:</i> Marton König, NO	CEST
P651	Humoral response to SARS-CoV-2-mRNA vaccine in multiple sclerosis patients treated with high efficacy disease-modifying therapies <i>Speaker:</i> Rocco Capuano, ES	12:00 - 12:00 CEST
P652	IgG immune response to SARS-CoV-2 vaccination in people living with multiple sclerosis within MS PATHS <i>Speaker:</i> Jeffrey Cohen, US	12:00 - 12:00 CEST
P653	Treatment of multiple sclerosis with Rituximab: a multicenter Spanish experience <i>Speaker:</i> Carmen Alcalá, ES	12:00 - 12:00 CEST
P654	Demographic features and clinical course of pediatric-onset MS patients on newer disease-modifying treatments <i>Speaker:</i> Nikita Shukla, US	12:00 - 12:00 CEST
P655	Rationale and design of a phase 4 study exploring B-cell levels and immune responses in infants born to women with MS who were exposed to ocrelizumab up to 6 months before or during the first trimester of pregnancy (the MINORE study) <i>Speaker:</i> Kerstin Hellwig, DE	12:00 - 12:00 CEST
P656	The role of human and mouse BTK in myeloid cells <i>Speaker:</i> Luca Muzio, IT	12:00 - 12:00 CEST
P657	The effects of culture-expanded, non-cryopreserved adipose tissue mesenchymal stem cells on neurological and immunological paradigms in female patients with secondary progressive multiple sclerosis: a phase I/II clinical trial <i>Speaker:</i> Fahimeh Lavi, IR	12:00 - 12:00 CEST
P658	Comparative analysis of early treatment effectiveness of first-line disease-modifying therapies and fingolimod on cognitive functions in persons with multiple sclerosis <i>Speaker:</i> Pinar Yigit, TR	12:00 - 12:00 CEST
P659	Effect of ozanimod on circulating leukocyte subtypes in patients with relapsing multiple sclerosis and comparison with healthy volunteers <i>Speaker:</i> Sarah Harris, US	12:00 - 12:00 CEST
P660	Tracking the immune response to SARS-CoV-2 mRNA vaccines in an open-label multicenter study in participants with relapsing multiple sclerosis treated with ofatumumab s.c. (KYRIOS clinical trial) <i>Speaker:</i> Tjalf Ziemssen, DE	12:00 - 12:00 CEST
P661	Disease activity in multiple sclerosis patients switching from fingolimod to cladribine compared to rituximab <i>Speaker:</i> Gro Owren Nygaard, NO	12:00 - 12:00 CEST

P662	Personalized extended interval dosing of natalizumab in relapsing remitting multiple sclerosis: a prospective multicenter trial in The Netherlands <i>Speaker:</i> A.A. Toorop, NL	12:00 - 12:00 CEST
P663	Comparison of pharmacokinetic profiles and safety outcomes with peginterferon beta-1a administration in Black/African American and White participants <i>Speaker:</i> Yuan Zhao, US	12:00 - 12:00 CEST
P664	Alemtuzumab-related lymphocytes subset dynamics and disease activity or autoimmune adverse event <i>Speaker:</i> Elisabetta Signoriello, IT	12:00 - 12:00 CEST
P665	A retrospective review of COVID spike protein antibody development following COVID-19 vaccination in MS patients on disease modifying drugs <i>Speaker:</i> Asya Wallach, US	12:00 - 12:00 CEST
P666	MRI outcomes from the long-term extension study of tolebrutinib in relapsing MS: Year 1 results <i>Speaker:</i> Daniel S. Reich, US	12:00 - 12:00 CEST
P667	Safety and efficacy outcomes from the long-term extension study of tolebrutinib in patients with relapsing MS: Year 1 results <i>Speaker:</i> Jiwon Oh, CA	12:00 - 12:00 CEST
P668	Factors associated with dimethyl fumarate induced lymphopenia in a rural multiple sclerosis cohort <i>Speaker:</i> Muhammad Taimur Malik, US	12:00 - 12:00 CEST
P669	Safety and efficacy data from sateen trial in multiple sclerosis <i>Speaker:</i> Jordi Xaus, ES	12:00 - 12:00 CEST
P670	The role of ADAM28 in the immune interactions of mesenchymal stem cells in multiple sclerosis patients <i>Speaker:</i> Nanci Frakich, GB	12:00 - 12:00 CEST
P671	Humoral response to SARS-CoV-2 natural Infection and mRNA vaccines among patients with multiple sclerosis <i>Speaker:</i> Matthew Tremblay, US	12:00 - 12:00 CEST
P672	Safety and tolerability of conversion to siponimod with and without titration in patients with advancing forms of relapsing multiple sclerosis: interim results of the phase 3b EXCHANGE study <i>Speaker:</i> Amit Bar-Or, US	12:00 - 12:00 CEST
P673	Flushing and flushing-related adverse events with diroximel fumarate in patients with relapsing-remitting multiple sclerosis: results from the Phase 3 EVOLVE-MS-2 Study <i>Speaker:</i> Barry Singer, US	12:00 - 12:00 CEST
P674	Exploratory analysis of serum GDF-15 levels in patients	12:00 - 12:00

	receiving subcutaneous interferon Beta-1a in the REFLEX trial <i>Speaker:</i> Mali Coray, CH	CEST
P675	Comparative effectiveness, safety, and immunogenicity of Rituximab biosimilars (Truxima/Ritemvia and Rixathon) to their originator (Mabthera) in multiple sclerosis <i>Speaker:</i> Nicky Dunn, SE	12:00 - 12:00 CEST
P676	Ocrelizumab versus fingolimod after natalizumab cessation in multiple sclerosis: an observational study <i>Speaker:</i> Kevin Bigaut, FR	12:00 - 12:00 CEST
P677	Early high efficacy treatment in multiple sclerosis is the best predictor of no disease activity over one and two years in a Norwegian population-based registry <i>Speaker:</i> Cecilia Simonsen, NO	12:00 - 12:00 CEST
P678	Additional courses of alemtuzumab in sub-optimal responder multiple sclerosis patients are safe and effective: experience from 15 Italian MS centers <i>Speaker:</i> Damiano Baroncini, IT	12:00 - 12:00 CEST
P680	Fenebrutinib reduces disease activity in a mouse model of inflammatory multiple sclerosis, which is associated with reduced microglial activation <i>Speaker:</i> Martin Weber, DE	12:00 - 12:00 CEST
P681	Anti-CD20 disease modifying therapies decrease the humoral response to COVID-19 mRNA vaccination in patients with multiple sclerosis <i>Speaker:</i> Andrew Wolf, US	12:00 - 12:00 CEST
P682	Real-world influence of race/ethnicity on response and tolerability of multiple sclerosis treatment: a 20-year comparative study <i>Speaker:</i> Carlos A. Pérez, US	12:00 - 12:00 CEST
P683	COVID-19 (inactivated and mRNA) vaccine and humoral response in people with multiple sclerosis: Chilean cohort <i>Speaker:</i> Lorna Galleguillos, CL	12:00 - 12:00 CEST
P684	Immunological assessment in multiple sclerosis patients treated with ocrelizumab <i>Speaker:</i> Valentina Mazziotti, IT	12:00 - 12:00 CEST
P685	Disease activity after discontinuation of disease-modifying therapies in patients with multiple sclerosis in Argentina: Data from the nationwide registry RelevarEM <i>Speaker:</i> Gisela Zanga, AR	12:00 - 12:00 CEST
P686	B-cell levels and immunity in breastfed infants of women with MS treated with ocrelizumab: design of a phase 4 study (SOPRANINO) <i>Speaker:</i> Riley Bove, US	12:00 - 12:00 CEST

Scientific program

P687	Phenotype and recovery from relapses in patients with relapsing remitting multiple sclerosis with their first DMT prescription: an Italian registry study <i>Speaker:</i> Emanuele D'Amico, IT	12:00 - 12:00 CEST
P688	Does the reason for the switch to fingolimod affect the treatment response? <i>Speaker:</i> Taha Aslan, TR	12:00 - 12:00 CEST
P689	Ocrelizumab treatment in multiple sclerosis: a real world observational multi-center study to confirm efficacy on disability accrual and explore prognostic factors of response to treatment <i>Speaker:</i> Roberta Lanzillo, IT	12:00 - 12:00 CEST
P690	Infusion-related reactions in Black/African American and Hispanic/Latino patients treated with ocrelizumab administered as a shorter infusion <i>Speaker:</i> Faria Amjad, US	12:00 - 12:00 CEST
P691	2-year follow-up of Finnish multiple sclerosis patients treated with cladribine tablets <i>Speaker:</i> Ilkka Rauma, FI	12:00 - 12:00 CEST
P692	Comparing the impact of dose titration on gastrointestinal tolerability: diroximel fumarate versus dimethyl fumarate in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Robert Naismith, US	12:00 - 12:00 CEST
P693	Treatment of multiple sclerosis with natalizumab: experiences from a real-life cohort over 15 years <i>Speaker:</i> Michael Auer, AT	12:00 - 12:00 CEST
P694	Safety and effectiveness of cladribine in multiple sclerosis – clinical experience of five tertiary centers <i>Speaker:</i> Mónica Santos, PT	12:00 - 12:00 CEST
P695	Evaluation of immunoglobulin levels and COVID-19 disease course in patients with multiple sclerosis under ocrelizumab therapy: a tertiary center experience <i>Speaker:</i> Nazire Pinar Acar - Ozen, TR	12:00 - 12:00 CEST
P696	Safety and efficacy of siponimod in patients with active secondary progressive multiple sclerosis identifying as Hispanic from the phase 3 EXPAND study <i>Speaker:</i> Stanley Cohan, US	12:00 - 12:00 CEST
P697	Glatiramer acetate depot (extended-release) phase IIa study in patients with primary progressive multiple sclerosis: safety and efficacy snapshot <i>Speaker:</i> Arnon Karni, IL	12:00 - 12:00 CEST
P698	Hemophagocytic lymphohistiocytosis and alemtuzumab: a rescue or a cause? <i>Speaker:</i> Eva Koban, SI	12:00 - 12:00 CEST

Scientific program

P699	Ex vivo modulation of fatty acid metabolism of PBMC from multiple sclerosis patients <i>Speaker:</i> Carolin Blask, DE	12:00 - 12:00 CEST
P700	Endocannabinoid levels in peripheral blood mononuclear cells of multiple sclerosis patients treated with dimethyl fumarate: a longitudinal study <i>Speaker:</i> Alicia Sánchez-Sanz, ES	12:00 - 12:00 CEST
P701	A broad effect of ocrelizumab on the peripheral immune component in patients with early relapsing-remitting multiple sclerosis <i>Speaker:</i> Alexandra Garcia, FR	12:00 - 12:00 CEST
P702	CELLO: a phase IV, multicenter, randomized, double-blind, placebo-controlled study assessing efficacy of ocrelizumab in radiologically isolated syndrome <i>Speaker:</i> Erin E. Longbrake, US	12:00 - 12:00 CEST
P703	Effect of ponesimod compared with teriflunomide on treatment with concomitant corticosteroids for relapse in patients with relapsing forms of multiple sclerosis <i>Speaker:</i> Maria Ait-Tihyaty, US	12:00 - 12:00 CEST
P704	Two-year real-world experience with ocrelizumab in the treatment of patients with multiple sclerosis <i>Speaker:</i> Brandi Vollmer, US	12:00 - 12:00 CEST
P705	A real world multi centre study on efficacy and safety of natalizumab in Indian patients with multiple sclerosis <i>Speaker:</i> Thomas Mathew, IN	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP04 - ePoster - Neuropsychology

P064	NODDI microstructural abnormalities in normal-appearing gray matter and white matter contribute to cognitive impairment in multiple sclerosis <i>Speaker:</i> Paolo Preziosa, IT	12:00 - 12:00 CEST
P065	The psychopharmacology of MS in Greece: a nationwide study on the basis of digital prescription records <i>Speaker:</i> Christos Bakirtzis, GR	12:00 - 12:00 CEST
P066	Impaired awareness: why people with multiple sclerosis continue using cannabis despite evidence to the contrary <i>Speaker:</i> Anthony Feinstein, CA	12:00 - 12:00 CEST
P067	Cognitive functioning in pediatric-onset relapsing myelin oligodendrocyte glycoprotein (MOG) antibody disease <i>Speaker:</i> Tracy Lauren Fabri, CA	12:00 - 12:00 CEST
P068	Validation of Canadian regression normative data for the Minimal Assessment of Cognitive Function in Multiple Sclerosis	12:00 - 12:00 CEST

(MACFIMS)		
	<i>Speaker:</i> Lisa Walker, CA	
P069	Alexithymia is linked to depression and cognitive fatigue in radiologically isolated syndrome <i>Speaker:</i> Héloïse Joly, FR	12:00 - 12:00 CEST
P070	The role of serum biomarkers in predicting cognitive status in people with multiple sclerosis <i>Speaker:</i> Maureen van Dam, NL	12:00 - 12:00 CEST
P071	Theory of mind and its neuroanatomical correlates in patients with multiple sclerosis <i>Speaker:</i> Hiroaki Yokote, JP	12:00 - 12:00 CEST
P072	General intelligence is affected in children with multiple sclerosis: evidence from meta-analyses <i>Speaker:</i> Mariia Bogdanova, RU	12:00 - 12:00 CEST
P073	Work difficulties in people with multiple sclerosis: the role of depression, anxiety and coping <i>Speaker:</i> Elianne van Egmond, NL	12:00 - 12:00 CEST
P074	Different perception of cognitive deficits among inflammatory or progressive multiple sclerosis subtypes <i>Speaker:</i> Cl?udia Coll Martinez, ES	12:00 - 12:00 CEST
P075	False positives committed by patients with progressive multiple sclerosis in memory recognition tasks: disinhibition or memory problems? <i>Speaker:</i> Judit Salavedra Pont, ES	12:00 - 12:00 CEST
P076	Teriflunomide and Work problems in multiple sclerosis <i>Speaker:</i> Michael Jaworski III, US	12:00 - 12:00 CEST
P077	What are multiple sclerosis (MS) patients saying on the web? WE-SEP: an innovative methodology to understand their needs and experiences <i>Speaker:</i> Cécile Donze, FR	12:00 - 12:00 CEST
P078	Is there a multiple sclerosis (MS) personality? Personality characteristics in persons with recently diagnosed MS at a single Canadian centre <i>Speaker:</i> Laura Chu, CA	12:00 - 12:00 CEST
P079	Discordance between neurologists and people with multiple sclerosis on the perception of the presence and burden of cognitive impairment <i>Speaker:</i> Iris-Katharina Penner, DE	12:00 - 12:00 CEST
P080	Motor and cognitive performances are associated beyond structural brain damage in relapsing-remitting multiple sclerosis <i>Speaker:</i> Damiano Mistri, IT	12:00 - 12:00 CEST
P081	Factors contributing unemployment in persons with multiple	12:00 - 12:00

	sclerosis: dual task effects	CEST
	<i>Speaker:</i> María Bárbara Eizaguirre, AR	
P082	Fatigue and episodic memory in relapsing-remitting multiple sclerosis: a web-based study	12:00 - 12:00 CEST
	<i>Speaker:</i> Luke Allen, GB	
P083	Memory for faces and emotion recognition in patients with relapsing-remitting multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Elisabeth Göttfried, AT	
P084	Cognitive functioning in everyday life: the development of a questionnaire on instrumental activities of daily living in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Maureen van Dam, NL	
P085	Relationship between stigma and symptom burden in patients with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Murat Terzi, TR	
P086	Cognitive impairment in clinically isolated syndromes: a control-case study	12:00 - 12:00 CEST
	<i>Speaker:</i> Mohamed Islam Kediha, DZ	
P087	Multicentric motor evoked potentials in multiple sclerosis: a retrospective pilot study	12:00 - 12:00 CEST
	<i>Speaker:</i> Cathérine Dekeyser, BE	
P088	Using 7T MRI to determine lesion burden in the limbic system and its relation to anxiety and depression scores in persons with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Alexandra Hillyer, CA	
P089	Prevalence of cognitive impairment in a multiple sclerosis patients cohort with low disability	12:00 - 12:00 CEST
	<i>Speaker:</i> José E Meca-Lallana, ES	
P090	Evaluating the effectiveness and acceptability of an ACT-informed neuropsychology group for individuals with MS, delivered using videoconferencing	12:00 - 12:00 CEST
	<i>Speaker:</i> Clodagh Cogley, IE	
P091	A year with the fear of COVID-19 in multiple sclerosis patients: Examination of depression, sleep quality and quality of life before and after the pandemic	12:00 - 12:00 CEST
	<i>Speaker:</i> Murat Terzi, TR	
P092	MindSEP mirror study: multiple sclerosis and cognition, patient and doctor perspectives	12:00 - 12:00 CEST
	<i>Speaker:</i> Bruno Brochet, FR	
P093	Psychopathology profiles in patients presenting to a multiple sclerosis cognitive unit	12:00 - 12:00 CEST
	<i>Speaker:</i> Stefanie Roberts, AU	
P094	The associations between cerebellar gray and white matter	12:00 - 12:00

atrophy and cognition in patients with relapsing-remitting multiple sclerosis

CEST

Speaker: Jakub Komendziński, PL*Poster Session*

12:00 - 21:00 CEST

eP33 - ePoster - Therapy - Long-term treatment monitoring

P722	Early treatment with alemtuzumab maintains its efficacy on clinical and MRI disease activity outcomes, including slowing of brain volume loss, over 10 years in RRMS patients: CARE-MS II follow-up (TOPAZ Study) <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P723	Long-term reduction of relapse rate and confirmed disability progression after 7.5 years of ocrelizumab treatment in patients with relapsing multiple sclerosis in the OPERA OLE <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P724	Safety of ocrelizumab in multiple sclerosis: updated analysis in patients with relapsing and primary progressive multiple sclerosis <i>Speaker:</i> Stephen Hauser, US	12:00 - 12:00 CEST
P725	Hepatic safety of ozanimod in relapsing multiple sclerosis in the DAYBREAK open-label extension study <i>Speaker:</i> Krzysztof Selmaj, PL	12:00 - 12:00 CEST
P726	Long-term effect of fingolimod on cardiovascular functioning in people with relapsing-remitting multiple sclerosis <i>Speaker:</i> Tjalf Ziemssen, DE	12:00 - 12:00 CEST
P727	Safety profile characterisation of evobrutinib in over 1000 patients from phase II clinical trials in multiple sclerosis, rheumatoid arthritis and systemic lupus erythematosus <i>Speaker:</i> Xavier Montalban, ES	12:00 - 12:00 CEST
P728	The influence of disease modifying therapies on immunoglobulin blood levels in patients with multiple sclerosis <i>Speaker:</i> Ana-Katharina Klein, DE	12:00 - 12:00 CEST
P729	The impact of ocrelizumab on immunoglobulin levels and the risk of infection <i>Speaker:</i> Kyle Smoot, US	12:00 - 12:00 CEST
P730	Efficacy of highly active disease modifying treatment versus interferon in multiple sclerosis: a UK MS register study <i>Speaker:</i> Kevin Marcaida, GB	12:00 - 12:00 CEST
P731	Clinical effectiveness and safety of teriflunomide for patients treated at least 48 months in the Swedish post-market surveillance study "Immunomodulation and Multiple Sclerosis Epidemiology 4" (IMSE 4) <i>Speaker:</i> Victoria Rosengren, SE	12:00 - 12:00 CEST

Scientific program

P732	Ten years of fingolimod in multiple sclerosis: Who will benefit from it? Insights from a large real-world cohort study <i>Speaker:</i> Lucas Gauer, FR	12:00 - 12:00 CEST
P733	Alemtuzumab maintains efficacy on clinical and MRI disease activity outcomes, including slowing of brain volume loss, over 10 years in RRMS patients: CARE-MS I follow-up (TOPAZ Study) <i>Speaker:</i> Alasdair Coles, GB	12:00 - 12:00 CEST
P734	The effect of alemtuzumab treatment in relapsing remitting multiple sclerosis: real-world data from a five-year prospective one center study <i>Speaker:</i> Sofia Sandgren, SE	12:00 - 12:00 CEST
P735	Clinical effectiveness and safety of dimethyl fumarate for patients treated at least 5 years in the Swedish post-market surveillance study "Immunomodulation and Multiple Sclerosis Epidemiology 5" (IMSE 5) <i>Speaker:</i> Victoria Rosengren, SE	12:00 - 12:00 CEST
P736	A Swedish nationwide pharmaco-epidemiological study of the long-term safety and effectiveness of alemtuzumab (IMSE 3) <i>Speaker:</i> Edit Ekström, SE	12:00 - 12:00 CEST
P737	Long-term safety and efficacy of ozanimod in relapsing multiple sclerosis: interim analysis of the DAYBREAK open-label extension study <i>Speaker:</i> Krzysztof Selmaj, PL	12:00 - 12:00 CEST
P738	The long-term safety and effectiveness of natalizumab (IMSE 1) - Real-world data from a Swedish nationwide pharmaco-epidemiological study <i>Speaker:</i> Edit Ekström, SE	12:00 - 12:00 CEST
P739	Diroximel fumarate in patients with relapsing-remitting multiple sclerosis: interim safety and efficacy results from the Phase 3 EVOLVE-MS-1 Study <i>Speaker:</i> Sibyl E. Wray, US	12:00 - 12:00 CEST
P740	Utilization, safety, and tolerability of ocrelizumab: year 4 data from the Providence Ocrelizumab Registry <i>Speaker:</i> Kyle Smoot, US	12:00 - 12:00 CEST
P741	High adherence to treatment with cladribine tablets for multiple sclerosis during the COVID-19 pandemic: results from patient support programmes <i>Speaker:</i> Jiwon Oh, CA	12:00 - 12:00 CEST
P742	Disease-modifying treatment patterns of patients with multiple sclerosis and newly treated with cladribine tablets or fingolimod: an interim analysis of the CLARION study <i>Speaker:</i> Meritxell Sabidó, DE	12:00 - 12:00 CEST
P743	Clinical effectiveness and safety of cladribine tablets for patients treated at least 12 months in the Swedish post-market	12:00 - 12:00 CEST

	surveillance study “immunomodulation and multiple sclerosis epidemiology 10” (IMSE 10) <i>Speaker:</i> Victoria Rosengren, SE	
P744	Reconstitution of lymphocytes following discontinuation of dimethyl fumarate (DMF) due to lymphopenia in the Swedish post-market surveillance study “Immunomodulation and Multiple Sclerosis Epidemiology 5” (IMSE 5) <i>Speaker:</i> Victoria Rosengren, SE	12:00 - 12:00 CEST
P745	Estimating long-term effect of siponimod on disability progression versus virtual placebo in SPMS using RPSFT model: EXPAND data up to 7 years <i>Speaker:</i> Bruce A Cree, US	12:00 - 12:00 CEST
P746	Long-term immune-related adverse events after alemtuzumab <i>Speaker:</i> Rocío López Ruiz, ES	12:00 - 12:00 CEST
P747	Hypogammaglobulinemia and infection rates in ocrelizumab treated multiple sclerosis patients over 3 years: a real-world single center study <i>Speaker:</i> Bhupendra O Khatri, US	12:00 - 12:00 CEST
P748	Real-world longitudinal data of peginterferon beta-1a from the Swedish national post-marketing surveillance study (IMSE 6) – effectiveness and safety profile <i>Speaker:</i> Edit Ekström, SE	12:00 - 12:00 CEST
P749	Blueteq data : EDSS scores in patients on disease modifying therapy at a single centre <i>Speaker:</i> Rachel Dorsey-Campbell, GB	12:00 - 12:00 CEST
P750	Safety of B cell depleting effects of ocrelizumab in patients with multiple sclerosis in clinical practice <i>Speaker:</i> Rami Al-Hader, US	12:00 - 12:00 CEST
P751	DISCContinuation of disease-modifying therapies in MS (DISCOMS) extension – Study design and baseline demographics <i>Speaker:</i> John Corboy, US	12:00 - 12:00 CEST
P752	Long-term outcome and predictors of long-term disease activity in Natalizumab treated patients with multiple sclerosis – real life data from the Austrian MS Treatment Registry <i>Speaker:</i> Michael Guger, AT	12:00 - 12:00 CEST
P753	COVID-19 in patients with aggressive MS treated with aHSCT: a multi-center study <i>Speaker:</i> Elvira Sbragia, IT	12:00 - 12:00 CEST
P754	Real world data on the use of ocrelizumab. Incidence of lymphopenia, B-cell and immunoglobulins evolution <i>Speaker:</i> Rocío López Ruiz, ES	12:00 - 12:00 CEST
P755	Comparative effectiveness of beta-nterferons and glatramer	12:00 - 12:00

acetate on physical and cognitive functions: 6-month follow-up study

CEST

Speaker: Taha Aslan, TR

Poster Session

12:00 - 21:00 CEST

ePoster Library

Poster Session

12:00 - 21:00 CEST

eP01 - ePoster - Diagnosis and differential diagnosis

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|------|---|-----------------------|
| P001 | MRI activity versus relapses as markers of disease activity in SPMS: Data from real world and pivotal clinical studies
<i>Speaker:</i> Gavin Giovannoni, GB | 12:00 - 12:00
CEST |
| P002 | Do we need separate MRI diagnostic criteria for primary progressive multiple sclerosis?
<i>Speaker:</i> Madiha Shatila, GB | 12:00 - 12:00
CEST |
| P003 | Detection of IgM to phosphatidylcholine in serum samples is a major diagnosis marker in MS
<i>Speaker:</i> Maria Cruz Sádaba, ES | 12:00 - 12:00
CEST |
| P004 | Isolated CNS familial Hemophagocytic Lymphohistiocytosis (HLH) in children presenting as a mimic of demyelination in children
<i>Speaker:</i> Omar Abdel-Mannan, GB | 12:00 - 12:00
CEST |
| P005 | Brighter spotty lesion on spinal MRI: Is it helpful in differentiating AQP4 antibody positive neuromyelitis optica spectrum disorder from MOG antibody associated disease?
<i>Speaker:</i> Jae-Won Hyun, KR | 12:00 - 12:00
CEST |
| P006 | Accumulative risk of progression in radiologically isolated syndrome in Argentina: data from the nationwide registry RelevEM
<i>Speaker:</i> Juan Ignacio Rojas, AR | 12:00 - 12:00
CEST |
| P007 | Pseudocystic inflammatory demyelinating lesions in multiple sclerosis: a clinical, radiological and pathological description
<i>Speaker:</i> Florent Cluse, FR | 12:00 - 12:00
CEST |
| P008 | Treatment patterns in secondary progressive multiple sclerosis a multi-country registry study from five European countries
<i>Speaker:</i> Richard Nicholas, GB | 12:00 - 12:00
CEST |
| P009 | Risk of progression after 24 months in low risk radiologically isolated syndrome in Argentina
<i>Speaker:</i> Juan Ignacio Rojas, AR | 12:00 - 12:00
CEST |
| P010 | Susac Syndrome, an increasing misdiagnosis of multiple sclerosis
<i>Speaker:</i> Mariano Marrodan, AR | 12:00 - 12:00
CEST |

Scientific program

P011	Diagnosis, differential diagnosis and misdiagnosis of Susac syndrome <i>Speaker:</i> James Triplett, AU	12:00 - 12:00 CEST
P012	Comparison of the 2010 and 2017 McDonald Criteria for diagnosis of primary progressive multiple sclerosis <i>Speaker:</i> Katelijn Blok, NL	12:00 - 12:00 CEST
P013	Platelet-to-lymphocyte ratio as a peripheral biomarker that may help to differentiate MS from NMOSD at disease onset <i>Speaker:</i> Edgar Carnero Contentti, AR	12:00 - 12:00 CEST
P014	Radiologically Isolated Syndrome (RIS): reliability of 2009 RIS criteria <i>Speaker:</i> Christine Lebrun-Frenay, FR	12:00 - 12:00 CEST
P015	COVID-19 induced longitudinal extensive myelitis <i>Speaker:</i> Busra S. Arica Polat, TR	12:00 - 12:00 CEST
P016	Examining the diagnostic potential of an extended virus antigen panel in multiple sclerosis <i>Speaker:</i> Jette Lautrup Frederiksen, DK	12:00 - 12:00 CEST
P017	Study of optic nerve topography value in the diagnosis of multiple sclerosis in Tunisians <i>Speaker:</i> Saloua Mrabet, TN	12:00 - 12:00 CEST
P018	Neurogenetics evaluation of undiagnosed white matter disorders in adults <i>Speaker:</i> Jennifer Orthmann-Murphy, US	12:00 - 12:00 CEST
P019	Acute disseminated encephalomyelitis following vaccination against SARS-CoV-2: a case report <i>Speaker:</i> Luciana Lazaro, AR	12:00 - 12:00 CEST
P020	Difficulties in diagnosis of primary progressive multiple sclerosis: a clinical perspective <i>Speaker:</i> Katelijn Blok, NL	12:00 - 12:00 CEST
P021	Evaluating a new patient clinical management pathway <i>Speaker:</i> Tanya King, GB	12:00 - 12:00 CEST
P022	Longitudinally extensive transverse myelitis following COVID-19 pneumonia <i>Speaker:</i> Frédéric London, BE	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP13 - ePoster - Patient reported outcomes

P230	Validation of PDDS and patient-reported relapses using digital technologies to monitor MS evolution with EDSS and physician-reported relapses <i>Speaker:</i> Georgina Arrambide, ES	12:00 - 12:00 CEST
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Scientific program

P231	MS and COVID-19 vaccination: hesitancy and early safety/tolerability data <i>Speaker:</i> Samantha Epstein, US	12:00 - 12:00 CEST
P232	Five distinct health-related quality of life trajectories among people with multiple sclerosis <i>Speaker:</i> Julia O'Mahony, CA	12:00 - 12:00 CEST
P233	Earlier disease modifying therapy is associated with more favourable long-term patient reported outcomes in relapsing multiple sclerosis <i>Speaker:</i> Anna He, SE	12:00 - 12:00 CEST
P234	Patient-reported outcomes measures for multiple sclerosis: patient insights on fatigue, cognition, pain and depression, and their interconnectivity <i>Speaker:</i> Tanuja Chitnis, US	12:00 - 12:00 CEST
P235	Aligning patient and provider goals for care in multiple sclerosis: an in-depth look at the experiences and perspectives of Black or African American and white patients with multiple sclerosis and their care teams <i>Speaker:</i> Mitzi Williams, US	12:00 - 12:00 CEST
P236	Safety of the BNT162b2 COVID-19 vaccine in multiple sclerosis: early experience from a tertiary multiple sclerosis center in Israel <i>Speaker:</i> Itay Lotan, IL	12:00 - 12:00 CEST
P237	How do illness acceptance and treatment acceptance in multiple sclerosis relate to adherence? <i>Speaker:</i> Lisa Healy, GB	12:00 - 12:00 CEST
P238	Improvements in QoL at 1 year in patients treated with cladribine tablets for highly active relapsing MS: an interim analysis of CLARIFY-MS <i>Speaker:</i> Alessandra Solari, IT	12:00 - 12:00 CEST
P239	Health-related quality of life in neuromyelitis optica spectrum disorders patients in an Argentinean cohort <i>Speaker:</i> Edgar Carnero Contentti, AR	12:00 - 12:00 CEST
P240	Early predictors of long-term functional and patient-reported outcomes in MS <i>Speaker:</i> Gauruv Bose, US	12:00 - 12:00 CEST
P241	Employment status and associations with patient-reported outcome measures in patients with relapsing multiple sclerosis <i>Speaker:</i> Frédéric London, BE	12:00 - 12:00 CEST
P242	Defining progressive MS and activity using patient related outcomes and MRI measures <i>Speaker:</i> Luciana Midaglia, ES	12:00 - 12:00 CEST
P243	Changes in productivity and ability to work with natalizumab	12:00 - 12:00

	treatment in relapsing-remitting multiple sclerosis patients and impact of the COVID19 containment measures in France: the TITAN study <i>Speaker:</i> Arnaud Kwiatkowski, FR	CEST
P244	Testing psychometric properties of spontaneous and deliberate mind wandering scales in people with multiple sclerosis <i>Speaker:</i> Jessica Podda, IT	12:00 - 12:00 CEST
P245	Co-creating new patient-reported outcomes through the science with and of patient input: characterization of mood status in people with multiple sclerosis <i>Speaker:</i> Ludovico Pedullà, IT	12:00 - 12:00 CEST
P246	The contribution of race to patient-reported gait disability in multiple sclerosis <i>Speaker:</i> Deja Rose, US	12:00 - 12:00 CEST
P247	Questionnaire based satisfaction survey for telemedicine-based care in multiple sclerosis and related neuroimmunological disorders <i>Speaker:</i> Huiam Mubarak, US	12:00 - 12:00 CEST
P248	Symptom severity in Neuromyelitis Optica Spectrum Disorder from the patients' perspective <i>Speaker:</i> José E Meca-Lallana, ES	12:00 - 12:00 CEST
P249	Assessing diagnosis disclosure and concealment in multiple sclerosis: development and initial validation of the DISCO-MS survey <i>Speaker:</i> Anne Kever, US	12:00 - 12:00 CEST
P250	Meaning and purpose for people with multiple sclerosis: quality of life reflects more than apparent physical ability <i>Speaker:</i> Olivia Kaczmarek, US	12:00 - 12:00 CEST
P251	Association between patient- and physician-reported disability measures in relapsing-remitting multiple sclerosis in the Tysabri observational program <i>Speaker:</i> Ludwig Kappos, CH	12:00 - 12:00 CEST
P252	Comparison of time to clinically meaningful improvement in Neuro-QoL in patients treated with natalizumab versus ocrelizumab <i>Speaker:</i> Carrie Hersh, US	12:00 - 12:00 CEST
P253	Evaluation of adherence to treatment in patients with multiple sclerosis from Argentina and Ecuador <i>Speaker:</i> Ricardo Alonso, AR	12:00 - 12:00 CEST
P254	Retrospective study of correlation between clinical variables of breathing/phonation and patient reported outcomes in people with multiple sclerosis <i>Speaker:</i> Andrea Tacchino, IT	12:00 - 12:00 CEST

Scientific program

P255	COVID-19 impact on the evolution of mental health in multiple sclerosis <i>Speaker:</i> Irene Gil González, ES	12:00 - 12:00 CEST
P256	Real-world patient-reported outcomes in RRMS patients transitioning to alemtuzumab: results from the PRO-ACT study <i>Speaker:</i> Bhupendra O Khatri, US	12:00 - 12:00 CEST
P257	Fatigue scores are better in pediatric onset multiple sclerosis than adult onset multiple sclerosis <i>Speaker:</i> Wendy M Coronado, US	12:00 - 12:00 CEST
P258	Importance of employment status on quality of life in persons with multiple sclerosis <i>Speaker:</i> Sandra Vanotti, AR	12:00 - 12:00 CEST
P259	haMster: a smartphone application for remote patient monitoring in multiple sclerosis <i>Speaker:</i> Patrick Altmann, AT	12:00 - 12:00 CEST
P260	Ageing multiple sclerosis patient experience to identify disease and treatment perception and changes over time <i>Speaker:</i> Javier Sotoca, ES	12:00 - 12:00 CEST
P261	Real-world safety and effectiveness of natalizumab treatment in patients with relapsing-remitting multiple sclerosis: data from an Irish registry <i>Speaker:</i> Chris McGuigan, IE	12:00 - 12:00 CEST
P262	Impact of COVID-19: Preserving services for patients with multiple sclerosis during a global pandemic <i>Speaker:</i> Stephen Ramsay, GB	12:00 - 12:00 CEST
P263	Center-level variation in multiple sclerosis outcomes: Real-world patient reported outcomes (PROs) findings from the Multiple Sclerosis Continuous Quality Improvement (MS-CQI) research collaborative study (2017-2020) <i>Speaker:</i> Brant Oliver, US	12:00 - 12:00 CEST
P264	Patient-reported outcome measures reflect multiple sclerosis-related disability <i>Speaker:</i> Frédéric London, BE	12:00 - 12:00 CEST
P265	Patient reported outcomes in a secondary progressive MS cohort related to cognition, MRI and physical outcomes <i>Speaker:</i> Ásta Theódórsdóttir, DK	12:00 - 12:00 CEST
P266	Behavioral clusters and experienced fatigue in multiple sclerosis: a pilot study <i>Speaker:</i> Philipp Gulde, DE	12:00 - 12:00 CEST
P267	Multiple sclerosis, medication management, health literacy and accumulative cognitive impairment: is perception sufficient for performance? <i>Speaker:</i> Avtej Sethi, US	12:00 - 12:00 CEST

Scientific program

P268	Quality of life in multiple sclerosis: Impact of disease and demographic factors <i>Speaker:</i> Irene Gil González, ES	12:00 - 12:00 CEST
P269	Disease activity and patient-reported outcomes in patients with multiple sclerosis switching from first-line platform therapies to dimethyl fumarate <i>Speaker:</i> Filipe Branco, US	12:00 - 12:00 CEST
P270	The impact of the COVID-19 pandemic on people with multiple sclerosis: a longitudinal survey study <i>Speaker:</i> Isabel Voigt, DE	12:00 - 12:00 CEST
P271	The impact of the COVID-19 pandemic on multiple sclerosis patients: One year later <i>Speaker:</i> Laura Bello, ES	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

ep43 - ePoster - Late Breaking News

P922	Humoral immune response after COVID-19 in multiple sclerosis: a nation-wide Austrian study <i>Abstract Presenter:</i> Gabriel Bsteh, AT	12:00 - 12:00 CEST
P923	External validation of the MSBase model of individual treatment response (Crystal Ball 1.0) <i>Abstract Presenter:</i> Nahid Moradi, AU	12:00 - 12:00 CEST
P924	Adenosine A_{2A} receptor signaling in astrocytes contributes to multiple sclerosis progression <i>Abstract Presenter:</i> Chih Hung Lo, US	12:00 - 12:00 CEST
P925	Treatment with ocrevus does not inhibit antiviral T-cell responses in persons with MS after SARS-CoV-2 infection <i>Speaker:</i> Roberto Furlan, IT	12:00 - 12:00 CEST
P926	Antibody and T-cell responses to SARS-CoV-2 vaccines in MS patients on Ocrelizumab and other disease-modifying therapies: preliminary results of an ongoing, prospective study <i>Abstract Presenter:</i> Ilya Kister, US	12:00 - 12:00 CEST
P927	The genetic basis of multiple sclerosis severity suggests central nervous system involvement <i>Speaker:</i> Adil Harroud, US	12:00 - 12:00 CEST
P928	Neural stem cells derived from progressive multiple sclerosis patients have intrinsic abnormalities in bioenergetic and metabolic profiles <i>Abstract Presenter:</i> Rosana-Bristena Ionescu, GB	12:00 - 12:00 CEST
P929	Efficacy and safety of proposed natalizumab biosimilar PB006 versus Tysabri[®] in patients with relapsing remitting multiple sclerosis: primary data from the phase III Antelope study <i>Abstract Presenter:</i> Bernhard Hemmer, DE	12:00 - 12:00 CEST

P930	Humoral and cellular responses to SARS-CoV-2 in convalescent COVID-19 patients with multiple sclerosis <i>Abstract Presenter:</i> Ana Zabalza, ES	12:00 - 12:00 CEST
P931	Effect of ofatumumab on serum immunoglobulin levels and infection risk in patients with relapsing multiple sclerosis over 3.5 years <i>Abstract Presenter:</i> Heinz Wiendl, DE	12:00 - 12:00 CEST
P932	Ublituximab is associated with significant improvement in the multiple sclerosis functional composite (MSFC): results from the Phase 3 ULTIMATE I & II studies <i>Abstract Presenter:</i> Lawrence Steinman, US	12:00 - 12:00 CEST
P933	COVID-19 in people with multiple sclerosis treated with ocrelizumab <i>Abstract Presenter:</i> Stephen Hauser, US	12:00 - 12:00 CEST
P934	Identification of a pharmacogenetic variant in NOX3 involved in the clinical response to natalizumab <i>Abstract Presenter:</i> Vera Pacoova Dal Maschio, IT	12:00 - 12:00 CEST
P935	Increased rate of hospitalisation for COVID-19 amongst rituximab treated multiple sclerosis patients in Sweden: new data from the 2021 update <i>Abstract Presenter:</i> Tim Spelman, AU	12:00 - 12:00 CEST
P936	No change on serum neurofilament light chain concentrations in patients with multiple sclerosis switching from 4 to 6 weeks interval between natalizumab infusions <i>Abstract Presenter:</i> Magnus Johnsson, SE	12:00 - 12:00 CEST
P937	Age-specific effects of childhood BMI on multiple sclerosis risk: a Mendelian Randomisation study <i>Abstract Presenter:</i> Luk Hone, GB	12:00 - 12:00 CEST
P938	COVID-19 and neurologic outcomes in multiple sclerosis and related disorders <i>Speaker:</i> Sarah Conway, US	12:00 - 12:00 CEST
P939	VISIONARY-MS: Update to a Phase 2 clinical trial of catalytic gold nanocrystals, CNM-Au8, for the treatment of chronic optic neuropathy <i>Abstract Presenter:</i> Robert L. Glanzman, US	12:00 - 12:00 CEST
P940	Humoral immune response to COVID-19 mRNA (BNT162b2-Pfizer) vaccine in patients with multiple sclerosis <i>Speaker:</i> Elsebeth Staun-Ram, IL	12:00 - 12:00 CEST
P941	Extended dosage interval of B-cell therapy in multiple sclerosis <i>Abstract Presenter:</i> Tobias Sejbaek, DK	12:00 - 12:00 CEST
P942	Serological response to SARS-CoV-2 vaccination in multiple sclerosis patient in a real-life experience <i>Abstract Presenter:</i> Jorge Millan-Pascual, ES	12:00 - 12:00 CEST

P943	The long-term contributions of the thymus and proliferation to peripheral naive CD4 cells differ between healthy controls (HCs) and patients with relapsing remitting multiple sclerosis (MS) and primary progressive MS (PPMS) <i>Abstract Presenter:</i> David Haegert, CA	12:00 - 12:00 CEST
P944	COVID-19 vaccine reactogenicity in persons with multiple sclerosis <i>Abstract Presenter:</i> Farren Briggs, US	12:00 - 12:00 CEST
P945	Humoral and cellular responses to SARS-CoV-2 vaccination in patients with multiple sclerosis and other autoimmune diseases <i>Abstract Presenter:</i> Ana Zabalza, ES	12:00 - 12:00 CEST
P946	Paramagnetic rims are a specific imaging biomarker in multiple sclerosis <i>Abstract Presenter:</i> Christopher Allen, GB	12:00 - 12:00 CEST
P947	Add-on therapy with a Lactobacillus containing probiotic increases regulatory T cell frequencies in multiple sclerosis patients <i>Abstract Presenter:</i> Constantin Träger, DE	12:00 - 12:00 CEST
P948	PAMRINO: International MRI and clinical data repository for neuromyelitis optica spectrum disorder cohort description <i>Abstract Presenter:</i> Claudia Chien, DE	12:00 - 12:00 CEST
P949	Humoral immune response to SARS-CoV-2 vaccination in MS patients treated with rituximab <i>Abstract Presenter:</i> Hilde Marie Torgauten, NO	12:00 - 12:00 CEST
P950	Seroconversion following vaccination against SARS-CoV-2 in people with MS: impact of disease modifying therapy <i>Abstract Presenter:</i> Nikki Vickaryous, GB	12:00 - 12:00 CEST
P951	Significance of CSF MOG antibody testing in MOG antibody associated disorders <i>Abstract Presenter:</i> Yuki Matsumoto, JP	12:00 - 12:00 CEST
P952	The impact of previous disease-modifying treatment for HSCT outcome and the risk of new disease activity in MS <i>Abstract Presenter:</i> Silje Kvistad, NO	12:00 - 12:00 CEST
P953	Characterisation of the innate and adaptive immune system after ocrelizumab treatment in multiple sclerosis <i>Abstract Presenter:</i> Lien Beckers, BE	12:00 - 12:00 CEST
P954	Comparison of the effectiveness of ocrelizumab vs interferons, fingolimod and natalizumab on relapses in relapsing-remitting multiple sclerosis <i>Abstract Presenter:</i> Izanne Roos, AU	12:00 - 12:00 CEST
P955	Recovery of circulating antibodies while preventing pathogenic repopulation of B cells by sequentially combining anti-CD20 and BTK inhibition	12:00 - 12:00 CEST

	<i>Abstract Presenter:</i> Sarah Dybowski, DE	
P956	Novel immunological effects of alemtuzumab therapy in multiple sclerosis <i>Abstract Presenter:</i> Marina Rode von Essen, DK	12:00 - 12:00 CEST
P957	Humoral response to BNT162b2-COVID-19 or CoronaVac vaccine in NMOSD and MOGAD Patients <i>Abstract Presenter:</i> Lorna Galleguillos, CL	12:00 - 12:00 CEST
P958	Serum levels of phosphorylated neurofilament heavy chain differ between multiple sclerosis clinical group types <i>Abstract Presenter:</i> Kaya Frese, CA	12:00 - 12:00 CEST
P959	The use of diffusion-weighted imaging to assess structural brain connectivity in early demyelinating clinically-isolated syndrome: a preliminary analysis <i>Abstract Presenter:</i> Michael Foster, GB	12:00 - 12:00 CEST
P960	Immunological subsets characterization and cerebrospinal fluid k-index in newly diagnosed RRMS <i>Abstract Presenter:</i> Emanuele D'Amico, IT	12:00 - 12:00 CEST
P961	Influence of disease modifying treatment and anti-CD20 infusion timing on humoral response to SARS-CoV-2 vaccines in multiple sclerosis patients <i>Abstract Presenter:</i> Giulio Disanto, CH	12:00 - 12:00 CEST
P962	Phase 1 open label dose-escalation trial of oral N-acetylglucosamine in multiple sclerosis patients <i>Abstract Presenter:</i> Michael Sy, US	12:00 - 12:00 CEST
P963	COVID-19 vaccination in people with multiple sclerosis. The Kuwait experience <i>Abstract Presenter:</i> Samar Farouk Ahmed, KW	12:00 - 12:00 CEST
P964	Safety and seroconversion rates of mRNA and inactivated vaccines against SARS-CoV-2 among patients with multiple sclerosis: A multicentric observational study <i>Abstract Presenter:</i> Ethel Ciampi, CL	12:00 - 12:00 CEST
P965	Humoral and T-cell responses to SARS-CoV-2 vaccination in multiple sclerosis patients treated with ocrelizumab <i>Abstract Presenter:</i> Joshua Katz, US	12:00 - 12:00 CEST
P966	Early efficacy of ofatumumab on microglial activity in patients with relapsing forms of multiple sclerosis: Interim analysis of a 9-month study <i>Abstract Presenter:</i> Tarun Singhal, US	12:00 - 12:00 CEST
P967	External validation of predictive models of long-term visual acuity in acute demyelinating optic neuritis <i>Abstract Presenter:</i> Fiona Costello, CA	12:00 - 12:00 CEST
P968	A clinically-compatible workflow for computer-aided assessment of brain disease activity in multiple sclerosis	12:00 - 12:00 CEST

	patients	
	<i>Abstract Presenter:</i> Benoit Combès, FR	
P969	Discordant humoral and cell-mediated responses to SARS-CoV-2 vaccination in people with multiple sclerosis on B cell depleting agents	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Pavan Bhargava, US	
P970	Primary results of NOVA: a randomized controlled study of the efficacy of 6?week dosing of natalizumab versus continued 4-week treatment for multiple sclerosis	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> John Foley, US	
P971	Targeting BTK in chronic CNS autoimmunity inhibits activation of microglia	12:00 - 12:00 CEST
	<i>Speaker:</i> Anastasia Geladaris, DE	
P972	PAS-positive lymphocytes vacuoles possible markers of impaired autophagy in multiple sclerosis	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Elisabetta Signoriello, IT	
P973	Safety and effectiveness of eculizumab in Japanese patients with aquaporin-4 antibody-positive neuromyelitis optica spectrum disorder: interim analysis of post-marketing surveillance data	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Ichiro Nakashima, JP	
P974	Humoral response to BNT162b2-COVID-19 or CoronaVac vaccine against COVID-19 in people with multiple sclerosis patients treated with high efficacy therapies	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Lorna Galleguillos, CL	
P975	Long-term efficacy for patients receiving cladribine tablets in CLARITY/CLARITY extension: Primary results from 9–15 years of follow-up in the CLASSIC-MS study	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Gavin Giovannoni, GB	
P976	Relationship between neurofilament light chain and disease activity in relapsing MS: observations from a phase II trial of IMU-838	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Robert J. Fox, US	
P977	Dilated Virchow-Robin spaces are associated with multiple sclerosis lesion burden and vascular pathology	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Benjamin V. Ineichen, SE	
P978	COVID-19 in patients with multiple sclerosis despite SARS-CoV-2 vaccination	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Ahmad Z Mahadeen, US	
P979	Impact of MS disease-modifying therapies on antibody and T cell responses following COVID-19 vaccination	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Joseph Sabatino, US	
P980	<u>V</u>accine against SARS-CoV2-generated <u>I</u>mmunity in <u>Q</u>	12:00 - 12:00

	crelizumab-treated Patients: Longitudinal Assessments (VIOLA): study design and early results <i>Abstract Presenter:</i> Ilya Kister, US	CEST
P981	Incidence, severity, outcomes, and risk factors of COVID-19 in multiple sclerosis: An observational study in the Middle East <i>Abstract Presenter:</i> Samar Farouk Ahmed, KW	12:00 - 12:00 CEST
P982	Outcomes of COVID-19 in patients with relapsing multiple sclerosis receiving ofatumumab: data from the ALITHIOS study and post marketing surveillance <i>Abstract Presenter:</i> Anne H. Cross, US	12:00 - 12:00 CEST
P983	A new machine learning approach for myelin water imaging analysis in multiple sclerosis <i>Abstract Presenter:</i> Tigris S Joseph, CA	12:00 - 12:00 CEST
P984	Multinomial modeling reveals insights into disability in NMOSD: A CIRCLES cohort analysis <i>Abstract Presenter:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P985	Cytokine profile in multiple sclerosis patients. Potential association with the progression and the severe phenotype of the disease <i>Abstract Presenter:</i> Maria Hadjiagapiou, CY	12:00 - 12:00 CEST
P986	Individualized supervised versus unsupervised pilates-based core stability training effects on quality of life and fatigue in people with multiple sclerosis <i>Abstract Presenter:</i> Feray Güngör, TR	12:00 - 12:00 CEST
P987	Cladribine tablets after treatment with natalizumab (CLADRINA) trial – Interim analyses <i>Abstract Presenter:</i> Peter Sguigna, US	12:00 - 12:00 CEST
P989	Variables affecting disease modifying therapy adherence and impact of adherence on multiple sclerosis patients (Egyptian experience) <i>Abstract Presenter:</i> Amr Abdelsalam, EG	12:00 - 12:00 CEST
P990	Neuropsychological measures associated with disease severity in pediatric onset multiple sclerosis <i>Abstract Presenter:</i> Noa Gur, IL	12:00 - 12:00 CEST
P991	miR-26a, HLA-DRB1*15 and smoking in multiple sclerosis exacerbation: a preliminary study <i>Abstract Presenter:</i> Barbara Leal, PT	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP12 - ePoster - Clinical assessment tools

P204	What's in a name? The impact of definition and durability in clinical trial outcome measures in relapsing-remitting multiple sclerosis	12:00 - 12:00 CEST
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	<i>Speaker:</i> Sammita Satyanarayan, US	
P206	Can we rely on EDSS to accurately monitor disability? A study of inter and intra rater variability <i>Speaker:</i> Mikael Cohen, FR	12:00 - 12:00 CEST
P207	Validation of the Brief Assessment of Cognition (BAC) in multiple sclerosis <i>Speaker:</i> Michael Jaworski III, US	12:00 - 12:00 CEST
P208	Jump analyses via force plate in people with multiple sclerosis - an approach towards increased sensitivity in lower limb assessment <i>Speaker:</i> Katrin Trentzsch, DE	12:00 - 12:00 CEST
P209	dreaMS - Reliability and acceptance of smartphone-based remote monitoring for people with MS <i>Speaker:</i> Johannes Lorscheider, CH	12:00 - 12:00 CEST
P210	The timed 25-foot walk usefully complements the EDSS score in multiple sclerosis <i>Speaker:</i> Birgit Helmlinger, AT	12:00 - 12:00 CEST
P211	An approach of sensor-based measurement and machine learning for the profiling of mobility in early stages of multiple sclerosis <i>Speaker:</i> Katrin Trentzsch, DE	12:00 - 12:00 CEST
P212	Correlation between cognitive and brain MRI parameters in Japanese patients with multiple sclerosis <i>Speaker:</i> Shoko Fukumoto, JP	12:00 - 12:00 CEST
P213	Correlation of multiple sclerosis Impairment scale (MSIS) with clinical and MRI outcomes in secondary progressive MS in comparison to EDSS <i>Speaker:</i> Ásta Theódórsdóttir, DK	12:00 - 12:00 CEST
P214	An evaluation of remote monitoring in people with MS during the COVID-19 pandemic <i>Speaker:</i> Andrea Stennett, GB	12:00 - 12:00 CEST
P215	Evaluation of Swedish National Board of Health and Welfare's quality care indicator M7 for multiple sclerosis – regular MRI examinations - at medical unit neuro, Karolinska University Hospital <i>Speaker:</i> Emma Sandström, SE	12:00 - 12:00 CEST
P216	Timely Intervention, Monitoring and Education MATTERS in MS (TIME MATTERS in MS): global applicability of the MS Brain Health quality improvement tool <i>Speaker:</i> Jeremy Hobart, GB	12:00 - 12:00 CEST
P217	Correlation between manual ability measure-36 and three upper limb objective measures in people with multiple sclerosis <i>Speaker:</i> Claudio Marcello Solaro, IT	12:00 - 12:00 CEST

Scientific program

P218	Remote administration of BICAMS measures and the Trail-Making Test to assess cognitive impairment in multiple sclerosis <i>Speaker:</i> Fionnuala Rogers, IE	12:00 - 12:00 CEST
P219	Complexity of postural control in minimally disabled people with multiple sclerosis <i>Speaker:</i> Maria Gaughan, IE	12:00 - 12:00 CEST
P220	Normative values for multiple sclerosis functional tests and their correlation with self-administered values <i>Speaker:</i> Laura Estefanía Arenas-Vargas, CO	12:00 - 12:00 CEST
P221	The impact of educational attainment measures on classification of cognitive impairment in multiple sclerosis <i>Speaker:</i> Manuela Altieri, IT	12:00 - 12:00 CEST
P222	Characterization of the gait in patients with relapsing–remitting multiple sclerosis and secondary progressive multiple sclerosis measured by FeetMe® integrated sensor insole system: Results of the interim analysis <i>Speaker:</i> Guillermo Izquierdo Ayuso, ES	12:00 - 12:00 CEST
P223	Annualized relapse rates for a contemporary multiple sclerosis clinic in the UK: a retrospective cohort study <i>Speaker:</i> Aimee Hibbert, GB	12:00 - 12:00 CEST
P224	Sensor socks for the analysis of spatiotemporal data and plantar pressure distribution in persons with multiple sclerosis <i>Speaker:</i> Katrin Trentzsch, DE	12:00 - 12:00 CEST
P225	Comparison of early treatment response of ocrelizumab in relapsing and progressive multiple sclerosis patients on the basis of cognitive functions <i>Speaker:</i> Ergi Kaya, TR	12:00 - 12:00 CEST
P226	Evaluation of upper limb impairment in progressive multiple sclerosis using kinematic techniques <i>Speaker:</i> Linford Fernandes, GB	12:00 - 12:00 CEST
P227	Multiple sclerosis, medication management and the role of cognition: a cross sectional study <i>Speaker:</i> Jack Petroski, US	12:00 - 12:00 CEST
P228	Evaluation of the quality of the care pathway for patients with multiple sclerosis in France: Results of an original study of a cohort of 700 patients <i>Speaker:</i> David Veillard, FR	12:00 - 12:00 CEST
P229	Early treatment response of ocrelizumab in persons with multiple sclerosis: six-month results <i>Speaker:</i> Sinem Ozcelik, TR	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP39 - ePoster - Symptoms Management (including cognition, fatigue, imbalance)

P881	Effects of melatonin on sleep disturbances in multiple sclerosis: a pilot study <i>Speaker:</i> Wan-Yu Hsu, US	12:00 - 12:00 CEST
P882	A phase II randomised controlled trial of an early tailored cognitive behavioural therapy based intervention for depression in those newly diagnosed with multiple sclerosis (ACTION-MS): preliminary results <i>Speaker:</i> Litza Kiroopoulos, AU	12:00 - 12:00 CEST
P883	Relationships between brain volume and disability, cognition, motor function, and MS-fatigue in RMS: MS-fatigue and ambulation move at their own pace <i>Speaker:</i> Frederik Barkhof, NL	12:00 - 12:00 CEST
P884	Assessment and management of cognition and mood in people with multiple sclerosis in Ireland: a national survey <i>Speaker:</i> Sinéad M. Hynes, IE	12:00 - 12:00 CEST
P885	Investigating the effect of expressive writing on level of sexual dysfunction in iranian women with multiple sclerosis: a randomized controlled trial <i>Speaker:</i> Seyed Massood Nabavi, IR	12:00 - 12:00 CEST
P886	The impact of cognitive symptoms in multiple sclerosis <i>Speaker:</i> Hannah Morris-Bankole, GB	12:00 - 12:00 CEST
P887	Effect of exergaming in persons with multiple sclerosis with restless legs syndrome: a randomized controlled trial <i>Speaker:</i> Asiye Tuba Ozdogar, TR	12:00 - 12:00 CEST
P888	Fingolimod and cognition: a longitudinal study <i>Speaker:</i> Line Pfaff, FR	12:00 - 12:00 CEST
P889	The impacts of including a PPI embedded patient researcher on clinical trials for multiple sclerosis <i>Speaker:</i> Robert A. Joyce, IE	12:00 - 12:00 CEST
P890	Serum vitamin D level is associated with speed of processing in multiple sclerosis patients <i>Speaker:</i> Hala Darwish, LB	12:00 - 12:00 CEST
P891	Teriflunomide and cognition: a longitudinal study <i>Speaker:</i> Line Pfaff, FR	12:00 - 12:00 CEST
P892	Effect of disease-modifying treatments on cognitive impairment in MS <i>Speaker:</i> Line Pfaff, FR	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

ep02 - ePoster - NMOSD

P023	Long-term safety of satralizumab in neuromyelitis optica spectrum disorder: results from the open-label extension periods of SAKuraSky and SAKuraStar <i>Speaker:</i> Benjamin M. Greenberg, US	12:00 - 12:00 CEST
P024	Long-term efficacy of satralizumab in aquaporin-4-IgG-seropositive neuromyelitis optica spectrum disorder (NMOSD): Results from the open-label extension periods of SAKuraSky and SAKuraStar <i>Speaker:</i> Ingo Kleiter, DE	12:00 - 12:00 CEST
P025	Early predictors of disability of paediatric-onset AQP4-IgG seropositive neuromyelitis optica spectrum disorders <i>Speaker:</i> Valentina Camera, GB	12:00 - 12:00 CEST
P026	Impact of a single relapse on disability and health-related quality of life in neuromyelitis optica spectrum disorder <i>Speaker:</i> Adrian Kielhorn, US	12:00 - 12:00 CEST
P027	Disease outcomes in the absence of a relapse in patients with neuromyelitis optica spectrum disorder <i>Speaker:</i> Adrian Kielhorn, US	12:00 - 12:00 CEST
P028	Extent of B-cell depletion is associated with disease activity reduction in neuromyelitis optica spectrum disorder: results from the N-MOMentum study <i>Speaker:</i> Jeffrey Bennett, US	12:00 - 12:00 CEST
P029	The impact of low affinity immunoglobulin gamma Fc region receptor III-A gene polymorphisms in neuromyelitis optica spectrum disorder and implications for treatment outcomes: results from the N-MOMentum study <i>Speaker:</i> Jeffrey Bennett, US	12:00 - 12:00 CEST
P030	Novel disability assessment of neuromyelitis optica spectrum disorders derived from the CIRCLES experience <i>Speaker:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P031	Novel assessment of disability vs cognition and pain in neuromyelitis optica spectrum disorders: a CIRCLES cohort study <i>Speaker:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P032	COVID-19 in neuromyelitis optica spectrum disorders and myelin oligodendrocyte glycoprotein antibody disease patients in North America; COViMS registry <i>Speaker:</i> Scott D Newsome, US	12:00 - 12:00 CEST
P033	Aquaporin-4 and myelin oligodendrocyte glycoprotein antibody testing in Calgary, Canada: a quality improvement review <i>Speaker:</i> Jonathan D. Krett, CA	12:00 - 12:00 CEST

Scientific program

P034	Brain and spinal cord lesion criteria on conventional MRI for differentiating MS from NMOSD and MOGAD in a large multi-ethnic cohort and in different onset phenotypes <i>Speaker:</i> Edgar Carnero Contentti, AR	12:00 - 12:00 CEST
P035	Disability outcomes during follow-up in NMOSD and MOGAD patients: data from a nationwide registry in Argentina <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P036	COVID-19 in neuromyelitis optica spectrum disorder patients in Poland <i>Speaker:</i> Aleksandra Podlecka-Pietowska, PL	12:00 - 12:00 CEST
P037	Safety and efficacy of inebilizumab in NMOSD over a mean treatment duration of 3.2 years: end of study data from the N-Momentum trial <i>Speaker:</i> Bruce Cree, US	12:00 - 12:00 CEST
P038	Exploring steroid tapering in NMOSD patients treated with satralizumab in the open-label extension period of SAKuraSky: a case series <i>Speaker:</i> Takashi Yamamura, JP	12:00 - 12:00 CEST
P039	SAkuraBONSAI: A prospective, open-label study of satralizumab investigating novel imaging, biomarker, and clinical outcomes in patients with AQP4-IgG seropositive NMOSD <i>Speaker:</i> Jeffrey Bennett, US	12:00 - 12:00 CEST
P040	Cognitive function in patients with neuromyelitis optica spectrum disorders and myelin oligodendrocytic glycoprotein-antibody associated disease <i>Speaker:</i> Pia Sophie Sperber, DE	12:00 - 12:00 CEST
P041	Comparing healthcare resource utilization and costs of active and inactive periods in NMOSD <i>Speaker:</i> Rachel Knapp, DE	12:00 - 12:00 CEST
P042	Safety of the COVID-19 vaccines in NMOSD and MOGAD: Results from an online survey <i>Speaker:</i> Itay Lotan, IL	12:00 - 12:00 CEST
P043	A Canadian national case control study into demographic and environmental risk factors for NMOSD <i>Speaker:</i> Dalia L. Rotstein, CA	12:00 - 12:00 CEST
P044	Patients with neuromyelitis optica spectrum disorder display hallmarks of systemic autoimmunity: broad serum autoreactivity to nuclear antigens and elevated interferon-inducible gene expression <i>Speaker:</i> Sean Pittock, US	12:00 - 12:00 CEST
P045	Evaluating the economic and healthcare resource burden posed by NMOSD <i>Speaker:</i> Rachel Knapp, DE	12:00 - 12:00 CEST

Scientific program

P046	The impact of COVID19 pandemic on neuromyelitisoptica spectrum disorder patients in Isfahan, Iran, after one year of epidemic <i>Speaker:</i> Roshanak Mehdipour Dastjerdi, IR	12:00 - 12:00 CEST
P047	Subtherapeutic response in NMOSSD: data from a nationwide registry in Argentina <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P048	Association between BMI and disability in Korean patients with multiple sclerosis and neuromyelitis optica spectrum disorder <i>Speaker:</i> Yeon Hak Chung, KR	12:00 - 12:00 CEST
P049	Using cognitive interviews to develop a conceptual claims-based algorithm to identify patients with neuromyelitis optica spectrum disorder <i>Speaker:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P050	A survey-based study of the impact of the COVID-19 pandemic in patient with Neuromyelitis Optica Spectrum Disorder <i>Speaker:</i> Carolyn Goldschmidt, US	12:00 - 12:00 CEST
P051	The association between body mass index and cognitive function in patients with neuromyelitis optica spectrum disorder <i>Speaker:</i> Nasim Rezaeimanesh, IR	12:00 - 12:00 CEST
P052	Clinical evolution of patients with neuromyelitis optica when comparing management with azathioprine or rituximab in a colombian cohort <i>Speaker:</i> Maria Zuluaga, CO	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP37 - ePoster - RWE and MS registries

P815	The effect of different national treatment strategies on disability outcome in relapsing-remitting multiple sclerosis: a propensity score adjusted comparison between Denmark and Sweden <i>Speaker:</i> Tim Spelman, AU	12:00 - 12:00 CEST
P816	Real-world effectiveness of alemtuzumab in RRMS patients in Germany: Interim results of the TREAT-MS study after completion of recruitment <i>Speaker:</i> Tjalf Ziemssen, DE	12:00 - 12:00 CEST
P817	Anti-CD20 monoclonal antibodies in primary progressive multiple sclerosis: a real-life comparative study of rituximab vs. ocrelizumab <i>Speaker:</i> Carlos Quintanilla-Bordás, ES	12:00 - 12:00 CEST
P818	Disease reactivation after cessation of disease-modifying therapy in relapsing-remitting multiple sclerosis <i>Speaker:</i> Izanne Roos, AU	12:00 - 12:00 CEST
P819	Comparative analysis of dimethyl fumarate and teriflunomide in	12:00 - 12:00

	relapsing-remitting multiple sclerosis <i>Speaker:</i> Jannis Müller, CH	CEST
P820	Ocrelizumab treatment in multiple sclerosis – a Danish population-based cohort study <i>Speaker:</i> Luigi Pontieri, DK	12:00 - 12:00 CEST
P821	Trajectories of processing speed, disability, and their connections, over the years following disease modulatory treatment initiation among relapsing-remitting multiple sclerosis patients <i>Speaker:</i> Elisa Longinetti, SE	12:00 - 12:00 CEST
P822	Anti-CD20 and natalizumab in highly active relapsing-remitting multiple sclerosis: the SWIFNA-20 comparative effectiveness study <i>Speaker:</i> David Laplaud, FR	12:00 - 12:00 CEST
P823	The risk of COVID-19 in people with multiple sclerosis: a case-control study from the Italian MS Register <i>Speaker:</i> Pietro Iaffaldano, IT	12:00 - 12:00 CEST
P824	NEDA3PLUS study: 48-week interim results on persistence, clinical and MRI outcomes in RRMS patients treated with teriflunomide in a real-world setting <i>Speaker:</i> Maria Pia Amato, IT	12:00 - 12:00 CEST
P825	Real-world experience with cladribine in the MSBase Registry <i>Speaker:</i> Helmut Butzkueven, AU	12:00 - 12:00 CEST
P826	Disease activity and CD19+ B-cell counts with extended interval dosing of ocrelizumab <i>Speaker:</i> Christopher Allen, GB	12:00 - 12:00 CEST
P827	Effectiveness and safety of early high-efficacy vs. escalation therapy in relapsing-remitting multiple sclerosis in Argentina <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P828	The effectiveness of ocrelizumab in real-world patients with relapsing multiple sclerosis over 18 months – interim analysis of the CONFIDENCE study <i>Speaker:</i> Mathias Buttmann, DE	12:00 - 12:00 CEST
P829	Clinical characteristics and vitamin D use in people with MS by race and ethnicity from the NARCRMS Registry <i>Speaker:</i> Angel Chineza, PR	12:00 - 12:00 CEST
P830	Impact of the COVID-19 pandemic on healthcare utilisation in US people living with multiple sclerosis: an analysis of the FlywheelMS cohort <i>Speaker:</i> Kelly Zalocusky, US	12:00 - 12:00 CEST
P831	Inclusion of indications for start of disease-modifying therapies can improve predictive models used in comparative effectiveness studies in multiple sclerosis	12:00 - 12:00 CEST

	<i>Speaker:</i> Alexandra Simpson, US	
P832	Impact of the COVID-19 pandemic on healthcare access and perceived outcomes: a survey study of people with MS in the United States <i>Speaker:</i> Leorah Freeman, US	12:00 - 12:00 CEST
P833	Claims-based relapse and hospitalization rates in patients with multiple sclerosis treated with natalizumab or ocrelizumab <i>Speaker:</i> Jacqueline Nicholas, US	12:00 - 12:00 CEST
P834	Predictors of treatment switching in the Big MD Data Network <i>Speaker:</i> Tim Spelman, AU	12:00 - 12:00 CEST
P835	A multicentre audit of the use of MRI in multiple sclerosis <i>Speaker:</i> Christopher Allen, GB	12:00 - 12:00 CEST
P836	Anti-Spike IgG after BNT162b2 vaccine in a group of multiple sclerosis patients from an exploratory case-control study in Italy <i>Speaker:</i> Riccardo Giossi, IT	12:00 - 12:00 CEST
P837	Assessing the impact of fingolimod adherence on relapse and costs using marginal structural models <i>Speaker:</i> Le H. Hua, US	12:00 - 12:00 CEST
P838	Multiple sclerosis patients treated with diroximel fumarate over 1 year in the real-world setting have high rates of persistence and adherence <i>Speaker:</i> Brittney Lager, US	12:00 - 12:00 CEST
P839	Ocrelizumab infusion delays and radiologic relapse in multiple sclerosis <i>Speaker:</i> Jessica Fan, US	12:00 - 12:00 CEST
P840	Seasonal variation in relapses of multiple sclerosis and neuromyelitis optica spectrum disorders: a study from a nationwide registry in Argentina <i>Speaker:</i> Edgar Carnero Contentti, AR	12:00 - 12:00 CEST
P841	Impact of teleneurology care on multiple sclerosis outcomes <i>Speaker:</i> Marisa McGinley, US	12:00 - 12:00 CEST
P842	Two year relapse-free and NEDA status with Cladribine in a real life population: a multicentre study <i>Speaker:</i> Pietro Annovazzi, IT	12:00 - 12:00 CEST
P843	Therapeutic management of relapsing-remitting multiple sclerosis in France in the recent era <i>Speaker:</i> Emmanuelle Leray, FR	12:00 - 12:00 CEST
P844	Safety of COVID-19 vaccines in patients with multiple sclerosis from Latin America <i>Speaker:</i> Ricardo Alonso, AR	12:00 - 12:00 CEST
P845	Introducing a prototype tool to speed-up data cleaning and	12:00 - 12:00

	enhancement for improving the use of real-world MS <i>Speaker:</i> Tina Parciak, DE	CEST
P846	Real world switching therapies analysis in a retro-prospective cohort of patients with multiple sclerosis <i>Speaker:</i> Giulia Mallucci, IT	12:00 - 12:00 CEST
P847	High prevalence of intolerability with interferon beta and glatiramer acetate in patients with MS <i>Speaker:</i> Jong-Mi Lee, US	12:00 - 12:00 CEST
P848	MS treatment profiles in Germany - insights from two major MS cohorts <i>Speaker:</i> David Ellenberger, DE	12:00 - 12:00 CEST
P849	Fatigue, depression and health-related productivity in multiple sclerosis patients treated with teriflunomide for 2 years in the real-world study TeriCARE <i>Speaker:</i> Ana Belén Caminero Rodríguez, ES	12:00 - 12:00 CEST
P850	Early data suggests diroximel fumarate has high rates of real-world adherence and persistence <i>Speaker:</i> Nicholas Belviso, US	12:00 - 12:00 CEST
P851	MASTER-2 trial: cladribine tablets in patients with relapsing-remitting multiple sclerosis and active secondary progressive multiple sclerosis after suboptimal response to prior infusion/oral disease-modifying therapy (interim baseline results) <i>Speaker:</i> Edward Fox, US	12:00 - 12:00 CEST
P852	Real-world evidence of immune reconstitution therapies: use of Cladribine and Alemtuzumab in Chile <i>Speaker:</i> Ethel Ciampi, CL	12:00 - 12:00 CEST
P853	Real world data from the argentine MS national registry of patients under cladribine <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P854	Teriflunomide improves quality of life in a Greek cohort of relapsing-remitting multiple sclerosis patients switched from injectables: Subgroup analysis of previously-treated patients in the AURELIO study <i>Speaker:</i> Efthymios Dardiotis, GR	12:00 - 12:00 CEST
P855	Vaccinations in MS by race and ethnicity from the NARCRMS Registry <i>Speaker:</i> Kottil Rammohan, US	12:00 - 12:00 CEST
P856	Safety and clinical effectiveness of peginterferon beta-1a for relapsing multiple sclerosis: Plegridy Observational Program interim results <i>Speaker:</i> Gereon Nelles, DE	12:00 - 12:00 CEST
P857	MS treatment in Slovenia over time	12:00 - 12:00

	<i>Speaker:</i> Gregor Brecl Jakob, SI	CEST
P858	Effectiveness of relapsing multiple sclerosis patients switching to teriflunomide following disease progression in a real-world setting <i>Speaker:</i> Augusto Miravalle, US	12:00 - 12:00 CEST
P859	Evaluation of therapy satisfaction with cladribine tablets in RMS patients – final results of the non-interventional study CLEVER <i>Speaker:</i> Joachim Richter, DE	12:00 - 12:00 CEST
P860	Relapse during the washout period predicts time to relapse after switching to cladribine <i>Speaker:</i> Michael Zhong, AU	12:00 - 12:00 CEST
P861	Interferon beta for the treatment of multiple sclerosis in the Campania Region of Italy: merging the real-life to routinely collected healthcare data <i>Speaker:</i> Marcello Moccia, GB	12:00 - 12:00 CEST
P862	Impact of informative follow-up visits on comparative effectiveness in multiple sclerosis: illustrations and insights from real world data <i>Speaker:</i> Paramita Saha-Chaudhuri, US	12:00 - 12:00 CEST
P863	Patient-reported outcomes to assess quality of life in teriflunomide-treated patients with relapsing-remitting multiple sclerosis: Results of Teri-REAL – a real-world study from Hungary <i>Speaker:</i> László Vécsei, HU	12:00 - 12:00 CEST
P864	Novel generation of real world evidence through MSGo, a digital support program supporting the use of siponimod in secondary progressive multiple sclerosis patients in Australia <i>Speaker:</i> Todd Hardy, AU	12:00 - 12:00 CEST
P865	Outcomes after late cladribine re-dosing in the Australian MSBase cohort <i>Speaker:</i> Helmut Butzkueven, AU	12:00 - 12:00 CEST
P866	Treatment patterns of patients with aggressive MS in a cohort of early retirees <i>Speaker:</i> Firas Fneish, DE	12:00 - 12:00 CEST
P867	Real-world discontinuation rate of teriflunomide and dimethyl fumarate in multiple sclerosis <i>Speaker:</i> Hilde Norborg, NO	12:00 - 12:00 CEST
P868	Higher prevalence of spinal cord relapses after treatment with alemtuzumab <i>Speaker:</i> Sara Eichau, ES	12:00 - 12:00 CEST
P869	Cladribine in a real world setting. The real patients <i>Speaker:</i> Sara Eichau, ES	12:00 - 12:00 CEST
P870	Multiple sclerosis disease modifying therapy prescription	12:00 - 12:00

	patterns in a low prevalence country <i>Speaker:</i> Simón Cárdenas-Robledo, CO	CEST
P871	Rituximab – Ocrelizumab comparison in real-world practice <i>Speaker:</i> Ignacio Casanova, ES	12:00 - 12:00 CEST
P872	Differences in expected number of clinical management events before and during treatment with sphingosine-1-phosphate receptor modulators for multiple sclerosis <i>Speaker:</i> Jennifer S. Harper, US	12:00 - 12:00 CEST
P873	The impact of COVID-19 on consultations between relapsing-remitting multiple sclerosis patients and their neurologists in Europe and United States <i>Speaker:</i> Sandra Teoh, MY	12:00 - 12:00 CEST
P874	Multiple sclerosis patients initiating ofatumumab in the real-world: 6 months data <i>Speaker:</i> Patricia K. Coyle, US	12:00 - 12:00 CEST
P875	REALMS Study: Single-center retrospective observational single-center study of alemtuzumab (Lemtrada®) treatment in a Spanish cohort of multiple sclerosis patients under real-life conditions <i>Speaker:</i> Sara Eichau, ES	12:00 - 12:00 CEST
P876	Real-world assessment of quality of life through patient-reported outcomes in relapsing-remitting multiple sclerosis patients treated with teriflunomide for two years. Outcomes of the AURELIO study in Greece <i>Speaker:</i> Efthymios Dardiotis, GR	12:00 - 12:00 CEST
P877	Efficacy and safety of alemtuzumab in clinical practice in Northeastern Spain <i>Speaker:</i> Tamara Castillo-Triviño, ES	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
ep18 - ePoster - Pathology		
P314	Sex differences in neuroinflammation and neuroactive steroids synthesis in the multiple sclerosis cortical grey matter <i>Speaker:</i> Nina Louise Fransen, NL	12:00 - 12:00 CEST
P315	Distribution and abundance of oxysterols in the human multiple sclerosis brain <i>Speaker:</i> Kristen Hawkins, GB	12:00 - 12:00 CEST
P316	In vivo assessment of glymphatic function in multiple sclerosis: a new pathological mechanism underpinning disease burden <i>Speaker:</i> Antonio Carotenuto, IT	12:00 - 12:00 CEST
P317	Towards a new resource for the MS brain: a cross-brain bank proteomic atlas of non-lesional neocortex <i>Speaker:</i> Philip De Jager, US	12:00 - 12:00 CEST

Scientific program

P318	Regional grey matter pathology and network reconfiguration are linked to epilepsy occurrence in patients with multiple sclerosis <i>Speaker:</i> Dumitru Ciolac, DE	12:00 - 12:00 CEST
P319	Multiplexed imaging of the multiple sclerosis meninges using mass cytometry <i>Speaker:</i> Valeria Ramaglia, CA	12:00 - 12:00 CEST
P320	Inflammation is associated with demyelination and neurodegeneration in the brainstem of patients with progressive multiple sclerosis <i>Speaker:</i> Nina Louise Fransen, NL	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP14 - ePoster - Economic burden

P272	The UK multiple sclerosis care crisis: an audit of 70 services <i>Speaker:</i> Jeremy Hobart, GB	12:00 - 12:00 CEST
P273	Social disparities in access to multiple sclerosis treatment in Mexico <i>Speaker:</i> Enrique Gomez-Figueroa, MX	12:00 - 12:00 CEST
P274	Economic impact and clinical profile of the secondary progressive multiple sclerosis (SPMS) patient: the DISCOVER study <i>Speaker:</i> Celia Oreja-Guevara, ES	12:00 - 12:00 CEST
P275	A cost-minimization analysis shows significant resource savings associated with the introduction of natalizumab by subcutaneous injection in Sweden, from a socio-economic perspective <i>Speaker:</i> Karin Soderberg, SE	12:00 - 12:00 CEST
P276	The societal cost and burden of multiple sclerosis in Spain <i>Speaker:</i> Alice Bouleau, FR	12:00 - 12:00 CEST
P277	Socioeconomic Status and MS disease severity in Chile <i>Speaker:</i> Ethel Ciampi, CL	12:00 - 12:00 CEST
P278	A real-world study to assess the economic burden and clinical outcome in patients with relapsing-remitting multiple sclerosis treated with dimethyl fumarate in Greece <i>Speaker:</i> George Karachalios, GR	12:00 - 12:00 CEST
P279	Out of pocket cost associated with multiple sclerosis diagnosis and management in a rural neurology setting <i>Speaker:</i> Muhammad Taimur Malik, US	12:00 - 12:00 CEST
P280	Economic analysis for introduction of cladribine tablets as a treatment for relapsing-remitting and high disease activity multiple sclerosis in Kuwait <i>Speaker:</i> Raed Alroughani, KW	12:00 - 12:00 CEST

Scientific program

P281	Cost-effectiveness of ofatumumab in comparison with other disease modifying therapies and best supportive care for the treatment of relapsing-remitting multiple sclerosis in Canada <i>Speaker:</i> Soukaïna Mouallif, CA	12:00 - 12:00 CEST
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Poster Session

12:00 - 21:00 CEST

eP41 - ePoster - Others

P894	Acute demyelinating events triggered by COVID-19 vaccines: case series <i>Speaker:</i> Valentina Camera, GB	12:00 - 12:00 CEST
P895	The wearing-off phenomenon of ocrelizumab in patients with multiple sclerosis <i>Speaker:</i> A.A. Toorop, NL	12:00 - 12:00 CEST
P896	COVID-19 vaccination and humoral immune response in people with multiple sclerosis <i>Speaker:</i> Celia Oreja-Guevara, ES	12:00 - 12:00 CEST
P898	Prescribing trends of MS disease modifying therapies during the COVID-19 pandemic: Analysis of NHS England prescriptions and comparison with international trends <i>Speaker:</i> Afagh Garjani, GB	12:00 - 12:00 CEST
P899	Effect of cladribine on differentiation of human neural precursor cells <i>Speaker:</i> Herena Eixarch, ES	12:00 - 12:00 CEST
P901	The symptoms, clinical characteristics and hospital outcomes of multiple sclerosis patients admitted for COVID-19: a case-control study from Iran <i>Speaker:</i> Maryam Poursadeghfard, IR	12:00 - 12:00 CEST
P902	Empowerment of multiple sclerosis patients in treatment decision making <i>Speaker:</i> Michele Cole, US	12:00 - 12:00 CEST
P903	Interprofessional collaboration and patient-provider communication challenges in MS care: a mixed-methods needs assessment <i>Speaker:</i> Klaus Schmierer, GB	12:00 - 12:00 CEST
P905	Treatment patterns in patients with multiple sclerosis: a single hospital cohort study in Sweden <i>Speaker:</i> Anna Castelo-Branco, SE	12:00 - 12:00 CEST
P906	Autologous haematopoietic stem cell transplantation of patients with aggressive relapsing-remitting multiple sclerosis: a Danish single-centre experience <i>Speaker:</i> Freja Jespersen, DK	12:00 - 12:00 CEST
P907	Pandemia in the life of persons with MS in Italy <i>Speaker:</i> Mario Alberto Battaglia, IT	12:00 - 12:00 CEST

Scientific program

P908	The role of disease modifying therapies in rate and severity of COVID-19 infection in a cohort of MS and NMOSD <i>Speaker:</i> Massood Nabavi, IR	12:00 - 12:00 CEST
P909	Impact of an educational program on the DMF persistence in real-life: TECFIRELIFE study <i>Speaker:</i> Kevin Bigaut, FR	12:00 - 12:00 CEST
P910	Analysis and evaluation of ponesimod hepatic safety data <i>Speaker:</i> Andrea Vaclavkova, CH	12:00 - 12:00 CEST
P911	First experiences of the master's program "Multiple Sclerosis Management" (MSM) at the Dresden International University (DIU) <i>Speaker:</i> Isabel Voigt, DE	12:00 - 12:00 CEST
P912	Prospective online survey: SARS-CoV-2 vaccination readiness in people with MS <i>Speaker:</i> Anna-Lena Röper, DE	12:00 - 12:00 CEST
P913	Estimating the long-term clinical and societal outcomes of ofatumumab compared with teriflunomide and evaluating the impact of immediate vs delayed high efficacy therapy in treating patients with relapsing multiple sclerosis in Spain <i>Speaker:</i> Elizabeth Karpf, CO	12:00 - 12:00 CEST
P914	Network meta-analysis of disease-modifying therapies for relapsing multiple sclerosis based on confirmed disability progression: Investigating the influence of cross-trial differences in endpoint definition <i>Speaker:</i> Dee Stoneman, CH	12:00 - 12:00 CEST
P915	Effect of self-acupressure on fatigue among patients with multiple sclerosis <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P916	Multiple sclerosis patients and the COVID -19 pandemic <i>Speaker:</i> Ana Maria Canzonieri, BR	12:00 - 12:00 CEST
P917	Two cases of dystonic reactions following initiation of ofatumumab <i>Speaker:</i> Michlene Passeri, US	12:00 - 12:00 CEST
P918	Quantitative understanding of the longitudinal relationship between short-term MRI outcomes and long-term clinical outcomes measures in multiple sclerosis <i>Speaker:</i> Matthew Wiens, US	12:00 - 12:00 CEST
P919	Relapse reduction by disease-modifying therapies for relapsing multiple sclerosis: A network meta-analysis <i>Speaker:</i> Dee Stoneman, CH	12:00 - 12:00 CEST
P920	First-hand experience with ofatumumab at ASCLEPIOS study sites in Europe <i>Speaker:</i> Carola Wagner, DE	12:00 - 12:00 CEST

Scientific program

P921	Low dose cannabidiol (CBD) treatment provided successful control of intractable seizures in secondary progressive multiple sclerosis patient: a case report <i>Speaker:</i> Hakan Silek, TR	12:00 - 12:00 CEST
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Poster Session

12:00 - 21:00 CEST

eP17 - ePoster - Digital health and global networks

P302	Passively acquired smartphone keystroke dynamics are associated with clinical outcomes in multiple sclerosis: a longitudinal analysis <i>Speaker:</i> Ka Hoo Lam, NL	12:00 - 12:00 CEST
P303	A digital remote assessment for measuring impairment in information processing speed in people with MS <i>Speaker:</i> Frank Dondelinger, CH	12:00 - 12:00 CEST
P304	Deep grey matter atrophy predicts longitudinal worsening of gait dynamics in progressive MS; a gait biosensor subgroup analysis of the MS-SMART clinical trial [NCT01910259] <i>Speaker:</i> David Paling, GB	12:00 - 12:00 CEST
P305	The importance of quality checks for digital health studies using remote unsupervised assessments to study functional impairment in MS <i>Speaker:</i> Andrea Festanti, CH	12:00 - 12:00 CEST
P306	Novel smartphone sensor-based scores for remote measurement of gait and hand function impairment in people with MS <i>Speaker:</i> Daria Rukina, CH	12:00 - 12:00 CEST
P307	Passively collected smartphone-based keystroke dynamics could classify disease severity within MS based on a machine learning approach <i>Speaker:</i> Ka Hoo Lam, NL	12:00 - 12:00 CEST
P308	Establishing consensus definitions of smartphone-based digital outcome measurements in multiple sclerosis <i>Speaker:</i> Licinio Craveiro, CH	12:00 - 12:00 CEST
P309	A patient-focused qualitative study to support content validity of digital performance assessments in MS <i>Speaker:</i> Susanne Clinch, GB	12:00 - 12:00 CEST
P310	Evaluating perceptions of ofatumumab in multiple sclerosis via social media listening – early 6 months post approval data <i>Speaker:</i> Mitzi Williams, US	12:00 - 12:00 CEST
P311	Telemedicine in multiple sclerosis care during coronavirus pandemic: a patient satisfaction survey <i>Speaker:</i> Marta Cañaverol Díaz, ES	12:00 - 12:00 CEST
P312	Effect of education on physician knowledge on hidden	12:00 - 12:00

	symptoms in patients with multiple sclerosis	CEST
	<i>Speaker:</i> Lionel Thevathasan, GB	
P313	Understanding symptoms and their impact on patients with multiple sclerosis: What we can learn from social media	12:00 - 12:00 CEST
	<i>Speaker:</i> Ganhui Lan, US	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP10 - ePoster - Pregnancy in MS		
P168	Estimating risk of disease reactivation during and after pregnancy in multiple sclerosis: the VIMS-Preg score	12:00 - 12:00 CEST
	<i>Speaker:</i> Gabriel Bsteh, AT	
P169	Online education significantly improves knowledge and competence in managing pregnancy in MS patients based on new clinical data	12:00 - 12:00 CEST
	<i>Speaker:</i> S Christy Rohani-Montez, GB	
P170	Drug and neurofilament levels in women with multiple sclerosis treated with natalizumab during pregnancy and lactation	12:00 - 12:00 CEST
	<i>Speaker:</i> Undine Proschmann, DE	
P171	Offspring outcomes among breastfeeding mothers on glatiramer acetate treatment for relapsing multiple sclerosis: subgroup analysis	12:00 - 12:00 CEST
	<i>Speaker:</i> Andrea I Ciplea, DE	
P172	Pregnancy in women with MS – impact on long-term disability in a Danish cohort	12:00 - 12:00 CEST
	<i>Speaker:</i> Johanna Balslev Andersen, DK	
P173	COPP-MS: corticosteroids during the post-partum in relapsing multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Soizic Leguy, FR	
P174	Hypogammaglobulinemia during and after pregnancy in women with MS treated with rituximab prior to conception	12:00 - 12:00 CEST
	<i>Speaker:</i> Chiara Starvaggi Cucuzza, SE	
P175	Pregnancy outcomes following exposure to dimethyl fumarate: interim analysis of a prospective international registry	12:00 - 12:00 CEST
	<i>Speaker:</i> Kerstin Hellwig, DE	
P176	Pregnancy outcomes and peripartum disease activity in moderately and severely disabled women with MS	12:00 - 12:00 CEST
	<i>Speaker:</i> Bridget Ostrem, US	
P177	Pregnancy-related outcomes in persons with MS exposed to teriflunomide	12:00 - 12:00 CEST
	<i>Speaker:</i> Johanna Balslev Andersen, DK	
P178	Disease modifying therapy and pregnancy outcomes in multiple sclerosis: a systematic review and meta-analysis	12:00 - 12:00 CEST

	<i>Speaker:</i> Shitiz Sriwastava, US	
P179	Pregnancy and foetal outcomes and breastfeeding practices following maternal exposure to glatiramer acetate <i>Speaker:</i> Sigal Kaplan, IL	12:00 - 12:00 CEST
P180	The association between female infertility and multiple sclerosis – a matched cohort study <i>Speaker:</i> Tine Iskov Kopp, DK	12:00 - 12:00 CEST
P181	Peri-partum MRI activity in multiple sclerosis: interim analysis from PREG-MS cohort <i>Speaker:</i> Preksha Kukreja, US	12:00 - 12:00 CEST
P182	DeMeTeR: <u>D</u>isease <u>M</u>odifying <u>T</u>herapies and disease activity during pregnancy and postpartum in <u>R</u>elapsing multiple sclerosis <i>Speaker:</i> Lescot Lucile, FR	12:00 - 12:00 CEST
P183	A history of pregnancy reduces methylation age acceleration in women with relapse-onset multiple sclerosis <i>Speaker:</i> Maria Pia Campagna, AU	12:00 - 12:00 CEST
P184	Fetal growth, neonatal anthropometric parameters, and post-natal somatic development in offsprings from MS mothers <i>Speaker:</i> Paola Cavalla, IT	12:00 - 12:00 CEST
P185	A multi-country cohort database study to assess pregnancy and infant outcomes in women exposed to cladribine tablets: CLEAR study <i>Speaker:</i> Meritxell Sabidó, DE	12:00 - 12:00 CEST
P186	Brain MRI activity during the year before pregnancy can predict post-partum clinical relapses <i>Speaker:</i> Omri Zveik, IL	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP21 - ePoster - Immunology

P336	T cell reactivity screening reveals four novel CNS autoantigens in multiple sclerosis <i>Speaker:</i> Mattias Bronge, SE	12:00 - 12:00 CEST
P337	Towards the suppression of the disease-relevant brain-homing T cell in multiple sclerosis <i>Speaker:</i> Steven Koetzier, NL	12:00 - 12:00 CEST
P338	Exosomes from MS subjects express EBV-derived proteins and activate monocyte-derived macrophages <i>Speaker:</i> Samia Khoury, LB	12:00 - 12:00 CEST
P339	The role of B cell-derived IL-10 in regulation of chronic CNS inflammation <i>Speaker:</i> Darius Häusler, DE	12:00 - 12:00 CEST

Scientific program

P340	Astrocytes pre-exposed to CSF from multiple sclerosis patients with inflammatory phenotype exhibit a specific reactive phenotype and induce neuronal dysfunction <i>Speaker:</i> Clara Matute-Blanch, ES	12:00 - 12:00 CEST
P341	Impact of B-cell depleting treatments on development of humoral and cellular immunological memory against SARS-CoV-2 <i>Speaker:</i> Klara Asplund Högelin, SE	12:00 - 12:00 CEST
P342	Deficient response of blood neutrophils to cell death stimuli differentiates AQP4-IgG seropositive NMOSD from MOGAD patients <i>Speaker:</i> María Schroeder-Castagno, DE	12:00 - 12:00 CEST
P343	Haematopoietic stem cell transplantation for multiple sclerosis results in deletion of auto-reactive public CD4+ T-cell clones <i>Speaker:</i> Jennifer Massey, AU	12:00 - 12:00 CEST
P344	Mucosal associated invariant T (MAIT) cells show defective activation in people with multiple sclerosis <i>Speaker:</i> Laura Ghezzi, US	12:00 - 12:00 CEST
P345	CSF albumin quotients links peripheral inflammation and brain damage in MS <i>Speaker:</i> Marco Puthenparampil, IT	12:00 - 12:00 CEST
P346	Therapeutic depletion of proinflammatory CD20⁺ T cells in CNS inflammation <i>Speaker:</i> Jasmin Ochs, DE	12:00 - 12:00 CEST
P347	No evidence of rebound MS disease activity with presence of CD20⁺ T cells at B-cell reconstitution after treatment with rituximab <i>Speaker:</i> Nicolas Ruffin, SE	12:00 - 12:00 CEST
P348	Association of allelic variants of IL2, IL2RA, and IL7R genes in a computational model of the role of thymic control in the pathogenesis of multiple sclerosis <i>Speaker:</i> João Marcos Brandet, BR	12:00 - 12:00 CEST
P349	CD46-dependent activation of T cells from untreated MS patients <i>Speaker:</i> Linda Karin Margriet Sundvall Germeys, DK	12:00 - 12:00 CEST
P350	STAT3 / miR223 axis regulates myeloid cell activation in multiple sclerosis <i>Speaker:</i> Claudia Cantoni, US	12:00 - 12:00 CEST
P351	The impact of disease activity and genetics on T-cell repertoire in multiple sclerosis patients <i>Speaker:</i> Melissa Sorosina, IT	12:00 - 12:00 CEST
P352	Investigation of vitamin D signaling via the glucocorticosteroid receptor	12:00 - 12:00 CEST

	<i>Speaker:</i> Maud Bagnoud, CH	
P353	The role of IgG antibodies as biomarkers in relapsing-remitting multiple sclerosis <i>Speaker:</i> Maria Hadjiagapiou, CY	12:00 - 12:00 CEST
P354	Transcriptomic characterization of CD11c⁺CD88⁺CD317⁺ myeloid cells in CNS autoimmune disease <i>Speaker:</i> Navid Manouchehri, US	12:00 - 12:00 CEST
P355	Mitochondrial functionality of peripheral blood mononuclear cells of relapsing-remitting multiple sclerosis patients depending on the presence of lipid-specific oligoclonal immunoglobulin M bands in cerebrospinal fluid <i>Speaker:</i> Roberto Alvarez-Lafuente, ES	12:00 - 12:00 CEST
P356	Comprehensive phenotypic and functional analyses of peripheral blood monocytes during MS disease progression <i>Speaker:</i> Ellen Iacobaeus, SE	12:00 - 12:00 CEST
P357	Diversity of immune cell subsets across the blood and central nervous system's immune compartment of mice with experimental autoimmune encephalomyelitis <i>Speaker:</i> Rina Zilkha-Falb, IL	12:00 - 12:00 CEST
P358	Functional properties of CD56+CD20 natural killer cells and their relationship with demyelinating disorders <i>Speaker:</i> Özgür Albayrak, TR	12:00 - 12:00 CEST
P359	Ponesimod demonstrated increased clinical benefit over teriflunomide in early disease subgroup compared with overall population <i>Speaker:</i> Allitia DiBernardo, US	12:00 - 12:00 CEST
P360	Multiple sclerosis and the presence of unrecognized immune deficiencies: a cross sectional analysis <i>Speaker:</i> Olivia Kaczmarek, US	12:00 - 12:00 CEST
P361	Genome-wide mapping of patient autoantibody targets to understand and predict multiple sclerosis pathogenesis and patient responses to interferon beta-1a therapy <i>Speaker:</i> Europe B. DiCillo, US	12:00 - 12:00 CEST
P362	A human iPSC-derived CNS platform to investigate T cell autoreactivity in multiple sclerosis <i>Speaker:</i> Sylvain Perriot, CH	12:00 - 12:00 CEST
P363	Multiple sclerosis, natalizumab, immunoglobulin levels: a longitudinal analysis <i>Speaker:</i> Olivia Kaczmarek, US	12:00 - 12:00 CEST
P364	HLA-DRB1 susceptibility in multiple sclerosis Algerian patients <i>Speaker:</i> Nassima Hecham, DZ	12:00 - 12:00 CEST
P365	Investigating polymorphism of the 3'untranslated region (3'UTR) of the HLA-G by computational chemistry methods	12:00 - 12:00 CEST

Scientific program

	<i>Speaker:</i> João Marcos Brandet, BR	
P366	Profound alterations on T cell subsets and on regulatory cells characterize multiple sclerosis at clinical onset <i>Speaker:</i> Joao Canto-Gomes, PT	12:00 - 12:00 CEST
P367	Flow cytometric assays to quantify immunological subsets distribution in patients with multiple sclerosis at disease onset: a case-control study <i>Speaker:</i> Emanuele D'Amico, IT	12:00 - 12:00 CEST
P368	Multiple sclerosis, quantitative MRI maging, immune profile: exploration of a potential relationship between brain atrophy and IgG sub-class profiles in a population of people with multiple sclerosis <i>Speaker:</i> Jared Srinivasan, US	12:00 - 12:00 CEST
P369	Main role of antibodies in demyelination and axonal damage in multiple sclerosis <i>Speaker:</i> Úrsula Muñoz, ES	12:00 - 12:00 CEST
P370	The role of D₂-like dopaminergic receptor in dopamine-mediated modulation of Th17-cells in multiple sclerosis <i>Speaker:</i> Mikhail Melnikov, RU	12:00 - 12:00 CEST

Clinical

13:15 - 14:45 CEST

R1

Scientific Session 1: NMO spectrum and MOG antibody associated disorders: distinctions and overlaps*Chair:* Jacqueline Palace, GB*Chair:* Friedemann Paul, DE

	Introduction by chairs	13:15 - 13:20 CEST
	Pathology and antibodies <i>Speaker:</i> Romana Höftberger, AT	13:20 - 13:35 CEST
	Clinical features and treatment responses <i>Speaker:</i> Dean M Wingerchuk, US	13:35 - 13:50 CEST
	Platform presentations of related original papers	13:50 - 13:50 CEST
018	Revealing structural and clinical heterogeneity in the spectrum of neuromyelitis optica with unsupervised machine learning <i>Speaker:</i> Laura Cacciaguerra, IT	13:50 - 13:57 CEST
019	New T2 silent lesions in Myelin-Oligodendrocyte-Glycoprotein antibody disease and aquaporin-4 antibody neuromyelitis optica spectrum disorders <i>Speaker:</i> Valentina Camera, GB	13:57 - 14:04 CEST
020	Significance of MOG antibodies in CSF: a retrospective multicenter study <i>Speaker:</i> Sara Carta, IT	14:04 - 14:11 CEST

Scientific program

021	Frequency, characteristics and outcomes of myelin oligodendrocyte glycoprotein-antibody-associated-disorder (MOGAD) and aquaporin-4 antibody positive neuromyelitis optica spectrum disorder (AQP4-NMOSD) attacks requiring ventilatory support <i>Speaker:</i> Hannah Zhao-Fleming, US	14:11 - 14:18 CEST
	Live discussion	14:18 - 14:45 CEST
<i>Pathogenesis</i> 13:15 - 14:45 CEST		
R3		
Scientific Session 2: Blood-brain-barrier		
<i>Chair:</i> Inge Huitinga, NL		
<i>Chair:</i> Hans Lassmann, AT		
	Introduction by chairs	13:15 - 13:20 CEST
	Mechanism of transmigration through the blood-brain-barrier <i>Speaker:</i> Alexandre Prat, CA	13:20 - 13:35 CEST
022	Lymphocyte migration across the blood-brain barrier <i>Speaker:</i> Britta Engelhardt, CH	13:35 - 13:50 CEST
	Platform presentations of related original papers	13:50 - 13:50 CEST
023	Oxysterol-production by brain endothelial cells suppresses myeloid-derived suppressor cells and promotes experimental autoimmune encephalomyelitis <i>Speaker:</i> Florian Ruiz, CH	13:50 - 13:57 CEST
024	Human induced pluripotent stem cell modeling of the blood-brain barrier identifies intrinsic barrier dysfunction in multiple sclerosis patients <i>Speaker:</i> Hideaki Nishihara, CH	13:57 - 14:04 CEST
025	Activated Tfh1 cells infiltrate the cerebrospinal fluid in early multiple sclerosis <i>Speaker:</i> Marion Mandon, FR	14:04 - 14:11 CEST
026	Blood-brain barrier permeability changes in multiple sclerosis during alemtuzumab treatment <i>Speaker:</i> Maria Højberg Knudsen, DK	14:11 - 14:18 CEST
	Live discussion	14:18 - 14:45 CEST
<i>Imaging and non-imaging biomarkers/Translational</i> 13:15 - 14:45 CEST		
R4		
Scientific Session 3: Molecular imaging		
<i>Chair:</i> Olga Ciccarelli, GB		
<i>Chair:</i> Bruno Stankoff, FR		
	Introduction by chairs	13:15 - 13:20 CEST
027	Molecular imaging of myelin	13:20 - 13:35 CEST

	<i>Speaker:</i> Russell Ouellette, SE	
	Recent advances in immunological imaging	13:35 - 13:50
	<i>Speaker:</i> Benedetta Bodini, FR	CEST
	Platform presentations of related original papers	13:50 - 13:50
		CEST
028	Slowly expanding lesion burden and microstructural damage are associated with a higher risk of long-term disability progression in multiple sclerosis: a 9-year longitudinal study	13:50 - 13:57
	<i>Speaker:</i> Paolo Preziosa, IT	CEST
029	Changes in brain metabolites in participants with RMS and PPMS treated with Ocrelizumab for 1 year	13:57 - 14:04
	<i>Speaker:</i> Bretta Russell-Schulz, CA	CEST
030	¹¹C-PBR28 MR-PET reveals in vivo inflammatory signal changes in meningeal brain tissue in multiple sclerosis	14:04 - 14:11
	<i>Speaker:</i> Elena Herranz, US	CEST
031	Correlation of six myelin-sensitive quantitative MRI measures with myelin histology in white matter lesions and normal-appearing white matter in MS	14:11 - 14:18
	<i>Speaker:</i> Riccardo Galbusera, CH	CEST
	Live discussion	14:18 - 14:45
		CEST
<i>Therapy / Global views</i>		
	13:15 - 14:45 CEST	R5
Scientific Session 4: Real world evidence data and MS registries		
<i>Chair:</i> Dana Horakova, CZ		
<i>Chair:</i> Maria Trojano, IT		
	Introduction by chairs	13:15 - 13:20
		CEST
032	The power of big data to improve MS management	13:20 - 13:35
	<i>Speaker:</i> Jan Hillert, SE	CEST
033	Multinational registries: opportunities and pitfalls	13:35 - 13:50
	<i>Speaker:</i> Helmut Butzkueven, AU	CEST
	Platform presentations of related original papers	13:50 - 13:50
		CEST
034	Effectiveness of initial MS treatments in the COMBAT-MS trial: injectables, dimethyl fumarate, natalizumab and rituximab	13:50 - 13:57
	<i>Speaker:</i> Peter Alping, SE	CEST
035	Improving the decision to switch from first to second-line therapy in MS: a dynamic scoring system	13:57 - 14:04
	<i>Speaker:</i> Camille Sabathé, FR	CEST
036	The disease-modifying drugs for multiple sclerosis and subsequent health service use: a population-based study	14:04 - 14:11
	<i>Speaker:</i> Huah Shin Ng, CA	CEST
037	Relapse-associated worsening and progression independent of	14:11 - 14:18

	relapse activity in an Italian multicentre cohort of early multiple sclerosis patients	CEST
	<i>Speaker:</i> Mattia Fonderico, IT	
	Live discussion	14:18 - 14:45 CEST
<i>Educational Sessions</i>		
	13:15 - 14:15 CEST	R6
Educational Session 3: Treatment of progressive MS		
Supported by an unrestricted educational grant from Merck and Novartis		
<i>Chair:</i> Xavier Montalban, ES		
<i>Chair:</i> Jeremy Chataway, GB		
	Introduction by chairs	13:15 - 13:20 CEST
	Which progressive patient should be treated?	13:20 - 13:35 CEST
	<i>Speaker:</i> Xavier Montalban, ES	
038	How to monitor treatment responses in progressive patients?	13:35 - 13:50 CEST
	<i>Speaker:</i> Daniel Ontaneda, US	
039	Future treatment options for progressive MS	13:50 - 14:05 CEST
	<i>Speaker:</i> Jeremy Chataway, GB	
	Live discussion	14:05 - 14:15 CEST
<i>Educational Sessions</i>		
	13:15 - 14:15 CEST	R7
Educational Session 4: Diagnosis of MS		
Supported by an unrestricted educational grant from Novartis		
<i>Chair:</i> Georgina Arrambide, ES		
<i>Chair:</i> Johannes Lorscheider, CH		
	Introduction by chairs	13:15 - 13:20 CEST
040	The MS diagnostic criteria in clinical practice	13:20 - 13:35 CEST
	<i>Speaker:</i> Georgina Arrambide, ES	
041	When does progression start?	13:35 - 13:50 CEST
	<i>Speaker:</i> Johannes Lorscheider, CH	
	Red flags and extreme presentation of MS	13:50 - 14:05 CEST
	<i>Speaker:</i> Pierre Labauge, FR	
	Live discussion	14:05 - 14:15 CEST
<i>Nurses Sessions</i>		
	13:15 - 14:15 CEST	R8
Nurses' Session 2: Quality of life and new approaches in the MS field		
<i>Chair:</i> Francesco Pastore, IT		
<i>Chair:</i> Megan Weigel, US		
	Introduction by chairs	13:15 - 13:20 CEST

Scientific program

042	Registry of multiple sclerosis in the Netherlands <i>Speaker:</i> Kitty Harrison, NL	13:20 - 13:35 CEST
043	Nursing digital care during COVID-19 outbreak: the experience of multiple sclerosis centre in southern Italy <i>Speaker:</i> Francesco Pastore, IT	13:35 - 13:50 CEST
044	Evaluation of a 6 week integrative medicine workshop series on quality of life, self-efficacy and wellness in MS <i>Speaker:</i> Megan Weigel, US	13:50 - 14:05 CEST
	Live discussion	14:05 - 14:15 CEST

Plenary Sessions

14:45 - 16:00 CEST

R2

Time to visit the exhibition and to network with colleagues*Satellite Symposium*

15:00 - 16:00 CEST

R1

Satellite Symposium 1 - From pandemic to endemic: advancing MS care

Sponsored by Roche

Chair: Jacqueline Nicholas, US

Welcome and introduction	15:00 - 15:05 CEST
Deciphering the immune response to COVID-19 vaccines in patients with MS <i>Speaker:</i> Shane Crotty, US	15:05 - 15:20 CEST
Optimising immune protection and MS disease control in clinical practice <i>Speaker:</i> Joseph Berger, US	15:20 - 15:35 CEST
Focusing on the advancement of MS care during the endemic <i>Speaker:</i> Jacqueline Nicholas, US	15:35 - 15:50 CEST
Live Q&A	15:50 - 16:00 CEST

Satellite Symposium

15:00 - 16:00 CEST

R2

Satellite Symposium 2 - Supporting patient needs in MS every step of the way

Sponsored by Merck

Chair: Gavin Giovannoni, GB*Chair:* Barbara Kornek, AT

Welcome <i>Speaker:</i> Gavin Giovannoni, GB <i>Speaker:</i> Barbara Kornek, AT	15:00 - 15:05 CEST
Considerations for treatment initiation <i>Speaker:</i> Sara Eichau, ES	15:05 - 15:15 CEST
Stay or switch: Practical aspects of MS disease control	15:15 - 15:25 CEST

	<i>Speaker:</i> Mathias Mäurer, DE	
	Managing MS patient challenges: Planned and unexpected	15:25 - 15:35
	<i>Speaker:</i> Barbara Kornek, AT	CEST
	Moving forward: Perspectives from the COVID-19 pandemic	15:35 - 15:45
	<i>Speaker:</i> Gavin Giovannoni, GB	CEST
	Concluding remarks / Q&A	15:45 - 16:00
	<i>Speaker:</i> Gavin Giovannoni, GB	CEST
	<i>Speaker:</i> Barbara Kornek, AT	
<i>Plenary Sessions</i>		
	16:15 - 16:45 CEST	R1
Plenary Session 1: Welcome Addresses and ECTRIMS Lecture		
<i>Chair:</i> Maria Pia Amato, IT		
<i>Chair:</i> Mar Tintoré, ES		
<i>Chair:</i> Thomas Berger, AT		
	Welcome to ECTRIMS 2021	16:15 - 16:20
	<i>Speaker:</i> Thomas Berger, AT	CEST
	<i>Speaker:</i> Maria Pia Amato, IT	
045	ECTRIMS Lecture: Gains by translation: from basic neuroimmunology to disease modifying therapies	16:20 - 16:45
	<i>Speaker:</i> Roland Martin, CH	CEST
<i>Poster Session</i>		
	16:45 - 18:45 CEST	R1
Poster Viewing 1		
<i>Clinical</i>		
	16:45 - 17:30 CEST	R2
Poster Tour 1 - Clincial		
<i>Chair:</i> Marcin Mycko, PL		
P129	Concomitant autoimmunity and risk of multiple sclerosis disability worsening	16:45 - 16:50
	<i>Speaker:</i> Stefanie Binzer, SE	CEST
P001	MRI activity versus relapses as markers of disease activity in SPMS: Data from real world and pivotal clinical studies	16:50 - 16:55
	<i>Speaker:</i> Gavin Giovannoni, GB	CEST
P005	Brighter spotty lesion on spinal MRI: Is it helpful in differentiating AQP4 antibody positive neuromyelitis optica spectrum disorder from MOG antibody associated disease?	16:55 - 17:00
	<i>Speaker:</i> Jae-Won Hyun, KR	CEST
P003	Detection of IgM to phosphatidylcholine in serum samples is a major diagnosis marker in MS	17:00 - 17:05
	<i>Speaker:</i> Maria Cruz Sádaba, ES	CEST
P096	Assessing treatment response in pediatric multiple sclerosis	17:05 - 17:10

Scientific program

	patients	CEST
	<i>Speaker:</i> Ermelinda De Meo, IT	
	Live discussion	17:10 - 17:25 CEST
<i>Pathogenesis</i>		
	16:45 - 17:30 CEST	R3
Poster Tour 2 - Pathogenesis		
<i>Chair:</i> Sonja Hochmeister, AT		
P315	Distribution and abundance of oxysterols in the human multiple sclerosis brain <i>Speaker:</i> Kristen Hawkins, GB	16:45 - 16:50 CEST
P314	Sex differences in neuroinflammation and neuroactive steroids synthesis in the multiple sclerosis cortical grey matter <i>Speaker:</i> Nina Louise Fransen, NL	16:50 - 16:55 CEST
P339	The role of B cell-derived IL-10 in regulation of chronic CNS inflammation <i>Speaker:</i> Darius Häusler, DE	16:55 - 17:00 CEST
P338	Exosomes from MS subjects express EBV-derived proteins and activate monocyte-derived macrophages <i>Speaker:</i> Samia Khoury, LB	17:00 - 17:05 CEST
P376	Factors affecting the risk of relapsing- and progressive-onset multiple sclerosis <i>Speaker:</i> Tomas Olsson, SE	17:05 - 17:10 CEST
P823	The risk of COVID-19 in people with multiple sclerosis: a case-control study from the Italian MS Register <i>Speaker:</i> Pietro Iaffaldano, IT	17:10 - 17:15 CEST
	Live discussion	17:15 - 17:30 CEST
<i>Imaging and non-imaging biomarkers/Translational</i>		
	16:45 - 17:30 CEST	R4
Poster Tour 3 - Imaging and non-imaging biomarkers / Translational		
<i>Chair:</i> Gabriel Bsteh, AT		
P545	Siponimod preserves retinal thickness, a marker of neurodegeneration, in patients with SPMS: Findings from the EXPAND OCT substudy <i>Speaker:</i> Patrick Vermersch, FR	16:45 - 16:50 CEST
P543	Microglia activation in the inner retina associates and predicts brain inflammatory disease activity in multiple sclerosis <i>Speaker:</i> Marta Pengo, IT	16:50 - 16:55 CEST
P544	Differences in age-related retinal and cortical atrophy rates in multiple sclerosis <i>Speaker:</i> Christian Cordano, US	16:55 - 17:00 CEST
P550	The performance of optical coherence tomography in	17:00 - 17:05

	secondary progressive multiple sclerosis: Results from the MS-SMART trial	CEST
	<i>Speaker:</i> Floriana De Angelis, GB	
P566	Assessment of the correlation between T-cell repertoire diversity and measures of disease activity and severity in multiple sclerosis patients	17:05 - 17:10 CEST
	<i>Speaker:</i> Laura Ferrè, IT	
P567	Kappa free light chains in cerebrospinal fluid predict early multiple sclerosis disease activity	17:10 - 17:15 CEST
	<i>Speaker:</i> Harald Hegen, AT	
	Live discussion	17:15 - 17:30 CEST
<i>Therapy / Global views</i>		
16:45 - 17:30 CEST		
R5		
Poster Tour 4 - Therapy / Global views		
<i>Chair:</i> Ellen Iacobaeus, SE		
P626	Effect of disease modifying therapies on progressive multiple sclerosis: a meta-analysis of randomized clinical trials	16:45 - 16:50 CEST
	<i>Speaker:</i> Mirko Capanna, IT	
P629	Incomplete depletion of B-cells after induction therapy with ocrelizumab in MS	16:50 - 16:55 CEST
	<i>Speaker:</i> Alexander Wuschek, DE	
P815	The effect of different national treatment strategies on disability outcome in relapsing-remitting multiple sclerosis: a propensity score adjusted comparison between Denmark and Sweden	16:55 - 17:00 CEST
	<i>Speaker:</i> Tim Spelman, AU	
P881	Effects of melatonin on sleep disturbances in multiple sclerosis: a pilot study	17:00 - 17:05 CEST
	<i>Speaker:</i> Wan-Yu Hsu, US	
P894	Acute demyelinating events triggered by COVID-19 vaccines: case series	17:05 - 17:10 CEST
	<i>Speaker:</i> Valentina Camera, GB	
P896	COVID-19 vaccination and humoral immune response in people with multiple sclerosis	17:10 - 17:15 CEST
	<i>Speaker:</i> Celia Oreja-Guevara, ES	
	Live discussion	17:15 - 17:30 CEST
<i>Satellite Symposium</i>		
17:45 - 18:45 CEST		
R1		
Satellite Symposium 3 - Trapped within: Smoldering inflammation in MS		
Sponsored by Sanofi		
<i>Chair:</i> Hans Lassmann, AT		
	Welcome and introduction	17:45 - 17:50

<i>Speaker:</i> Hans Lassmann, AT	CEST
The call from inside the house: Resident CNS cells and inflammation	17:50 - 18:05 CEST
<i>Speaker:</i> Hans Lassmann, AT	
Deep into darkness perring: Visualizing smoldering inflammation	18:05 - 18:20 CEST
<i>Speaker:</i> Assunta Dal-Bianco, AT	
Stranger things: Clinical impacts of smoldering inflammation	18:20 - 18:35 CEST
<i>Speaker:</i> Robert J. Fox, US	
Closing remarks and live Q&A	18:35 - 18:45 CEST
<i>Speaker:</i> Hans Lassmann, AT	

Satellite Symposium

17:45 - 18:45 CEST

R2

Satellite Symposium 4 - MS innovation in practice: the continuing search for novel therapeutic targets

Sponsored by Merck

Chair: Patrick Vermersch, FR*Chair:* Xavier Montalban, ES

Welcome and introduction	17:45 - 17:47 CEST
<i>Speaker:</i> Patrick Vermersch, FR	
Roundtable discussion: Why is there a continuing need for new treatments in MS? Why BTK as a new target for MS drugs? What have we learned so far about the potential of BTKi's in MS?	17:47 - 18:32 CEST
<i>Speaker:</i> Patrick Vermersch, FR	
<i>Speaker:</i> Xavier Montalban, ES	
<i>Speaker:</i> Jiwon Oh, CA	
<i>Speaker:</i> Heinz Wiendl, DE	
Summary comments and Q&As	18:32 - 18:42 CEST
Concluding remarks and close	18:42 - 18:45 CEST
<i>Speaker:</i> Xavier Montalban, ES	

Thursday, 14 October, 2021

Clinical

12:00 - 13:30 CEST

R1

Scientific Session 5: IMSCOGS

Chair: Iris-Katharina Penner, DE

Chair: Daniela Pinter, AT

	Introduction by chairs	12:00 - 12:05 CEST
046	Episodic memory impairment in MS: diagnosis, clinical characterisation and management <i>Speaker:</i> John DeLuca, US	12:05 - 12:20 CEST
047	Information processing speed and attention impairment in MS: diagnosis, clinical characterisation and management <i>Speaker:</i> Bruno Brochet, FR	12:20 - 12:35 CEST
	Platform presentations of related original papers	12:35 - 12:35 CEST
048	Parameters explaining cognitive outcomes in a re-evaluation of the original ASA and SET cohorts after 19 and 10 years of follow-up <i>Speaker:</i> Jiri Motyl, CZ	12:35 - 12:42 CEST
049	Cortical lesions at diagnosis predict cognitive impairment in multiple sclerosis: a 20-year follow-up study <i>Speaker:</i> Stefano Ziccardi, IT	12:42 - 12:49 CEST
050	Resting state effective connectivity abnormalities of the Papez circuit contribute to explain worse cognitive performance in multiple sclerosis patients <i>Speaker:</i> Olga Marchesi, IT	12:49 - 12:56 CEST
051	Cognitively impaired MS patients become stuck in a state of high within-network connectivity <i>Speaker:</i> Tommy A. A. Broeders, NL	12:56 - 13:03 CEST
	Live discussion	13:03 - 13:30 CEST

Pathogenesis

12:00 - 13:30 CEST

R3

Scientific Session 6: Immunological memory and immunosenescence in MS

Chair: Frauke Zipp, DE

Chair: Nikolaos Grigoriadis, GR

	Introduction by chairs	12:00 - 12:05 CEST
052	Impact of immunosenescence in MS <i>Speaker:</i> Clemens Warnke, DE	12:05 - 12:20 CEST
053	Changing treatment targets in elderly MS patients <i>Speaker:</i> Bianca Weinstock-Guttman, US	12:20 - 12:35 CEST
	Platform presentations of related original papers	12:35 - 12:35

Scientific program

054	Premature immune aging signatures in patients with multiple sclerosis <i>Speaker:</i> Melanie Eschborn, DE	12:35 - 12:42 CEST
055	Brain CD4⁺ and CD8⁺ tissue resident memory T cells dominate white and grey matter T cell fractions in multiple sclerosis <i>Speaker:</i> Joost Smolders, NL	12:42 - 12:49 CEST
056	Immune response to the human virome and multiple sclerosis risk <i>Speaker:</i> Marianna Cortese, US	12:49 - 12:56 CEST
057	Immunization status in persons with multiple sclerosis <i>Speaker:</i> Anne Zinganell, AT	12:56 - 13:03 CEST
	Live discussion	13:03 - 13:30 CEST
<i>Pathogenesis</i> 12:00 - 13:00 CEST		
Hot Topic 5: Role of astrocytes in inflammatory demyelinating CNS disease		
<i>Chair:</i> Manuel Comabella, ES		
<i>Chair:</i> Irena Lavrnja, RS		
	Introduction by chairs	12:00 - 12:05 CEST
058	Astrocyte phenotypes in acute multiple sclerosis lesions <i>Speaker:</i> Veit Rothhammer, DE	12:05 - 12:15 CEST
	Astrocyte responses to pathogenic AQP4-specific antibodies <i>Speaker:</i> Claudia Lucchinetti, US	12:15 - 12:25 CEST
	Astrocytes as a treatment target? <i>Speaker:</i> Francesco Quintana, US	12:25 - 12:35 CEST
	Live discussion	12:35 - 13:00 CEST
<i>Imaging and non-imaging biomarkers/Translational</i> 12:00 - 13:00 CEST		
Hot Topic 6: Biosensors in MS – the future has started		
<i>Chair:</i> Patrick Altmann, AT		
<i>Chair:</i> Tjalf Ziemssen, DE		
	Introduction by chairs	12:00 - 12:05 CEST
059	Active and passive methods/devices for biosensing <i>Speaker:</i> Johannes Lorscheider, CH	12:05 - 12:15 CEST
	Biosensors to monitor disease activity in clinical trials <i>Speaker:</i> Jennifer Graves, US	12:15 - 12:25 CEST
	Biosensing in clinical practice <i>Speaker:</i> Tanuja Chitnis, US	12:25 - 12:35 CEST
	Live discussion	12:35 - 13:00 CEST

Scientific program*Therapy / Global views*

12:00 - 13:30 CEST

Scientific Session 7: Epidemiology in MS: what we know, don't know and why*Chair:* Helen Tremlett, CA*Chair:* Fritz Leutmezer, AT

	Introduction by chairs	12:00 - 12:05 CEST
060	Increasing prevalence in Middle East/Northern Africa: evidence and consequences <i>Speaker:</i> Riadh Gouider, TN	12:05 - 12:20 CEST
061	Lessons from epidemiology: the changing course of MS <i>Speaker:</i> Melinda Magyar, DK	12:20 - 12:35 CEST
	Platform presentations of related original papers	12:35 - 12:35 CEST
062	Population-based analysis of the incidence of radiologically isolated syndrome in magnetic resonance imaging and 10-year risk of multiple sclerosis <i>Speaker:</i> Anna Maunula, FI	12:35 - 12:42 CEST
063	Identifying genetic and epigenetic signatures for predicting conversion to clinically definite multiple sclerosis in the AusLong study cohort <i>Speaker:</i> Alexandre Xavier, AU	12:42 - 12:49 CEST
064	Childhood abuse and the risk of multiple sclerosis. A prospective, population-based cohort study <i>Speaker:</i> Karine Eid, NO	12:49 - 12:56 CEST
065	The impact of smoking cessation on multiple sclerosis disease progression <i>Speaker:</i> William Rodgers, GB	12:56 - 13:03 CEST
	Live discussion	13:03 - 13:30 CEST

Therapy / Global views

12:00 - 13:00 CEST

R9

Hot Topic 7: Disease modifying treatment – if and when to stop?*Chair:* Anat Achiron, IL*Chair:* Gabriel Bsteh, AT

	Introduction by chairs	12:00 - 12:05 CEST
066	In relapsing MS <i>Speaker:</i> Ilya Kister, US	12:05 - 12:15 CEST
067	In progressive MS <i>Speaker:</i> Gavin Giovannoni, GB	12:15 - 12:25 CEST
068	How to monitor patients after treatment stop? <i>Speaker:</i> Deborah Miller, US	12:25 - 12:35 CEST
	Live discussion	12:35 - 13:00 CEST

*Scientific program**Educational Sessions*

12:00 - 13:00 CEST

Educational Session 5: Pathology of MS

Supported by an unrestricted educational grant from Novartis

Chair: Roberta Magliozzi, IT*Chair:* Hans Lassmann, AT

	Introduction by chairs	12:00 - 12:05 CEST
069	Inflammatory reaction within the CNS of multiple sclerosis patients: mechanisms and potential triggers <i>Speaker:</i> Inge Huitinga, NL	12:05 - 12:20 CEST
	Meningeal inflammation <i>Speaker:</i> Roberta Magliozzi, IT	12:20 - 12:35 CEST
070	The pathology of multiple sclerosis and MOG antibody associated inflammatory demyelinating disease: similarities and differences <i>Speaker:</i> Hans Lassmann, AT	12:35 - 12:50 CEST
	Live discussion	12:50 - 13:00 CEST

Poster Session

12:00 - 21:00 CEST

eP29 - ePoster - Fluid Biomarkers

P565	Factors influencing serum neurofilament light chain levels in normal ageing <i>Speaker:</i> Michael Khalil, AT	12:00 - 12:00 CEST
P566	Assessment of the correlation between T-cell repertoire diversity and measures of disease activity and severity in multiple sclerosis patients <i>Speaker:</i> Laura Ferrè, IT	12:00 - 12:00 CEST
P567	Kappa free light chains in cerebrospinal fluid predict early multiple sclerosis disease activity <i>Speaker:</i> Harald Hegen, AT	12:00 - 12:00 CEST
P568	Prognostication of confirmed disease progression in patients with primary progressive MS (PPMS) by serum neurofilament light chain levels and multimodal evoked potentials <i>Speaker:</i> Martin Hardmeier, CH	12:00 - 12:00 CEST
P569	High or increasing serum NfL predicts impending multiple sclerosis relapses <i>Speaker:</i> Simon Thebault, CA	12:00 - 12:00 CEST
P570	Relationships between on-treatment changes in glial fibrillary acidic protein levels and clinical outcomes in patients with relapsing multiple sclerosis: post hoc analysis of the phase 3 ozanimod SUNBEAM trial <i>Speaker:</i> Sarah Harris, US	12:00 - 12:00 CEST

P571	Different sNfL level cut-offs at the time of the CIS predict inflammatory and disability outcomes when used as a surrogate biomarker of MRI <i>Speaker:</i> Georgina Arrambide, ES	12:00 - 12:00 CEST
P572	Increased serum neurofilament light in asymptomatic individuals preceding clinical onset of multiple sclerosis <i>Speaker:</i> Daniel Jons, SE	12:00 - 12:00 CEST
P573	Serum neurofilament light as a biomarker of disability and neurodegeneration in MS patients of the same age <i>Speaker:</i> Floor C. Loonstra, NL	12:00 - 12:00 CEST
P574	Clinical validation study results of a multivariate proteomic serum based assay for disease activity assessments in MS <i>Speaker:</i> Ferhan Qureshi, US	12:00 - 12:00 CEST
P575	Improved prediction of early cognitive impairment in multiple sclerosis using combinations of blood and imaging biomarkers <i>Speaker:</i> Tobias Brummer, DE	12:00 - 12:00 CEST
P576	B cell-related immunophenotyping and protein profile of cerebrospinal fluid in multiple sclerosis patients at diagnosis <i>Speaker:</i> Roberta Magliozzi, IT	12:00 - 12:00 CEST
P577	Clustering is associated with poor response to teriflunomide in multiple sclerosis patients <i>Speaker:</i> Sunny Malhotra, ES	12:00 - 12:00 CEST
P578	Analysis of extracellular vesicles in plasma using flow cytometry reveals increased lymphocyte-derived particles in multiple sclerosis <i>Speaker:</i> Stephanie N. Blandford, CA	12:00 - 12:00 CEST
P579	Revisiting cerebrospinal fluid findings in patients with multiple sclerosis: what novel population-based reference limits change <i>Speaker:</i> Klaus Berek, AT	12:00 - 12:00 CEST
P580	Factors contributing to CSF NfL reduction over time in people with multiple sclerosis starting treatment: an observational study <i>Speaker:</i> Ide Smets, GB	12:00 - 12:00 CEST
P581	Predicting aggressive multiple sclerosis with intrathecal IgM synthesis: a comparative study between quantitative and qualitative methods <i>Speaker:</i> Enric Monreal, ES	12:00 - 12:00 CEST
P582	Plasma neurofilament light chain in children with relapsing MS receiving teriflunomide or placebo: A post hoc analysis of the randomised TERIKIDS trial <i>Speaker:</i> Jens Kuhle, CH	12:00 - 12:00 CEST
P583	Neurofilament light chain as serum biomarker in multiple sclerosis, MOG-antibody disease and neuromyelitis optica	12:00 - 12:00 CEST

	spectrum disorders	
	<i>Speaker:</i> Luca Bollo, IT	
P584	Molecular biomarker signature associated with cladribine treatment <i>Speaker:</i> Nicolás Fissolo, ES	12:00 - 12:00 CEST
P585	Real life experience of cladribine effects on lymphocyte subsets and serum neurofilament light chains levels changes <i>Speaker:</i> Damiano Paolicelli, IT	12:00 - 12:00 CEST
P586	Serum neurofilament and GFAP remain elevated in MS patients following mesenchymal stem cell transplantation for multiple sclerosis <i>Speaker:</i> Simon Thebault, CA	12:00 - 12:00 CEST
P587	Circulating microRNAs in RRMS patients treated with dimethyl fumarate in the phase 4 TREMEND trial <i>Speaker:</i> Maria Louise Elkjaer, DK	12:00 - 12:00 CEST
P588	Age-sensitive peripheral blood immune markers in multiple sclerosis and healthy controls <i>Speaker:</i> Catherine Laroche, CA	12:00 - 12:00 CEST
P589	Peripheral haemolysis in relation to iron rim formation in multiple sclerosis <i>Speaker:</i> Nik Krajnc, AT	12:00 - 12:00 CEST
P590	Swedish MS registry data improvement and evaluation study: Which CSF variable reflects best MRI activity in MS patients <i>Speaker:</i> Adnan Adel Masood, SE	12:00 - 12:00 CEST
P591	Vitamin D levels are not associated with retinal thinning in multiple sclerosis <i>Speaker:</i> Nik Krajnc, AT	12:00 - 12:00 CEST
P592	Clinical and subclinical treatment effect is associated with serum neurofilament decrease in fingolimod treated people with multiple sclerosis <i>Speaker:</i> Katja Akgün, DE	12:00 - 12:00 CEST
P593	Prognostic impact of cerebrospinal fluid parameters on retinal layer thickness in multiple sclerosis – the CSFViennOCTiMS study <i>Speaker:</i> Nik Krajnc, AT	12:00 - 12:00 CEST
P594	CSF inflammatory profile in clinically isolated syndrome and definite multiple sclerosis patients <i>Speaker:</i> Albulena Bajrami, IT	12:00 - 12:00 CEST
P595	Ponesimod shows improved effect on Brain Volume compared with other DMTs, a model-based meta-analysis <i>Speaker:</i> Maria Ait-Tihyaty, US	12:00 - 12:00 CEST
P596	Extracellular vesicles as biomarkers of cell-specific activity in MS patients with chronic active lesions	12:00 - 12:00 CEST

	<i>Speaker:</i> Jennifer Linden, US	
P597	Basal levels of serum neurofilament light in normal aging and multiple sclerosis patients <i>Speaker:</i> Raquel Gasque Rubio, ES	12:00 - 12:00 CEST
P598	Serum neurofilament light chain levels in progressive multiple sclerosis: preliminary results of a prospective longitudinal study <i>Speaker:</i> Diana Ferraro, IT	12:00 - 12:00 CEST
P599	Decrease of neurofilament is associated with reduction of clinical disease activity in glatiramer acetate treated people with multiple sclerosis <i>Speaker:</i> Urszula Konofalska, DE	12:00 - 12:00 CEST
P600	Blood parameter analysis in pediatric MOG-antibody-associated disorders <i>Speaker:</i> Christian Lechner, AT	12:00 - 12:00 CEST
P601	CSF and serum inflammatory mediators' profiles in MS patients at time of diagnosis: partial correlation between peripheral and intrathecal inflammation <i>Speaker:</i> Francesco Pezzini, IT	12:00 - 12:00 CEST
P602	Cerebrospinal fluid kappa free light chains and IgM index for diagnosis and prognosis in multiple sclerosis <i>Speaker:</i> Sara Gil-Perotin, ES	12:00 - 12:00 CEST
P603	Eomesodermin positive cytotoxic T lymphocytes are associated with an aggressive course of primary progressive multiple sclerosis <i>Speaker:</i> Simon Faissner, DE	12:00 - 12:00 CEST
P604	Research of biomarkers to reduce the risk of progressive multifocal leukoencephalopathy in RRMS patients under natalizumab treatment <i>Speaker:</i> Silvia Presas-Rodríguez, ES	12:00 - 12:00 CEST
P605	Cerebrospinal fluid lymphocytic pleocytosis at MS diagnosis does not predict a worse long-term disability prognosis <i>Speaker:</i> Cris S. Constantinescu, GB	12:00 - 12:00 CEST
P606	Examination of tear fluid in patients with pre-diagnosis of MS <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P607	Cognitive impairment in early stages of multiple sclerosis is associated with high cerebrospinal fluid levels of Tau protein <i>Speaker:</i> Eleonora Virgilio, IT	12:00 - 12:00 CEST
P608	Using circulatory biomarkers to predict disease progression in multiple sclerosis (MS) <i>Speaker:</i> Nitzan Haham, IL	12:00 - 12:00 CEST
P609	Longitudinal analysis of autoreactive T cells in a cohort of multiple sclerosis patients treated with natalizumab	12:00 - 12:00 CEST

Speaker: Barbara Willekens, NL

Poster Session

12:00 - 21:00 CEST

eP08 - ePoster - Epidemiology

P129	Concomitant autoimmunity and risk of multiple sclerosis disability worsening <i>Speaker:</i> Stefanie Binzer, SE	12:00 - 12:00 CEST
P130	Management of vascular risk in people with multiple sclerosis in England: a population-based matched cohort study <i>Speaker:</i> Raffaele Palladino, GB	12:00 - 12:00 CEST
P131	Global incidence of multiple sclerosis has not increased in the last three decades: a systematic review (1985-2020) <i>Speaker:</i> Jo Lane, AU	12:00 - 12:00 CEST
P132	No differences in days of absence or grades during upper secondary school in a Norwegian multiple sclerosis case control study <i>Speaker:</i> Cecilia Simonsen, NO	12:00 - 12:00 CEST
P133	Incidence of multiple sclerosis relapses and pseudo-relapses following mRNA COVID-19 vaccination <i>Speaker:</i> Scott Chou, US	12:00 - 12:00 CEST
P134	Smoking is a risk factor for relapses in patients with relapsing-remitting multiple sclerosis under fingolimod treatment <i>Speaker:</i> Eizo Tanaka, JP	12:00 - 12:00 CEST
P135	Impact of first dose COVID-19 Pfizer and AstraZeneca vaccination in multiple sclerosis: a study from the UK MS Register <i>Speaker:</i> Richard Nicholas, GB	12:00 - 12:00 CEST
P136	Trajectories of disability accrual according to age in DMT treated multiple sclerosis cohorts from the Italian MS registry <i>Speaker:</i> Pietro Iaffaldano, IT	12:00 - 12:00 CEST
P137	Differences in MS clinical and epidemiological characteristics between Ashkenazi and Non-Ashkenazi Jewish patients in Israel – a retrospective single center study <i>Speaker:</i> Gil Ben Noon, IL	12:00 - 12:00 CEST
P138	Population-based prospective study of delivery mode and the risk for adult-onset multiple sclerosis <i>Speaker:</i> Akash Kapali, NO	12:00 - 12:00 CEST
P139	Incidence and prevalence of multiple sclerosis (MS) in Wales – algorithmic case finding in routine data <i>Speaker:</i> Rod Middleton, GB	12:00 - 12:00 CEST
P140	Emergency department visits by persons with MS: a population-based study	12:00 - 12:00 CEST

	<i>Speaker:</i> Jonas Graf, CA	
P141	Comparison of two large German MS cohorts derived from different settings to analyze early disability progression <i>Speaker:</i> Jeremias Motte, DE	12:00 - 12:00 CEST
P142	COVID-19 prevalence and outcomes in people with MS taking disease modifying therapies: a population study using NHS England data <i>Speaker:</i> Nikos Evangelou, GB	12:00 - 12:00 CEST
P143	COVID-19 lockdown impact on labor and psychosocial aspects in multiple sclerosis patients <i>Speaker:</i> Helena Martínez Hervés, ES	12:00 - 12:00 CEST
P144	Wellbeing gap: one-size MS service does not fit all <i>Speaker:</i> Agne Straukiene, GB	12:00 - 12:00 CEST
P145	Characteristics of MS misdiagnosis in a reference MS center in Latin América <i>Speaker:</i> María Inés Gaitán, AR	12:00 - 12:00 CEST
P146	Epidemiology of COVID-19 among MS population: population-based registry study in Iran <i>Speaker:</i> Sajjad Ghane Ezabadi, IR	12:00 - 12:00 CEST
P147	Prognostic factors related to the risk of COVID-19 infection in MS patients <i>Speaker:</i> Federico Montini, IT	12:00 - 12:00 CEST
P148	Effects of the modifiable risk factors, alcohol and smoking, on disease risk and neurodegeneration in multiple sclerosis; a large UK community-based cross-sectional cohort study <i>Speaker:</i> Iris Kleerekooper, GB	12:00 - 12:00 CEST
P149	Pro-inflammatory diet is associated with worse long-term depression and anxiety levels but not fatigue in MS <i>Speaker:</i> Alice Saul, AU	12:00 - 12:00 CEST
P150	Age at onset of relapsing-remitting multiple sclerosis increased over the last decades <i>Speaker:</i> Lucía Romero-Pinel, ES	12:00 - 12:00 CEST
P151	Bayesian structural time series of multiple sclerosis projection in Tehran, Iran <i>Speaker:</i> Sajjad Ghane Ezabadi, IR	12:00 - 12:00 CEST
P152	The trend of incidence, prevalence, and DALY of multiple sclerosis in the Middle East and Northern Africa region compared to global, West Europe and, Iran's corresponding values during 1990–2017: Retrieved from global burden of diseases data <i>Speaker:</i> Mohammad Hossein Harirchian, IR	12:00 - 12:00 CEST
P153	SARS-CoV-2 infection and multiple sclerosis: experience in Albacete (Spain)	12:00 - 12:00 CEST

	<i>Speaker:</i> María Palao Rico, ES	
P154	The impact of socioeconomic factors on fatigue in multiple sclerosis <i>Speaker:</i> Line Broch, NO	12:00 - 12:00 CEST
P155	Late onset multiple sclerosis Isfahan Iran <i>Speaker:</i> Sama Ayramlou, IR	12:00 - 12:00 CEST
P156	Pharmacovigilance program for ozanimod, a recently approved treatment for relapsing forms of multiple sclerosis <i>Speaker:</i> Sonia Afsari, US	12:00 - 12:00 CEST
P157	Familial multiple sclerosis risk in Iran: a population-based registry study <i>Speaker:</i> Sajjad Ghane Ezabadi, IR	12:00 - 12:00 CEST
P158	COVID-19 in patients with multiple sclerosis and neuromyelitis optica spectrum disorder in Colombia <i>Speaker:</i> María Zuluaga Rodas, CO	12:00 - 12:00 CEST
P159	Vitamin D in multiple sclerosis Albanian patients <i>Speaker:</i> Jera Kruja, AL	12:00 - 12:00 CEST
P160	Characterizing multiple sclerosis in the African American population: Interim data from the National African American Multiple Sclerosis Registry (NAAMSR) <i>Speaker:</i> Mitzi Williams, US	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

ep43 - ePoster - Late Breaking News

P922	Humoral immune response after COVID-19 in multiple sclerosis: a nation-wide Austrian study <i>Abstract Presenter:</i> Gabriel Bsteh, AT	12:00 - 12:00 CEST
P923	External validation of the MSBase model of individual treatment response (Crystal Ball 1.0) <i>Abstract Presenter:</i> Nahid Moradi, AU	12:00 - 12:00 CEST
P924	Adenosine A_{2A} receptor signaling in astrocytes contributes to multiple sclerosis progression <i>Abstract Presenter:</i> Chih Hung Lo, US	12:00 - 12:00 CEST
P925	Treatment with ocrevus does not inhibit antiviral T-cell responses in persons with MS after SARS-CoV-2 infection <i>Speaker:</i> Roberto Furlan, IT	12:00 - 12:00 CEST
P926	Antibody and T-cell responses to SARS-CoV-2 vaccines in MS patients on Ocrelizumab and other disease-modifying therapies: preliminary results of an ongoing, prospective study <i>Abstract Presenter:</i> Ilya Kister, US	12:00 - 12:00 CEST
P927	The genetic basis of multiple sclerosis severity suggests	12:00 - 12:00

	central nervous system involvement <i>Speaker:</i> Adil Harroud, US	CEST
P928	Neural stem cells derived from progressive multiple sclerosis patients have intrinsic abnormalities in bioenergetic and metabolic profiles <i>Abstract Presenter:</i> Rosana-Bristena Ionescu, GB	12:00 - 12:00 CEST
P929	Efficacy and safety of proposed natalizumab biosimilar PB006 versus Tysabri® in patients with relapsing remitting multiple sclerosis: primary data from the phase III Antelope study <i>Abstract Presenter:</i> Bernhard Hemmer, DE	12:00 - 12:00 CEST
P930	Humoral and cellular responses to SARS-CoV-2 in convalescent COVID-19 patients with multiple sclerosis <i>Abstract Presenter:</i> Ana Zabalza, ES	12:00 - 12:00 CEST
P931	Effect of ofatumumab on serum immunoglobulin levels and infection risk in patients with relapsing multiple sclerosis over 3.5 years <i>Abstract Presenter:</i> Heinz Wiendl, DE	12:00 - 12:00 CEST
P932	Ublituximab is associated with significant improvement in the multiple sclerosis functional composite (MSFC): results from the Phase 3 ULTIMATE I & II studies <i>Abstract Presenter:</i> Lawrence Steinman, US	12:00 - 12:00 CEST
P933	COVID-19 in people with multiple sclerosis treated with ocrelizumab <i>Abstract Presenter:</i> Stephen Hauser, US	12:00 - 12:00 CEST
P934	Identification of a pharmacogenetic variant in NOX3 involved in the clinical response to natalizumab <i>Abstract Presenter:</i> Vera Pacoova Dal Maschio, IT	12:00 - 12:00 CEST
P935	Increased rate of hospitalisation for COVID-19 amongst rituximab treated multiple sclerosis patients in Sweden: new data from the 2021 update <i>Abstract Presenter:</i> Tim Spelman, AU	12:00 - 12:00 CEST
P936	No change on serum neurofilament light chain concentrations in patients with multiple sclerosis switching from 4 to 6 weeks interval between natalizumab infusions <i>Abstract Presenter:</i> Magnus Johnsson, SE	12:00 - 12:00 CEST
P937	Age-specific effects of childhood BMI on multiple sclerosis risk: a Mendelian Randomisation study <i>Abstract Presenter:</i> Luk Hone, GB	12:00 - 12:00 CEST
P938	COVID-19 and neurologic outcomes in multiple sclerosis and related disorders <i>Speaker:</i> Sarah Conway, US	12:00 - 12:00 CEST
P939	VISIONARY-MS: Update to a Phase 2 clinical trial of catalytic gold nanocrystals, CNM-Au8, for the treatment of chronic optic	12:00 - 12:00 CEST

	neuropathy <i>Abstract Presenter:</i> Robert L. Glanzman, US	
P940	Humoral immune response to COVID-19 mRNA (BNT162b2-Pfizer) vaccine in patients with multiple sclerosis <i>Speaker:</i> Elsebeth Staun-Ram, IL	12:00 - 12:00 CEST
P941	Extended dosage interval of B-cell therapy in multiple sclerosis <i>Abstract Presenter:</i> Tobias Sejbaek, DK	12:00 - 12:00 CEST
P942	Serological response to SARS-CoV-2 vaccination in multiple sclerosis patient in a real-life experience <i>Abstract Presenter:</i> Jorge Millan-Pascual, ES	12:00 - 12:00 CEST
P943	The long-term contributions of the thymus and proliferation to peripheral naive CD4 cells differ between healthy controls (HCs) and patients with relapsing remitting multiple sclerosis (MS) and primary progressive MS (PPMS) <i>Abstract Presenter:</i> David Haegert, CA	12:00 - 12:00 CEST
P944	COVID-19 vaccine reactogenicity in persons with multiple sclerosis <i>Abstract Presenter:</i> Farren Briggs, US	12:00 - 12:00 CEST
P945	Humoral and cellular responses to SARS-CoV-2 vaccination in patients with multiple sclerosis and other autoimmune diseases <i>Abstract Presenter:</i> Ana Zabalza, ES	12:00 - 12:00 CEST
P946	Paramagnetic rims are a specific imaging biomarker in multiple sclerosis <i>Abstract Presenter:</i> Christopher Allen, GB	12:00 - 12:00 CEST
P947	Add-on therapy with a Lactobacillus containing probiotic increases regulatory T cell frequencies in multiple sclerosis patients <i>Abstract Presenter:</i> Constantin Träger, DE	12:00 - 12:00 CEST
P948	PAMRINO: International MRI and clinical data repository for neuromyelitis optica spectrum disorder cohort description <i>Abstract Presenter:</i> Claudia Chien, DE	12:00 - 12:00 CEST
P949	Humoral immune response to SARS-CoV-2 vaccination in MS patients treated with rituximab <i>Abstract Presenter:</i> Hilde Marie Torgauten, NO	12:00 - 12:00 CEST
P950	Seroconversion following vaccination against SARS-CoV-2 in people with MS: impact of disease modifying therapy <i>Abstract Presenter:</i> Nikki Vickaryous, GB	12:00 - 12:00 CEST
P951	Significance of CSF MOG antibody testing in MOG antibody associated disorders <i>Abstract Presenter:</i> Yuki Matsumoto, JP	12:00 - 12:00 CEST
P952	The impact of previous disease-modifying treatment for HSCT outcome and the risk of new disease activity in MS	12:00 - 12:00 CEST

	<i>Abstract Presenter:</i> Silje Kvistad, NO	
P953	Characterisation of the innate and adaptive immune system after ocrelizumab treatment in multiple sclerosis <i>Abstract Presenter:</i> Lien Beckers, BE	12:00 - 12:00 CEST
P954	Comparison of the effectiveness of ocrelizumab vs interferons, fingolimod and natalizumab on relapses in relapsing-remitting multiple sclerosis <i>Abstract Presenter:</i> Izanne Roos, AU	12:00 - 12:00 CEST
P955	Recovery of circulating antibodies while preventing pathogenic repopulation of B cells by sequentially combining anti-CD20 and BTK inhibition <i>Abstract Presenter:</i> Sarah Dybowski, DE	12:00 - 12:00 CEST
P956	Novel immunological effects of alemtuzumab therapy in multiple sclerosis <i>Abstract Presenter:</i> Marina Rode von Essen, DK	12:00 - 12:00 CEST
P957	Humoral response to BNT162b2-COVID-19 or CoronaVac vaccine in NMOSD and MOGAD Patients <i>Abstract Presenter:</i> Lorna Galleguillos, CL	12:00 - 12:00 CEST
P958	Serum levels of phosphorylated neurofilament heavy chain differ between multiple sclerosis clinical group types <i>Abstract Presenter:</i> Kaya Frese, CA	12:00 - 12:00 CEST
P959	The use of diffusion-weighted imaging to assess structural brain connectivity in early demyelinating clinically-isolated syndrome: a preliminary analysis <i>Abstract Presenter:</i> Michael Foster, GB	12:00 - 12:00 CEST
P960	Immunological subsets characterization and cerebrospinal fluid k-index in in newly diagnosed RRMS <i>Abstract Presenter:</i> Emanuele D'Amico, IT	12:00 - 12:00 CEST
P961	Influence of disease modifying treatment and anti-CD20 infusion timing on humoral response to SARS-CoV-2 vaccines in multiple sclerosis patients <i>Abstract Presenter:</i> Giulio Disanto, CH	12:00 - 12:00 CEST
P962	Phase 1 open label dose-escalation trial of oral N-acetylglucosamine in multiple sclerosis patients <i>Abstract Presenter:</i> Michael Sy, US	12:00 - 12:00 CEST
P963	COVID-19 vaccination in people with multiple sclerosis. The Kuwait experience <i>Abstract Presenter:</i> Samar Farouk Ahmed, KW	12:00 - 12:00 CEST
P964	Safety and seroconversion rates of mRNA and inactivated vaccines against SARS-CoV-2 among patients with multiple sclerosis: A multicentric observational study <i>Abstract Presenter:</i> Ethel Ciampi, CL	12:00 - 12:00 CEST
P965	Humoral and T-cell responses to SARS-CoV-2 vaccination in	12:00 - 12:00

	multiple sclerosis patients treated with ocrelizumab	CEST
	<i>Abstract Presenter:</i> Joshua Katz, US	
P966	Early efficacy of ofatumumab on microglial activity in patients with relapsing forms of multiple sclerosis: Interim analysis of a 9-month study	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Tarun Singhal, US	
P967	External validation of predictive models of long-term visual acuity in acute demyelinating optic neuritis	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Fiona Costello, CA	
P968	A clinically-compatible workflow for computer-aided assessment of brain disease activity in multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Benoit Combès, FR	
P969	Discordant humoral and cell-mediated responses to SARS-CoV-2 vaccination in people with multiple sclerosis on B cell depleting agents	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Pavan Bhargava, US	
P970	Primary results of NOVA: a randomized controlled study of the efficacy of 6?week dosing of natalizumab versus continued 4-week treatment for multiple sclerosis	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> John Foley, US	
P971	Targeting BTK in chronic CNS autoimmunity inhibits activation of microglia	12:00 - 12:00 CEST
	<i>Speaker:</i> Anastasia Geladaris, DE	
P972	PAS-positive lymphocytes vacuoles possible markers of impaired autophagy in multiple sclerosis	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Elisabetta Signoriello, IT	
P973	Safety and effectiveness of eculizumab in Japanese patients with aquaporin-4 antibody-positive neuromyelitis optica spectrum disorder: interim analysis of post-marketing surveillance data	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Ichiro Nakashima, JP	
P974	Humoral response to BNT162b2-COVID-19 or CoronaVac vaccine against COVID-19 in people with multiple sclerosis patients treated with high efficacy therapies	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Lorna Galleguillos, CL	
P975	Long-term efficacy for patients receiving cladribine tablets in CLARITY/CLARITY extension: Primary results from 9–15 years of follow-up in the CLASSIC-MS study	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Gavin Giovannoni, GB	
P976	Relationship between neurofilament light chain and disease activity in relapsing MS: observations from a phase II trial of IMU-838	12:00 - 12:00 CEST
	<i>Abstract Presenter:</i> Robert J. Fox, US	

P977	Dilated Virchow-Robin spaces are associated with multiple sclerosis lesion burden and vascular pathology <i>Abstract Presenter:</i> Benjamin V. Ineichen, SE	12:00 - 12:00 CEST
P978	COVID-19 in patients with multiple sclerosis despite SARS-CoV-2 vaccination <i>Abstract Presenter:</i> Ahmad Z Mahadeen, US	12:00 - 12:00 CEST
P979	Impact of MS disease-modifying therapies on antibody and T cell responses following COVID-19 vaccination <i>Abstract Presenter:</i> Joseph Sabatino, US	12:00 - 12:00 CEST
P980	Vaccine against SARS-CoV2-generated Immunity in Ocrelizumab-treated Patients: Longitudinal Assessments (VIOLA): study design and early results <i>Abstract Presenter:</i> Ilya Kister, US	12:00 - 12:00 CEST
P981	Incidence, severity, outcomes, and risk factors of COVID-19 in multiple sclerosis: An observational study in the Middle East <i>Abstract Presenter:</i> Samar Farouk Ahmed, KW	12:00 - 12:00 CEST
P982	Outcomes of COVID-19 in patients with relapsing multiple sclerosis receiving ofatumumab: data from the ALITHIOS study and post marketing surveillance <i>Abstract Presenter:</i> Anne H. Cross, US	12:00 - 12:00 CEST
P983	A new machine learning approach for myelin water imaging analysis in multiple sclerosis <i>Abstract Presenter:</i> Tigris S Joseph, CA	12:00 - 12:00 CEST
P984	Multinomial modeling reveals insights into disability in NMOSD: A CIRCLES cohort analysis <i>Abstract Presenter:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P985	Cytokine profile in multiple sclerosis patients. Potential association with the progression and the severe phenotype of the disease <i>Abstract Presenter:</i> Maria Hadjiagapiou, CY	12:00 - 12:00 CEST
P986	Individualized supervised versus unsupervised pilates-based core stability training effects on quality of life and fatigue in people with multiple sclerosis <i>Abstract Presenter:</i> Feray Güngör, TR	12:00 - 12:00 CEST
P987	Cladribine tablets after treatment with natalizumab (CLADRINA) trial – Interim analyses <i>Abstract Presenter:</i> Peter Sguigna, US	12:00 - 12:00 CEST
P989	Variables affecting disease modifying therapy adherence and impact of adherence on multiple sclerosis patients (Egyptian experience) <i>Abstract Presenter:</i> Amr Abdelsalam, EG	12:00 - 12:00 CEST
P990	Neuropsychological measures associated with disease severity in pediatric onset multiple sclerosis	12:00 - 12:00 CEST

	A randomized double-blinded placebo-controlled trial <i>Speaker:</i> Celine Louapre, FR	CEST
P636	Retained efficacy with extended rituximab dosing intervals in relapsing-remitting multiple sclerosis: a Swedish single-centre observational study <i>Speaker:</i> Chiara Starvaggi Cucuzza, SE	12:00 - 12:00 CEST
P637	Analyses of the effect of baseline age on the efficacy and safety of siponimod in patients with active secondary progressive multiple sclerosis from the EXPAND study <i>Speaker:</i> Le H. Hua, US	12:00 - 12:00 CEST
P638	Updated open-label extension clinical data and new magnetization transfer ratio imaging data from a Phase I study of ATA188, an off-the-shelf, allogeneic Epstein-Barr virus-targeted T-cell immunotherapy for progressive multiple sclerosis <i>Speaker:</i> Amit Bar-Or, US	12:00 - 12:00 CEST
P639	Clinical impact of delaying ocrelizumab infusions during the SARS-COV-2 pandemic <i>Speaker:</i> Kyle Smoot, US	12:00 - 12:00 CEST
P640	Anti-CD20 therapies are associated with decreased seropositivity in patients with multiple sclerosis and related diseases: one-year pandemic experience of the New York C OVID-19 Neuroimmunology Consortium (NYCNIC) <i>Speaker:</i> Sylvia Klineova, US	12:00 - 12:00 CEST
P641	Pregnancy and infant outcomes in women receiving ocrelizumab for the treatment of multiple sclerosis <i>Speaker:</i> Ruth Dobson, GB	12:00 - 12:00 CEST
P642	Oral delivery of non-live preparation of <i>Veillonella parvula</i> modulates CNS inflammation via the small intestinal axis: a novel approach to treating neuroinflammatory diseases <i>Speaker:</i> Holly E. Ponichtera, US	12:00 - 12:00 CEST
P643	BTK inhibition results in reduction of pro-inflammatory human B-cell responses both in <i>vitro</i> and in <i>vivo</i> <i>Speaker:</i> Rui Li, US	12:00 - 12:00 CEST
P644	Comprehensive profiling of ATA188, an off-the-shelf, allogeneic Epstein-Barr virus-specific T-cell immunotherapy for progressive multiple sclerosis <i>Speaker:</i> Monica Moreno, US	12:00 - 12:00 CEST
P645	Safety and tolerability of IMU-838, a next-generation DHODH inhibitor in EMPHASIS: a randomized, placebo-controlled phase 2 trial in relapsing multiple sclerosis <i>Speaker:</i> Robert J. Fox, US	12:00 - 12:00 CEST
P646	A short pause in ponesimod treatment completely restores the ability to mount post-vaccination antibody titers in mice	12:00 - 12:00 CEST

	<i>Speaker:</i> Krista Spiller, US	
P647	Comparison of multiple disease modifying therapies in multiple sclerosis with marginal structural models <i>Speaker:</i> Ibrahima Diouf, AU	12:00 - 12:00 CEST
P648	Real-world efficacy data of azathioprine in AQP4-IgG seropositive neuromyelitis optica spectrum disorder <i>Speaker:</i> Rasha Saleem, DK	12:00 - 12:00 CEST
P649	Humoral immune response to the influenza vaccine in multiple sclerosis patients treated with cladribine or rituximab <i>Speaker:</i> Åslaug Rudjord Lorentzen, NO	12:00 - 12:00 CEST
P650	Humoral and cellular immune responses to SARS-CoV-2 mRNA vaccination in patients with multiple sclerosis treated with high-efficacy disease-modifying therapies <i>Speaker:</i> Marton König, NO	12:00 - 12:00 CEST
P651	Humoral response to SARS-CoV-2-mRNA vaccine in multiple sclerosis patients treated with high efficacy disease-modifying therapies <i>Speaker:</i> Rocco Capuano, ES	12:00 - 12:00 CEST
P652	IgG immune response to SARS-CoV-2 vaccination in people living with multiple sclerosis within MS PATHS <i>Speaker:</i> Jeffrey Cohen, US	12:00 - 12:00 CEST
P653	Treatment of multiple sclerosis with Rituximab: a multicenter Spanish experience <i>Speaker:</i> Carmen Alcalá, ES	12:00 - 12:00 CEST
P654	Demographic features and clinical course of pediatric-onset MS patients on newer disease-modifying treatments <i>Speaker:</i> Nikita Shukla, US	12:00 - 12:00 CEST
P655	Rationale and design of a phase 4 study exploring B-cell levels and immune responses in infants born to women with MS who were exposed to ocrelizumab up to 6 months before or during the first trimester of pregnancy (the MINORE study) <i>Speaker:</i> Kerstin Hellwig, DE	12:00 - 12:00 CEST
P656	The role of human and mouse BTK in myeloid cells <i>Speaker:</i> Luca Muzio, IT	12:00 - 12:00 CEST
P657	The effects of culture-expanded, non-cryopreserved adipose tissue mesenchymal stem cells on neurological and immunological paradigms in female patients with secondary progressive multiple sclerosis: a phase I/II clinical trial <i>Speaker:</i> Fahimeh Lavi, IR	12:00 - 12:00 CEST
P658	Comparative analysis of early treatment effectiveness of first-line disease-modifying therapies and fingolimod on cognitive functions in persons with multiple sclerosis <i>Speaker:</i> Pinar Yigit, TR	12:00 - 12:00 CEST

Scientific program

P659	Effect of ozanimod on circulating leukocyte subtypes in patients with relapsing multiple sclerosis and comparison with healthy volunteers <i>Speaker:</i> Sarah Harris, US	12:00 - 12:00 CEST
P660	Tracking the immune response to SARS-CoV-2 mRNA vaccines in an open-label multicenter study in participants with relapsing multiple sclerosis treated with ofatumumab s.c. (KYRIOS clinical trial) <i>Speaker:</i> Tjalf Ziemssen, DE	12:00 - 12:00 CEST
P661	Disease activity in multiple sclerosis patients switching from fingolimod to cladribine compared to rituximab <i>Speaker:</i> Gro Owren Nygaard, NO	12:00 - 12:00 CEST
P662	Personalized extended interval dosing of natalizumab in relapsing remitting multiple sclerosis: a prospective multicenter trial in The Netherlands <i>Speaker:</i> A.A. Toorop, NL	12:00 - 12:00 CEST
P663	Comparison of pharmacokinetic profiles and safety outcomes with peginterferon beta-1a administration in Black/African American and White participants <i>Speaker:</i> Yuan Zhao, US	12:00 - 12:00 CEST
P664	Alemtuzumab-related lymphocytes subset dynamics and disease activity or autoimmune adverse event <i>Speaker:</i> Elisabetta Signoriello, IT	12:00 - 12:00 CEST
P665	A retrospective review of COVID spike protein antibody development following COVID-19 vaccination in MS patients on disease modifying drugs <i>Speaker:</i> Asya Wallach, US	12:00 - 12:00 CEST
P666	MRI outcomes from the long-term extension study of tolebrutinib in relapsing MS: Year 1 results <i>Speaker:</i> Daniel S. Reich, US	12:00 - 12:00 CEST
P667	Safety and efficacy outcomes from the long-term extension study of tolebrutinib in patients with relapsing MS: Year 1 results <i>Speaker:</i> Jiwon Oh, CA	12:00 - 12:00 CEST
P668	Factors associated with dimethyl fumarate induced lymphopenia in a rural multiple sclerosis cohort <i>Speaker:</i> Muhammad Taimur Malik, US	12:00 - 12:00 CEST
P669	Safety and efficacy data from sateen trial in multiple sclerosis <i>Speaker:</i> Jordi Xaus, ES	12:00 - 12:00 CEST
P670	The role of ADAM28 in the immune interactions of mesenchymal stem cells in multiple sclerosis patients <i>Speaker:</i> Nanci Frakich, GB	12:00 - 12:00 CEST
P671	Humoral response to SARS-CoV-2 natural infection and mRNA	12:00 - 12:00

	vaccines among patients with multiple sclerosis <i>Speaker:</i> Matthew Tremblay, US	CEST
P672	Safety and tolerability of conversion to siponimod with and without titration in patients with advancing forms of relapsing multiple sclerosis: interim results of the phase 3b EXCHANGE study <i>Speaker:</i> Amit Bar-Or, US	12:00 - 12:00 CEST
P673	Flushing and flushing-related adverse events with diroximel fumarate in patients with relapsing-remitting multiple sclerosis: results from the Phase 3 EVOLVE-MS-2 Study <i>Speaker:</i> Barry Singer, US	12:00 - 12:00 CEST
P674	Exploratory analysis of serum GDF-15 levels in patients receiving subcutaneous interferon Beta-1a in the REFLEX trial <i>Speaker:</i> Mali Coray, CH	12:00 - 12:00 CEST
P675	Comparative effectiveness, safety, and immunogenicity of Rituximab biosimilars (Truxima/Ritemvia and Rixathon) to their originator (Mabthera) in multiple sclerosis <i>Speaker:</i> Nicky Dunn, SE	12:00 - 12:00 CEST
P676	Ocrelizumab versus fingolimod after natalizumab cessation in multiple sclerosis: an observational study <i>Speaker:</i> Kevin Bigaut, FR	12:00 - 12:00 CEST
P677	Early high efficacy treatment in multiple sclerosis is the best predictor of no disease activity over one and two years in a Norwegian population-based registry <i>Speaker:</i> Cecilia Simonsen, NO	12:00 - 12:00 CEST
P678	Additional courses of alemtuzumab in sub-optimal responder multiple sclerosis patients are safe and effective: experience from 15 Italian MS centers <i>Speaker:</i> Damiano Baroncini, IT	12:00 - 12:00 CEST
P680	Fenebrutinib reduces disease activity in a mouse model of inflammatory multiple sclerosis, which is associated with reduced microglial activation <i>Speaker:</i> Martin Weber, DE	12:00 - 12:00 CEST
P681	Anti-CD20 disease modifying therapies decrease the humoral response to COVID-19 mRNA vaccination in patients with multiple sclerosis <i>Speaker:</i> Andrew Wolf, US	12:00 - 12:00 CEST
P682	Real-world influence of race/ethnicity on response and tolerability of multiple sclerosis treatment: a 20-year comparative study <i>Speaker:</i> Carlos A. Pérez, US	12:00 - 12:00 CEST
P683	COVID-19 (inactivated and mRNA) vaccine and humoral response in people with multiple sclerosis: Chilean cohort <i>Speaker:</i> Lorna Galleguillos, CL	12:00 - 12:00 CEST

Scientific program

P684	Immunological assessment in multiple sclerosis patients treated with ocrelizumab <i>Speaker:</i> Valentina Mazziotti, IT	12:00 - 12:00 CEST
P685	Disease activity after discontinuation of disease-modifying therapies in patients with multiple sclerosis in Argentina: Data from the nationwide registry RelevaEM <i>Speaker:</i> Gisela Zanga, AR	12:00 - 12:00 CEST
P686	B-cell levels and immunity in breastfed infants of women with MS treated with ocrelizumab: design of a phase 4 study (SOPRANINO) <i>Speaker:</i> Riley Bove, US	12:00 - 12:00 CEST
P687	Phenotype and recovery from relapses in patients with relapsing remitting multiple sclerosis with their first DMT prescription: an Italian registry study <i>Speaker:</i> Emanuele D'Amico, IT	12:00 - 12:00 CEST
P688	Does the reason for the switch to fingolimod affect the treatment response? <i>Speaker:</i> Taha Aslan, TR	12:00 - 12:00 CEST
P689	Ocrelizumab treatment in multiple sclerosis: a real world observational multi-center study to confirm efficacy on disability accrual and explore prognostic factors of response to treatment <i>Speaker:</i> Roberta Lanzillo, IT	12:00 - 12:00 CEST
P690	Infusion-related reactions in Black/African American and Hispanic/Latino patients treated with ocrelizumab administered as a shorter infusion <i>Speaker:</i> Faria Amjad, US	12:00 - 12:00 CEST
P691	2-year follow-up of Finnish multiple sclerosis patients treated with cladribine tablets <i>Speaker:</i> Ilkka Rauma, FI	12:00 - 12:00 CEST
P692	Comparing the impact of dose titration on gastrointestinal tolerability: diroximel fumarate versus dimethyl fumarate in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Robert Naismith, US	12:00 - 12:00 CEST
P693	Treatment of multiple sclerosis with natalizumab: experiences from a real-life cohort over 15 years <i>Speaker:</i> Michael Auer, AT	12:00 - 12:00 CEST
P694	Safety and effectiveness of cladribine in multiple sclerosis – clinical experience of five tertiary centers <i>Speaker:</i> Mónica Santos, PT	12:00 - 12:00 CEST
P695	Evaluation of immunoglobulin levels and COVID-19 disease course in patients with multiple sclerosis under ocrelizumab therapy: a tertiary center experience <i>Speaker:</i> Nazire Pinar Acar - Ozen, TR	12:00 - 12:00 CEST

Scientific program

P696	Safety and efficacy of siponimod in patients with active secondary progressive multiple sclerosis identifying as Hispanic from the phase 3 EXPAND study <i>Speaker:</i> Stanley Cohan, US	12:00 - 12:00 CEST
P697	Glatiramer acetate depot (extended-release) phase IIa study in patients with primary progressive multiple sclerosis: safety and efficacy snapshot <i>Speaker:</i> Arnon Karni, IL	12:00 - 12:00 CEST
P698	Hemophagocytic lymphohistiocytosis and alemtuzumab: a rescue or a cause? <i>Speaker:</i> Eva Koban, SI	12:00 - 12:00 CEST
P699	Ex vivo modulation of fatty acid metabolism of PBMC from multiple sclerosis patients <i>Speaker:</i> Carolin Blask, DE	12:00 - 12:00 CEST
P700	Endocannabinoid levels in peripheral blood mononuclear cells of multiple sclerosis patients treated with dimethyl fumarate: a longitudinal study <i>Speaker:</i> Alicia Sánchez-Sanz, ES	12:00 - 12:00 CEST
P701	A broad effect of ocrelizumab on the peripheral immune component in patients with early relapsing-remitting multiple sclerosis <i>Speaker:</i> Alexandra Garcia, FR	12:00 - 12:00 CEST
P702	CELLO: a phase IV, multicenter, randomized, double-blind, placebo-controlled study assessing efficacy of ocrelizumab in radiologically isolated syndrome <i>Speaker:</i> Erin E. Longbrake, US	12:00 - 12:00 CEST
P703	Effect of ponesimod compared with teriflunomide on treatment with concomitant corticosteroids for relapse in patients with relapsing forms of multiple sclerosis <i>Speaker:</i> Maria Ait-Tihyaty, US	12:00 - 12:00 CEST
P704	Two-year real-world experience with ocrelizumab in the treatment of patients with multiple sclerosis <i>Speaker:</i> Brandi Vollmer, US	12:00 - 12:00 CEST
P705	A real world multi centre study on efficacy and safety of natalizumab in Indian patients with multiple sclerosis <i>Speaker:</i> Thomas Mathew, IN	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP38 - ePoster - Multi-disciplinary rehabilitation

P878	Is the multiple sclerosis population of the rehabilitation centers vulnerable during the COVID-19 pandemic? <i>Speaker:</i> Michela Ponzio, IT	12:00 - 12:00 CEST
P879	Promoting physical activity in patients with MS: a needs	12:00 - 12:00

	assessment survey of Canadian neurologists	CEST
	<i>Speaker:</i> Simon Thebault, CA	
P880	MS Nurse care: Patterns of access and impact on health outcomes	12:00 - 12:00 CEST
	<i>Speaker:</i> Ingrid van der Mei, AU	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP04 - ePoster - Neuropsychology		
P064	NODDI microstructural abnormalities in normal-appearing gray matter and white matter contribute to cognitive impairment in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Paolo Preziosa, IT	
P065	The psychopharmacology of MS in Greece: a nationwide study on the basis of digital prescription records	12:00 - 12:00 CEST
	<i>Speaker:</i> Christos Bakirtzis, GR	
P066	Impaired awareness: why people with multiple sclerosis continue using cannabis despite evidence to the contrary	12:00 - 12:00 CEST
	<i>Speaker:</i> Anthony Feinstein, CA	
P067	Cognitive functioning in pediatric-onset relapsing myelin oligodendrocyte glycoprotein (MOG) antibody disease	12:00 - 12:00 CEST
	<i>Speaker:</i> Tracy Lauren Fabri, CA	
P068	Validation of Canadian regression normative data for the Minimal Assessment of Cognitive Function in Multiple Sclerosis (MACFIMS)	12:00 - 12:00 CEST
	<i>Speaker:</i> Lisa Walker, CA	
P069	Alexithymia is linked to depression and cognitive fatigue in radiologically isolated syndrome	12:00 - 12:00 CEST
	<i>Speaker:</i> Héloïse Joly, FR	
P070	The role of serum biomarkers in predicting cognitive status in people with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Maureen van Dam, NL	
P071	Theory of mind and its neuroanatomical correlates in patients with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Hiroaki Yokote, JP	
P072	General intelligence is affected in children with multiple sclerosis: evidence from meta-analyses	12:00 - 12:00 CEST
	<i>Speaker:</i> Mariia Bogdanova, RU	
P073	Work difficulties in people with multiple sclerosis: the role of depression, anxiety and coping	12:00 - 12:00 CEST
	<i>Speaker:</i> Elianne van Egmond, NL	
P074	Different perception of cognitive deficits among inflammatory or progressive multiple sclerosis subtypes	12:00 - 12:00 CEST

	<i>Speaker:</i> Cl?udia Coll Martinez, ES	
P075	False positives committed by patients with progressive multiple sclerosis in memory recognition tasks: disinhibition or memory problems? <i>Speaker:</i> Judit Salavedra Pont, ES	12:00 - 12:00 CEST
P076	Teriflunomide and Work problems in multiple sclerosis <i>Speaker:</i> Michael Jaworski III, US	12:00 - 12:00 CEST
P077	What are multiple sclerosis (MS) patients saying on the web? WE-SEP: an innovative methodology to understand their needs and experiences <i>Speaker:</i> Cécile Donze, FR	12:00 - 12:00 CEST
P078	Is there a multiple sclerosis (MS) personality? Personality characteristics in persons with recently diagnosed MS at a single Canadian centre <i>Speaker:</i> Laura Chu, CA	12:00 - 12:00 CEST
P079	Discordance between neurologists and people with multiple sclerosis on the perception of the presence and burden of cognitive impairment <i>Speaker:</i> Iris-Katharina Penner, DE	12:00 - 12:00 CEST
P080	Motor and cognitive performances are associated beyond structural brain damage in relapsing-remitting multiple sclerosis <i>Speaker:</i> Damiano Mistri, IT	12:00 - 12:00 CEST
P081	Factors contributing unemployment in persons with multiple sclerosis: dual task effects <i>Speaker:</i> María Bárbara Eizaguirre, AR	12:00 - 12:00 CEST
P082	Fatigue and episodic memory in relapsing-remitting multiple sclerosis: a web-based study <i>Speaker:</i> Luke Allen, GB	12:00 - 12:00 CEST
P083	Memory for faces and emotion recognition in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Elisabeth Göttfried, AT	12:00 - 12:00 CEST
P084	Cognitive functioning in everyday life: the development of a questionnaire on instrumental activities of daily living in multiple sclerosis <i>Speaker:</i> Maureen van Dam, NL	12:00 - 12:00 CEST
P085	Relationship between stigma and symptom burden in patients with multiple sclerosis <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P086	Cognitive impairment in clinically isolated syndromes: a control-case study <i>Speaker:</i> Mohamed Islam Kediha, DZ	12:00 - 12:00 CEST
P087	Multicentric motor evoked potentials in multiple sclerosis: a	12:00 - 12:00

	retrospective pilot study <i>Speaker:</i> Cathérine Dekeyser, BE	CEST
P088	Using 7T MRI to determine lesion burden in the limbic system and its relation to anxiety and depression scores in persons with multiple sclerosis <i>Speaker:</i> Alexandra Hillyer, CA	12:00 - 12:00 CEST
P089	Prevalence of cognitive impairment in a multiple sclerosis patients cohort with low disability <i>Speaker:</i> José E Meca-Lallana, ES	12:00 - 12:00 CEST
P090	Evaluating the effectiveness and acceptability of an ACT-informed neuropsychology group for individuals with MS, delivered using videoconferencing <i>Speaker:</i> Clodagh Cogley, IE	12:00 - 12:00 CEST
P091	A year with the fear of COVID-19 in multiple sclerosis patients: Examination of depression, sleep quality and quality of life before and after the pandemic <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P092	MindSEP mirror study: multiple sclerosis and cognition, patient and doctor perspectives <i>Speaker:</i> Bruno Brochet, FR	12:00 - 12:00 CEST
P093	Psychopathology profiles in patients presenting to a multiple sclerosis cognitive unit <i>Speaker:</i> Stefanie Roberts, AU	12:00 - 12:00 CEST
P094	The associations between cerebellar gray and white matter atrophy and cognition in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Jakub Komendzi??ki, PL	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP14 - ePoster - Economic burden		
P272	The UK multiple sclerosis care crisis: an audit of 70 services <i>Speaker:</i> Jeremy Hobart, GB	12:00 - 12:00 CEST
P273	Social disparities in access to multiple sclerosis treatment in Mexico <i>Speaker:</i> Enrique Gomez-Figueroa, MX	12:00 - 12:00 CEST
P274	Economic impact and clinical profile of the secondary progressive multiple sclerosis (SPMS) patient: the DISCOVER study <i>Speaker:</i> Celia Oreja-Guevara, ES	12:00 - 12:00 CEST
P275	A cost-minimization analysis shows significant resource savings associated with the introduction of natalizumab by subcutaneous injection in Sweden, from a socio-economic perspective	12:00 - 12:00 CEST

Scientific program

	<i>Speaker:</i> Karin Soderborg, SE	
P276	The societal cost and burden of multiple sclerosis in Spain <i>Speaker:</i> Alice Bouleau, FR	12:00 - 12:00 CEST
P277	Socioeconomic Status and MS disease severity in Chile <i>Speaker:</i> Ethel Ciampi, CL	12:00 - 12:00 CEST
P278	A real-world study to assess the economic burden and clinical outcome in patients with relapsing-remitting multiple sclerosis treated with dimethyl fumarate in Greece <i>Speaker:</i> George Karachalios, GR	12:00 - 12:00 CEST
P279	Out of pocket cost associated with multiple sclerosis diagnosis and management in a rural neurology setting <i>Speaker:</i> Muhammad Taimur Malik, US	12:00 - 12:00 CEST
P280	Economic analysis for introduction of cladribine tablets as a treatment for relapsing-remitting and high disease activity multiple sclerosis in Kuwait <i>Speaker:</i> Raed Alroughani, KW	12:00 - 12:00 CEST
P281	Cost-effectiveness of ofatumumab in comparison with other disease modifying therapies and best supportive care for the treatment of relapsing-remitting multiple sclerosis in Canada <i>Speaker:</i> Soukaïna Mouallif, CA	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP06 - ePoster - Progressive MS

P105	Cortical lesions at diagnosis predict conversion to secondary progressive multiple sclerosis and accumulation of disability: a 20-year follow-up study <i>Speaker:</i> Gian Marco Schiavi, IT	12:00 - 12:00 CEST
P106	Contributors to secondary progressive multiple sclerosis conversion age – a federated learning analysis across five European MS registries <i>Speaker:</i> Lars Forsberg, SE	12:00 - 12:00 CEST
P107	Results from a multicentre, randomised, double blind, placebo-controlled study of repository corticotropin injection for multiple sclerosis relapse that inadequately responded to corticosteroids <i>Speaker:</i> Aaron E. Miller, US	12:00 - 12:00 CEST
P108	Progression independent of relapse activity in early multiple sclerosis patients and risk of secondary progression: an Italian multicentre study <i>Speaker:</i> Emilio Portaccio, IT	12:00 - 12:00 CEST
P109	Demographic and clinical characteristics of treated and untreated patients with secondary progressive multiple sclerosis – analysis from three European registries	12:00 - 12:00 CEST

	<i>Speaker:</i> Luigi Pontieri, DK	
P110	Impact of COVID-19 lockdown on a population of progressive multiple sclerosis patients in Northern Italy <i>Speaker:</i> Chiara Bosa, IT	12:00 - 12:00 CEST
P111	Smoking, cardiovascular risk factors and LRP2 gene variation: associations with disease severity, cognitive function and brain structure in primary progressive multiple sclerosis <i>Speaker:</i> Helene Hoejsgaard Chow, DK	12:00 - 12:00 CEST
P112	A pilot study: identification of cerebrospinal fluid pattern at diagnosis in relapsing-remitting and secondary progressive patients <i>Speaker:</i> Anna Isabella Pisani, IT	12:00 - 12:00 CEST
P113	Estimating the profile of responders to treatment: do different patients show benefits on different outcomes? <i>Speaker:</i> Francesca Bovis, IT	12:00 - 12:00 CEST
P114	Predictive factors for progression in elderly multiple sclerosis patients <i>Speaker:</i> Anne Zinganell, AT	12:00 - 12:00 CEST
P115	Disease modifying treatment ameliorates disability worsening in patients with aggressive PPMS: results from the Big MS Data network <i>Speaker:</i> Johannes Lorscheider, CH	12:00 - 12:00 CEST
P116	A pilot study: The identification of cerebrospinal fluid profile prognostic of secondary progression at diagnosis of relapsing-remitting multiple sclerosis <i>Speaker:</i> Anna Isabella Pisani, IT	12:00 - 12:00 CEST
P117	Real world experience with Ocrelizumab in patients with primary progressive multiple sclerosis: insights from the German NeuroTransData Registry <i>Speaker:</i> Stefan Braune, DE	12:00 - 12:00 CEST
P118	Follow-up of a French cohort of progressive multiple sclerosis patients treated with anti-CD20 antibodies <i>Speaker:</i> Maximilian Einsiedler, FR	12:00 - 12:00 CEST
P119	Development of Your MS Questionnaire: a patient completed? digital tool to monitor multiple sclerosis disease symptoms and their impact on people's life <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P120	The role of the MS specialist nurse in the care for patients with primary progressive multiple sclerosis <i>Speaker:</i> Katelijn Blok, NL	12:00 - 12:00 CEST
P121	Heterogeneity on long-term disability trajectories in secondary progressive MS patients – a latent class analysis from big MS	12:00 - 12:00 CEST

	data network <i>Speaker:</i> Alessio Signori, IT	
P122	Monitoring cognition in relapsing-remitting multiple sclerosis (RRMS) and secondary progressive multiple sclerosis (SPMS) patients <i>Speaker:</i> Sandra Teoh, MY	12:00 - 12:00 CEST
P123	Effect of natalizumab on disability progression in patients with non-active secondary progressive multiple sclerosis in ASCEND <i>Speaker:</i> Zhe Chen, US	12:00 - 12:00 CEST
P124	Disability in primary progressive multiple sclerosis study from Argentinean registry cohort study (RelevarEM) <i>Speaker:</i> Ricardo Alonso, AR	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP16 - ePoster - Comorbidity		
P289	Racial disparities in hypertension management among multiple sclerosis patients <i>Speaker:</i> Devon Conway, US	12:00 - 12:00 CEST
P290	Illness perceptions and coping in the relationship between personality, depression, anxiety and illness acceptance in multiple sclerosis <i>Speaker:</i> Rebekah Davenport, AU	12:00 - 12:00 CEST
P291	Vaccine hesitancy among people with multiple sclerosis <i>Speaker:</i> Siew Mei Yap, IE	12:00 - 12:00 CEST
P292	Impact of cancer immunotherapy on multiple sclerosis course and management <i>Speaker:</i> Louise Noroy, FR	12:00 - 12:00 CEST
P293	The role of comorbidities in long term prognosis in the Clinically Isolated Syndrome and early MS Barcelona inception cohort <i>Speaker:</i> Simón Cárdenas-Robledo, CO	12:00 - 12:00 CEST
P294	Impact of comorbidity clusters of MS patients in healthcare resource usage: A latent class analysis <i>Speaker:</i> Simón Cárdenas-Robledo, CO	12:00 - 12:00 CEST
P295	An analysis of main symptoms of COVID-19 in MS patients and related risk factors <i>Speaker:</i> Irene Schiavetti, IT	12:00 - 12:00 CEST
P296	Long COVID among people with MS: A prospective and longitudinal observational study of the UK MS Register <i>Speaker:</i> Afagh Garjani, GB	12:00 - 12:00 CEST
P297	SARS-COV-2 infection impact on patients with multiple	12:00 - 12:00

	sclerosis and neuromyelitis spectrum disorder in a Colombia cohort	CEST
	<i>Speaker:</i> Maria Zuluaga, CO	
P298	Influence of cardiovascular risk factors in early relapsing remitting multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Pablo Arroyo-Pereiro, ES	
P299	COVID-19 in a neuroimmunology and multiple sclerosis referral unit	12:00 - 12:00 CEST
	<i>Speaker:</i> Lluís Ramió-Torrent?, ES	
P300	MS disease activity following initiation of dupilumab for dyshidrotic eczema: Case report	12:00 - 12:00 CEST
	<i>Speaker:</i> Leah Laageide, US	
P301	Incidence and predisposing factors of COVID-19 in patients living with multiple sclerosis: Results from a prospective multiple sclerosis cohort	12:00 - 12:00 CEST
	<i>Speaker:</i> Cavid Baba, TR	

Poster Session
12:00 - 21:00 CEST

eP24 - ePoster - Neurobiology

P391	Evaluating the effect of BTK inhibitor tolebrutinib in human microglia	12:00 - 12:00 CEST
	<i>Speaker:</i> Ross Gruber, US	
P392	Microfibril-associated protein 4 (MFAP4) as a biomarker for disease activity of optic neuritis associated-inflammatory demyelinating diseases	12:00 - 12:00 CEST
	<i>Speaker:</i> Nasrin Asgari, DK	
P393	Hippocampal subfields in RRMS: the modulatory role of gender, fatigue and depression	12:00 - 12:00 CEST
	<i>Speaker:</i> Damiano Mistri, IT	
P394	Sex specific changes of mechanical properties of the mouse brain in experimental autoimmune encephalomyelitis	12:00 - 12:00 CEST
	<i>Speaker:</i> Clara Sophie Batzdorf, DE	

Poster Session
12:00 - 21:00 CEST

eP18 - ePoster - Pathology

P314	Sex differences in neuroinflammation and neuroactive steroids synthesis in the multiple sclerosis cortical grey matter	12:00 - 12:00 CEST
	<i>Speaker:</i> Nina Louise Fransen, NL	
P315	Distribution and abundance of oxysterols in the human multiple sclerosis brain	12:00 - 12:00 CEST
	<i>Speaker:</i> Kristen Hawkins, GB	
P316	In vivo assessment of glymphatic function in multiple sclerosis:	12:00 - 12:00

	a new pathological mechanism underpinning disease burden <i>Speaker:</i> Antonio Carotenuto, IT	CEST
P317	Towards a new resource for the MS brain: a cross-brain bank proteomic atlas of non-lesional neocortex <i>Speaker:</i> Philip De Jager, US	12:00 - 12:00 CEST
P318	Regional grey matter pathology and network reconfiguration are linked to epilepsy occurrence in patients with multiple sclerosis <i>Speaker:</i> Dumitru Ciolac, DE	12:00 - 12:00 CEST
P319	Multiplexed imaging of the multiple sclerosis meninges using mass cytometry <i>Speaker:</i> Valeria Ramaglia, CA	12:00 - 12:00 CEST
P320	Inflammation is associated with demyelination and neurodegeneration in the brainstem of patients with progressive multiple sclerosis <i>Speaker:</i> Nina Louise Fransen, NL	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP41 - ePoster - Others		
P894	Acute demyelinating events triggered by COVID-19 vaccines: case series <i>Speaker:</i> Valentina Camera, GB	12:00 - 12:00 CEST
P895	The wearing-off phenomenon of ocrelizumab in patients with multiple sclerosis <i>Speaker:</i> A.A. Toorop, NL	12:00 - 12:00 CEST
P896	COVID-19 vaccination and humoral immune response in people with multiple sclerosis <i>Speaker:</i> Celia Oreja-Guevara, ES	12:00 - 12:00 CEST
P898	Prescribing trends of MS disease modifying therapies during the COVID-19 pandemic: Analysis of NHS England prescriptions and comparison with international trends <i>Speaker:</i> Afagh Garjani, GB	12:00 - 12:00 CEST
P899	Effect of cladribine on differentiation of human neural precursor cells <i>Speaker:</i> Herena Eixarch, ES	12:00 - 12:00 CEST
P901	The symptoms, clinical characteristics and hospital outcomes of multiple sclerosis patients admitted for COVID-19: a case-control study from Iran <i>Speaker:</i> Maryam Poursadeghfard, IR	12:00 - 12:00 CEST
P902	Empowerment of multiple sclerosis patients in treatment decision making <i>Speaker:</i> Michele Cole, US	12:00 - 12:00 CEST
P903	Interprofessional collaboration and patient-provider	12:00 - 12:00

	communication challenges in MS care: a mixed-methods needs assessment <i>Speaker:</i> Klaus Schmierer, GB	CEST
P905	Treatment patterns in patients with multiple sclerosis: a single hospital cohort study in Sweden <i>Speaker:</i> Anna Castelo-Branco, SE	12:00 - 12:00 CEST
P906	Autologous haematopoietic stem cell transplantation of patients with aggressive relapsing-remitting multiple sclerosis: a Danish single-centre experience <i>Speaker:</i> Freja Jespersen, DK	12:00 - 12:00 CEST
P907	Pandemia in the life of persons with MS in Italy <i>Speaker:</i> Mario Alberto Battaglia, IT	12:00 - 12:00 CEST
P908	The role of disease modifying therapies in rate and severity of COVID-19 infection in a cohort of MS and NMOSD <i>Speaker:</i> Massood Nabavi, IR	12:00 - 12:00 CEST
P909	Impact of an educational program on the DMF persistence in real-life: TECFIRELIFE study <i>Speaker:</i> Kevin Bigaut, FR	12:00 - 12:00 CEST
P910	Analysis and evaluation of ponesimod hepatic safety data <i>Speaker:</i> Andrea Vaclavkova, CH	12:00 - 12:00 CEST
P911	First experiences of the master's program "Multiple Sclerosis Management" (MSM) at the Dresden International University (DIU) <i>Speaker:</i> Isabel Voigt, DE	12:00 - 12:00 CEST
P912	Prospective online survey: SARS-CoV-2 vaccination readiness in people with MS <i>Speaker:</i> Anna-Lena Röper, DE	12:00 - 12:00 CEST
P913	Estimating the long-term clinical and societal outcomes of ofatumumab compared with teriflunomide and evaluating the impact of immediate vs delayed high efficacy therapy in treating patients with relapsing multiple sclerosis in Spain <i>Speaker:</i> Elizabeth Karpf, CO	12:00 - 12:00 CEST
P914	Network meta-analysis of disease-modifying therapies for relapsing multiple sclerosis based on confirmed disability progression: Investigating the influence of cross-trial differences in endpoint definition <i>Speaker:</i> Dee Stoneman, CH	12:00 - 12:00 CEST
P915	Effect of self-acupressure on fatigue among patients with multiple sclerosis <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P916	Multiple sclerosis patients and the COVID -19 pandemic <i>Speaker:</i> Ana Maria Canzonieri, BR	12:00 - 12:00 CEST
P917	Two cases of dystonic reactions following initiation of	12:00 - 12:00

	ofatumumab	CEST
	<i>Speaker:</i> Michlene Passeri, US	
P918	Quantitative understanding of the longitudinal relationship between short-term MRI outcomes and long-term clinical outcomes measures in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Matthew Wiens, US	
P919	Relapse reduction by disease-modifying therapies for relapsing multiple sclerosis: A network meta-analysis	12:00 - 12:00 CEST
	<i>Speaker:</i> Dee Stoneman, CH	
P920	First-hand experience with ofatumumab at ASCLEPIOS study sites in Europe	12:00 - 12:00 CEST
	<i>Speaker:</i> Carola Wagner, DE	
P921	Low dose cannabidiol (CBD) treatment provided successful control of intractable seizures in secondary progressive multiple sclerosis patient: a case report	12:00 - 12:00 CEST
	<i>Speaker:</i> Hakan Silek, TR	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP35 - ePoster - Tools for detecting therapeutic response		
P796	Predictive value of NEDA for long-term disability in multiple sclerosis: A systematic review and meta-analysis	12:00 - 12:00 CEST
	<i>Speaker:</i> Dalia L. Rotstein, CA	
P797	Assessing treatment response to oral drugs for multiple sclerosis in real world setting: a MAGNIMS study	12:00 - 12:00 CEST
	<i>Speaker:</i> Serena Ruggieri, IT	
P798	Optical coherence tomography changes one year after treatment onset and its relation to treatment response scores	12:00 - 12:00 CEST
	<i>Speaker:</i> Paula Tagliani, ES	
P799	Acapella: B-cell repletion in ocrelizumab-treated patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Rose-Marie Jungquist, US	
P800	Changes in the immune cell profile associated with response to ocrelizumab in PPMS	12:00 - 12:00 CEST
	<i>Speaker:</i> Jose Ignacio Fernandez-Velasco, ES	
P801	Cognition as a parameter that should not be ignored when evaluating the effect of relapse treatment: A prospective controlled study	12:00 - 12:00 CEST
	<i>Speaker:</i> Bilge Cinar, TR	
P802	Dimethyl fumarate and fingolimod utilization and costs for multiple sclerosis: a population-based study in the Campania Region of Italy	12:00 - 12:00 CEST
	<i>Speaker:</i> Marcello Moccia, GB	
P803	Neurometabolic changes in RRMS: comparison between	12:00 - 12:00

	 fingolimod and injectables therapies	CEST
	<i>Speaker:</i> Oun Al-iedani, AU	
P804	 Clinical, life-style and genetic determinants of response to natalizumab: a 13-year nationwide Phase IV study	12:00 - 12:00 CEST
	<i>Speaker:</i> Ali Manouchehrinia, SE	
P805	 Immunoglobulin repertoire analysis in multiple sclerosis patients reveals distinct treatment effects after initiation of dimethyl fumarate or teriflunomide therapy	12:00 - 12:00 CEST
	<i>Speaker:</i> Christoph Ruschil, DE	
P806	 micro-RNA expression profile in PBMCs changes after alemtuzumab treatment in patients with relapsing-remitting multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Anne Ladwig, DE	
P807	 Assessing predictors of no-evidence of disease activity in RRMS patients initiating dimethyl fumarate in a real-world setting	12:00 - 12:00 CEST
	<i>Speaker:</i> Sarmad Al-Araji, GB	
P808	 First two-year composite of NEDA-3 status and MAGNIMS score predict long-term disability: a “real-world” single centre cohort study	12:00 - 12:00 CEST
	<i>Speaker:</i> Maximilian Pistor, CH	
P809	 Multiple sclerosis, natalizumab, cognition: multi-domain cognitive NEDA	12:00 - 12:00 CEST
	<i>Speaker:</i> Olivia Kaczmarek, US	
P810	 Assessing the immune response to SARS-CoV-2 mRNA vaccines in patients with secondary progressive multiple sclerosis treated with siponimod (AMA-VACC clinical trial)	12:00 - 12:00 CEST
	<i>Speaker:</i> Tjalf Ziemssen, DE	
P811	 CSF inflammatory markers: prediction of treatment response in early relapsing remitting multiple sclerosis?	12:00 - 12:00 CEST
	<i>Speaker:</i> Damiano Marastoni, GB	

Poster Session

12:00 - 21:00 CEST

eP20 - ePoster - Genetics/Epigenetics

P330	 A genome-wide association study of plasma neurofilament light levels in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Thomas Moridi, SE	
P331	 Stronger together: machine learning accurately predicts multiple sclerosis severity where genome-wide association fails	12:00 - 12:00 CEST
	<i>Speaker:</i> Vilija G. Jokubaitis, AU	
P332	 Back to the roots - from phenotype to genotype in monozygotic twins discordant for multiple sclerosis	12:00 - 12:00 CEST

	<i>Speaker:</i> Claudia Janoschka, DE	
P333	Differentially regulated pathways by endogenous vitamin D in multiple sclerosis identified by transcriptomics of immune cell subsets <i>Speaker:</i> Wei Yeh, AU	12:00 - 12:00 CEST
P334	Multiple sclerosis risk variants influence the B cell composition early in life: a population-based study in children <i>Speaker:</i> Louk de Mol, NL	12:00 - 12:00 CEST
P335	Impact of mitochondrial genome variability in features of multiple sclerosis onset <i>Speaker:</i> Maxim Kozin, RU	12:00 - 12:00 CEST

Poster Session
12:00 - 21:00 CEST

eP12 - ePoster - Clinical assessment tools

P204	What's in a name? The impact of definition and durability in clinical trial outcome measures in relapsing-remitting multiple sclerosis <i>Speaker:</i> Sammita Satyanarayan, US	12:00 - 12:00 CEST
P206	Can we rely on EDSS to accurately monitor disability? A study of inter and intra rater variability <i>Speaker:</i> Mikael Cohen, FR	12:00 - 12:00 CEST
P207	Validation of the Brief Assessment of Cognition (BAC) in multiple sclerosis <i>Speaker:</i> Michael Jaworski III, US	12:00 - 12:00 CEST
P208	Jump analyses via force plate in people with multiple sclerosis - an approach towards increased sensitivity in lower limb assessment <i>Speaker:</i> Katrin Trentzsch, DE	12:00 - 12:00 CEST
P209	dreaMS - Reliability and acceptance of smartphone-based remote monitoring for people with MS <i>Speaker:</i> Johannes Lorscheider, CH	12:00 - 12:00 CEST
P210	The timed 25-foot walk usefully complements the EDSS score in multiple sclerosis <i>Speaker:</i> Birgit Helmlinger, AT	12:00 - 12:00 CEST
P211	An approach of sensor-based measurement and machine learning for the profiling of mobility in early stages of multiple sclerosis <i>Speaker:</i> Katrin Trentzsch, DE	12:00 - 12:00 CEST
P212	Correlation between cognitive and brain MRI parameters in Japanese patients with multiple sclerosis <i>Speaker:</i> Shoko Fukumoto, JP	12:00 - 12:00 CEST
P213	Correlation of multiple sclerosis Impairment scale (MSIS) with	12:00 - 12:00

	clinical and MRI outcomes in secondary progressive MS in comparison to EDSS <i>Speaker:</i> Ásta Theódórsdóttir, DK	CEST
P214	An evaluation of remote monitoring in people with MS during the COVID-19 pandemic <i>Speaker:</i> Andrea Stennett, GB	12:00 - 12:00 CEST
P215	Evaluation of Swedish National Board of Health and Welfare's quality care indicator M7 for multiple sclerosis – regular MRI examinations - at medical unit neuro, Karolinska University Hospital <i>Speaker:</i> Emma Sandström, SE	12:00 - 12:00 CEST
P216	Timely Intervention, Monitoring and Education MATTERS in MS (TIME MATTERS in MS): global applicability of the MS Brain Health quality improvement tool <i>Speaker:</i> Jeremy Hobart, GB	12:00 - 12:00 CEST
P217	Correlation between manual ability measure-36 and three upper limb objective measures in people with multiple sclerosis <i>Speaker:</i> Claudio Marcello Solaro, IT	12:00 - 12:00 CEST
P218	Remote administration of BICAMS measures and the Trail-Making Test to assess cognitive impairment in multiple sclerosis <i>Speaker:</i> Fionnuala Rogers, IE	12:00 - 12:00 CEST
P219	Complexity of postural control in minimally disabled people with multiple sclerosis <i>Speaker:</i> Maria Gaughan, IE	12:00 - 12:00 CEST
P220	Normative values for multiple sclerosis functional tests and their correlation with self-administered values <i>Speaker:</i> Laura Estefanía Arenas-Vargas, CO	12:00 - 12:00 CEST
P221	The impact of educational attainment measures on classification of cognitive impairment in multiple sclerosis <i>Speaker:</i> Manuela Altieri, IT	12:00 - 12:00 CEST
P222	Characterization of the gait in patients with relapsing–remitting multiple sclerosis and secondary progressive multiple sclerosis measured by FeetMe® integrated sensor insole system: Results of the interim analysis <i>Speaker:</i> Guillermo Izquierdo Ayuso, ES	12:00 - 12:00 CEST
P223	Annualized relapse rates for a contemporary multiple sclerosis clinic in the UK: a retrospective cohort study <i>Speaker:</i> Aimee Hibbert, GB	12:00 - 12:00 CEST
P224	Sensor socks for the analysis of spatiotemporal data and plantar pressure distribution in persons with multiple sclerosis <i>Speaker:</i> Katrin Trentzsch, DE	12:00 - 12:00 CEST
P225	Comparison of early treatment response of ocrelizumab in	12:00 - 12:00

Scientific program

	relapsing and progressive multiple sclerosis patients on the basis of cognitive functions	CEST
	<i>Speaker:</i> Ergi Kaya, TR	
P226	Evaluation of upper limb impairment in progressive multiple sclerosis using kinematic techniques	12:00 - 12:00 CEST
	<i>Speaker:</i> Linford Fernandes, GB	
P227	Multiple sclerosis, medication management and the role of cognition: a cross sectional study	12:00 - 12:00 CEST
	<i>Speaker:</i> Jack Petroski, US	
P228	Evaluation of the quality of the care pathway for patients with multiple sclerosis in France: Results of an original study of a cohort of 700 patients	12:00 - 12:00 CEST
	<i>Speaker:</i> David Veillard, FR	
P229	Early treatment response of ocrelizumab in persons with multiple sclerosis: six-month results	12:00 - 12:00 CEST
	<i>Speaker:</i> Sinem Ozcelik, TR	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP22 - ePoster - Microbiology and virology		
P371	Case report of 5 Kaiser Permanente Northern California members diagnosed with CIS or RRMS with initial clinical relapse less than 2 weeks after a COVID19 mRNA vaccine	12:00 - 12:00 CEST
	<i>Speaker:</i> Jacqueline Marcus, US	
P372	IMU-838, a small molecule DHODH inhibitor in phase II clinical trial for multiple sclerosis, shows potent Anti-EBV activity in cell-culture-based systems: Potential additional benefits in multiple sclerosis treatment	12:00 - 12:00 CEST
	<i>Speaker:</i> Manfred Marschall, DE	
P373	Chitinase-3-like 1 and antiviral serology in primary progressive and relapsing remitting multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Roberto Alvarez-Lafuente, ES	
P374	pHERV-W ENV/syncytin-1 expression in relapsing-remitting and primary progressive multiple sclerosis patients and healthy controls: differences and possible viral transactivation	12:00 - 12:00 CEST
	<i>Speaker:</i> Roberto Alvarez-Lafuente, ES	
P375	Short chain fatty acids in serum and CSF samples of patients with multiple sclerosis and other neurological diseases: correlation with clinical data and the antiviral response	12:00 - 12:00 CEST
	<i>Speaker:</i> Roberto Alvarez-Lafuente, ES	

Poster Session

12:00 - 21:00 CEST

eP11 - ePoster - MS symptoms

Scientific program

P187	COVID-19 vaccination in patients with multiple sclerosis: what we have learnt by May 2021 <i>Speaker:</i> Sapir Dreyer-Alster, IL	12:00 - 12:00 CEST
P188	Poor sleep: a new symptom of multiple sclerosis? <i>Speaker:</i> Laura Laslett, AU	12:00 - 12:00 CEST
P189	Impact of demographics, socioeconomic status and comorbidities on disability outcomes in African-American and Caucasian patients with multiple sclerosis <i>Speaker:</i> Maria Petracca, US	12:00 - 12:00 CEST
P190	Safety and efficacy of COVID-19 Pfizer-BNT162b2 m-RNA vaccine in young MS population <i>Speaker:</i> Shay Menascu, IL	12:00 - 12:00 CEST
P191	Hidden symptoms in MS: a survey of clinical gaps <i>Speaker:</i> S Christy Rohani-Montez, GB	12:00 - 12:00 CEST
P192	Predictors of self-reported fatigue in a large real world multiple sclerosis cohort <i>Speaker:</i> Simon Englund, SE	12:00 - 12:00 CEST
P193	Cognitive change in the pre- and post-relapse period: Evidence from a nationwide longitudinal cohort study <i>Speaker:</i> Kyla A McKay, SE	12:00 - 12:00 CEST
P194	Morphological correlates of fatigue in patients with multiple sclerosis <i>Speaker:</i> Stefanie Hechenberger, AT	12:00 - 12:00 CEST
P195	Investigating the association of mood and fatigue with objective and subjective cognitive impairment in multiple sclerosis <i>Speaker:</i> Laura Davenport, IE	12:00 - 12:00 CEST
P196	Topographic mismatch between clinical relapse and MRI lesion mapping in multiple sclerosis patients <i>Speaker:</i> Jutta Dünschede, DE	12:00 - 12:00 CEST
P197	Relationship between presence of spinal cord lesion and restless legs syndrome in multiple sclerosis <i>Speaker:</i> Serkan Ozakbas, TR	12:00 - 12:00 CEST
P198	Motor impairment in multiple sclerosis: Analysis from the North American Registry for Care and Research in Multiple Sclerosis (NARCRMS) <i>Speaker:</i> Kottil Rammohan, US	12:00 - 12:00 CEST
P199	Assessment of sexual dysfunction and related factors in female patients with multiple sclerosis <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P200	Real-time assessment of daytime sleepiness in drivers with multiple sclerosis <i>Speaker:</i> Maryam Sadeghi, IR	12:00 - 12:00 CEST

Scientific program

P201	Bright light therapy as a non-pharmacological treatment option for fatigue in multiple sclerosis <i>Speaker:</i> Lisa Voggenberger, AT	12:00 - 12:00 CEST
P202	Assessment of fatigue and related factors patients with multiple sclerosis <i>Speaker:</i> Murat Terzi, TR	12:00 - 12:00 CEST
P203	Hypogammaglobulinemia: a possible cause of multiple sclerosis-related fatigue? <i>Speaker:</i> Lara Diem, CH	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP09 - ePoster - MS and gender

P161	Hormone replacement therapy and disease activity in Danish women with multiple sclerosis - a population-based cohort study <i>Speaker:</i> Tine Iskov Kopp, DK	12:00 - 12:00 CEST
P162	Pregnancies are associated with lower risk of multiple sclerosis <i>Speaker:</i> Christiane Gasperi, DE	12:00 - 12:00 CEST
P163	The influence of biological sex on cognitive performance in people with multiple sclerosis <i>Speaker:</i> Manuela Altieri, IT	12:00 - 12:00 CEST
P164	Smoking, early menopause, and early progression in MS <i>Speaker:</i> Burcu Zeydan, US	12:00 - 12:00 CEST
P165	Family planning concerns and unmet need for contraception in women with multiple sclerosis in colombia <i>Speaker:</i> Lorena López-Reyes, CO	12:00 - 12:00 CEST
P166	MS DREAMS: menopause and sleep dysfunction: reports and assessments from multiple sclerosis patients <i>Speaker:</i> Jessica Singh, US	12:00 - 12:00 CEST
P167	The effect of sex and race on delays in multiple sclerosis evaluation and diagnosis: an updated analysis <i>Speaker:</i> Amy Safadi, US	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP40 - ePoster - Neurobiology & Rehabilitation

P893	Interhemispheric substrates of clinical disability and upper limb motor function in multiple sclerosis patients: a structural and functional MRI study <i>Speaker:</i> Claudio Cordani, IT	12:00 - 12:00 CEST
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Poster Session

12:00 - 21:00 CEST

ep02 - ePoster - NMOSD

P023	Long-term safety of satralizumab in neuromyelitis optica spectrum disorder: results from the open-label extension periods of SAKuraSky and SAKuraStar <i>Speaker:</i> Benjamin M. Greenberg, US	12:00 - 12:00 CEST
P024	Long-term efficacy of satralizumab in aquaporin-4-IgG-seropositive neuromyelitis optica spectrum disorder (NMOSD): Results from the open-label extension periods of SAKuraSky and SAKuraStar <i>Speaker:</i> Ingo Kleiter, DE	12:00 - 12:00 CEST
P025	Early predictors of disability of paediatric-onset AQP4-IgG seropositive neuromyelitis optica spectrum disorders <i>Speaker:</i> Valentina Camera, GB	12:00 - 12:00 CEST
P026	Impact of a single relapse on disability and health-related quality of life in neuromyelitis optica spectrum disorder <i>Speaker:</i> Adrian Kielhorn, US	12:00 - 12:00 CEST
P027	Disease outcomes in the absence of a relapse in patients with neuromyelitis optica spectrum disorder <i>Speaker:</i> Adrian Kielhorn, US	12:00 - 12:00 CEST
P028	Extent of B-cell depletion is associated with disease activity reduction in neuromyelitis optica spectrum disorder: results from the N-MOMentum study <i>Speaker:</i> Jeffrey Bennett, US	12:00 - 12:00 CEST
P029	The impact of low affinity immunoglobulin gamma Fc region receptor III-A gene polymorphisms in neuromyelitis optica spectrum disorder and implications for treatment outcomes: results from the N-MOMentum study <i>Speaker:</i> Jeffrey Bennett, US	12:00 - 12:00 CEST
P030	Novel disability assessment of neuromyelitis optica spectrum disorders derived from the CIRCLES experience <i>Speaker:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P031	Novel assessment of disability vs cognition and pain in neuromyelitis optica spectrum disorders: a CIRCLES cohort study <i>Speaker:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P032	COVID-19 in neuromyelitis optica spectrum disorders and myelin oligodendrocyte glycoprotein antibody disease patients in North America; COViMS registry <i>Speaker:</i> Scott D Newsome, US	12:00 - 12:00 CEST
P033	Aquaporin-4 and myelin oligodendrocyte glycoprotein antibody testing in Calgary, Canada: a quality improvement review <i>Speaker:</i> Jonathan D. Krett, CA	12:00 - 12:00 CEST

Scientific program

P034	Brain and spinal cord lesion criteria on conventional MRI for differentiating MS from NMOSD and MOGAD in a large multi-ethnic cohort and in different onset phenotypes <i>Speaker:</i> Edgar Carnero Contentti, AR	12:00 - 12:00 CEST
P035	Disability outcomes during follow-up in NMOSD and MOGAD patients: data from a nationwide registry in Argentina <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P036	COVID-19 in neuromyelitis optica spectrum disorder patients in Poland <i>Speaker:</i> Aleksandra Podlecka-Pietowska, PL	12:00 - 12:00 CEST
P037	Safety and efficacy of inebilizumab in NMOSD over a mean treatment duration of 3.2 years: end of study data from the N-Momentum trial <i>Speaker:</i> Bruce Cree, US	12:00 - 12:00 CEST
P038	Exploring steroid tapering in NMOSD patients treated with satralizumab in the open-label extension period of SAKuraSky: a case series <i>Speaker:</i> Takashi Yamamura, JP	12:00 - 12:00 CEST
P039	SAkuraBONSAI: A prospective, open-label study of satralizumab investigating novel imaging, biomarker, and clinical outcomes in patients with AQP4-IgG seropositive NMOSD <i>Speaker:</i> Jeffrey Bennett, US	12:00 - 12:00 CEST
P040	Cognitive function in patients with neuromyelitis optica spectrum disorders and myelin oligodendrocytic glycoprotein-antibody associated disease <i>Speaker:</i> Pia Sophie Sperber, DE	12:00 - 12:00 CEST
P041	Comparing healthcare resource utilization and costs of active and inactive periods in NMOSD <i>Speaker:</i> Rachel Knapp, DE	12:00 - 12:00 CEST
P042	Safety of the COVID-19 vaccines in NMOSD and MOGAD: Results from an online survey <i>Speaker:</i> Itay Lotan, IL	12:00 - 12:00 CEST
P043	A Canadian national case control study into demographic and environmental risk factors for NMOSD <i>Speaker:</i> Dalia L. Rotstein, CA	12:00 - 12:00 CEST
P044	Patients with neuromyelitis optica spectrum disorder display hallmarks of systemic autoimmunity: broad serum autoreactivity to nuclear antigens and elevated interferon-inducible gene expression <i>Speaker:</i> Sean Pittock, US	12:00 - 12:00 CEST
P045	Evaluating the economic and healthcare resource burden posed by NMOSD <i>Speaker:</i> Rachel Knapp, DE	12:00 - 12:00 CEST

Scientific program

P046	The impact of COVID19 pandemic on neuromyelitisoptica spectrum disorder patients in Isfahan, Iran, after one year of epidemic <i>Speaker:</i> Roshanak Mehdipour Dastjerdi, IR	12:00 - 12:00 CEST
P047	Subtherapeutic response in NMOSSD: data from a nationwide registry in Argentina <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P048	Association between BMI and disability in Korean patients with multiple sclerosis and neuromyelitis optica spectrum disorder <i>Speaker:</i> Yeon Hak Chung, KR	12:00 - 12:00 CEST
P049	Using cognitive interviews to develop a conceptual claims-based algorithm to identify patients with neuromyelitis optica spectrum disorder <i>Speaker:</i> Alex Exuzides, US	12:00 - 12:00 CEST
P050	A survey-based study of the impact of the COVID-19 pandemic in patient with Neuromyelitis Optica Spectrum Disorder <i>Speaker:</i> Carolyn Goldschmidt, US	12:00 - 12:00 CEST
P051	The association between body mass index and cognitive function in patients with neuromyelitis optica spectrum disorder <i>Speaker:</i> Nasim Rezaeimanesh, IR	12:00 - 12:00 CEST
P052	Clinical evolution of patients with neuromyelitis optica when comparing management with azathioprine or rituximab in a colombian cohort <i>Speaker:</i> Maria Zuluaga, CO	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP37 - ePoster - RWE and MS registries

P815	The effect of different national treatment strategies on disability outcome in relapsing-remitting multiple sclerosis: a propensity score adjusted comparison between Denmark and Sweden <i>Speaker:</i> Tim Spelman, AU	12:00 - 12:00 CEST
P816	Real-world effectiveness of alemtuzumab in RRMS patients in Germany: Interim results of the TREAT-MS study after completion of recruitment <i>Speaker:</i> Tjalf Ziemssen, DE	12:00 - 12:00 CEST
P817	Anti-CD20 monoclonal antibodies in primary progressive multiple sclerosis: a real-life comparative study of rituximab vs. ocrelizumab <i>Speaker:</i> Carlos Quintanilla-Bordás, ES	12:00 - 12:00 CEST
P818	Disease reactivation after cessation of disease-modifying therapy in relapsing-remitting multiple sclerosis <i>Speaker:</i> Izanne Roos, AU	12:00 - 12:00 CEST
P819	Comparative analysis of dimethyl fumarate and teriflunomide in	12:00 - 12:00

	relapsing-remitting multiple sclerosis <i>Speaker:</i> Jannis Müller, CH	CEST
P820	Ocrelizumab treatment in multiple sclerosis – a Danish population-based cohort study <i>Speaker:</i> Luigi Pontieri, DK	12:00 - 12:00 CEST
P821	Trajectories of processing speed, disability, and their connections, over the years following disease modulatory treatment initiation among relapsing-remitting multiple sclerosis patients <i>Speaker:</i> Elisa Longinetti, SE	12:00 - 12:00 CEST
P822	Anti-CD20 and natalizumab in highly active relapsing-remitting multiple sclerosis: the SWIFNA-20 comparative effectiveness study <i>Speaker:</i> David Laplaud, FR	12:00 - 12:00 CEST
P823	The risk of COVID-19 in people with multiple sclerosis: a case-control study from the Italian MS Register <i>Speaker:</i> Pietro Iaffaldano, IT	12:00 - 12:00 CEST
P824	NEDA3PLUS study: 48-week interim results on persistence, clinical and MRI outcomes in RRMS patients treated with teriflunomide in a real-world setting <i>Speaker:</i> Maria Pia Amato, IT	12:00 - 12:00 CEST
P825	Real-world experience with cladribine in the MSBase Registry <i>Speaker:</i> Helmut Butzkueven, AU	12:00 - 12:00 CEST
P826	Disease activity and CD19+ B-cell counts with extended interval dosing of ocrelizumab <i>Speaker:</i> Christopher Allen, GB	12:00 - 12:00 CEST
P827	Effectiveness and safety of early high-efficacy vs. escalation therapy in relapsing-remitting multiple sclerosis in Argentina <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P828	The effectiveness of ocrelizumab in real-world patients with relapsing multiple sclerosis over 18 months – interim analysis of the CONFIDENCE study <i>Speaker:</i> Mathias Buttmann, DE	12:00 - 12:00 CEST
P829	Clinical characteristics and vitamin D use in people with MS by race and ethnicity from the NARCRMS Registry <i>Speaker:</i> Angel Chineza, PR	12:00 - 12:00 CEST
P830	Impact of the COVID-19 pandemic on healthcare utilisation in US people living with multiple sclerosis: an analysis of the FlywheelMS cohort <i>Speaker:</i> Kelly Zalocusky, US	12:00 - 12:00 CEST
P831	Inclusion of indications for start of disease-modifying therapies can improve predictive models used in comparative effectiveness studies in multiple sclerosis	12:00 - 12:00 CEST

	<i>Speaker:</i> Alexandra Simpson, US	
P832	Impact of the COVID-19 pandemic on healthcare access and perceived outcomes: a survey study of people with MS in the United States <i>Speaker:</i> Leorah Freeman, US	12:00 - 12:00 CEST
P833	Claims-based relapse and hospitalization rates in patients with multiple sclerosis treated with natalizumab or ocrelizumab <i>Speaker:</i> Jacqueline Nicholas, US	12:00 - 12:00 CEST
P834	Predictors of treatment switching in the Big MD Data Network <i>Speaker:</i> Tim Spelman, AU	12:00 - 12:00 CEST
P835	A multicentre audit of the use of MRI in multiple sclerosis <i>Speaker:</i> Christopher Allen, GB	12:00 - 12:00 CEST
P836	Anti-Spike IgG after BNT162b2 vaccine in a group of multiple sclerosis patients from an exploratory case-control study in Italy <i>Speaker:</i> Riccardo Giossi, IT	12:00 - 12:00 CEST
P837	Assessing the impact of fingolimod adherence on relapse and costs using marginal structural models <i>Speaker:</i> Le H. Hua, US	12:00 - 12:00 CEST
P838	Multiple sclerosis patients treated with diroximel fumarate over 1 year in the real-world setting have high rates of persistence and adherence <i>Speaker:</i> Brittney Lager, US	12:00 - 12:00 CEST
P839	Ocrelizumab infusion delays and radiologic relapse in multiple sclerosis <i>Speaker:</i> Jessica Fan, US	12:00 - 12:00 CEST
P840	Seasonal variation in relapses of multiple sclerosis and neuromyelitis optica spectrum disorders: a study from a nationwide registry in Argentina <i>Speaker:</i> Edgar Carnero Contentti, AR	12:00 - 12:00 CEST
P841	Impact of teleneurology care on multiple sclerosis outcomes <i>Speaker:</i> Marisa McGinley, US	12:00 - 12:00 CEST
P842	Two year relapse-free and NEDA status with Cladribine in a real life population: a multicentre study <i>Speaker:</i> Pietro Annovazzi, IT	12:00 - 12:00 CEST
P843	Therapeutic management of relapsing-remitting multiple sclerosis in France in the recent era <i>Speaker:</i> Emmanuelle Leray, FR	12:00 - 12:00 CEST
P844	Safety of COVID-19 vaccines in patients with multiple sclerosis from Latin America <i>Speaker:</i> Ricardo Alonso, AR	12:00 - 12:00 CEST
P845	Introducing a prototype tool to speed-up data cleaning and	12:00 - 12:00

	enhancement for improving the use of real-world MS <i>Speaker:</i> Tina Parciak, DE	CEST
P846	Real world switching therapies analysis in a retro-prospective cohort of patients with multiple sclerosis <i>Speaker:</i> Giulia Mallucci, IT	12:00 - 12:00 CEST
P847	High prevalence of intolerability with interferon beta and glatiramer acetate in patients with MS <i>Speaker:</i> Jong-Mi Lee, US	12:00 - 12:00 CEST
P848	MS treatment profiles in Germany - insights from two major MS cohorts <i>Speaker:</i> David Ellenberger, DE	12:00 - 12:00 CEST
P849	Fatigue, depression and health-related productivity in multiple sclerosis patients treated with teriflunomide for 2 years in the real-world study TeriCARE <i>Speaker:</i> Ana Belén Caminero Rodríguez, ES	12:00 - 12:00 CEST
P850	Early data suggests diroximel fumarate has high rates of real-world adherence and persistence <i>Speaker:</i> Nicholas Belviso, US	12:00 - 12:00 CEST
P851	MASTER-2 trial: cladribine tablets in patients with relapsing-remitting multiple sclerosis and active secondary progressive multiple sclerosis after suboptimal response to prior infusion/oral disease-modifying therapy (interim baseline results) <i>Speaker:</i> Edward Fox, US	12:00 - 12:00 CEST
P852	Real-world evidence of immune reconstitution therapies: use of Cladribine and Alemtuzumab in Chile <i>Speaker:</i> Ethel Ciampi, CL	12:00 - 12:00 CEST
P853	Real world data from the argentine MS national registry of patients under cladribine <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P854	Teriflunomide improves quality of life in a Greek cohort of relapsing-remitting multiple sclerosis patients switched from injectables: Subgroup analysis of previously-treated patients in the AURELIO study <i>Speaker:</i> Efthymios Dardiotis, GR	12:00 - 12:00 CEST
P855	Vaccinations in MS by race and ethnicity from the NARCRMS Registry <i>Speaker:</i> Kottil Rammohan, US	12:00 - 12:00 CEST
P856	Safety and clinical effectiveness of peginterferon beta-1a for relapsing multiple sclerosis: Plegridy Observational Program interim results <i>Speaker:</i> Gereon Nelles, DE	12:00 - 12:00 CEST
P857	MS treatment in Slovenia over time	12:00 - 12:00

	<i>Speaker:</i> Gregor Brecl Jakob, SI	CEST
P858	Effectiveness of relapsing multiple sclerosis patients switching to teriflunomide following disease progression in a real-world setting <i>Speaker:</i> Augusto Miravalle, US	12:00 - 12:00 CEST
P859	Evaluation of therapy satisfaction with cladribine tablets in RMS patients – final results of the non-interventional study CLEVER <i>Speaker:</i> Joachim Richter, DE	12:00 - 12:00 CEST
P860	Relapse during the washout period predicts time to relapse after switching to cladribine <i>Speaker:</i> Michael Zhong, AU	12:00 - 12:00 CEST
P861	Interferon beta for the treatment of multiple sclerosis in the Campania Region of Italy: merging the real-life to routinely collected healthcare data <i>Speaker:</i> Marcello Moccia, GB	12:00 - 12:00 CEST
P862	Impact of informative follow-up visits on comparative effectiveness in multiple sclerosis: illustrations and insights from real world data <i>Speaker:</i> Paramita Saha-Chaudhuri, US	12:00 - 12:00 CEST
P863	Patient-reported outcomes to assess quality of life in teriflunomide-treated patients with relapsing-remitting multiple sclerosis: Results of Teri-REAL – a real-world study from Hungary <i>Speaker:</i> László Vécsei, HU	12:00 - 12:00 CEST
P864	Novel generation of real world evidence through MSGo, a digital support program supporting the use of siponimod in secondary progressive multiple sclerosis patients in Australia <i>Speaker:</i> Todd Hardy, AU	12:00 - 12:00 CEST
P865	Outcomes after late cladribine re-dosing in the Australian MSBase cohort <i>Speaker:</i> Helmut Butzkueven, AU	12:00 - 12:00 CEST
P866	Treatment patterns of patients with aggressive MS in a cohort of early retirees <i>Speaker:</i> Firas Fneish, DE	12:00 - 12:00 CEST
P867	Real-world discontinuation rate of teriflunomide and dimethyl fumarate in multiple sclerosis <i>Speaker:</i> Hilde Norborg, NO	12:00 - 12:00 CEST
P868	Higher prevalence of spinal cord relapses after treatment with alemtuzumab <i>Speaker:</i> Sara Eichau, ES	12:00 - 12:00 CEST
P869	Cladribine in a real world setting. The real patients <i>Speaker:</i> Sara Eichau, ES	12:00 - 12:00 CEST
P870	Multiple sclerosis disease modifying therapy prescription	12:00 - 12:00

	patterns in a low prevalence country <i>Speaker:</i> Simón Cárdenas-Robledo, CO	CEST
P871	Rituximab – Ocrelizumab comparison in real-world practice <i>Speaker:</i> Ignacio Casanova, ES	12:00 - 12:00 CEST
P872	Differences in expected number of clinical management events before and during treatment with sphingosine-1-phosphate receptor modulators for multiple sclerosis <i>Speaker:</i> Jennifer S. Harper, US	12:00 - 12:00 CEST
P873	The impact of COVID-19 on consultations between relapsing-remitting multiple sclerosis patients and their neurologists in Europe and United States <i>Speaker:</i> Sandra Teoh, MY	12:00 - 12:00 CEST
P874	Multiple sclerosis patients initiating ofatumumab in the real-world: 6 months data <i>Speaker:</i> Patricia K. Coyle, US	12:00 - 12:00 CEST
P875	REALMS Study: Single-center retrospective observational single-center study of alemtuzumab (Lemtrada®) treatment in a Spanish cohort of multiple sclerosis patients under real-life conditions <i>Speaker:</i> Sara Eichau, ES	12:00 - 12:00 CEST
P876	Real-world assessment of quality of life through patient-reported outcomes in relapsing-remitting multiple sclerosis patients treated with teriflunomide for two years. Outcomes of the AURELIO study in Greece <i>Speaker:</i> Efthymios Dardiotis, GR	12:00 - 12:00 CEST
P877	Efficacy and safety of alemtuzumab in clinical practice in Northeastern Spain <i>Speaker:</i> Tamara Castillo-Triviño, ES	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP26 - ePoster - Repair mechanisms		
P400	Brain network centrality abnormalities in multiple sclerosis: implications for disease course and clinical disability <i>Speaker:</i> Antonio Carotenuto, IT	12:00 - 12:00 CEST
P401	Dynamic functional connectivity of thalamic sub-regions shows divergent patterns in multiple sclerosis phenotypes <i>Speaker:</i> Antonio Carotenuto, IT	12:00 - 12:00 CEST
P402	Increased expression of ephrins on immune cells of patients with relapsing-remitting multiple sclerosis affects oligodendrocyte differentiation <i>Speaker:</i> Maya Golan, IL	12:00 - 12:00 CEST
P403	Nano-hesperetin enhances the functional recovery and endogenous remyelination of the optic pathway in focal	12:00 - 12:00 CEST

demyelination model*Speaker:* Saeideh Baradaran, IR*Poster Session*

12:00 - 21:00 CEST

eP39 - ePoster - Symptoms Management (including cognition, fatigue, imbalance)

P881	Effects of melatonin on sleep disturbances in multiple sclerosis: a pilot study <i>Speaker:</i> Wan-Yu Hsu, US	12:00 - 12:00 CEST
P882	A phase II randomised controlled trial of an early tailored cognitive behavioural therapy based intervention for depression in those newly diagnosed with multiple sclerosis (ACTION-MS): preliminary results <i>Speaker:</i> Litza Kiropoulos, AU	12:00 - 12:00 CEST
P883	Relationships between brain volume and disability, cognition, motor function, and MS-fatigue in RMS: MS-fatigue and ambulation move at their own pace <i>Speaker:</i> Frederik Barkhof, NL	12:00 - 12:00 CEST
P884	Assessment and management of cognition and mood in people with multiple sclerosis in Ireland: a national survey <i>Speaker:</i> Sinéad M. Hynes, IE	12:00 - 12:00 CEST
P885	Investigating the effect of expressive writing on level of sexual dysfunction in irainian women with multiple sclerosis: a randomized controlled trial <i>Speaker:</i> Seyed Massood Nabavi, IR	12:00 - 12:00 CEST
P886	The impact of cognitive symptoms in multiple sclerosis <i>Speaker:</i> Hannah Morris-Bankole, GB	12:00 - 12:00 CEST
P887	Effect of exergaming in persons with multiple sclerosis with restless legs syndrome: a randomized controlled trial <i>Speaker:</i> Asiye Tuba Ozdogar, TR	12:00 - 12:00 CEST
P888	Fingolimod and cognition: a longitudinal study <i>Speaker:</i> Line Pfaff, FR	12:00 - 12:00 CEST
P889	The impacts of including a PPI embedded patient researcher on clinical trials for multiple sclerosis <i>Speaker:</i> Robert A. Joyce, IE	12:00 - 12:00 CEST
P890	Serum vitamin D level is associated with speed of processing in multiple sclerosis patients <i>Speaker:</i> Hala Darwish, LB	12:00 - 12:00 CEST
P891	Teriflunomide and cognition: a longitudinal study <i>Speaker:</i> Line Pfaff, FR	12:00 - 12:00 CEST
P892	Effect of disease-modifying treatments on cognitive impairment in MS <i>Speaker:</i> Line Pfaff, FR	12:00 - 12:00 CEST

Poster Session
12:00 - 21:00 CEST

ePoster Library

Poster Session
12:00 - 21:00 CEST

eP01 - ePoster - Diagnosis and differential diagnosis

P001	MRI activity versus relapses as markers of disease activity in SPMS: Data from real world and pivotal clinical studies <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P002	Do we need separate MRI diagnostic criteria for primary progressive multiple sclerosis? <i>Speaker:</i> Madiha Shatila, GB	12:00 - 12:00 CEST
P003	Detection of IgM to phosphatidylcholine in serum samples is a major diagnosis marker in MS <i>Speaker:</i> Maria Cruz Sádaba, ES	12:00 - 12:00 CEST
P004	Isolated CNS familial Hemophagocytic Lymphohistiocytosis (HLH) in children presenting as a mimic of demyelination in children <i>Speaker:</i> Omar Abdel-Mannan, GB	12:00 - 12:00 CEST
P005	Brighter spotty lesion on spinal MRI: Is it helpful in differentiating AQP4 antibody positive neuromyelitis optica spectrum disorder from MOG antibody associated disease? <i>Speaker:</i> Jae-Won Hyun, KR	12:00 - 12:00 CEST
P006	Accumulative risk of progression in radiologically isolated syndrome in Argentina: data from the nationwide registry RelevarEM <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P007	Pseudocystic inflammatory demyelinating lesions in multiple sclerosis: a clinical, radiological and pathological description <i>Speaker:</i> Florent Cluse, FR	12:00 - 12:00 CEST
P008	Treatment patterns in secondary progressive multiple sclerosis a multi-country registry study from five European countries <i>Speaker:</i> Richard Nicholas, GB	12:00 - 12:00 CEST
P009	Risk of progression after 24 months in low risk radiologically isolated syndrome in Argentina <i>Speaker:</i> Juan Ignacio Rojas, AR	12:00 - 12:00 CEST
P010	Susac Syndrome, an increasing misdiagnosis of multiple sclerosis <i>Speaker:</i> Mariano Marrodan, AR	12:00 - 12:00 CEST
P011	Diagnosis, differential diagnosis and misdiagnosis of Susac syndrome <i>Speaker:</i> James Triplett, AU	12:00 - 12:00 CEST
P012	Comparison of the 2010 and 2017 McDonald Criteria for	12:00 - 12:00

	diagnosis of primary progressive multiple sclerosis	CEST
	<i>Speaker:</i> Katelijn Blok, NL	
P013	Platelet-to-lymphocyte ratio as a peripheral biomarker that may help to differentiate MS from NMOSD at disease onset	12:00 - 12:00 CEST
	<i>Speaker:</i> Edgar Carnero Contentti, AR	
P014	Radiologically Isolated Syndrome (RIS): reliability of 2009 RIS criteria	12:00 - 12:00 CEST
	<i>Speaker:</i> Christine Lebrun-Frenay, FR	
P015	COVID-19 induced longitudinal extensive myelitis	12:00 - 12:00 CEST
	<i>Speaker:</i> Busra S. Arica Polat, TR	
P016	Examining the diagnostic potential of an extended virus antigen panel in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Jette Lautrup Frederiksen, DK	
P017	Study of optic nerve topography value in the diagnosis of multiple sclerosis in Tunisians	12:00 - 12:00 CEST
	<i>Speaker:</i> Saloua Mrabet, TN	
P018	Neurogenetics evaluation of undiagnosed white matter disorders in adults	12:00 - 12:00 CEST
	<i>Speaker:</i> Jennifer Orthmann-Murphy, US	
P019	Acute disseminated encephalomyelitis following vaccination against SARS-CoV-2: a case report	12:00 - 12:00 CEST
	<i>Speaker:</i> Luciana Lazaro, AR	
P020	Difficulties in diagnosis of primary progressive multiple sclerosis: a clinical perspective	12:00 - 12:00 CEST
	<i>Speaker:</i> Katelijn Blok, NL	
P021	Evaluating a new patient clinical management pathway	12:00 - 12:00 CEST
	<i>Speaker:</i> Tanya King, GB	
P022	Longitudinally extensive transverse myelitis following COVID-19 pneumonia	12:00 - 12:00 CEST
	<i>Speaker:</i> Frédéric London, BE	

Poster Session

12:00 - 21:00 CEST

eP27 - eposter - MRI & PET

P404	Machine learning-based prediction of new multiple sclerosis lesion formation using radiomic features from pre-lesion normal-appearing white matter	12:00 - 12:00 CEST
	<i>Speaker:</i> Bastien Caba, FR	
P405	Decreased neuroaxonal integrity in early relapse onset multiple sclerosis is associated with long-term disability at 15 years	12:00 - 12:00 CEST
	<i>Speaker:</i> Nevin A John, GB	
P406	Decreased functional dynamics of thalamocortical states in	12:00 - 12:00

	cognitively impaired multiple sclerosis patients	CEST
	<i>Speaker:</i> Stefanos Enricos Prouskas, NL	
P407	Long-term suppression of MRI disease activity and reduction of global/regional volume loss: results from OPERA I/II and ORATORIO open-label extension	12:00 - 12:00 CEST
	<i>Speaker:</i> Douglas L Arnold, CA	
P408	Defining the spinal cord reserve concept in multiple sclerosis - measurement and association with disability of the spinal cord canal area	12:00 - 12:00 CEST
	<i>Speaker:</i> Jaume Sastre-Garriga, ES	
P409	Brain disconnectome mapping and axonal damage in multiple sclerosis: a prospective longitudinal multicenter study employing brain MRI and serum neurofilament light level	12:00 - 12:00 CEST
	<i>Speaker:</i> Einar August Høgestøl, NO	
P410	Myelin heterogeneity index is sensitive to longitudinal myelin changes in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Poljanka Johnson, CA	
P411	A brain white matter atlas of probabilistic lesion distribution in all forms of multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Colm Elliott, CA	
P412	T₁ relaxometry abnormalities in white matter tracts predict functional systems scores in MS	12:00 - 12:00 CEST
	<i>Speaker:</i> Veronica Ravano, CH	
P413	Cognitive diagnostic criteria lead to distinct patterns of functional connectivity in secondary progressive MS	12:00 - 12:00 CEST
	<i>Speaker:</i> Anisha Doshi, GB	
P414	Spinal cord anterior horn atrophy: a new biomarker in progressive multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Charidimos Tsagkas, CH	
P415	Spinal cord imaging markers and disease progression in MS	12:00 - 12:00 CEST
	<i>Speaker:</i> Matthias Bussas, DE	
P416	Predicting disability progression with patterns of white matter and grey matter changes in secondary progressive multiple sclerosis using standardised T1w/T2w maps	12:00 - 12:00 CEST
	<i>Speaker:</i> Elisa Colato, GB	
P417	Spinal cord lesions and brain grey matter atrophy independently predict clinical worsening in multiple sclerosis: a 5-year, multicentre study	12:00 - 12:00 CEST
	<i>Speaker:</i> Maria Assunta Rocca, IT	
P418	Atrophy quantification in multiple sclerosis: application to the multicenter INNI dataset	12:00 - 12:00 CEST
	<i>Speaker:</i> Loredana Storelli, IT	
P419	Early prediction of CAL evolution from newly developing MS	12:00 - 12:00

	lesions using 7T MRI <i>Speaker:</i> Matthew K. Schindler, US	CEST
P420	Hypothalamic subregional volumes are associated with fatigue, depression, and sleep disturbance in a large cohort of patients with multiple sclerosis <i>Speaker:</i> Lindsay Ross, US	12:00 - 12:00 CEST
P421	Software-dependent effects of physiological changes on GM and WM volumes: implications for interpretation of brain atrophy rates in MS <i>Speaker:</i> Marco Battaglini, IT	12:00 - 12:00 CEST
P422	Hippocampal atrophy is relevant to memory deficits in early Relapsing Remitting MS patients <i>Speaker:</i> Ludovico Luchetti, IT	12:00 - 12:00 CEST
P423	Investigating microstructural changes in white matter in multiple sclerosis: a systematic review and individual participant data meta-analysis of neurite orientation dispersion and density imaging <i>Speaker:</i> Abdulmajeed Alotaibi, GB	12:00 - 12:00 CEST
P424	MEM_{FC}: a summary metric of memory network functional connectivity alterations in MS <i>Speaker:</i> Victoria Leavitt, US	12:00 - 12:00 CEST
P425	Histopathological validation of artificial double inversion recovery images for MR cortical lesion detection <i>Speaker:</i> Piet M. Bouman, NL	12:00 - 12:00 CEST
P426	Associations of disease severity and outcomes with MRI-based 'SuStaln' disease subtypes in secondary progressive MS <i>Speaker:</i> Arie Gafson, US	12:00 - 12:00 CEST
P427	Clinical impact of microstructural brain damage in multiple sclerosis: a qMRI study <i>Speaker:</i> Maria Petracca, US	12:00 - 12:00 CEST
P428	Evaluating DMT escalation based on isolated MRI activity <i>Speaker:</i> Katharina Riedl, AT	12:00 - 12:00 CEST
P429	Using the central vein sign and diffusion MRI to differentiate demyelinating from lesions due to small vessel disease in multiple sclerosis <i>Speaker:</i> Caterina Lapucci, IT	12:00 - 12:00 CEST
P430	Development and Interrelation of whole-brain atrophy and lesion volume during 5 years' treatment with subcutaneous interferon beta-1a in patients with a first clinical demyelinating event in the REFLEX/ION study <i>Speaker:</i> Rozemarijn M Mattiesing, NL	12:00 - 12:00 CEST
P431	Global network properties in microstructure-weighted connectomes are altered in cognitive impaired patients	12:00 - 12:00 CEST

	<i>Speaker:</i> Antonia L. Wenger, CH	
P432	Detecting brain gadolinium retention in MS with MRI: a comparison of 2D Spin Echo, 3D gradient echo, quantitative susceptibility mapping and magnetization transfer <i>Speaker:</i> Carmen Cananau, SE	12:00 - 12:00 CEST
P433	Paramagnetic rims in treatment naïve persons around the time of multiple sclerosis diagnosis <i>Speaker:</i> Margareta Clarke, US	12:00 - 12:00 CEST
P434	Decoupling of structural and functional connectivity towards progressive MS is related to cognitive impairment but not disability <i>Speaker:</i> Maureen van Dam, NL	12:00 - 12:00 CEST
P435	Spatial features of brain demyelinating lesions as prognostic factors in the clinically isolated syndrome <i>Speaker:</i> Lluvia Coll, ES	12:00 - 12:00 CEST
P436	Altered functional brain states predict cognitive deficits 5 years after a clinically isolated syndrome <i>Speaker:</i> Ismail Koubiyr, FR	12:00 - 12:00 CEST
P437	Restriction spectrum imaging in multiple sclerosis: an advanced MRI diffusion case-control study and a multi-site harmonization <i>Speaker:</i> Daniel A. Rinker, NO	12:00 - 12:00 CEST
P438	Multimodal imaging with ¹¹C-PBR28 MR-PET and synthetic MRI reveals a direct association between activated microglia and myelin content in the MS brain white matter <i>Speaker:</i> Valeria Barletta, US	12:00 - 12:00 CEST
P439	Sensitivity of ultra-low-field magnetic resonance imaging for white matter lesions and leptomeningeal enhancement in multiple sclerosis <i>Speaker:</i> Serhat V. Okar, US	12:00 - 12:00 CEST
P440	Clinical relevance of multiparametric MRI assessment of cerebellar damage in multiple sclerosis <i>Speaker:</i> Raffaello Bonacchi, IT	12:00 - 12:00 CEST
P441	7T MRI leptomeningeal enhancement and brain atrophy are associated with alterations in the IL-23 metabolic pathway in patients with multiple sclerosis <i>Speaker:</i> Jonathan Zurawski, US	12:00 - 12:00 CEST
P442	Cortical lesions detected with 7T MRI are associated with disruption of local cortical function and area specific symptoms <i>Speaker:</i> Mads Alexander Just Madsen, DK	12:00 - 12:00 CEST
P443	Multimodal quantitative and semiquantitative MRI assessment of cortical grey matter demyelination: a neuropathology-MRI study	12:00 - 12:00 CEST

	<i>Speaker:</i> Agnese Tamanti, IT	
P444	Medulla oblongata atrophy as a possible biomarker for neurodegeneration in early relapsing multiple sclerosis <i>Speaker:</i> Laura Sander, CH	12:00 - 12:00 CEST
P445	Modern machine learning algorithm to unveil the relationship between different types of multiple sclerosis lesions and cortical atrophy <i>Speaker:</i> Constantina Treaba, US	12:00 - 12:00 CEST
P446	Machine learning-based detection of slowly expanding lesions using radiomic features from cross-sectional brain MRI <i>Speaker:</i> Bastien Caba, FR	12:00 - 12:00 CEST
P447	Multiple sclerosis lesion burden estimates using portable ultra-low-field magnetic resonance imaging <i>Speaker:</i> T. Campbell Arnold, US	12:00 - 12:00 CEST
P448	Long term myelin water imaging in treated relapsing remitting MS patients <i>Speaker:</i> Caroline Koehler, DE	12:00 - 12:00 CEST
P449	Patterns of disease-related cortical and subcortical grey matter in early relapsing-remitting multiple sclerosis <i>Speaker:</i> Sarah Levy, US	12:00 - 12:00 CEST
P450	Accelerated brain aging in multiple sclerosis: a large multicentre study harmonizing structural imaging data across scanners and site <i>Speaker:</i> Einar August Høgestøl, NO	12:00 - 12:00 CEST
P451	Leptomeningeal inflammation in multiple sclerosis and other neurological diseases: a systematic review and meta-analysis <i>Speaker:</i> Benjamin V. Ineichen, SE	12:00 - 12:00 CEST
P452	Could cerebral autoregulatory collapse explain cognitive impairment in MS? <i>Speaker:</i> Dinesh Sivakolundu, US	12:00 - 12:00 CEST
P453	Structural network alterations in inferomedial temporal regions distinguishing relapsing-remitting multiple sclerosis from neuromyelitis optica spectrum disorder <i>Speaker:</i> Eun Bin Cho, KR	12:00 - 12:00 CEST
P454	Diffusely abnormal white matter in clinically isolated syndrome is associated with parenchymal loss and elevated neurofilament levels <i>Speaker:</i> Irene Vavasour, CA	12:00 - 12:00 CEST
P455	Disentangling cortical lesions properties with multi-shell diffusion, quantitative T1, magnetization transfer, and myelin water imaging <i>Speaker:</i> Muhamed Barakovic, CH	12:00 - 12:00 CEST
P456	The relation of sarcopenia and disability in multiple sclerosis	12:00 - 12:00

	<i>Speaker:</i> Lukas Haider, GB	CEST
P457	q-Space myelin map imaging for longitudinal analysis of remyelination in multiple sclerosis patients treated with dimethyl fumarate, follow-up results <i>Speaker:</i> Kenji Kufukihara, JP	12:00 - 12:00 CEST
P458	Development and interrelation of spatiotemporal patterns of brain atrophy and lesions during 5 years' treatment with subcutaneous interferon Beta-1a in patients with a first clinical demyelinating event in the REFLEX/ION study <i>Speaker:</i> Giordano Gentile, IT	12:00 - 12:00 CEST
P459	Posterior and attentional network functional connectivity changes predict cognitive impairment in secondary progressive MS <i>Speaker:</i> Anisha Doshi, GB	12:00 - 12:00 CEST
P460	Quantitative spinal cord MRI as a biomarker of treatment response to dimethyl fumarate in MS <i>Speaker:</i> Heejun Kang, CA	12:00 - 12:00 CEST
P461	An assessment of intra-scanner reproducibility of myelin-sensitive MRI measures <i>Speaker:</i> Reza Rahmanzadeh, CH	12:00 - 12:00 CEST
P462	Thalamic glutamate concentrations relate to cognitive functioning in multiple sclerosis <i>Speaker:</i> Marijn Huiskamp, NL	12:00 - 12:00 CEST
P463	Applying multilayer analysis into morphological, structural and functional brain networks in multiple sclerosis <i>Speaker:</i> Jordi Casas-Roma, ES	12:00 - 12:00 CEST
P464	Structural connectivity measures in cognitively impaired people with multiple sclerosis following cognitive rehabilitation <i>Speaker:</i> Joana Frieske, ES	12:00 - 12:00 CEST
P465	Cortical lesion detection using FLAWS in multiple sclerosis <i>Speaker:</i> Jannis Müller, CH	12:00 - 12:00 CEST
P466	Neuroinflammation and neurodegeneration in MS at age 53: descriptions from a birth cohort <i>Speaker:</i> Lodewijk Reinier Johannes De Ruiter, NL	12:00 - 12:00 CEST
P467	Defining the clinical radiological paradox using quantitative performance and MRI metrics <i>Speaker:</i> Daniel Ontaneda, US	12:00 - 12:00 CEST
P468	Regional analysis of atrophy in multiple sclerosis in a large multicenter dataset <i>Speaker:</i> Maria Assunta Rocca, IT	12:00 - 12:00 CEST
P469	Improved assessment of longitudinal spinal cord atrophy in multiple sclerosis using a registration-based approach: relevance for clinical studies	12:00 - 12:00 CEST

	<i>Speaker:</i> Maria Assunta Rocca, IT	
P470	Cognitive phenotypes and their associated MRI patterns <i>Speaker:</i> Piet M. Bouman, NL	12:00 - 12:00 CEST
P471	Network alterations underlying anxiety symptoms in early multiple sclerosis <i>Speaker:</i> Erik Ellwardt, DE	12:00 - 12:00 CEST
P472	NODDI enables detection of subtle WM changes that lead to thalamic atrophy in subjects with RRMS <i>Speaker:</i> Merline Maria Weeda, NL	12:00 - 12:00 CEST
P473	Choroid plexus are enlarged and inflamed in clinically-defined and pre-symptomatic multiple sclerosis: 3T MRI and translocator protein PET study <i>Speaker:</i> Vito Antonio Gerardo Ricigliano, FR	12:00 - 12:00 CEST
P474	Clinical longitudinal study of iron rim in white matter lesions in MS <i>Speaker:</i> Amjad Altokhis, GB	12:00 - 12:00 CEST
P475	Automated central vein sign detection for the diagnosis of multiple sclerosis – a multi-center validation study <i>Speaker:</i> Abigail R Manning, US	12:00 - 12:00 CEST
P476	Lesion-level morphological features on 3T imaging accurately predict multiple sclerosis diagnosis <i>Speaker:</i> Carolyn Lou, US	12:00 - 12:00 CEST
P477	Improved standardisation of T1w/FLAIR ratio to evaluate myelin integrity in MS patients <i>Speaker:</i> Sarah Cappelle, BE	12:00 - 12:00 CEST
P478	Clinical, radiological and quantitative imaging analysis reveals distinct subgroups in the antibody-negative neuromyelitis optica/multiple sclerosis overlap cohort <i>Speaker:</i> Maciej Jurynczyk, GB	12:00 - 12:00 CEST
P479	MRI enlarged perivascular spaces in MS <i>Speaker:</i> Pietro Maggi, BE	12:00 - 12:00 CEST
P480	Slowly evolving lesions showed less myelin content than non-slowly evolving lesions: insights from a substudy of OPERA II <i>Speaker:</i> Shannon Kolind, CA	12:00 - 12:00 CEST
P481	Multi-modal quantitative MRI of brain and spinal cord microstructure using matched sequences improves predictions of clinical disability in MS <i>Speaker:</i> Carmen Tur, ES	12:00 - 12:00 CEST
P482	Leptomeningeal enhancement under different immunotherapies – a monocentric retrospective cohort study of 215 patients <i>Speaker:</i> Christoph Friedli, CH	12:00 - 12:00 CEST
P483	MRI correlates of apathy in multiple sclerosis: a clinical-	12:00 - 12:00

	radiological study <i>Speaker:</i> Francesco Tazza, IT	CEST
P484	Contribution of tissue inflammation and blood-brain barrier disruption to brain softening in a mouse model of multiple sclerosis <i>Speaker:</i> Rafaela Silva, DE	12:00 - 12:00 CEST
P485	Estimation of the spinal cord area from brain and spine MRI studies. Agreement of the measures obtained with the spinal cord toolbox <i>Speaker:</i> Deborah Pareto, ES	12:00 - 12:00 CEST
P486	Fully automatic method for state-of-the-art spinal cord compartment segmentation in multiple sclerosis <i>Speaker:</i> Charidimos Tsagkas, CH	12:00 - 12:00 CEST
P487	MS-specific deep learning segmentation of deep gray matter <i>Speaker:</i> Hugo Vrenken, NL	12:00 - 12:00 CEST
P488	The effect of dimethyl fumarate on white matter integrity and cognitive functioning 6-18 months after initiation of treatment in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Marike R. van Lingen, NL	12:00 - 12:00 CEST
P489	Cortical diffusion abnormalities in multiple sclerosis and their correlation with cortical volume and white matter hyperintensities in the UK Biobank Imaging Study? <i>Speaker:</i> Steven A Chance, GB	12:00 - 12:00 CEST
P490	Development of a brain venography algorithm using susceptibility-weighted images <i>Speaker:</i> Francesc Xavier Aymerich, ES	12:00 - 12:00 CEST
P491	Paramagnetic rim and central vein sign as complementary biomarkers in MS <i>Speaker:</i> Tim Robert-Fitzgerald, US	12:00 - 12:00 CEST
P493	Automated brain MRI assessments for monitoring MS activity in routine practice <i>Speaker:</i> Hagen H Kitzler, DE	12:00 - 12:00 CEST
P494	Dynamic functional connectivity between the cerebellum and dorsolateral prefrontal cortex explains variability in memory ability in multiple sclerosis <i>Speaker:</i> Mark Zuppichini, US	12:00 - 12:00 CEST
P495	The histopathological characteristics of the central vein sign in multiple sclerosis lesions <i>Speaker:</i> Sargis Manukyan, US	12:00 - 12:00 CEST
P496	Impact of teriflunomide on innate immune cell activation in RRMS patients with limited signs of CNS pathology <i>Speaker:</i> Taruliina Parkkali, FI	12:00 - 12:00 CEST
P497	Reliability of template or atlas-based corticospinal tracts	12:00 - 12:00

	compared to individual tract segmentations at 7T for the assessment of motor disability <i>Speaker:</i> Vanessa Wiggermann, DK	CEST
P499	Leman-PV as a clinical decision-support tool to assess MS activity: a multicentric longitudinal study at 1.5T and 3T MRI <i>Speaker:</i> Ramona-Alexandra Todea, CH	12:00 - 12:00 CEST
P500	CLaiMS-Net: cortical lesions assessment in multiple sclerosis patients via a convolutional neural network and a single 3T MRI acquisition <i>Speaker:</i> Francesco La Rosa, CH	12:00 - 12:00 CEST
P501	The vital role of neuroradiology input in the management of patients with multiple sclerosis <i>Speaker:</i> Stephen Ramsay, GB	12:00 - 12:00 CEST
P502	Automated detection of cortical lesions with single and multi-contrast 7T MRI <i>Speaker:</i> Francesco La Rosa, CH	12:00 - 12:00 CEST
P503	Development and validation of a simple and practical tool for differentiating MS from other idiopathic inflammatory demyelinating diseases of CNS with brain MRI <i>Speaker:</i> Jasmin Patel, US	12:00 - 12:00 CEST
P504	Post-mortem correlates of Virchow-Robin spaces detected on in-vivo MRI <i>Speaker:</i> Lukas Haider, GB	12:00 - 12:00 CEST
P505	Practical issues concerning the use of magnetic resonance imaging in multiple sclerosis in Latin America <i>Speaker:</i> Ethel Ciampi, CL	12:00 - 12:00 CEST
P506	Toward fully automated assessment of the central vein sign using deep learning <i>Speaker:</i> Till Huelnhagen, CH	12:00 - 12:00 CEST
P507	Standardized T1/T2 ratio predicts ongoing pathological damage in multiple sclerosis patients under natalizumab therapy <i>Speaker:</i> Maria Petracca, US	12:00 - 12:00 CEST
P508	Investigating the impact of slowly expanding lesions (SEL) on normal appearing grey matter (NAGM) and normal appearing white matter (NAWM) seen in advanced MRI in multiple sclerosis (MS) patients <i>Speaker:</i> Samiksha Srivastava, US	12:00 - 12:00 CEST
P509	The clinical relevance of whole brain atrophy patterns in patients with longstanding multiple sclerosis <i>Speaker:</i> Samantha Noteboom, NL	12:00 - 12:00 CEST
P510	Dissociation between brain atrophy and lesion burden in patients with multiple sclerosis: a new definition <i>Speaker:</i> Tomas Uher, CZ	12:00 - 12:00 CEST

P511	Structure-function coupling of long-range connections in the theta band relates to cognitive impairment in multiple sclerosis <i>Speaker:</i> Menno M. Schoonheim, NL	12:00 - 12:00 CEST
P512	Central vein sign is associated with relapse risk in multiple sclerosis: a 3-year longitudinal study <i>Speaker:</i> Omar Al-Louzi, US	12:00 - 12:00 CEST
P513	Periventricular gradients of T₁ z-scores correlate with disability in early multiple sclerosis <i>Speaker:</i> Manuela Vaneckova, CZ	12:00 - 12:00 CEST
P514	Whole brain axonal diameter mapping unveils increased vulnerability of frontal lobe normal appearing white matter in multiple sclerosis <i>Speaker:</i> Silvia De Santis, ES	12:00 - 12:00 CEST
P515	Microstructural white matter damage in the cerebellum is related to cognitive impairment in patients with relapsing-remitting multiple sclerosis: a 3T MRI study <i>Speaker:</i> Elisabetta Mancuso, IT	12:00 - 12:00 CEST
P516	The role of brain network functional connectivity and machine learning for the classification and characterization of disease phenotypes in patients with multiple sclerosis <i>Speaker:</i> Maria Assunta Rocca, IT	12:00 - 12:00 CEST
P517	The effect of gadolinium-based contrast-agents on automated atrophy measurements by FreeSurfer in patients with multiple sclerosis <i>Speaker:</i> Ingrid Anne Lie, NO	12:00 - 12:00 CEST
P518	Retrospective case-control study of the spinal cord grey and white matter changes in MS and NMO using routine clinical MR images <i>Speaker:</i> Amba Margarete Frese, DE	12:00 - 12:00 CEST
P519	Probing brain effective connectivity in early MS patients with Granger causality analysis of task-fMRI <i>Speaker:</i> João Valente Duarte, PT	12:00 - 12:00 CEST
P520	Combining morphological and topographic characteristics of white matter lesions to differentiate multiple sclerosis from vascular mimics <i>Speaker:</i> Rosa Cortese, IT	12:00 - 12:00 CEST
P521	⁶⁴Cu-FBP8 in vivo imaging of fibrin deposition in multiple sclerosis patients: initial data <i>Speaker:</i> Constantina Treaba, US	12:00 - 12:00 CEST
P522	Asymmetry of magnetization transfer ratio (MTR) measurements in the cervical spinal cord of MS patients <i>Speaker:</i> Soizic Leguy, FR	12:00 - 12:00 CEST
P523	Implementation of a 3D convolutional network to predict	12:00 - 12:00

	impairment of multiple sclerosis subjects based on structural disconnection <i>Speaker:</i> Emily Olafson, US	CEST
P524	Evaluating the use and impact of magnetic resonance imaging in the management of multiple sclerosis in Northern Ireland <i>Speaker:</i> Stephen Ramsay, GB	12:00 - 12:00 CEST
P525	Validation of an automated cervical spinal cord segmentation in brain MRI <i>Speaker:</i> Manuela Van??ková, CZ	12:00 - 12:00 CEST
P526	Improved cortical, cervical cord and optic nerve lesion detection in multiple sclerosis with a prototype 3D Turbo Spin Echo MRI sequence for Double Inversion Recovery <i>Speaker:</i> Mauro Costagli, IT	12:00 - 12:00 CEST
P527	Using 3D Amide Proton Transfer imaging at 3T to investigate and characterize lesions and normal-appearing white matter in multiple sclerosis <i>Speaker:</i> Ibrahim Khormi, AU	12:00 - 12:00 CEST
P528	Quantitative T1-mapping of contrast-enhancing lesions in multiple sclerosis using magnetic resonance fingerprinting <i>Speaker:</i> Mauro Costagli, IT	12:00 - 12:00 CEST
P529	Multiple sclerosis or fabry disease? The central vein sign as diagnostic aid <i>Speaker:</i> Valentina Virginia Iuzzolino, IT	12:00 - 12:00 CEST
P530	Chronic active MRI lesions in multiple sclerosis patients undergoing anti-CD20 antibody therapies <i>Speaker:</i> Amina Sellimi, BE	12:00 - 12:00 CEST
P531	Imaging features to distinguish AQP4-positive NMOSD and MS at disease onset: a retrospective analysis in a single-center cohort <i>Speaker:</i> Tobias Zrzavy, AT	12:00 - 12:00 CEST
P533	Effect of ofatumumab on brain volume loss vs historical placebo in relapsing multiple sclerosis <i>Speaker:</i> Bernd Kieseier, CH	12:00 - 12:00 CEST
P534	In-vivo characterization of macro- and microstructural injury of the subventricular zone in multiple sclerosis <i>Speaker:</i> Nicol? Bruschi, IT	12:00 - 12:00 CEST
P535	Alterations in the microstructure of the normal-appearing white matter in the Corpus Callosum reflect distant focal damage in relapsing-remitting multiple sclerosis <i>Speaker:</i> Lester Melie-Garcia, CH	12:00 - 12:00 CEST
P536	Assessing the usability of synthetic images to improve the detection of new T2 lesions <i>Speaker:</i> Liliana Valencia, ES	12:00 - 12:00 CEST

Scientific program

P537	North American imaging in multiple sclerosis cooperative – Imaging repository (NAIMS – IR) <i>Speaker:</i> Anthony Traboulsee, CA	12:00 - 12:00 CEST
P538	Lesion location in multiple sclerosis <i>Speaker:</i> Viola Pongratz, DE	12:00 - 12:00 CEST
P539	Inter-scanner brain MRI volumetric biases persist in a harmonized multi-subject study of multiple sclerosis <i>Speaker:</i> Kelly Clark, US	12:00 - 12:00 CEST
P540	Changes in brain functional connectivity associated with impaired verbal memory in patients with early multiple sclerosis <i>Speaker:</i> Joao Jose Cerqueira, PT	12:00 - 12:00 CEST
P541	Baseline MRI predicts disability in relapsing multiple sclerosis: data from a nationwide registry in Argentina <i>Speaker:</i> Javier Pablo Hryb, AR	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP03 - ePoster - MOGSD

P053	Heterogeneity of clinical presentations among patients with MOG-antibody associated disease <i>Speaker:</i> Barbara Willekens, NL	12:00 - 12:00 CEST
P054	Demographic and clinical profile of patients with myelin oligodendrocyte glycoprotein antibody-associated disease in Chile <i>Speaker:</i> Jorge Guzman, CL	12:00 - 12:00 CEST
P055	Prevalence, incidence, and seasonal distribution of onset of MOG antibody-associated disease in the province of Verona, Italy <i>Speaker:</i> Riccardo Orlandi, IT	12:00 - 12:00 CEST
P056	Impact of COVID-19 public health measures on myelin oligodendrocyte glycoprotein IgG-associated disorders in children <i>Speaker:</i> Matsanga Leyila Kaseka, CA	12:00 - 12:00 CEST
P057	Clinical characteristics and response to treatment of patients with MOGAD: a multicenter case series <i>Speaker:</i> Hayet Boudjani, CA	12:00 - 12:00 CEST
P058	Cognitive impairment and depression are highly prevalent in MOG-IgG associated antibody disease <i>Speaker:</i> Ann-Kathrin Kogel, DE	12:00 - 12:00 CEST
P059	Clinical and imaging predictors of MOG-antibody persistency in pediatric MOG-associated disorders <i>Speaker:</i> Edgar Martinez Chavez, CA	12:00 - 12:00 CEST
P060	Absence of attack-independent neuroaxonal injury in MOG	12:00 - 12:00

	antibody-associated disease: Longitudinal analysis of serum neurofilament light chain <i>Speaker:</i> Jae-Won Hyun, KR	CEST
P061	Acute disseminated encephalomyelitis requiring decompressive craniectomy as initial presentation of mog-antibody disorders in adults <i>Speaker:</i> Alba Chavarria-Miranda, ES	12:00 - 12:00 CEST
P062	Volumetric brain loss at diagnosis correlates with a relapsing MOGAD disease course <i>Speaker:</i> Ariel Rechtman, IL	12:00 - 12:00 CEST
P063	Brain volume measures in adults with MOG-antibody associated disease: a longitudinal multicentre study <i>Speaker:</i> Riccardo Orlandi, IT	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP17 - ePoster - Digital health and global networks		
P302	Passively acquired smartphone keystroke dynamics are associated with clinical outcomes in multiple sclerosis: a longitudinal analysis <i>Speaker:</i> Ka Hoo Lam, NL	12:00 - 12:00 CEST
P303	A digital remote assessment for measuring impairment in information processing speed in people with MS <i>Speaker:</i> Frank Dondelinger, CH	12:00 - 12:00 CEST
P304	Deep grey matter atrophy predicts longitudinal worsening of gait dynamics in progressive MS; a gait biosensor subgroup analysis of the MS-SMART clinical trial [NCT01910259] <i>Speaker:</i> David Paling, GB	12:00 - 12:00 CEST
P305	The importance of quality checks for digital health studies using remote unsupervised assessments to study functional impairment in MS <i>Speaker:</i> Andrea Festanti, CH	12:00 - 12:00 CEST
P306	Novel smartphone sensor-based scores for remote measurement of gait and hand function impairment in people with MS <i>Speaker:</i> Daria Rukina, CH	12:00 - 12:00 CEST
P307	Passively collected smartphone-based keystroke dynamics could classify disease severity within MS based on a machine learning approach <i>Speaker:</i> Ka Hoo Lam, NL	12:00 - 12:00 CEST
P308	Establishing consensus definitions of smartphone-based digital outcome measurements in multiple sclerosis <i>Speaker:</i> Licinio Craveiro, CH	12:00 - 12:00 CEST
P309	A patient-focused qualitative study to support content validity	12:00 - 12:00

	of digital performance assessments in MS	CEST
	<i>Speaker:</i> Susanne Clinch, GB	
P310	Evaluating perceptions of ofatumumab in multiple sclerosis via social media listening – early 6 months post approval data	12:00 - 12:00 CEST
	<i>Speaker:</i> Mitzi Williams, US	
P311	Telemedicine in multiple sclerosis care during coronavirus pandemic: a patient satisfaction survey	12:00 - 12:00 CEST
	<i>Speaker:</i> Marta Cañaverall Díaz, ES	
P312	Effect of education on physician knowledge on hidden symptoms in patients with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Lionel Thevathasan, GB	
P313	Understanding symptoms and their impact on patients with multiple sclerosis: What we can learn from social media	12:00 - 12:00 CEST
	<i>Speaker:</i> Ganhui Lan, US	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP13 - ePoster - Patient reported outcomes		
P230	Validation of PDDS and patient-reported relapses using digital technologies to monitor MS evolution with EDSS and physician-reported relapses	12:00 - 12:00 CEST
	<i>Speaker:</i> Georgina Arrambide, ES	
P231	MS and COVID-19 vaccination: hesitancy and early safety/tolerability data	12:00 - 12:00 CEST
	<i>Speaker:</i> Samantha Epstein, US	
P232	Five distinct health-related quality of life trajectories among people with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Julia O'Mahony, CA	
P233	Earlier disease modifying therapy is associated with more favourable long-term patient reported outcomes in relapsing multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Anna He, SE	
P234	Patient-reported outcomes measures for multiple sclerosis: patient insights on fatigue, cognition, pain and depression, and their interconnectivity	12:00 - 12:00 CEST
	<i>Speaker:</i> Tanuja Chitnis, US	
P235	Aligning patient and provider goals for care in multiple sclerosis: an in-depth look at the experiences and perspectives of Black or African American and white patients with multiple sclerosis and their care teams	12:00 - 12:00 CEST
	<i>Speaker:</i> Mitzi Williams, US	
P236	Safety of the BNT162b2 COVID-19 vaccine in multiple sclerosis: early experience from a tertiary multiple sclerosis center in Israel	12:00 - 12:00 CEST

	<i>Speaker:</i> Itay Lotan, IL	
P237	How do illness acceptance and treatment acceptance in multiple sclerosis relate to adherence? <i>Speaker:</i> Lisa Healy, GB	12:00 - 12:00 CEST
P238	Improvements in QoL at 1 year in patients treated with cladribine tablets for highly active relapsing MS: an interim analysis of CLARIFY-MS <i>Speaker:</i> Alessandra Solari, IT	12:00 - 12:00 CEST
P239	Health-related quality of life in neuromyelitis optica spectrum disorders patients in an Argentinean cohort <i>Speaker:</i> Edgar Carnero Contentti, AR	12:00 - 12:00 CEST
P240	Early predictors of long-term functional and patient-reported outcomes in MS <i>Speaker:</i> Gauruv Bose, US	12:00 - 12:00 CEST
P241	Employment status and associations with patient-reported outcome measures in patients with relapsing multiple sclerosis <i>Speaker:</i> Frédéric London, BE	12:00 - 12:00 CEST
P242	Defining progressive MS and activity using patient related outcomes and MRI measures <i>Speaker:</i> Luciana Midaglia, ES	12:00 - 12:00 CEST
P243	Changes in productivity and ability to work with natalizumab treatment in relapsing-remitting multiple sclerosis patients and impact of the COVID19 containment measures in France: the TITAN study <i>Speaker:</i> Arnaud Kwiatkowski, FR	12:00 - 12:00 CEST
P244	Testing psychometric properties of spontaneous and deliberate mind wandering scales in people with multiple sclerosis <i>Speaker:</i> Jessica Podda, IT	12:00 - 12:00 CEST
P245	Co-creating new patient-reported outcomes through the science with and of patient input: characterization of mood status in people with multiple sclerosis <i>Speaker:</i> Ludovico Pedullà, IT	12:00 - 12:00 CEST
P246	The contribution of race to patient-reported gait disability in multiple sclerosis <i>Speaker:</i> Deja Rose, US	12:00 - 12:00 CEST
P247	Questionnaire based satisfaction survey for telemedicine-based care in multiple sclerosis and related neuroimmunological disorders <i>Speaker:</i> Huiam Mubarak, US	12:00 - 12:00 CEST
P248	Symptom severity in Neuromyelitis Optica Spectrum Disorder from the patients' perspective <i>Speaker:</i> José E Meca-Lallana, ES	12:00 - 12:00 CEST
P249	Assessing diagnosis disclosure and concealment in multiple	12:00 - 12:00

	sclerosis: development and initial validation of the DISCO-MS survey <i>Speaker:</i> Anne Kever, US	CEST
P250	Meaning and purpose for people with multiple sclerosis: quality of life reflects more than apparent physical ability <i>Speaker:</i> Olivia Kaczmarek, US	12:00 - 12:00 CEST
P251	Association between patient- and physician-reported disability measures in relapsing-remitting multiple sclerosis in the Tysabri observational program <i>Speaker:</i> Ludwig Kappos, CH	12:00 - 12:00 CEST
P252	Comparison of time to clinically meaningful improvement in Neuro-QoL in patients treated with natalizumab versus ocrelizumab <i>Speaker:</i> Carrie Hersh, US	12:00 - 12:00 CEST
P253	Evaluation of adherence to treatment in patients with multiple sclerosis from Argentina and Ecuador <i>Speaker:</i> Ricardo Alonso, AR	12:00 - 12:00 CEST
P254	Retrospective study of correlation between clinical variables of breathing/phonation and patient reported outcomes in people with multiple sclerosis <i>Speaker:</i> Andrea Tacchino, IT	12:00 - 12:00 CEST
P255	COVID-19 impact on the evolution of mental health in multiple sclerosis <i>Speaker:</i> Irene Gil González, ES	12:00 - 12:00 CEST
P256	Real-world patient-reported outcomes in RRMS patients transitioning to alemtuzumab: results from the PRO-ACT study <i>Speaker:</i> Sibyl E. Wray, US	12:00 - 12:00 CEST
P257	Fatigue scores are better in pediatric onset multiple sclerosis than adult onset multiple sclerosis <i>Speaker:</i> Wendy M Coronado, US	12:00 - 12:00 CEST
P258	Importance of employment status on quality of life in persons with multiple sclerosis <i>Speaker:</i> Sandra Vanotti, AR	12:00 - 12:00 CEST
P259	haMSter: a smartphone application for remote patient monitoring in multiple sclerosis <i>Speaker:</i> Patrick Altmann, AT	12:00 - 12:00 CEST
P260	Ageing multiple sclerosis patient experience to identify disease and treatment perception and changes over time <i>Speaker:</i> Javier Sotoca, ES	12:00 - 12:00 CEST
P261	Real-world safety and effectiveness of natalizumab treatment in patients with relapsing-remitting multiple sclerosis: data from an Irish registry <i>Speaker:</i> Chris McGuigan, IE	12:00 - 12:00 CEST

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P262	Impact of COVID-19: Preserving services for patients with multiple sclerosis during a global pandemic <i>Speaker:</i> Stephen Ramsay, GB	12:00 - 12:00 CEST
P263	Center-level variation in multiple sclerosis outcomes: Real-world patient reported outcomes (PROs) findings from the Multiple Sclerosis Continuous Quality Improvement (MS-CQI) research collaborative study (2017-2020) <i>Speaker:</i> Brant Oliver, US	12:00 - 12:00 CEST
P264	Patient-reported outcome measures reflect multiple sclerosis-related disability <i>Speaker:</i> Frédéric London, BE	12:00 - 12:00 CEST
P265	Patient reported outcomes in a secondary progressive MS cohort related to cognition, MRI and physical outcomes <i>Speaker:</i> Ásta Theódórsdóttir, DK	12:00 - 12:00 CEST
P266	Behavioral clusters and experienced fatigue in multiple sclerosis: a pilot study <i>Speaker:</i> Philipp Gulde, DE	12:00 - 12:00 CEST
P267	Multiple sclerosis, medication management, health literacy and accumulative cognitive impairment: is perception sufficient for performance? <i>Speaker:</i> Avtej Sethi, US	12:00 - 12:00 CEST
P268	Quality of life in multiple sclerosis: Impact of disease and demographic factors <i>Speaker:</i> Irene Gil González, ES	12:00 - 12:00 CEST
P269	Disease activity and patient-reported outcomes in patients with multiple sclerosis switching from first-line platform therapies to dimethyl fumarate <i>Speaker:</i> Filipe Branco, US	12:00 - 12:00 CEST
P270	The impact of the COVID-19 pandemic on people with multiple sclerosis: a longitudinal survey study <i>Speaker:</i> Isabel Voigt, DE	12:00 - 12:00 CEST
P271	The impact of the COVID-19 pandemic on multiple sclerosis patients: One year later <i>Speaker:</i> Laura Bello, ES	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP23 - ePoster - Environmental factors

P376	Factors affecting the risk of relapsing- and progressive-onset multiple sclerosis <i>Speaker:</i> Tomas Olsson, SE	12:00 - 12:00 CEST
P377	DRB1-environment interactions in multiple sclerosis etiology; results from two Swedish case-control studies <i>Speaker:</i> Lars Alfredsson, SE	12:00 - 12:00 CEST

P378	Epstein-Barr Virus infection and serum neurofilament light chain levels before MS onset <i>Speaker:</i> Kjetil Bjornevik, US	12:00 - 12:00 CEST
P379	The impact of PM2.5 on COVID-19 severity among Italian MS patients <i>Speaker:</i> Marta Ponzano, IT	12:00 - 12:00 CEST
P380	Association between exposome and subsequent multiple sclerosis outcomes <i>Speaker:</i> Shruthi Venkatesh, US	12:00 - 12:00 CEST
P381	Mediterranean diet consumption predicts better objective and patient-reported function in multiple sclerosis <i>Speaker:</i> Ilana Katz Sand, US	12:00 - 12:00 CEST
P382	Smoking and Epstein-Barr virus infection in multiple sclerosis development <i>Speaker:</i> Lars Alfredsson, SE	12:00 - 12:00 CEST
P383	High levels of Epstein-Barr virus nuclear antigen-1 specific antibodies and infectious mononucleosis act both independently and synergistically to increase multiple sclerosis risk <i>Speaker:</i> Tomas Olsson, SE	12:00 - 12:00 CEST
P384	Obesity and aspects of Epstein-Barr virus infection in multiple sclerosis etiology <i>Speaker:</i> Tomas Olsson, SE	12:00 - 12:00 CEST
P385	Low fish consumption is associated with a small increased risk for multiple sclerosis <i>Speaker:</i> Lars Alfredsson, SE	12:00 - 12:00 CEST
P386	Smoking, infectious mononucleosis, early-life exposures and risk of progressive-onset multiple sclerosis: a case-control study <i>Speaker:</i> Ying Li, AU	12:00 - 12:00 CEST
P387	Developing a tool to assess environmental exposures in the Italian pediatric-onset multiple sclerosis (PEQ-IT) <i>Speaker:</i> Silvy Pilotto, IT	12:00 - 12:00 CEST
P388	Using Bayesian networks to understand multiple sclerosis risk factor interactions <i>Speaker:</i> Morghan Hartmann, GB	12:00 - 12:00 CEST
P389	Cytomegalovirus but not Epstein-Barr Virus antibody titers are related to brain atrophy in a cohort of multiple sclerosis patients <i>Speaker:</i> Evelin Sabrina Heck, AR	12:00 - 12:00 CEST
P390	Determining the effect of sun exposure and physical activity on the incidence of primary progressive multiple sclerosis <i>Speaker:</i> Sajjad Ghane Ezabadi, IR	12:00 - 12:00 CEST

Scientific program

Poster Session

12:00 - 21:00 CEST

eP05 - ePoster - Paediatric MS

P095	CONNECT: an open-label, active-controlled dimethyl fumarate study in pediatric patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Matt Scaramozza, US	12:00 - 12:00 CEST
P096	Assessing treatment response in pediatric multiple sclerosis patients <i>Speaker:</i> Ermelinda De Meo, IT	12:00 - 12:00 CEST
P097	Using historical relapse rates for the design of an innovative Phase 3 study with ofatumumab and siponimod in paediatric multiple sclerosis <i>Speaker:</i> Jutta Gärtner, DE	12:00 - 12:00 CEST
P098	The difference in the blood transcriptional profiles in pediatric and adult multiple sclerosis patients <i>Speaker:</i> Eitan Shavit, IL	12:00 - 12:00 CEST
P099	Rituximab in paediatric onset multiple sclerosis - a retrospective observational study <i>Speaker:</i> Julian Benedikt Reichelt, AT	12:00 - 12:00 CEST
P100	Neuropsychological tests do not adequately screen for academic impairment in children with multiple sclerosis <i>Speaker:</i> Wendy Vargas, US	12:00 - 12:00 CEST
P101	Children with multiple sclerosis struggle academically to a greater extent than is predicted by standard neuropsychological testing <i>Speaker:</i> Michael Glendinning, US	12:00 - 12:00 CEST
P102	Innovative phase 3 NEOS study design evaluating efficacy and safety of ofatumumab and siponimod versus fingolimod in paediatric multiple sclerosis <i>Speaker:</i> Jutta Gärtner, DE	12:00 - 12:00 CEST
P103	Pediatric-onset multiple sclerosis: differences in disease burden and activity at onset and follow-up in pediatric-onset patients vs adult-onset patients <i>Speaker:</i> Carmela Capillo, IT	12:00 - 12:00 CEST
P104	Relapse rates and disability progression in paediatric onset MS patients during the course of the disease <i>Speaker:</i> David Ellenberger, DE	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP07 - ePoster - Natural Course

P125	Risk factors of early clinical conversion in radiologically isolated syndrome	12:00 - 12:00 CEST
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Scientific program

	<i>Speaker:</i> Christine Lebrun-Frenay, FR	
P126	Changes in the epidemiology and prognosis of the Danish multiple sclerosis population <i>Speaker:</i> Melinda Magyari, DK	12:00 - 12:00 CEST
P127	Longitudinal profiling of early NFL and MRI prognostic biomarkers against 15-year outcomes in relapse-onset multiple sclerosis <i>Speaker:</i> Thomas Williams, GB	12:00 - 12:00 CEST
P128	Overcoming COVID-19 vaccine hesitancy in people with multiple sclerosis <i>Speaker:</i> Alon Kalron, IL	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP25 - ePoster - Neurodegeneration

P395	Investigating the effects of diabetes mellitus and hypertension on retinal layer thickness in patients with multiple sclerosis <i>Speaker:</i> Vince Marceau, US	12:00 - 12:00 CEST
P396	Advanced diffusion-weighted imaging models better characterize white matter neurodegeneration and clinical outcomes in multiple sclerosis <i>Speaker:</i> Loredana Storelli, IT	12:00 - 12:00 CEST
P397	MRI predictors of upper cervical cord grey matter atrophy in multiple sclerosis patients <i>Speaker:</i> Raffaello Bonacchi, IT	12:00 - 12:00 CEST
P398	Chronic demyelination-induced cell senescence is responsible for motor impairment in a model of MS <i>Speaker:</i> Irimi Papazian, GR	12:00 - 12:00 CEST
P399	Molecular mechanisms of tauopathy upon demyelination process: is neurotoxic cis p-tau one of the central mediators in MS development? <i>Speaker:</i> Seyed Massood Nabavi, IR	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP34 - ePoster - Risk management for disease modifying treatments

P756	Risk of cancer with disease-modifying drugs in multiple sclerosis: a new-user cohort design in the French nationwide claims database <i>Speaker:</i> Meritxell Sabidó, DE	12:00 - 12:00 CEST
P757	Personalized B-cell tailored dosing of ocrelizumab in patients with multiple sclerosis during the COVID-19 pandemic <i>Speaker:</i> Zoë Yolante Germieke Jocelyn van Lierop, NL	12:00 - 12:00 CEST
P758	Transitioning from S1P receptor modulators to B-cell depleting	12:00 - 12:00

	therapies in multiple sclerosis: clinical, radiographic and laboratory data <i>Speaker:</i> William Rowles, US	CEST
P759	Increased risk of death from COVID-19 in multiple sclerosis: a meta-analysis of observational studies <i>Speaker:</i> Luca Prosperini, IT	12:00 - 12:00 CEST
P760	Rituximab treatment prior to pregnancy in women with multiple sclerosis – perinatal outcomes in Swedish cohort <i>Speaker:</i> Agnes Gorczyca, SE	12:00 - 12:00 CEST
P761	Outpatient infections, multiple sclerosis and disease-modifying therapies <i>Speaker:</i> Annette Langer-Gould, US	12:00 - 12:00 CEST
P762	Ocrelizumab-related neutropenia: effects of age, sex and bodyweight using the FDA adverse event reporting system (FAERS) <i>Speaker:</i> Helly Hammer, CH	12:00 - 12:00 CEST
P763	Effect of Total Body Weight and Body Mass Index on lymphocyte counts in scottish multiple sclerosis patients treated with cladribine <i>Speaker:</i> Elizabeth Phuong My Phan, GB	12:00 - 12:00 CEST
P764	Can induction of autoimmune antibodies after alemtuzumab treatment of multiple sclerosis predict secondary autoimmunity? <i>Speaker:</i> Sofia Sandgren, SE	12:00 - 12:00 CEST
P765	Anti-CD20 therapies decrease humoral immune response to SARS-CoV-2 in patients with multiple sclerosis or neuromyelitis optica spectrum disorders <i>Speaker:</i> Michella Ibrahim, LB	12:00 - 12:00 CEST
P766	Post-approval safety of cladribine tablets with particular reference to COVID-19 outcomes: an update <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P767	Incidence of infections and severe lymphopenia in patients newly initiating cladribine tablets or fingolimod for treatment of multiple sclerosis: CLARION study <i>Speaker:</i> Jan Hillert, SE	12:00 - 12:00 CEST
P768	Persistence of seroprotective titers of antibodies against HBV and VZV in MS patients <i>Speaker:</i> Filipa Ladeira, PT	12:00 - 12:00 CEST
P769	Safety of natalizumab reinfusion during active Sars-Cov-2 infection in patients with multiple sclerosis <i>Speaker:</i> Doriana Landi, IT	12:00 - 12:00 CEST
P770	Malignancies risk in patients with immunosuppressive treatment	12:00 - 12:00 CEST

	<i>Speaker:</i> Judit Díaz-Díaz, ES	
P771	Antibody response to SARS-CoV2 vaccination in people with multiple sclerosis <i>Speaker:</i> Sammita Satyanarayan, US	12:00 - 12:00 CEST
P772	Ocrelizumab attenuates the humoral response to SARS-CoV-2 compared with other disease modifying therapies in multiple sclerosis: a case-control study <i>Speaker:</i> William Conte, US	12:00 - 12:00 CEST
P773	Blood pressure excursions with alemtuzumab in Canadian patients with relapsing remitting multiple sclerosis <i>Speaker:</i> Sarah Morrow, CA	12:00 - 12:00 CEST
P774	Comparison of perceived and actual risks of progressive multifocal encephalopathy in patients treated with natalizumab at a single centre <i>Speaker:</i> Rachel Dorsey-Campbell, GB	12:00 - 12:00 CEST
P775	Persistent lymphopenia after dimethyl fumarate and fingolimod treatment <i>Speaker:</i> Isabel Hernández, ES	12:00 - 12:00 CEST
P776	ACAPELLA: hypogammaglobulinemia and JCV status in ocrelizumab-treated patients, year four data <i>Speaker:</i> Elizabeth Douglas, US	12:00 - 12:00 CEST
P777	Design and rationale for an open-label multicenter phase 4 study assessing Immune response to COVID-19 vaccine in patients with relapsing multiple sclerosis treated with ofatumumab <i>Speaker:</i> Tanuja Chitnis, US	12:00 - 12:00 CEST
P778	Management of hepatitis B virus infection prophylaxis in patients treated with disease modifying therapies for multiple sclerosis: a multicentric Italian retrospective study <i>Speaker:</i> Roberta Lanzillo, IT	12:00 - 12:00 CEST
P779	Management of intravenous therapy for MS during COVID-19 pandemic <i>Speaker:</i> Judit Díaz-Díaz, ES	12:00 - 12:00 CEST
P780	Effect of cladribine on COVID-19 serology responses following 2 doses of the BNT162b2 mRNA vaccine in patients with multiple sclerosis <i>Speaker:</i> Ariel Rechtman, IL	12:00 - 12:00 CEST
P781	MS patients treated with natalizumab have a positive serology response to SARS-CoV-2 S1/S2 following vaccination with two doses of mRNA COVID-19 vaccine <i>Speaker:</i> Ariel Rechtman, IL	12:00 - 12:00 CEST
P782	Vaccinations in patients with multiple sclerosis: a real-world, single-center, experience	12:00 - 12:00 CEST

	<i>Speaker:</i> Elvira Sbragia, IT	
P783	COVID-19 infections and vaccinations in the Swiss Multiple Sclerosis Cohort study <i>Speaker:</i> Varenka Epple, CH	12:00 - 12:00 CEST
P784	Is multiple sclerosis knowledge related to medication adherence? <i>Speaker:</i> Edward Smith, GB	12:00 - 12:00 CEST
P785	A disease modifying therapy panel for multiple sclerosis: experience of the first 2 years <i>Speaker:</i> Jon McKee, GB	12:00 - 12:00 CEST
P786	Impact of COVID-19 in immunosuppressed children with neuroimmunologic disorders <i>Speaker:</i> Gemma Olivé-Cirera, ES	12:00 - 12:00 CEST
P787	One year of natalizumab extended interval dosing: what have we learned <i>Speaker:</i> Catarina Bernardes, PT	12:00 - 12:00 CEST
P788	Infections and multiple sclerosis: recommendations from the French Multiple Sclerosis Society <i>Speaker:</i> Caroline Papeix, FR	12:00 - 12:00 CEST
P789	Evaluating the efficacy and safety of transitioning patients from Natalizumab to Ocrelizumab <i>Speaker:</i> Kyle Smoot, US	12:00 - 12:00 CEST
P790	Observational study of a novel peri-infusion regimen on the infusion-associated reactions with alemtuzumab in patients with MS in a Canadian clinical setting <i>Speaker:</i> Richard Leckey, CA	12:00 - 12:00 CEST
P791	Prospectively stratifying Infectious risks in multiple sclerosis – first results of the InRIMS study <i>Speaker:</i> Martin Diebold, DE	12:00 - 12:00 CEST
P792	Fulminant neurosyphilis with abscess formation post-ocrelizumab in a patient with relapsing remitting multiple sclerosis <i>Speaker:</i> Sina Marzoughi, CA	12:00 - 12:00 CEST
P793	Evaluation of tolebrutinib animal embryo-foetal developmental data indicates low risk during pregnancy <i>Speaker:</i> Lynn B Davenport, US	12:00 - 12:00 CEST
P794	INFORM – Interferon beta exposure in the 2nd and 3rd trimester of pregnancy - a register-based drug utilisation study in Finland and Sweden <i>Speaker:</i> Meritxell Sabidó, DE	12:00 - 12:00 CEST
P795	ACAPELLA: real-world experience with ocrelizumab - an observational study evaluating safety in patients with relapsing and progressive MS, year four data	12:00 - 12:00 CEST

Speaker: Elizabeth Douglas, US

Poster Session

12:00 - 21:00 CEST

eP19 - ePoster - Experimental models

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|------|---|-----------------------|
| P321 | Characterization of a neuromyelitis optica mice model induced by AQP4 peptide immunization
<i>Speaker:</i> Kenichi Serizawa, JP | 12:00 - 12:00
CEST |
| P322 | Behavioral consequences of endocrine disruptors in a <i>Xenopus laevis</i> model of inducible-demyelination and myelin regeneration
<i>Speaker:</i> Bernard Zalc, FR | 12:00 - 12:00
CEST |
| P323 | Investigating the role of astrocytes for the survival of axons in chronic inflammatory lesions
<i>Speaker:</i> Luise Reukauf, DE | 12:00 - 12:00
CEST |
| P324 | Validation of a new animal model suitable for the investigation of mechanisms and potential therapeutic options of progressive multiple sclerosis
<i>Speaker:</i> Michaela Tanja Haindl, AT | 12:00 - 12:00
CEST |
| P325 | Vitamin D decreases demyelination and anxiety signs in an animal model resembling the cortical pathology of multiple sclerosis
<i>Speaker:</i> Berenice Anabel Silva, AR | 12:00 - 12:00
CEST |
| P326 | Age-related changes in the CNS immune response and neuroregeneration in EAE
<i>Speaker:</i> María Dema, ES | 12:00 - 12:00
CEST |
| P327 | Spinal cord grey matter demyelination in myelin oligodendrocyte glycoprotein-IgG and aquaporin 4-IgG augmented experimental autoimmune encephalomyelitis
<i>Speaker:</i> Jana Remlinger, CH | 12:00 - 12:00
CEST |
| P328 | A novel approach to better understand phenotypic alterations in the <i>in vivo</i> model of multiple sclerosis at distinct mice age - improved frailty index scale
<i>Speaker:</i> Ana Rita Ribeiro, PT | 12:00 - 12:00
CEST |
| P329 | Alterations in the expression of cardiac inwardly rectifying potassium channels are related to cardiovascular dysfunctions in a mouse model of multiple sclerosis
<i>Speaker:</i> Chiara Villa, IT | 12:00 - 12:00
CEST |

Poster Session

12:00 - 21:00 CEST

eP21 - ePoster - Immunology

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|------|--|-----------------------|
| P336 | T cell reactivity screening reveals four novel CNS autoantigens in multiple sclerosis | 12:00 - 12:00
CEST |
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	<i>Speaker:</i> Mattias Bronge, SE	
P337	Towards the suppression of the disease-relevant brain-homing T cell in multiple sclerosis <i>Speaker:</i> Steven Koetzier, NL	12:00 - 12:00 CEST
P338	Exosomes from MS subjects express EBV-derived proteins and activate monocyte-derived macrophages <i>Speaker:</i> Samia Khoury, LB	12:00 - 12:00 CEST
P339	The role of B cell-derived IL-10 in regulation of chronic CNS inflammation <i>Speaker:</i> Darius Häusler, DE	12:00 - 12:00 CEST
P340	Astrocytes pre-exposed to CSF from multiple sclerosis patients with inflammatory phenotype exhibit a specific reactive phenotype and induce neuronal dysfunction <i>Speaker:</i> Clara Matute-Blanch, ES	12:00 - 12:00 CEST
P341	Impact of B-cell depleting treatments on development of humoral and cellular immunological memory against SARS-CoV-2 <i>Speaker:</i> Klara Asplund Högelin, SE	12:00 - 12:00 CEST
P342	Deficient response of blood neutrophils to cell death stimuli differentiates AQP4-IgG seropositive NMOSD from MOGAD patients <i>Speaker:</i> María Schroeder-Castagno, DE	12:00 - 12:00 CEST
P343	Haematopoietic stem cell transplantation for multiple sclerosis results in deletion of auto-reactive public CD4+ T-cell clones <i>Speaker:</i> Jennifer Massey, AU	12:00 - 12:00 CEST
P344	Mucosal associated invariant T (MAIT) cells show defective activation in people with multiple sclerosis <i>Speaker:</i> Laura Ghezzi, US	12:00 - 12:00 CEST
P345	CSF albumin quotients links peripheral inflammation and brain damage in MS <i>Speaker:</i> Marco Puthenparampil, IT	12:00 - 12:00 CEST
P346	Therapeutic depletion of proinflammatory CD20⁺ T cells in CNS inflammation <i>Speaker:</i> Jasmin Ochs, DE	12:00 - 12:00 CEST
P347	No evidence of rebound MS disease activity with presence of CD20⁺ T cells at B-cell reconstitution after treatment with rituximab <i>Speaker:</i> Nicolas Ruffin, SE	12:00 - 12:00 CEST
P348	Association of allelic variants of IL2, IL2RA, and IL7R genes in a computational model of the role of thymic control in the pathogenesis of multiple sclerosis <i>Speaker:</i> João Marcos Brandet, BR	12:00 - 12:00 CEST
P349	CD46-dependent activation of T cells from untreated MS	12:00 - 12:00

	patients	CEST
	<i>Speaker:</i> Linda Karin Margriet Sundvall Germeys, DK	
P350	STAT3 / miR223 axis regulates myeloid cell activation in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Claudia Cantoni, US	
P351	The impact of disease activity and genetics on T-cell repertoire in multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Melissa Sorosina, IT	
P352	Investigation of vitamin D signaling via the glucocorticosteroid receptor	12:00 - 12:00 CEST
	<i>Speaker:</i> Maud Bagnoud, CH	
P353	The role of IgG antibodies as biomarkers in relapsing-remitting multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Maria Hadjiagapiou, CY	
P354	Transcriptomic characterization of CD11c⁺CD88⁺CD317⁺ myeloid cells in CNS autoimmune disease	12:00 - 12:00 CEST
	<i>Speaker:</i> Navid Manouchehri, US	
P355	Mitochondrial functionality of peripheral blood mononuclear cells of relapsing-remitting multiple sclerosis patients depending on the presence of lipid-specific oligoclonal immunoglobulin M bands in cerebrospinal fluid	12:00 - 12:00 CEST
	<i>Speaker:</i> Roberto Alvarez-Lafuente, ES	
P356	Comprehensive phenotypic and functional analyses of peripheral blood monocytes during MS disease progression	12:00 - 12:00 CEST
	<i>Speaker:</i> Ellen Iacobaeus, SE	
P357	Diversity of immune cell subsets across the blood and central nervous system's immune compartment of mice with experimental autoimmune encephalomyelitis	12:00 - 12:00 CEST
	<i>Speaker:</i> Rina Zilkha-Falb, IL	
P358	Functional properties of CD56⁺CD20 natural killer cells and their relationship with demyelinating disorders	12:00 - 12:00 CEST
	<i>Speaker:</i> Özgür Albayrak, TR	
P359	Ponesimod demonstrated increased clinical benefit over teriflunomide in early disease subgroup compared with overall population	12:00 - 12:00 CEST
	<i>Speaker:</i> Allitia DiBernardo, US	
P360	Multiple sclerosis and the presence of unrecognized immune deficiencies: a cross sectional analysis	12:00 - 12:00 CEST
	<i>Speaker:</i> Olivia Kaczmarek, US	
P361	Genome-wide mapping of patient autoantibody targets to understand and predict multiple sclerosis pathogenesis and patient responses to interferon beta-1a therapy	12:00 - 12:00 CEST
	<i>Speaker:</i> Europe B. DiCillo, US	

Scientific program

P362	A human iPSC-derived CNS platform to investigate T cell autoreactivity in multiple sclerosis <i>Speaker:</i> Sylvain Perriot, CH	12:00 - 12:00 CEST
P363	Multiple sclerosis, natalizumab, immunoglobulin levels: a longitudinal analysis <i>Speaker:</i> Olivia Kaczmarek, US	12:00 - 12:00 CEST
P364	HLA-DRB1 susceptibility in multiple sclerosis Algerian patients <i>Speaker:</i> Nassima Hecham, DZ	12:00 - 12:00 CEST
P365	Investigating polymorphism of the 3'untranslated region (3'UTR) of the HLA-G by computational chemistry methods <i>Speaker:</i> João Marcos Brandet, BR	12:00 - 12:00 CEST
P366	Profound alterations on T cell subsets and on regulatory cells characterize multiple sclerosis at clinical onset <i>Speaker:</i> Joao Canto-Gomes, PT	12:00 - 12:00 CEST
P367	Flow cytometric assays to quantify immunological subsets distribution in patients with multiple sclerosis at disease onset: a case-control study <i>Speaker:</i> Emanuele D'Amico, IT	12:00 - 12:00 CEST
P368	Multiple sclerosis, quantitative MRI maging, immune profile: exploration of a potential relationship between brain atrophy and IgG sub-class profiles in a population of people with multiple sclerosis <i>Speaker:</i> Jared Srinivasan, US	12:00 - 12:00 CEST
P369	Main role of antibodies in demyelination and axonal damage in multiple sclerosis <i>Speaker:</i> Úrsula Muñoz, ES	12:00 - 12:00 CEST
P370	The role of D₂-like dopaminergic receptor in dopamine-mediated modulation of Th17-cells in multiple sclerosis <i>Speaker:</i> Mikhail Melnikov, RU	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

ep33 - ePoster - Therapy - Long-term treatment monitoring

P722	Early treatment with alemtuzumab maintains its efficacy on clinical and MRI disease activity outcomes, including slowing of brain volume loss, over 10 years in RRMS patients: CARE-MS II follow-up (TOPAZ Study) <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P723	Long-term reduction of relapse rate and confirmed disability progression after 7.5 years of ocrelizumab treatment in patients with relapsing multiple sclerosis in the OPERA OLE <i>Speaker:</i> Gavin Giovannoni, GB	12:00 - 12:00 CEST
P724	Safety of ocrelizumab in multiple sclerosis: updated analysis in patients with relapsing and primary progressive multiple	12:00 - 12:00 CEST

sclerosis		
	<i>Speaker:</i> Stephen Hauser, US	
P725	Hepatic safety of ozanimod in relapsing multiple sclerosis in the DAYBREAK open-label extension study <i>Speaker:</i> Krzysztof Selmaj, PL	12:00 - 12:00 CEST
P726	Long-term effect of fingolimod on cardiovascular functioning in people with relapsing-remitting multiple sclerosis <i>Speaker:</i> Tjalf Ziemssen, DE	12:00 - 12:00 CEST
P727	Safety profile characterisation of evobrutinib in over 1000 patients from phase II clinical trials in multiple sclerosis, rheumatoid arthritis and systemic lupus erythematosus <i>Speaker:</i> Xavier Montalban, ES	12:00 - 12:00 CEST
P728	The influence of disease modifying therapies on immunoglobulin blood levels in patients with multiple sclerosis <i>Speaker:</i> Ana-Katharina Klein, DE	12:00 - 12:00 CEST
P729	The impact of ocrelizumab on immunoglobulin levels and the risk of infection <i>Speaker:</i> Kyle Smoot, US	12:00 - 12:00 CEST
P730	Efficacy of highly active disease modifying treatment versus interferon in multiple sclerosis: a UK MS register study <i>Speaker:</i> Kevin Marcaida, GB	12:00 - 12:00 CEST
P731	Clinical effectiveness and safety of teriflunomide for patients treated at least 48 months in the Swedish post-market surveillance study "Immunomodulation and Multiple Sclerosis Epidemiology 4" (IMSE 4) <i>Speaker:</i> Victoria Rosengren, SE	12:00 - 12:00 CEST
P732	Ten years of fingolimod in multiple sclerosis: Who will benefit from it? Insights from a large real-world cohort study <i>Speaker:</i> Lucas Gauer, FR	12:00 - 12:00 CEST
P733	Alemtuzumab maintains efficacy on clinical and MRI disease activity outcomes, including slowing of brain volume loss, over 10 years in RRMS patients: CARE-MS I follow-up (TOPAZ Study) <i>Speaker:</i> Alasdair Coles, GB	12:00 - 12:00 CEST
P734	The effect of alemtuzumab treatment in relapsing remitting multiple sclerosis: real-world data from a five-year prospective one center study <i>Speaker:</i> Sofia Sandgren, SE	12:00 - 12:00 CEST
P735	Clinical effectiveness and safety of dimethyl fumarate for patients treated at least 5 years in the Swedish post-market surveillance study "Immunomodulation and Multiple Sclerosis Epidemiology 5" (IMSE 5) <i>Speaker:</i> Victoria Rosengren, SE	12:00 - 12:00 CEST
P736	A Swedish nationwide pharmaco-epidemiological study of the	12:00 - 12:00

	long-term safety and effectiveness of alemtuzumab (IMSE 3) <i>Speaker:</i> Edit Ekström, SE	CEST
P737	Long-term safety and efficacy of ozanimod in relapsing multiple sclerosis: interim analysis of the DAYBREAK open-label extension study <i>Speaker:</i> Krzysztof Selmaj, PL	12:00 - 12:00 CEST
P738	The long-term safety and effectiveness of natalizumab (IMSE 1) - Real-world data from a Swedish nationwide pharmaco-epidemiological study <i>Speaker:</i> Edit Ekström, SE	12:00 - 12:00 CEST
P739	Diroximel fumarate in patients with relapsing-remitting multiple sclerosis: interim safety and efficacy results from the Phase 3 EVOLVE-MS-1 Study <i>Speaker:</i> Sibyl E. Wray, US	12:00 - 12:00 CEST
P740	Utilization, safety, and tolerability of ocrelizumab: year 4 data from the Providence Ocrelizumab Registry <i>Speaker:</i> Kyle Smoot, US	12:00 - 12:00 CEST
P741	High adherence to treatment with cladribine tablets for multiple sclerosis during the COVID-19 pandemic: results from patient support programmes <i>Speaker:</i> Jiwon Oh, CA	12:00 - 12:00 CEST
P742	Disease-modifying treatment patterns of patients with multiple sclerosis and newly treated with cladribine tablets or fingolimod: an interim analysis of the CLARION study <i>Speaker:</i> Meritxell Sabidó, DE	12:00 - 12:00 CEST
P743	Clinical effectiveness and safety of cladribine tablets for patients treated at least 12 months in the swedish post-market surveillance study "immunomodulation and multiple sclerosis epidemiology 10" (IMSE 10) <i>Speaker:</i> Victoria Rosengren, SE	12:00 - 12:00 CEST
P744	Reconstitution of lymphocytes following discontinuation of dimethyl fumarate (DMF) due to lymphopenia in the Swedish post-market surveillance study "Immunomodulation and Multiple Sclerosis Epidemiology 5" (IMSE 5) <i>Speaker:</i> Victoria Rosengren, SE	12:00 - 12:00 CEST
P745	Estimating long-term effect of siponimod on disability progression versus virtual placebo in SPMS using RPSFT model: EXPAND data up to 7 years <i>Speaker:</i> Bruce A Cree, US	12:00 - 12:00 CEST
P746	Long-term immune-related adverse events after alemtuzumab <i>Speaker:</i> Rocío López Ruiz, ES	12:00 - 12:00 CEST
P747	Hypogammaglobulinemia and infection rates in ocrelizumab treated multiple sclerosis patients over 3 years: a real-world single center study	12:00 - 12:00 CEST

	<i>Speaker:</i> Bhupendra O Khatri, US	
P748	Real-world longitudinal data of peginterferon beta-1a from the Swedish national post-marketing surveillance study (IMSE 6) – effectiveness and safety profile <i>Speaker:</i> Edit Ekström, SE	12:00 - 12:00 CEST
P749	Blueteq data : EDSS scores in patients on disease modifying therapy at a single centre <i>Speaker:</i> Rachel Dorsey-Campbell, GB	12:00 - 12:00 CEST
P750	Safety of B cell depleting effects of ocrelizumab in patients with multiple sclerosis in clinical practice <i>Speaker:</i> Rami Al-Hader, US	12:00 - 12:00 CEST
P751	DISCOntinuation of disease-modifying therapies in MS (DISCOMS) extension – Study design and baseline demographics <i>Speaker:</i> John Corboy, US	12:00 - 12:00 CEST
P752	Long-term outcome and predictors of long-term disease activity in Natalizumab treated patients with multiple sclerosis – real life data from the Austrian MS Treatment Registry <i>Speaker:</i> Michael Guger, AT	12:00 - 12:00 CEST
P753	COVID-19 in patients with aggressive MS treated with aHSCT: a multi-center study <i>Speaker:</i> Elvira Sbragia, IT	12:00 - 12:00 CEST
P754	Real world data on the use of ocrelizumab. Incidence of lymphopenia, B-cell and immunoglobulins evolution <i>Speaker:</i> Rocío López Ruiz, ES	12:00 - 12:00 CEST
P755	Comparative effectiveness of beta-nterferons and glatramer acetate on physcal and cogntve functons: 6-month follow-up study <i>Speaker:</i> Taha Aslan, TR	12:00 - 12:00 CEST
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP10 - ePoster - Pregnancy in MS		
P168	Estimating risk of disease reactivation during and after pregnancy in multiple sclerosis: the VIMS-Preg score <i>Speaker:</i> Gabriel Bsteh, AT	12:00 - 12:00 CEST
P169	Online education significantly improves knowledge and competence in managing pregnancy in MS patients based on new clinical data <i>Speaker:</i> S Christy Rohani-Montez, GB	12:00 - 12:00 CEST
P170	Drug and neurofilament levels in women with multiple sclerosis treated with natalizumab during pregnancy and lactation <i>Speaker:</i> Undine Proschmann, DE	12:00 - 12:00 CEST

P171	Offspring outcomes among breastfeeding mothers on glatiramer acetate treatment for relapsing multiple sclerosis: subgroup analysis <i>Speaker:</i> Andrea I Ciplea, DE	12:00 - 12:00 CEST
P172	Pregnancy in women with MS – impact on long-term disability in a Danish cohort <i>Speaker:</i> Johanna Balslev Andersen, DK	12:00 - 12:00 CEST
P173	COPP-MS: corticosteroids during the post-partum in relapsing multiple sclerosis patients <i>Speaker:</i> Soizic Leguy, FR	12:00 - 12:00 CEST
P174	Hypogammaglobulinemia during and after pregnancy in women with MS treated with rituximab prior to conception <i>Speaker:</i> Chiara Starvaggi Cucuzza, SE	12:00 - 12:00 CEST
P175	Pregnancy outcomes following exposure to dimethyl fumarate: interim analysis of a prospective international registry <i>Speaker:</i> Kerstin Hellwig, DE	12:00 - 12:00 CEST
P176	Pregnancy outcomes and peripartum disease activity in moderately and severely disabled women with MS <i>Speaker:</i> Bridget Ostrem, US	12:00 - 12:00 CEST
P177	Pregnancy-related outcomes in persons with MS exposed to teriflunomide <i>Speaker:</i> Johanna Balslev Andersen, DK	12:00 - 12:00 CEST
P178	Disease modifying therapy and pregnancy outcomes in multiple sclerosis: a systematic review and meta-analysis <i>Speaker:</i> Shitiz Sriwastava, US	12:00 - 12:00 CEST
P179	Pregnancy and foetal outcomes and breastfeeding practices following maternal exposure to glatiramer acetate <i>Speaker:</i> Sigal Kaplan, IL	12:00 - 12:00 CEST
P180	The association between female infertility and multiple sclerosis – a matched cohort study <i>Speaker:</i> Tine Iskov Kopp, DK	12:00 - 12:00 CEST
P181	Peri-partum MRI activity in multiple sclerosis: interim analysis from PREG-MS cohort <i>Speaker:</i> Preksha Kukreja, US	12:00 - 12:00 CEST
P182	DeMeTeR: <u>D</u>isease <u>M</u>odifying <u>T</u>herapies and disease activity during pregnancy and postpartum in <u>R</u>elapsing multiple sclerosis <i>Speaker:</i> Lescot Lucile, FR	12:00 - 12:00 CEST
P183	A history of pregnancy reduces methylation age acceleration in women with relapse-onset multiple sclerosis <i>Speaker:</i> Maria Pia Campagna, AU	12:00 - 12:00 CEST
P184	Fetal growth, neonatal anthropometric parameters, and post-natal somatic development in offsprings from MS mothers	12:00 - 12:00 CEST

	<i>Speaker:</i> Paola Cavalla, IT	
P185	A multi-country cohort database study to assess pregnancy and infant outcomes in women exposed to cladribine tablets: CLEAR study <i>Speaker:</i> Meritxell Sabidó, DE	12:00 - 12:00 CEST
P186	Brain MRI activity during the year before pregnancy can predict post-partum clinical relapses <i>Speaker:</i> Omri Zveik, IL	12:00 - 12:00 CEST
<i>Poster Session</i> 12:00 - 21:00 CEST		
eP30 - ePoster - Other Biomarkers		
P610	Longitudinal analysis of corneal axonal loss and brain atrophy in multiple sclerosis <i>Speaker:</i> Dhabia Al-Merekhi, QA	12:00 - 12:00 CEST
P611	Postural stability provides additional clinical value as a disability metric compared with brain atrophy in progressive multiple sclerosis <i>Speaker:</i> Siew Mei Yap, IE	12:00 - 12:00 CEST
P612	Sensor-based gait analyses identify qualitative improvement in gait parameters after short-time rehabilitation in a Norwegian MS rehabilitation unit <i>Speaker:</i> Pål Berg-Hansen, NO	12:00 - 12:00 CEST
P613	Microstates in multiple sclerosis: an electrophysiological signature of altered hubs functioning? <i>Speaker:</i> Arianna Sartori, IT	12:00 - 12:00 CEST
P614	B and T cell immunity in MS with anti-CD20 therapy: Gene expression and protein profiles <i>Speaker:</i> Anthony Reder, US	12:00 - 12:00 CEST
P615	Insights into the disconnection patterns in MS by multimodal assessment of structural and functional damage <i>Speaker:</i> Serena Ruggieri, IT	12:00 - 12:00 CEST
P616	Myeloid-derived suppressor cells are biomarkers of milder relapses in a murine model of relapsing remitting multiple sclerosis <i>Speaker:</i> Celia Camacho-Toledano, ES	12:00 - 12:00 CEST
P618	Longitudinal analysis of corneal immune cells in multiple sclerosis <i>Speaker:</i> Karen John, QA	12:00 - 12:00 CEST
P619	Longitudinal analysis of central corneal axonal loss in multiple sclerosis <i>Speaker:</i> Fatima Al-Shibani, QA	12:00 - 12:00 CEST
P620	Clinical predictors of positive autoantibody screening in	12:00 - 12:00

	chronic inflammatory CNS diseases	CEST
	<i>Speaker:</i> Ilya Ayzenberg, DE	
P621	Identification and investigation of novel peripheral blood biomarkers using scRNA-Seq and 21-color flow cytometry for prediction of disease activity, disease progression and treatment response in multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Karine Thai, CA	
P622	Oral teriflunomide effect on visual function in multiple sclerosis: multifocal electroretinogram responses after 12 months of treatment	12:00 - 12:00 CEST
	<i>Speaker:</i> Anna Camos-Carreras, ES	
P623	Ipsilateral silent period is associated with the ability of the box and block test in patients with multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Matthias Grothe, DE	
P624	Assessing cognitive impairment in multiple sclerosis using smartphone-based training games: Results of a feasibility study	12:00 - 12:00 CEST
	<i>Speaker:</i> Silvan Pless, CH	
P625	The cognition in MS patients is related to the redox state of the plasma	12:00 - 12:00 CEST
	<i>Speaker:</i> Anna Gil, ES	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP36 - ePoster - Symptomatic treatment		
P812	Nabiximols efficacy in MS spasticity: treatment effects on spasticity Numeric Rating Scale and muscle spasm frequency in 2 randomised clinical trials	12:00 - 12:00 CEST
	<i>Speaker:</i> Sajida Javaid, GB	
P813	Is there 'wearing off' with Ocrelizumab? Preliminary results of Symptom Burden on Ocrelizumab, a Longitudinal Study (SymbOLS)	12:00 - 12:00 CEST
	<i>Speaker:</i> Rose-Marie Jungquist, US	
P814	Multiple sclerosis and poststroke spasticity: any difference in botulinum toxin injections treatment?	12:00 - 12:00 CEST
	<i>Speaker:</i> Arianna Sartori, IT	
<i>Poster Session</i>		
12:00 - 21:00 CEST		
eP32 - ePoster - Neuroprotection and Repair		
P706	Hydroxychloroquine is promising for neuroprotection in primary progressive MS: an open label, single arm, Phase II futility trial	12:00 - 12:00 CEST
	<i>Speaker:</i> Marcus Koch, CA	
P707	Transnasal delivery of anti-Nogo-A antibody improves disease	12:00 - 12:00

	symptoms in a mouse model of multiple sclerosis <i>Speaker:</i> Vincent Pernet, CH	CEST
P708	Bexarotene treatment leads to durable improvements in visual evoked potential latency; a follow-up study of the Cambridge Centre for Myelin Repair trial One <i>Speaker:</i> Nick G Cunniffe, GB	12:00 - 12:00 CEST
P709	Effect of cladribine tablets in highly active MS monitored by global and regional brain atrophy status <i>Speaker:</i> Alaleh Raji, DE	12:00 - 12:00 CEST
P710	Blockade of bone morphogenetic protein-2/4 induces oligodendrogenesis and remyelination in inflammatory and toxic demyelinating disorders <i>Speaker:</i> Karin Fainberg, IL	12:00 - 12:00 CEST
P711	Extended neuroprotective efficacy of ACT-01 in the animal model of lysolecithin induced demyelination in optic nerve <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P712	Ponesimod in CNS modulates astrocytic genes and protects against limbic fiber demyelination via S1P₁-selective modulation <i>Speaker:</i> Jerold Chun, US	12:00 - 12:00 CEST
P713	Synergistic effects of ACT-01 with dimethyl-fumarate or fingolimod for combination therapy in the EAE animal model of MS <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P714	Phase 1 safety, tolerability and pharmacokinetics of ACT-01, a neuroprotective small molecule for the disease modifying treatment of Acute Optic Neuritis and MS <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P715	Amelioration of disease severity in therapeutic siponimod treatment of chronic experimental autoimmune encephalomyelitis is associated with a downregulation of microglial activity <i>Speaker:</i> Leila Husseini, DE	12:00 - 12:00 CEST
P716	Fingolimod efficacy improved by a CNS vitamin B₁₂ mechanism controlling neuroinflammatory genes <i>Speaker:</i> Yasuyuki Kihara, US	12:00 - 12:00 CEST
P717	Analysis of RP-101074 protective capacities on retinal neurodegeneration and visual function in the non-inflammatory animal model of light-induced photoreceptor loss <i>Speaker:</i> Christina Hecker, DE	12:00 - 12:00 CEST
P718	Siponimod protects retina and higher visual pathway in optic nerve injury model, through its direct modulatory actions on neuronal S1PR1 <i>Speaker:</i> Devaraj Basavarajappa, AU	12:00 - 12:00 CEST

Scientific program

P719	Acute optic neuritis as a clinical model to assess efficacy and safety of ACT-01, a novel neurotrophin-like molecule with potential for disease-modifying treatment <i>Speaker:</i> Pablo Villoslada, ES	12:00 - 12:00 CEST
P720	Comparative assessment of effects of resveratrol and its nano-formulation on mesenchymal stem cells from patients with multiple sclerosis <i>Speaker:</i> Arezoo Rajabian, IR	12:00 - 12:00 CEST
P721	Central versus peripheral drug exposure ratio, a key parameter for therapeutic efficacy of S1P receptor modulators in SPMS <i>Speaker:</i> Marc Bigaud, CH	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP15 - ePoster - Neuro-ophthalmology

P282	Are eye movements and brain networks connected in multiple sclerosis? <i>Speaker:</i> J.A. Nij Bijvank, NL	12:00 - 12:00 CEST
P283	The effect of time to initiation and dose of methylprednisolone on outcome in optic neuritis <i>Speaker:</i> Daniel Golan, IL	12:00 - 12:00 CEST
P284	Primary progressive optic neuropathy may cause early bilateral visual failure in multiple sclerosis <i>Speaker:</i> Iris Kleerekooper, GB	12:00 - 12:00 CEST
P285	Lateral geniculate nucleus: the “pit stop” of anterograde trans-synaptic degeneration in very early RRMS <i>Speaker:</i> Silvia Miante, IT	12:00 - 12:00 CEST
P286	Longitudinal changes of the inner nuclear layer in multiple sclerosis: a marker for burn out of retinal inflammation? <i>Speaker:</i> J.A. Nij Bijvank, NL	12:00 - 12:00 CEST
P287	Prevalence of internuclear ophthalmoplegia in a population-based cohort of patients with multiple sclerosis <i>Speaker:</i> S.N. Hof, NL	12:00 - 12:00 CEST
P288	Reliability of mobile video oculography in a prospective cohort of MS patients <i>Speaker:</i> Mikael Cohen, FR	12:00 - 12:00 CEST

Poster Session

12:00 - 21:00 CEST

eP28 - ePoster - OCT

P542	Optical coherence tomography demonstrates more severe peripapillary retinal nerve fiber layer thickening in acute optic neuritis from myelin oligodendrocyte glycoprotein antibody associated disorder than multiple sclerosis	12:00 - 12:00 CEST
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	<i>Speaker:</i> John Chen, US	
P543	Microglia activation in the inner retina associates and predicts brain inflammatory disease activity in multiple sclerosis <i>Speaker:</i> Marta Pengo, IT	12:00 - 12:00 CEST
P544	Differences in age-related retinal and cortical atrophy rates in multiple sclerosis <i>Speaker:</i> Christian Cordano, US	12:00 - 12:00 CEST
P545	Siponimod preserves retinal thickness, a marker of neurodegeneration, in patients with SPMS: Findings from the EXPAND OCT substudy <i>Speaker:</i> Patrick Vermersch, FR	12:00 - 12:00 CEST
P546	Effects of myopia on longitudinal changes of retinal layer thicknesses in multiple sclerosis measured by optical coherence tomography <i>Speaker:</i> Grigorios Kalaitzidis, US	12:00 - 12:00 CEST
P547	Occurrence of peripapillary hyper-reflective ovoid masslike structures in patients with relapsing remitting and primary progressive multiple sclerosis <i>Speaker:</i> Rebecca Wicklein, DE	12:00 - 12:00 CEST
P548	Retinal vessel loss indicates disability and grey matter atrophy in patients with relapsing remitting multiple sclerosis <i>Speaker:</i> Eva Feodora Romahn, DE	12:00 - 12:00 CEST
P549	Retinal thickness by optic coherence tomography and the risk of cognitive decline in patients with multiple sclerosis <i>Speaker:</i> Elisabet Lopez-Soley, ES	12:00 - 12:00 CEST
P550	The performance of optical coherence tomography in secondary progressive multiple sclerosis: Results from the MS-SMART trial <i>Speaker:</i> Floriana De Angelis, GB	12:00 - 12:00 CEST
P551	Absence of astrocytic outer retinal layer thinning in AQP4-IgG seropositive neuromyelitis optica spectrum disorders <i>Speaker:</i> Angelo Lu, DE	12:00 - 12:00 CEST
P552	Retinal layer thinning after optic neuritis as a predictor of future relapse remission in relapsing multiple sclerosis <i>Speaker:</i> Gabriel Bsteh, AT	12:00 - 12:00 CEST
P553	Structural visual metrics associate with moderate to vigorous physical activity in youth with pediatric-onset neuroinflammatory disorders <i>Speaker:</i> Juweiriya Ahmed, CA	12:00 - 12:00 CEST
P554	Retinal OCT as a biomarker of conversion to SPMS: a prospective longitudinal study <i>Speaker:</i> Hadi Sabbagh, LB	12:00 - 12:00 CEST
P555	Ganglion cell-inner plexiform layer is a marker of brain neuronal	12:00 - 12:00

	loss in multiple sclerosis	CEST
	<i>Speaker:</i> Alessandro Cagol, CH	
P556	CNS involvement in chronic inflammatory demyelinating polyneuropathy: subtle retinal changes in optical coherence tomography	12:00 - 12:00 CEST
	<i>Speaker:</i> Jens Ingwersen, DE	
P557	Investigating the relationship between clinical disability, retinal integrity, and choroid plexus volume in relapsing-remitting multiple sclerosis patients	12:00 - 12:00 CEST
	<i>Speaker:</i> Samiksha Srivastava, US	
P558	Retinal nerve fiber layer as a biomarker of axonal damage in multiple sclerosis patients using machine learning techniques	12:00 - 12:00 CEST
	<i>Speaker:</i> Alberto Montolío, ES	
P559	Retinal degeneration in myelin oligodendrocyte glycoprotein-associated disease: a single centre Italian study	12:00 - 12:00 CEST
	<i>Speaker:</i> Eleonora Rigoni, IT	
P560	Association of the retinal vasculature and intrathecal immunity during relapsing remitting multiple sclerosis	12:00 - 12:00 CEST
	<i>Speaker:</i> Christina Noll, DE	
P561	Effect of ocrelizumab treatment on retinal atrophy: preliminary results from a single-center prospective observational study	12:00 - 12:00 CEST
	<i>Speaker:</i> Maria Cellerino, IT	
P562	Defining subclinical optic neuritis: Optical coherence tomography calls for MRI	12:00 - 12:00 CEST
	<i>Speaker:</i> Marco Puthenparampil, IT	
P563	Optical coherence tomography in primary progressive multiple sclerosis: INL thinning as a possible biomarker of response to ocrelizumab	12:00 - 12:00 CEST
	<i>Speaker:</i> Alessandro Miscioscia, IT	
P564	Spectral-domain optical coherence tomography assessment in treatment-naïve patients with clinically isolated syndrome and different multiple sclerosis types: findings and relationship with the disability status	12:00 - 12:00 CEST
	<i>Speaker:</i> ?ukasz Rzepi?ski, PL	

Plenary Sessions
 13:30 - 15:00 CEST

R2

Time to visit the exhibition and to network with colleagues

Satellite Symposium
 13:45 - 14:45 CEST

R1

Satellite Symposium 5 - Advancing MS care: New treatments and technologies

Sponsored by Biogen

Chair: Thomas Berger, AT

Scientific program

Chair's welcome and introduction	13:45 - 13:50
<i>Speaker:</i> Thomas Berger, AT	CEST
Approaches to customising MS treatment and monitoring	13:50 - 14:10
<i>Speaker:</i> Joep Killestein, NL	CEST
Faculty discussion	14:10 - 14:15
	CEST
Artificial intelligence and MS: Predicting progression and response to therapy	14:15 - 14:25
<i>Speaker:</i> Jiwon Oh, CA	CEST
Q&A and closing	14:25 - 14:45
	CEST
<i>Satellite Symposium</i>	
13:45 - 14:30 CEST	R2
Satellite Symposium 6 - Treating to target in multiple sclerosis: Why, How, and When	
Sponsored by Novartis	
<i>Chair:</i> Martin Duddy, GB	
Welcome and introduction	13:45 - 13:47
<i>Speaker:</i> Martin Duddy, GB	CEST
Targeting MS pathology: Are we using the right treatment at the right time?	13:47 - 13:57
<i>Speaker:</i> Laura Airas, FI	CEST
Targeting outcomes in MS: Keeping 'on-target' in the COVID-19 era	13:57 - 14:07
<i>Speaker:</i> Ann Bass, US	CEST
Targeting the burden of MS: Can treatment advances help lift the load?	14:07 - 14:17
<i>Speaker:</i> Massimo Filippi, IT	CEST
Q&A	14:17 - 14:28
	CEST
Concluding remarks	14:28 - 14:30
<i>Speaker:</i> Martin Duddy, GB	CEST
<i>Clinical</i>	
15:00 - 16:30 CEST	R1
Scientific Session 8: Paediatric inflammatory demyelinating CNS disorders	
<i>Chair:</i> Barbara Kornek, AT	
<i>Chair:</i> Silvia Tenenbaum, AR	
Introduction by chairs	15:00 - 15:05
	CEST
MOG-antibody associated diseases in children	15:05 - 15:20
<i>Speaker:</i> Kevin Rostásy, DE	CEST
Now they are grown-up: longterm prognosis in paediatric MS	15:20 - 15:35
<i>Speaker:</i> Brenda Banwell, US	CEST
Platform presentations of related original papers	15:35 - 15:35

Scientific program

071	Ten year follow-up surveillance of paediatric Acquired Demyelinating Syndromes (ADS) in the United Kingdom <i>Speaker:</i> Omar Abdel-Mannan, GB	15:35 - 15:42 CEST
072	Social networks in pediatric onset multiple sclerosis are associated with less peer pressure <i>Speaker:</i> Wendy Vargas, US	15:42 - 15:49 CEST
073	Functional MRI correlates of intelligence quotient and visual-motor coordination in pediatric multiple sclerosis <i>Speaker:</i> Chiara Curatoli, IT	15:49 - 15:56 CEST
074	Characteristic retinal atrophy pattern allows differentiation between paediatric MOGAD and MS after a single optic neuritis episode <i>Speaker:</i> Ilya Ayzenberg, DE	15:56 - 16:03 CEST
	Live discussion	16:03 - 16:30 CEST
<i>Pathogenesis</i> 15:00 - 16:30 CEST		R3
Scientific Session 9: Genetics and epigenetics		
<i>Chair:</i> Stephen Sawcer, GB		
<i>Chair:</i> Alexander Zimprich, AT		
	Introduction by chairs	15:00 - 15:05 CEST
075	Where are we now? <i>Speaker:</i> Chris Cotsapas, US	15:05 - 15:20 CEST
076	What needs to be done? <i>Speaker:</i> An Goris, BE	15:20 - 15:35 CEST
	Platform presentations of related original papers	15:35 - 15:35 CEST
077	Similar familial risk and heritability in relapsing and progressive onset multiple sclerosis <i>Speaker:</i> Ali Manouchehrinia, SE	15:35 - 15:42 CEST
078	Genetic variation in <i>WNT9B</i> increases relapse hazard in multiple sclerosis <i>Speaker:</i> Marijne Vandebergh, BE	15:42 - 15:49 CEST
079	Whole-blood methylation is associated with disease severity in relapse-onset multiple sclerosis <i>Speaker:</i> Maria Pia Campagna, AU	15:49 - 15:56 CEST
080	A gene-set analysis suggests the possible involvement of iron homeostasis in neurodegeneration in progressive multiple sclerosis <i>Speaker:</i> Antonino Giordano, IT	15:56 - 16:03 CEST
	Live discussion	16:03 - 16:30 CEST

*Scientific program**Pathogenesis*

15:00 - 16:00 CEST

R10

Young Scientific Investigators' Session 1: Pathogenesis and natural history*Chair:* Viktoria Papp, DK*Chair:* Franziska Di Pauli, AT

	Introduction by chairs	15:00 - 15:05 CEST
081	Comprehensive autoantigen panel to determine individual immune profiles in multiple sclerosis <i>Speaker:</i> Olivia Thomas, SE	15:05 - 15:12 CEST
082	Inhibitory synaptic loss and network dysfunction in MS: an <i>ex-vivo</i> to <i>in-silico</i> translational study <i>Speaker:</i> Marijn Huiskamp, NL	15:12 - 15:19 CEST
083	Endosomal sorting complex III is dysregulated in cortical neurons in progressive MS and associated with necroptosis activation <i>Speaker:</i> Carmen Picon, GB	15:19 - 15:26 CEST
084	Natural history of multiple sclerosis with childhood and adolescence onset <i>Speaker:</i> Ermelinda De Meo, IT	15:26 - 15:33 CEST
085	Olfactory threshold predicts treatment response in relapsing multiple sclerosis <i>Speaker:</i> Gabriel Bsteh, AT	15:33 - 15:40 CEST
	Live discussion	15:40 - 16:00 CEST

Imaging and non-imaging biomarkers/Translational

15:00 - 16:30 CEST

Scientific Session 10: Body-fluid biomarkers*Chair:* Georgina Arrambide, ES*Chair:* Michael Khalil, AT

	Introduction by chairs	15:00 - 15:05 CEST
	Neurofilaments: ready for routine clinical use? <i>Speaker:</i> Jens Kuhle, CH	15:05 - 15:20 CEST
086	Emerging biomarkers <i>Speaker:</i> Charlotte Teunissen, NL	15:20 - 15:35 CEST
	Platform presentations of related original papers	15:35 - 15:35 CEST
087	Association of serum neurofilament light levels and disease progression in patients with relapsing remitting multiple sclerosis treated with natalizumab <i>Speaker:</i> Claire Bridel, CH	15:35 - 15:42 CEST
088	Serum neurofilament light chain is associated with longitudinal brain atrophy and radiological disease activity in the MS PATHS network <i>Speaker:</i> Elias Sotirchos, US	15:42 - 15:49 CEST

Scientific program

089	Serum and CSF metabolomics detect clinically-silent neuroinflammatory lesions earlier than neurofilament-light in a focal delayed-type hypersensitivity multiple sclerosis rat model <i>Speaker:</i> Tianrong Yeo, GB	15:49 - 15:56 CEST
090	CSF proteins Carboxypeptidase-E and Semaphorin-7A are associated with pediatric-onset MS <i>Speaker:</i> A.L. Bruijstens, NL	15:56 - 16:03 CEST
	Live discussion	16:03 - 16:30 CEST

Therapy / Global views

15:00 - 16:30 CEST

Scientific Session 11: Global networks in MS*Chair:* Alexey Boyko, RU*Chair:* Jefferson Becker, BR

	Introduction by chairs	15:00 - 15:05 CEST
	Cross-border MS health care collaborations: chances and hurdles <i>Speaker:</i> Bernhard Hemmer, DE	15:05 - 15:20 CEST
091	Standardization of MS care: advantages and needs <i>Speaker:</i> Bassem Yamout, LB	15:20 - 15:35 CEST
092	Barriers to access and utilization of MS care services <i>Speaker:</i> Victor Fernando Hamuy Diaz de Bedoya, PY	15:35 - 15:50 CEST
	The power of global scientific collaboration <i>Speaker:</i> Kazuo Fujihara, JP	15:50 - 16:05 CEST
	Live discussion	16:05 - 16:30 CEST

Therapy / Global views

15:00 - 16:00 CEST

R9

Meet the Expert 1: Vaccines and b-cell targeting treatments in MS*Chair:* Susana Otero-Romero, ES*Chair:* Andreas Lutterotti, CH*Educational Sessions*

15:00 - 16:00 CEST

Educational Session 6: Infections and MS

Supported by an unrestricted educational grant from Novartis

Chair: Thomas Berger, AT*Chair:* Renaud Du Pasquier, CH

	Introduction by chairs	15:00 - 15:05 CEST
093	COVID-19 pandemic: multiple sclerosis patients under disease-modifying therapies <i>Speaker:</i> Thomas Berger, AT	15:05 - 15:20 CEST
094	The risk of infection among patients treated with disease-	15:20 - 15:35

Scientific program

	modifying therapies: factors to consider	CEST
	<i>Speaker:</i> Anna Fogdell-Hahn, SE	
095	Opportunistic infections under disease-modifying therapies	15:35 - 15:50
	<i>Speaker:</i> Renaud Du Pasquier, CH	CEST
	Live discussion	15:50 - 16:00
		CEST
<i>Clinical</i>		
16:45 - 17:45 CEST		
R1		
Free Communication 1: COVID-19		
<i>Chair:</i> Maura Pugliatti, IT		
<i>Chair:</i> Harald Hegen, AT		
	Introduction by chairs	16:45 - 16:50
		CEST
096	COVID-19 severity and mortality in multiple sclerosis do not depend on immunotherapy: insights from a nation-wide Austrian Registry	16:50 - 16:57
	<i>Speaker:</i> Gabriel Bsteh, AT	CEST
097	No association between rituximab infusion timing nor cumulative dose and hospitalization for COVID-19: evidence from the nationwide COMBAT-MS Cohort	16:57 - 17:04
	<i>Speaker:</i> Thomas Frisell, SE	CEST
098	Updated results of the COVID-19 in MS global data sharing initiative validate consistent associations of anti-CD20 and other reported risk factors with severe COVID-19 outcomes	17:04 - 17:11
	<i>Abstract Presenter:</i> Steve Simpson-Yap, AU	CEST
099	Effect of SARS-CoV-2 mRNA vaccination in multiple sclerosis patients treated with disease modifying therapies	17:11 - 17:18
	<i>Abstract Presenter:</i> Maria Pia Sormani, IT	CEST
100	ECTRIMS-EAN European consensus on vaccination in patients with multiple sclerosis: improving immunization strategies in the era of highly active immunotherapeutic drugs	17:18 - 17:25
	<i>Abstract Presenter:</i> Susana Otero-Romero, ES	CEST
	Live discussion	17:25 - 17:45
		CEST
<i>Clinical</i>		
16:45 - 17:45 CEST		
R2		
Young Scientific Investigators' Session 2: Clinical - from prognosis to burden		
<i>Chair:</i> Daniela Pinter, AT		
<i>Chair:</i> Mario Habek, HR		
	Introduction by chairs	16:45 - 16:50
		CEST
101	Early identification of multiple sclerosis patients with normal brain MRI at onset	16:50 - 16:57
	<i>Speaker:</i> Sarah Wright, GB	CEST
102	Social determinants of health in relapsing remitting multiple	16:57 - 17:04

	sclerosis patients	CEST
	<i>Speaker:</i> Justin Abbateamarco, US	
103	Cardiometabolic comorbidity is associated with longitudinal total brain and gray matter compartment atrophy in a large multiple sclerosis cohort	17:04 - 17:11 CEST
	<i>Speaker:</i> Kathryn Fitzgerald, US	
104	Early treatment can postpone the time to disability pension in relapsing-remitting multiple sclerosis	17:11 - 17:18 CEST
	<i>Speaker:</i> Malthe Wandall-Holm, DK	
105	Autologous hematopoietic stem cell transplantation reduces disability progression in patients with secondary progressive multiple sclerosis: results from the Italian MS Register	17:18 - 17:25 CEST
	<i>Speaker:</i> Giacomo Boffa, IT	
	Live discussion	17:25 - 17:45 CEST
<i>Pathogenesis</i>		
	16:45 - 17:45 CEST	R3
Hot Topic 8: Neurodegeneration in demyelinating CNS diseases		
<i>Chair:</i> Sonja Hochmeister, AT		
<i>Chair:</i> Nikos Evangelou, GB		
	Introduction by chairs	16:45 - 16:50 CEST
106	Neurodegeneration in gray matter of MS and NMOSD	16:50 - 17:00 CEST
	<i>Speaker:</i> Izumi Kawachi, JP	
107	Neuronal vulnerability and multilineage diversity in MS	17:00 - 17:10 CEST
	<i>Speaker:</i> Lucas Schirmer, DE	
108	Treatment targets in neurodegenerative processes of MS	17:10 - 17:20 CEST
	<i>Speaker:</i> Catherine Lubetzki, FR	
	Live discussion	17:20 - 17:45 CEST
<i>Pathogenesis</i>		
	16:45 - 17:45 CEST	R10
Hot Topic 9: Translation of advances in experimental inflammation to (treatment strategies in) MS		
<i>Chair:</i> Monika Bradl, AT		
<i>Chair:</i> Bert 't Hart, NL		
	Introduction by chairs	16:45 - 16:50 CEST
109	T-cells: a revisited view on phenotypes and functions	16:50 - 17:00 CEST
	<i>Speaker:</i> Francesca Odoardi, DE	
110	Microglia and complement: key components of neural circuit degeneration in multiple sclerosis.	17:00 - 17:10 CEST
	<i>Speaker:</i> Dorothy P Schafer, US	
	The role of fibrin	17:10 - 17:20 CEST
	<i>Speaker:</i> Katerina Akassoglou, US	

Scientific program

	Live discussion	17:20 - 17:45 CEST
<i>Imaging and non-imaging biomarkers/Translational</i>		
16:45 - 17:45 CEST		
Meet the Expert 2: MRI in clinical practice: lesions, atrophy and beyond		
<i>Chair:</i> Mike P. Wattjes, DE		
<i>Chair:</i> Mar Tintoré, ES		
<i>Imaging and non-imaging biomarkers/Translational</i>		
16:45 - 17:45 CEST		
	Hot Topic 10: Cortical demyelination – a key factor in disease progression	R11
<i>Chair:</i> Christine Stadelmann-Nessler, DE		
<i>Chair:</i> Simon Hametner, AT		
	Introduction by chairs	16:45 - 16:50 CEST
111	Meningeal inflammation first <i>Speaker:</i> Richard Reynolds, GB	16:50 - 17:00 CEST
112	Factors causing cortical demyelination <i>Speaker:</i> Jeffrey Bennett, US	17:00 - 17:10 CEST
113	Imaging of cortical demyelination <i>Speaker:</i> Roberta Magliozzi, IT	17:10 - 17:20 CEST
	Live discussion	17:20 - 17:45 CEST
<i>Therapy / Global views</i>		
16:45 - 17:45 CEST		
Free Communication 2: Treatment trials - Immunomodulation		
<i>Chair:</i> Carmen Infante Duarte, DE		
<i>Chair:</i> Jan Bauer, AT		
	Introduction by chairs	16:45 - 16:50 CEST
114	Phase 2 safety and efficacy study of intrathecal MSC-NTF cells in progressive multiple sclerosis <i>Speaker:</i> Jeffrey Cohen, US	16:50 - 16:57 CEST
115	Effects of evobrutinib, a Bruton's tyrosine kinase inhibitor, on slowly expanding lesions: an emerging imaging marker of chronic tissue loss in multiple sclerosis <i>Speaker:</i> Douglas L Arnold, CA	16:57 - 17:04 CEST
116	Evobrutinib significantly reduces relapses and magnetic resonance imaging outcomes in patients with multiple sclerosis: association with baseline neurofilament light chain levels <i>Speaker:</i> Jens Kuhle, CH	17:04 - 17:11 CEST
117	Phase 3 results of the ULTIMATE I & II global studies: ublituximab versus teriflunomide in relapsing multiple sclerosis <i>Speaker:</i> Lawrence Steinman, US	17:11 - 17:18 CEST

Scientific program

118	Indirect comparison analysis of FDA-approved treatment options for adults with aquaporin-4 immunoglobulin G-positive neuromyelitis optica spectrum disorder <i>Speaker:</i> Dean M Wingerchuk, US	17:18 - 17:25 CEST
	Live discussion	17:25 - 17:45 CEST
<i>Therapy / Global views</i>		
	16:45 - 17:45 CEST	R9
Burning Debate: B-cell depletion therapies (anti-CD20) should be administered indefinitely according to their marketing authorisations as a treatment for multiple sclerosis		
<i>Chair:</i> Jiwon Oh, CA		
	Introduction by chair	16:45 - 16:50 CEST
	For the motion <i>Speaker:</i> Fredrik Piehl, SE	16:50 - 17:05 CEST
	Against the motion <i>Speaker:</i> Emma Tallantyre, GB	17:05 - 17:20 CEST
	Live discussion	17:20 - 17:45 CEST
<i>Clinical</i>		
	18:00 - 18:45 CEST	R1
Poster Tour 5 - Clincial		
<i>Chair:</i> Harald Hegen, AT		
P105	Cortical lesions at diagnosis predict conversion to secondary progressive multiple sclerosis and accumulation of disability: a 20-year follow-up study <i>Speaker:</i> Gian Marco Schiavi, IT	18:00 - 18:05 CEST
P064	NODDI microstructural abnormalities in normal-appearing gray matter and white matter contribute to cognitive impairment in multiple sclerosis <i>Speaker:</i> Paolo Preziosa, IT	18:05 - 18:10 CEST
P025	Early predictors of disability of paediatric-onset AQP4-IgG seropositive neuromyelitis optica spectrum disorders <i>Speaker:</i> Valentina Camera, GB	18:10 - 18:15 CEST
P002	Do we need separate MRI diagnostic criteria for primary progressive multiple sclerosis? <i>Speaker:</i> Madiha Shatila, GB	18:15 - 18:20 CEST
P024	Long-term efficacy of satralizumab in aquaporin-4-IgG-seropositive neuromyelitis optica spectrum disorder (NMOSD): Results from the open-label extension periods of SAKuraSky and SAKuraStar <i>Speaker:</i> Ingo Kleiter, DE	18:20 - 18:25 CEST
P187	COVID-19 vaccination in patients with multiple sclerosis: what we have learnt by May 2021	18:25 - 18:30 CEST

Speaker: Sapir Dreyer-Alster, IL

Live discussion

18:30 - 18:45
CEST

Poster Session

18:00 - 20:00 CEST

R1

Poster Viewing 2

Pathogenesis

18:00 - 18:45 CEST

R3

Poster Tour 6 - Pathogenesis

Chair: Tobias Zrzavy, AT

P321	Characterization of a neuromyelitis optica mice model induced by AQP4 peptide immunization <i>Speaker:</i> Kenichi Serizawa, JP	18:00 - 18:05 CEST
P336	T cell reactivity screening reveals four novel CNS autoantigens in multiple sclerosis <i>Speaker:</i> Mattias Bronge, SE	18:05 - 18:10 CEST
P337	Towards the suppression of the disease-relevant brain-homing T cell in multiple sclerosis <i>Speaker:</i> Steven Koetzier, NL	18:10 - 18:15 CEST
P340	Astrocytes pre-exposed to CSF from multiple sclerosis patients with inflammatory phenotype exhibit a specific reactive phenotype and induce neuronal dysfunction <i>Speaker:</i> Clara Matute-Blanch, ES	18:15 - 18:20 CEST
P342	Deficient response of blood neutrophils to cell death stimuli differentiates AQP4-IgG seropositive NMOSD from MOGAD patients <i>Speaker:</i> María Schroeder-Castagno, DE	18:20 - 18:25 CEST
P398	Chronic demyelination-induced cell senescence is responsible for motor impairment in a model of MS <i>Speaker:</i> Irimi Papazian, GR	18:25 - 18:30 CEST
	Live discussion	18:30 - 18:45 CEST

Imaging and non-imaging biomarkers/Translational

18:00 - 18:45 CEST

Poster Tour 7 - Imaging and non-imaging biomarkers / Translational

Chair: Krzysztof Selmaj, PL

P404	Machine learning-based prediction of new multiple sclerosis lesion formation using radiomic features from pre-lesion normal-appearing white matter <i>Speaker:</i> Bastien Caba, FR	18:00 - 18:05 CEST
P405	Decreased neuroaxonal integrity in early relapse onset multiple sclerosis is associated with long-term disability at 15 years <i>Speaker:</i> Nevin A John, GB	18:05 - 18:10 CEST

Scientific program

P407	Long-term suppression of MRI disease activity and reduction of global/regional volume loss: results from OPERA I/II and ORATORIO open-label extension <i>Speaker:</i> Douglas L Arnold, CA	18:10 - 18:15 CEST
P408	Defining the spinal cord reserve concept in multiple sclerosis - measurement and association with disability of the spinal cord canal area <i>Speaker:</i> Jaume Sastre-Garriga, ES	18:15 - 18:20 CEST
P420	Hypothalamic subregional volumes are associated with fatigue, depression, and sleep disturbance in a large cohort of patients with multiple sclerosis <i>Speaker:</i> Lindsay Ross, US	18:20 - 18:25 CEST
P416	Predicting disability progression with patterns of white matter and grey matter changes in secondary progressive multiple sclerosis using standardised T1w/T2w maps <i>Speaker:</i> Elisa Colato, GB	18:25 - 18:30 CEST
	Live discussion	18:30 - 18:45 CEST

Therapy / Global views

18:00 - 18:45 CEST

Poster Tour 8 - Therapy / Global views*Chair:* Franziska Di Pauli, AT

P627	Efficacy and safety of ocrelizumab in patients with RRMS with suboptimal response to prior disease-modifying therapies: 3-year data from CASTING and LIBERTO 1-year interim results???? <i>Speaker:</i> Bart Van Wijmeersch, BE	18:00 - 18:05 CEST
P630	Disease-modifying therapy effect on COVID-19 vaccine response in multiple sclerosis patients: data from two New York State Multiple Sclerosis Consortium centers <i>Speaker:</i> Bianca Weinstock-Guttman, US	18:05 - 18:10 CEST
P708	Bexarotene treatment leads to durable improvements in visual evoked potential latency; a follow-up study of the Cambridge Centre for Myelin Repair trial One <i>Speaker:</i> Nick G Cunniffe, GB	18:10 - 18:15 CEST
P757	Personalized B-cell tailored dosing of ocrelizumab in patients with multiple sclerosis during the COVID-19 pandemic <i>Speaker:</i> Zoë Yolande Germieke Jocelyn van Lierop, NL	18:15 - 18:20 CEST
P819	Comparative analysis of dimethyl fumarate and teriflunomide in relapsing-remitting multiple sclerosis <i>Speaker:</i> Jannis Müller, CH	18:20 - 18:25 CEST
P818	Disease reactivation after cessation of disease-modifying therapy in relapsing-remitting multiple sclerosis <i>Speaker:</i> Izanne Roos, AU	18:25 - 18:30 CEST

Live discussion	18:30 - 18:45 CEST
<i>Satellite Symposium</i> 19:00 - 20:00 CEST	R1
Satellite Symposium 7 -The future is today: Reflecting on an optimized patient journey based on clinical scenarios	
Sponsored by Janssen	
<i>Chair:</i> Gavin Giovannoni, GB	
<i>Chair:</i> Iris-Katharina Penner, DE	
<i>Chair:</i> Giancarlo Comi, IT	
Welcome and introduction	19:00 - 19:03 CEST
Mind and matter: Prognostic biomarkers and cognitive testing explored	19:03 - 19:21 CEST
Uncovering patient priorities: The conflict between COVID-19 vaccination and treatment delay analysed	19:21 - 19:39 CEST
Family planning: Accounting for patients' future plans	19:39 - 19:57 CEST
Summary and close	19:57 - 20:00 CEST
<i>Satellite Symposium</i> 19:00 - 20:00 CEST	R2
Satellite Symposium 8 - Treating early MS and the challenge of cognition: An Expert Conversation	
Sponsored by Bristol Myers Squibb	
<i>Chair:</i> Hans-Peter Hartung, DE	
Panel introduction and symposium objectives	19:00 - 19:05 CEST
<i>Speaker:</i> Hans-Peter Hartung, DE	
The importance and challenge of treating early MS	19:05 - 19:20 CEST
<i>Speaker:</i> Hans-Peter Hartung, DE	
<i>Speaker:</i> Dawn Langdon, GB	
<i>Speaker:</i> Iris-Katharina Penner, DE	
<i>Speaker:</i> Bruno Brochet, FR	
Addressing cognition	19:20 - 19:35 CEST
<i>Speaker:</i> Hans-Peter Hartung, DE	
<i>Speaker:</i> Dawn Langdon, GB	
<i>Speaker:</i> Iris-Katharina Penner, DE	
<i>Speaker:</i> Bruno Brochet, FR	
Integrating cognitive assessments in clinical practice	19:35 - 19:50 CEST
<i>Speaker:</i> Hans-Peter Hartung, DE	
<i>Speaker:</i> Dawn Langdon, GB	
<i>Speaker:</i> Iris-Katharina Penner, DE	
<i>Speaker:</i> Bruno Brochet, FR	
Live Q&A	19:50 - 20:00 CEST

Friday, 15 October, 2021

Satellite Symposium
 10:45 - 11:45 CEST

R1

Satellite Symposium 9 - Unraveling the complexities of NMSOD

Sponsored by Horizon Therapeutics

Chair: Benjamin M. Greenberg, US

Advanced NMSOD: B cells and beyond

10:45 - 11:15

Speaker: Benjamin M. Greenberg, US

CEST

NMOSD in the therapeutic era

11:15 - 11:45

Speaker: Friedemann Paul, DE

CEST

Clinical
 12:00 - 13:30 CEST

R1

Scientific Session 12: Patients' perspectives

Chair: Maria Pia Amato, IT

Chair: Oscar Fernandez-Fernandez, ES

Introduction by chairs

12:00 - 12:05

CEST

119 **Strategies to implement patient-related outcomes in routine practice**

12:05 - 12:20

CEST

Speaker: Patricia K. Coyle, US

120 **Patients' needs and perspectives to improve treatment decision-making**

12:20 - 12:35

CEST

Speaker: Daniel Golan, IL

Platform presentations of related original papers

12:35 - 12:35

CEST

121 **The Barcelona baseline risk score to predict long-term prognosis: a 360° multidimensional confirmation**

12:35 - 12:42

CEST

Speaker: Mar Tintoré, ES

122 **Subclinical burden of multiple sclerosis at EDSS 0**

12:42 - 12:49

CEST

Speaker: Stephen Krieger, US

123 **Measuring patient-reported upper limb function in multiple sclerosis clinical trials: Can item banks achieve measurement nirvana?**

12:49 - 12:56

CEST

Speaker: Jeremy Hobart, GB

124 **Smartphone monitoring of cognition and walking function in multiple sclerosis**

12:56 - 13:03

CEST

Speaker: Ka Hoo Lam, NL

Live Discussion

13:03 - 13:30

CEST

Scientific program

Clinical

12:00 - 13:00 CEST

R2

Meet the Expert 3: Differential diagnosis: atypical MS and MS mimics

Chair: Aksel Siva, TR

Chair: Celia Oreja-Guevara, ES

Pathogenesis

12:00 - 13:30 CEST

R3

Scientific Session 13: B-cells responses in MS: phenotypes and interactions

Chair: Mireia Sospedra Ramos, CH

Chair: Amit Bar-Or, US

	Introduction by chairs	12:00 - 12:05 CEST
125	B-cell phenotypes in MS <i>Speaker:</i> Simon Fillatreau, FR	12:05 - 12:20 CEST
	B-cell responses based on molecular diagnosis <i>Speaker:</i> Bibiana Bielekova, US	12:20 - 12:35 CEST
	Platform presentations of related original papers	12:35 - 12:35 CEST
126	Formation and immunomodulatory function of meningeal B cell aggregates in progressive CNS autoimmunity <i>Speaker:</i> Meike Mitsdoerffer, DE	12:35 - 12:42 CEST
127	Brain-infiltrating B cells in MS: from peripheral induction to local effector function <i>Speaker:</i> Marvin M. van Luijn, NL	12:42 - 12:49 CEST
128	The role of peripheral autoreactive antibodies in initiation and propagation of central nervous system demyelinating disorders <i>Speaker:</i> Marie Freier, DE	12:49 - 12:56 CEST
129	Humoral and cell-based responses following SARS-CoV-2 mRNA vaccination of patients with multiple sclerosis on B-cell depleting therapy <i>Speaker:</i> Mihir Kakara, US	12:56 - 13:03 CEST
	Live discussion	13:03 - 13:30 CEST

Pathogenesis

12:00 - 13:00 CEST

R10

Free Communication 3: Pathology

Chair: Iris-Katharina Penner, DE

Chair: Afrim Blyta, XK

	Introduction by chairs	12:00 - 12:05 CEST
130	Combined MRI and neuropathology pattern characterization of subpial cortical lesion activity in multiple sclerosis <i>Speaker:</i> Roberta Magliozzi, IT	12:05 - 12:12 CEST
131	High-resolution quantitative MRI of postmortem multiple sclerosis spinal cord detects lesions with both complete	12:12 - 12:19 CEST

	demyelination and intermediate pathology	
	<i>Speaker:</i> Kedar Mahajan, US	
132	The contribution of active inflammatory pathology and local complement activation in the thalamus to progressive multiple sclerosis outcome	12:19 - 12:26 CEST
	<i>Speaker:</i> Owain Howell, GB	
133	High dimensional single-cell profiling identifies NK-like CD8+ T cells with high cytotoxic properties that are the reservoir of clonal cells related to disease activity in multiple sclerosis	12:26 - 12:33 CEST
	<i>Speaker:</i> Emilie Dugast, FR	
134	Single cell analysis of cerebrospinal fluid leukocytes in treated multiple sclerosis patients	12:33 - 12:40 CEST
	<i>Speaker:</i> Gerd Meyer zu Hörste, DE	
	Live discussion	12:40 - 13:00 CEST
<i>Imaging and non-imaging biomarkers/Translational</i>		
12:00 - 13:30 CEST		
Scientific Session 14: Advanced MRI methods for assessing changes in brain metabolism and tissue structure		
<i>Chair:</i> Stefan Ropele, AT		
<i>Chair:</i> Hugo Vrenken, NL		
	Introduction by chairs	12:00 - 12:05 CEST
135	High resolution chemical shift imaging in MS	12:05 - 12:20 CEST
	<i>Speaker:</i> Wolfgang Bogner, AT	
136	Imaging of white matter integrity	12:20 - 12:35 CEST
	<i>Speaker:</i> Maria Assunta Rocca, IT	
	Platform presentations of related original papers	12:35 - 12:35 CEST
137	Cervical spinal cord T2 lesions independently predict early conversion to secondary progressive multiple sclerosis: a longitudinal 10-year study	12:35 - 12:42 CEST
	<i>Speaker:</i> Laura Lacruz-Ballester, ES	
138	Longitudinal changes in brain substructure volumes and retinal layer thicknesses following acute optic neuritis in multiple sclerosis: <i>in-vivo</i> evidence for clinically relevant trans-synaptic degeneration	12:42 - 12:49 CEST
	<i>Speaker:</i> Olwen C. Murphy, US	
139	Functional connectivity networks estimated via deep learning outperform observed functional connectivity networks in classifying people with multiple sclerosis by disability level	12:49 - 12:56 CEST
	<i>Speaker:</i> Ceren Tozlu, US	
140	Selecting structural MRI predictors of cognitive status in MS patients through a machine learning approach applied to a large multicenter MS population	12:56 - 13:03 CEST

*Scientific program**Speaker:* Alessandro d'Ambrosio, IT**Live discussion**13:03 - 13:30
CEST*Therapy / Global views*

12:00 - 13:30 CEST

Scientific Session 15: Neurorehabilitation in MS – delete old views and see new ways*Chair:* Hanneke Hulst, NL*Chair:* Alan J. Thompson, GB**Introduction by chairs**12:00 - 12:05
CEST141 **The potential of exercise during the course of MS**12:05 - 12:20
CEST*Speaker:* Ulrik Dalgas, DK142 **The potential of motor imagery in neurorehabilitation of MS**12:20 - 12:35
CEST*Speaker:* Barbara Seebacher, AT**Platform presentations of related original papers**12:35 - 12:35
CEST143 **Disease-modifying and neuroprotective efficacy of exercise therapy early in the disease course of multiple sclerosis - The Early Multiple Sclerosis Exercise Study (EMSES)**12:35 - 12:42
CEST*Speaker:* Morten Riemenschneider, DK144 **Cardiorespiratory fitness and free-living physical activity are not associated with cognition in persons with progressive multiple sclerosis: baseline analyses from the COGEX study**12:42 - 12:49
CEST*Speaker:* Brian Sandroff, US145 **Nabiximols reduces muscle tone in multiple sclerosis spasticity: differential effects in Modified Ashworth Scale muscle groups in 2 randomised clinical trials**12:49 - 12:56
CEST*Speaker:* Jacqueline Nicholas, US146 **Successful long-term management of spasticity in people with multiple sclerosis using a software application (App): Results from a randomized-controlled, multicenter study**12:56 - 13:03
CEST*Speaker:* Rainer Ehling, AT**Live discussion**13:03 - 13:30
CEST*Therapy / Global views*

12:00 - 13:00 CEST

Free Communication 4: Treatment trials - Neuroprotection and remyelination*Chair:* Raed Alroughani, KW*Chair:* Laura Airas, FI**Introduction by chairs**12:00 - 12:05
CEST147 **Efficacy and safety of opicinumab in participants with relapsing multiple sclerosis: a randomized, placebo-controlled, Phase 2 trial (AFFINITY Part 1)**12:05 - 12:12
CEST*Speaker:* Peter Calabresi, US

Scientific program

148	An RXR agonist causes age-dependent remyelination in people with relapsing remitting MS <i>Speaker:</i> Christopher E McMurrin, GB	12:12 - 12:19 CEST
149	Safety and efficacy of eleanumab in relapsing and progressive forms of multiple sclerosis: Results from two phase 2 studies, RADIUS-R and RADIUS-P <i>Speaker:</i> Bruce Cree, US	12:19 - 12:26 CEST
150	Improvement of brain energy metabolism in relapsing multiple sclerosis patients: results from Phase 2 REPAIR-MS clinical trial with CNM-Au8 <i>Speaker:</i> Robert L. Glanzman, US	12:26 - 12:33 CEST
151	Ibudilast slows retinal atrophy in progressive multiple sclerosis: post-hoc analyses of the SPRINT-MS Phase II randomized controlled trial <i>Speaker:</i> Henrik Ehrhardt, US	12:33 - 12:40 CEST
	Live discussion	12:40 - 13:00 CEST

Educational Sessions

12:00 - 13:00 CEST

Educational Session 7: Early stages of MS

Supported by an unrestricted educational grant from Novartis

Chair: Russell Dale, AU*Chair:* Christine Lebrun-Frenay, FR

	Introduction by chairs	12:00 - 12:05 CEST
152	When does the disease start? MS Prodrome <i>Speaker:</i> Ruth Ann Marrie, CA	12:05 - 12:20 CEST
153	The radiologically isolated syndrome (RIS), is it already MS? <i>Speaker:</i> Christine Lebrun-Frenay, FR	12:20 - 12:35 CEST
	How could paediatric MS shed light on early MS? <i>Speaker:</i> Russell Dale, AU	12:35 - 12:50 CEST
	Live discussion	12:50 - 13:00 CEST

Plenary Sessions

13:30 - 15:00 CEST

R1

Time to visit the exhibition and to network with colleagues*Satellite Symposium*

13:45 - 14:45 CEST

R1

Satellite Symposium 10 - The evolving landscape in NMOSD management

Sponsored by Roche

Chair: Ingo Kleiter, DE

	Our journey so far... Welcome, introductions and objectives <i>Speaker:</i> Ingo Kleiter, DE	13:45 - 13:50 CEST
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Scientific program

Navigating the path... Real-world patient case study discussions	13:50 - 13:50 CEST
Newly diagnosed patient with NMOSD	13:50 - 14:00 CEST
<i>Speaker:</i> Kazuo Fujihara, JP	
Patient with NMOSD currently stable on existing treatment	14:00 - 14:10 CEST
<i>Speaker:</i> Benjamin M. Greenberg, US	
Patient with NMOSD experiencing breakthrough disease on existing treatment	14:10 - 14:25 CEST
<i>Speaker:</i> Ingo Kleiter, DE	
Audience engagement with live Q&A	14:25 - 14:40 CEST
<i>Speaker:</i> Ingo Kleiter, DE	
Meeting conclusions	14:40 - 14:45 CEST
<i>Speaker:</i> Ingo Kleiter, DE	

Satellite Symposium

13:45 - 14:45 CEST

R2

Satellite Symposium 11 - Complement inhibition in relapsing anti-aquaporin-4 (AQP4) antibody-positive neuromyelitis optica spectrum disorder:* a patient's journey

Sponsored by Alexion

*This symposium will focus on data relating to neuromyelitis optica spectrum disorder (NMOSD) in patients who are anti-aquaporin-4 (AQP4) antibody-positive with a relapsing course of the disease.

Chair: Celia Oreja-Guevara, ES

Welcome and introductions	13:45 - 13:50 CEST
<i>Speaker:</i> Celia Oreja-Guevara, ES	
Case introduction: the burden of AQP4+ NMOSD	13:50 - 14:05 CEST
<i>Speaker:</i> Ho Jin Kim, KR	
Complement inhibition in a patient with AQP4+ NMOSD	14:05 - 14:20 CEST
<i>Speaker:</i> Celia Oreja-Guevara, ES	
Long-term clinical and real-world outcomes with complement inhibition in AQP4+ NMOSD	14:20 - 14:35 CEST
<i>Speaker:</i> Dean M Wingerchuk, US	
Questions and close	14:35 - 14:45 CEST

Clinical

15:00 - 16:00 CEST

R1

Free Communication 5: Progression*Chair:* Christiane Schmied, AT*Chair:* Zsolt Illes, DK

	Introduction by chairs	15:00 - 15:05 CEST
154	Progression independent of relapse activity in paediatric, adult and late-onset multiple sclerosis patients	15:05 - 15:12 CEST
	<i>Speaker:</i> Angelo Bellinva, IT	

Scientific program

155	Progression independent of relapse activity is present from disease onset: a complete view of the phenomenon in the CIS/early MS cohort of Barcelona <i>Speaker:</i> Carmen Tur, ES	15:12 - 15:19 CEST
156	Progression independent of relapse activity is associated with increased brain atrophy rates in patients with relapsing-remitting multiple sclerosis <i>Speaker:</i> Alessandro Cagol, CH	15:19 - 15:26 CEST
157	Neurofilament light levels predict disease progression in a heterogeneous large real-world MS population <i>Speaker:</i> Synne Brune, NO	15:26 - 15:33 CEST
158	Sustained reduction in 48-week confirmed disability progression in patients with PPMS treated with ocrelizumab in the ORATORIO OLE: 8-year follow-up <i>Speaker:</i> Jerry S. Wolinsky, US	15:33 - 15:40 CEST
	Live discussion	15:40 - 16:00 CEST
<i>Clinical</i>		
15:00 - 16:00 CEST		R2
Free Communication 6: Clinical		
<i>Chair:</i> Michael Guger, AT		
<i>Chair:</i> Monika Adamczyk-Sowa, PL		
	Introduction by chairs	15:00 - 15:05 CEST
159	The value of optic nerve in the multiple sclerosis diagnostic criteria: a longitudinal, prospective, multicentre study <i>Speaker:</i> Angela Vidal-Jordana, ES	15:05 - 15:12 CEST
160	Long-term outcomes in patients presenting with optic neuritis: analyses of the MSBase registry <i>Speaker:</i> Rachel Kenney, US	15:12 - 15:19 CEST
161	Real-world experience with ocrelizumab in relapsing multiple sclerosis: insights from the MSOCR-R cohort, an MSBase Registry sub-study <i>Speaker:</i> Anneke Van der Walt, AU	15:19 - 15:26 CEST
162	Multiple sclerosis and risks for adverse perinatal and pregnancy outcomes: Results from a nationwide cohort study <i>Speaker:</i> Katharina Fink, SE	15:26 - 15:33 CEST
163	A comprehensive assessment of the total economic burden of multiple sclerosis in the United States <i>Speaker:</i> Bruce Bebo, US	15:33 - 15:40 CEST
	Live discussion	15:40 - 16:00 CEST

*Scientific program**Pathogenesis*

15:00 - 16:30 CEST

R3

Scientific Session 16: Gut microbiome – much ado about nothing?*Chair:* Paulus Rommer, AT*Chair:* Gabriele C. De Luca, GB

	Introduction by chairs	15:00 - 15:05 CEST
164	Gut microbiome and brain inflammation <i>Speaker:</i> Anne-Katrin Pröbstel, CH	15:05 - 15:20 CEST
165	Therapeutic modulation of the microbiome <i>Speaker:</i> Stephanie Tankou, US	15:20 - 15:35 CEST
	Platform presentations of related original papers	15:35 - 15:35 CEST
166	Skin and gut imprinted T helper cell subsets exhibit distinct functional phenotypes in central nervous system autoimmunity <i>Speaker:</i> Thomas Korn, DE	15:35 - 15:42 CEST
167	Exploring gut microbiome in 576 pairs of multiple sclerosis patients and household healthy controls (iMSMS) <i>Speaker:</i> Xiaoyuan Zhou, US	15:42 - 15:49 CEST
168	Gut microbiota differences between pediatric-onset MS, pediatric monophasic ADS and pediatric healthy controls <i>Speaker:</i> A.L. Bruijstens, NL	15:49 - 15:56 CEST
169	Dimethyl fumarate alters gut microbiota metabolism in multiple sclerosis <i>Speaker:</i> Martin Diebold, DE	15:56 - 16:03 CEST
	Live discussion	16:03 - 16:30 CEST

Pathogenesis

15:00 - 16:30 CEST

R10

Scientific Session 17: Glial cell heterogeneity in MS*Chair:* Claudia Verderio, IT*Chair:* V. Wee Yong, CA

	Introduction by chairs	15:00 - 15:05 CEST
170	Altered human oligodendrocytes in MS <i>Speaker:</i> Sarah Jaekel, DE	15:05 - 15:20 CEST
171	Microglia phenotypical changes during MS disease course <i>Speaker:</i> Tobias Zrzavy, AT	15:20 - 15:35 CEST
	Platform presentations of related original papers	15:35 - 15:35 CEST
172	Profiling microglial nodules in MS: possible implications for MS lesion formation <i>Speaker:</i> Aletta van den Bosch, NL	15:35 - 15:42 CEST
173	Sphingosine-1-receptor-modulators promote directly the differentiation of human iPSC-derived oligodendrocytes	15:42 - 15:49 CEST

Scientific program

	<i>Speaker:</i> Farina Windener, DE	
174	Increased remyelination and shift towards pro-regenerative microglia under siponimod treatment in preclinical in vivo models	15:49 - 15:56 CEST
	<i>Speaker:</i> Michael Dietrich, DE	
175	Genotyping microglia in MS gray and white matter lesion borders	15:56 - 16:03 CEST
	<i>Speaker:</i> Anthony Chomyk, US	
	Live discussion	16:03 - 16:30 CEST

Imaging and non-imaging biomarkers/Translational

15:00 - 16:00 CEST

Young Scientific Investigators' Session 3: Imaging*Chair:* Nevin Shalaby, EG*Chair:* Katie K. H. Chan, CN

	Introduction by chairs	15:00 - 15:05 CEST
176	Comparison of MRI lesion evolution in different central nervous system demyelinating disorders	15:05 - 15:12 CEST
	<i>Speaker:</i> Elia Sechi, IT	
177	Relationship between slowly expanding lesions (SELs), T1-black holes and MTR in relapsing-onset multiple sclerosis	15:12 - 15:19 CEST
	<i>Speaker:</i> Alberto Calvi, GB	
178	Cortical remyelination predicts cortical atrophy and clinical progression in early multiple sclerosis	15:19 - 15:26 CEST
	<i>Speaker:</i> Andrea Lazzarotto, IT	
179	Longitudinal retinal optical coherence tomography in myelin oligodendrocyte glycoprotein antibody disorders	15:26 - 15:33 CEST
	<i>Speaker:</i> Frederike Cosima Oertel, DE	
180	MRI and clinical features differentiate non-acute MOGAD from AQP4-NMOSD and RRMS: a MAGNIMS multicenter study	15:33 - 15:40 CEST
	<i>Speaker:</i> Rosa Cortese, GB	
	Live discussion	15:40 - 16:00 CEST

Therapy / Global views

15:00 - 16:30 CEST

ECTRIMS-EAN Session*Chair:* Massimo Filippi, IT*Chair:* Mar Tintoré, ES*Chair:* Maria Pia Amato, IT*Chair:* Celia Oreja-Guevara, ES

	<u>Introduction to the ECTRIMS / EAN consensus for vaccination in MS patients</u>	15:00 - 15:05 CEST
	Safety and immunogenicity of vaccinations in MS - Current	15:05 - 15:15

	Evidence	CEST
	<i>Speaker:</i> Sandra Vukusic, FR	
181	Recommended standards for vaccinations in MS patients	15:15 - 15:25
	<i>Speaker:</i> Susana Otero-Romero, ES	CEST
182	Position statement on COVID-19 vaccinations in MS patients	15:25 - 15:35
	<i>Speaker:</i> Mauricio Farez, AR	CEST
	Live discussion	15:35 - 15:50
		CEST
	<u>Introduction to theECTRIMS / EAN Clinical Guidelines on the treatment of MS: 2021 update</u>	15:50 - 15:55
		CEST
183	Methodological overview of the GL development process	15:55 - 16:05
	<i>Speaker:</i> Simón Cárdenas-Robledo, CO	CEST
184	Updated recommendations on the treatment of patients with MS	16:05 - 16:15
	<i>Speaker:</i> Xavier Montalban, ES	CEST
	Live discussion	16:15 - 16:30
		CEST

Therapy / Global views

15:00 - 16:00 CEST

Meet the Expert 4: Should patients with radiologically isolated syndrome be treated?*Chair:* Orhun Kantarci, US*Chair:* Christine Lebrun-Frenay, FR*Educational Sessions*

15:00 - 16:00 CEST

Educational Session 8: Beyond MS: Paraneoplastic syndromes, iatrogenic demyelination and autoimmune encephalitis

Supported by an unrestricted educational grant from Horizon Therapeutics

Chair: Josep Dalmau, ES*Chair:* Reinhard Hohlfeld, DE

	Introduction by chairs	15:00 - 15:05
		CEST
	A practical update: Diagnosis and management of paraneoplastic and autoimmune encephalitis	15:05 - 15:20
	<i>Speaker:</i> Josep Dalmau, ES	CEST
185	CNS Demyelination complicating immunotherapies: a rising spectrum	15:20 - 15:35
	<i>Speaker:</i> Reinhard Hohlfeld, DE	CEST
	Rare but paradigmatic inflammatory CNS disorders: Rasmussen, SUSAC, CLIPPERS	15:35 - 15:50
	<i>Speaker:</i> Xavier Ayrignac, FR	CEST
	Live discussion	15:50 - 16:00
		CEST

Scientific program*Late Breaking News*

16:45 - 17:45 CEST

R1

Scientific Session 18: Late Breaking News*Chair:* Samia Khoury, LB*Chair:* Heinz Wiendl, DE

	Introduction by chairs	16:45 - 16:50 CEST
186	Comparing humoral immune response to SARS-CoV2 vaccines in multiple sclerosis and healthy controls: an Austrian multi-center study <i>Abstract Presenter:</i> Gabriel Bsteh, AT	16:50 - 16:57 CEST
187	Early predictors of disability in paediatric multiple sclerosis: evidence from a multi-national cohort <i>Abstract Presenter:</i> Sifat Sharmin, AU	16:57 - 17:04 CEST
188	[11C]flumazenil positron emission tomography in multiple sclerosis: model validation and clinical applicability in cognitive impairment <i>Speaker:</i> Hanneke Hulst, NL	17:04 - 17:11 CEST
189	Cellular immune profiling pre- and post-aCD20 therapy points to differential effects on CD4⁺ and CD8⁺ T cells and implicates CD20-expressing CD8⁺ T cells in MS disease activity <i>Abstract Presenter:</i> Koji Shinoda, US	17:11 - 17:18 CEST
190	Neuregulin-1 facilitates remyelination by promoting the reparative properties of macrophages and microglia in animal models of multiple sclerosis <i>Abstract Presenter:</i> Hardeep Kataria, CA	17:18 - 17:25 CEST
191	Decline of neural stem cell resilience in multiple sclerosis <i>Speaker:</i> Alexandra Nicaise, GB	17:25 - 17:32 CEST
	Live discussion	17:32 - 17:45 CEST

Plenary Sessions

18:00 - 19:00 CEST

R1

Plenary Session 2 : Awards,ECTRIMS Honorary Members, Charcot Lecture and ECTRIMS 2021**Highlights***Chair:* Maria Pia Amato, IT*Chair:* Mar Tintoré, ES*Chair:* Thomas Berger, AT

	Introduction by chairs	18:00 - 18:05 CEST
	Presentation of selected poster awards, awards for best oral presentations by young researchers, the MSIF award as well announcement of ECTRIMS Honorary Members	18:05 - 18:15 CEST
	Charcot Lecture: Progressive multiple sclerosis – a personal perspective <i>Speaker:</i> Alan J. Thompson, GB	18:15 - 18:35 CEST
	Clinical highlights	18:35 - 18:45

Scientific program

Speaker: Lou Brundin, SE CEST
Speaker: Ruth Ann Marrie, CA

Scientific highlights 18:45 - 18:55

Speaker: Roland Wiest, CH CEST

Speaker: Martin Kerschensteiner, DE

Welcome to ECTRIMS 2022 18:55 - 19:00

Speaker: Bernard Uitdehaag, NL CEST

Friday, 29 October, 2021

Educational Sessions
15:00 - 16:00 CEST

R6

Educational Session 9: A closer and quantitative look on in vivo MS pathology (MAGNIMS/ECTRIMS session)

Supported by an unrestricted educational grant from Novartis

Chair: Maria Assunta Rocca, IT

Chair: Cristina Granziera, CH

	Introduction by chairs	15:00 - 15:05 CEST
192	Imaging myelin damage <i>Speaker:</i> Maria Assunta Rocca, IT	15:05 - 15:20 CEST
193	Imaging axonal damage <i>Speaker:</i> Cristina Granziera, CH	15:20 - 15:35 CEST
194	Imaging MS lesion heterogeneity with susceptibility MRI <i>Speaker:</i> Daniel S. Reich, US	15:35 - 15:50 CEST
	Live discussion	15:50 - 16:00 CEST

Educational Sessions
15:00 - 16:00 CEST

R7

Educational Session 10: Specific aspects of MS treatment

Supported by an unrestricted educational grant from Merck and Novartis

Chair: Sandra Vukusic, FR

Chair: Clemens Warnke, DE

	Introduction by chairs	15:00 - 15:05 CEST
	DMTs in women planning or during pregnancy <i>Speaker:</i> Sandra Vukusic, FR	15:05 - 15:20 CEST
195	DMTs in elderly patients <i>Speaker:</i> Clemens Warnke, DE	15:20 - 15:35 CEST
196	Stopping DMTs <i>Speaker:</i> Gabriel Bsteh, AT	15:35 - 15:50 CEST
	Live discussion	15:50 - 16:00 CEST

Educational Sessions
16:15 - 17:15 CEST

R6

Educational Session 11:ECTRIMS/EANM teaching course on molecular imaging

Supported by an unrestricted educational grant from Novartis

Chair: Bruno Stankoff, FR

Chair: Laura Airas, FI

	Introduction by chairs	16:15 - 16:20 CEST
197	Molecular imaging of the neuro-inflammatory component in MS	16:20 - 16:35

Scientific program

	<i>Speaker:</i> Laura Airas, FI	CEST
198	Metabolic imaging in MS	16:35 - 16:50
	<i>Speaker:</i> Matilde Inglese, IT	CEST
	Imaging myelin content change: PET or MRI?	16:50 - 17:05
	<i>Speaker:</i> Bruno Stankoff, FR	CEST
	Live discussion	17:05 - 17:15
		CEST
 <i>Educational Sessions</i>		
	16:15 - 17:15 CEST	R7
Educational Session 12: Symptomatic treatment of MS		
Supported by an unrestricted educational grant from Merck and Novartis		
<i>Chair:</i> Jalesh Panicker, GB		
<i>Chair:</i> Frank Weber, DE		
	Introduction by chairs	16:15 - 16:20
		CEST
	Neurourology	16:20 - 16:35
	<i>Speaker:</i> Jalesh Panicker, GB	CEST
199	Spasticity	16:35 - 16:50
	<i>Speaker:</i> Frank Weber, DE	CEST
	Neuropathic pain	16:50 - 17:05
	<i>Speaker:</i> Xavier Moisset, FR	CEST
	Live discussion	17:05 - 17:15
		CEST

Friday, 12 November, 2021*Educational Sessions*

15:00 - 16:00 CEST

R6

Educational Session 13: Targeting progression and promotion of functional tissue recovery in the CSN

Supported by an unrestricted educational grant from Novartis

Chair: Tanja Kuhlmann, DE*Chair:* Martin Kerschensteiner, DE

	Introduction by chairs	15:00 - 15:05 CEST
200	Reasons for impaired remyelination in multiple sclerosis: previous concepts revisited <i>Speaker:</i> Tanja Kuhlmann, DE	15:05 - 15:20 CEST
201	Neuroplasticity: its relevance for multiple sclerosis <i>Speaker:</i> Martin Kerschensteiner, DE	15:20 - 15:35 CEST
202	Lessons from recent and ongoing treatment trials in progressive MS <i>Speaker:</i> Robert J. Fox, US	15:35 - 15:50 CEST
	Live discussion	15:50 - 16:00 CEST

Educational Sessions

15:00 - 16:00 CEST

R7

Educational Session 14: Insights in neuropathology and diagnosis of NMOSD

Supported by an unrestricted educational grant from Horizon Therapeutics

Chair: Christine Stadelmann-Nessler, DE*Chair:* Romain Marignier, FR

	Introduction by chairs	15:00 - 15:05 CEST
	Neuropathology underlying NMOSD: Are AQP-4 antibody positive and negative cases one entity? <i>Speaker:</i> Christine Stadelmann-Nessler, DE	15:05 - 15:20 CEST
203	Clinical spectrum of NMOSD: Common and rare manifestations <i>Speaker:</i> Romain Marignier, FR	15:20 - 15:35 CEST
204	Diagnosis of NMOSD <i>Speaker:</i> Brian Weinshenker, US	15:35 - 15:50 CEST
	Live discussion	15:50 - 16:00 CEST

Educational Sessions

16:15 - 17:15 CEST

R6

Educational Session 15: Immunology of MS

Supported by an unrestricted educational grant from Novartis

Chair: Mireia Sospedra Ramos, CH*Chair:* Marco Prinz, DE

Scientific program

	Introduction by chairs	16:15 - 16:20 CEST
205	B cells and antibodies: the role of promoting inflammatory CNS demyelination <i>Speaker:</i> Markus Reindl, AT	16:20 - 16:35 CEST
	T cells in multiple sclerosis: novel insights in immunopathogenesis <i>Speaker:</i> Mireia Sospedra Ramos, CH	16:35 - 16:50 CEST
206	Innate immune cells in MS <i>Speaker:</i> Martin Diebold, DE	16:50 - 17:05 CEST
	Live discussion	17:05 - 17:15 CEST

Educational Sessions

16:15 - 17:15 CEST

R7

Educational Session 16: Old and new players in the treatment of NMOSD

Supported by an unrestricted educational grant from Horizon Therapeutics

Chair: Kazuo Fujihara, JP*Chair:* Tania Kümpfel, DE

	Introduction by chairs	16:15 - 16:20 CEST
	Treatment targets in NMOSD: A pathophysiological view <i>Speaker:</i> Kazuo Fujihara, JP	16:20 - 16:35 CEST
	Considerations for clinical trial design in rare diseases such as NMOSD <i>Speaker:</i> Sean Pittock, US	16:35 - 16:50 CEST
207	Current standard of care and new emerging treatments in NMOSD <i>Speaker:</i> Tania Kümpfel, DE	16:50 - 17:05 CEST
	Live discussion	17:05 - 17:15 CEST

Friday, 26 November, 2021

Educational Sessions
15:00 - 16:00 CEST

R6

Educational Session 17: Biomarkers in MS

Supported by an unrestricted educational grant from Novartis

Chair: Jens Kuhle, CH

Chair: Charlotte Teunissen, NL

	Introduction by chairs	15:00 - 15:05 CEST
	NfL for prognostic and therapeutic follow up of patients with MS <i>Speaker:</i> Jens Kuhle, CH	15:05 - 15:20 CEST
208	Other blood biomarkers in MS <i>Speaker:</i> Fredrik Piehl, SE	15:20 - 15:35 CEST
	CSF biomarkers in MS <i>Speaker:</i> Charlotte Teunissen, NL	15:35 - 15:50 CEST
	Live discussion	15:50 - 16:00 CEST

Educational Sessions
15:00 - 16:00 CEST

R7

Educational Session 18: Statistic evaluation of clinical and observational trials

Supported by an unrestricted educational grant from Merck and Novartis

Chair: Maria Pia Sormani, IT

Chair: Florian Deisenhammer, AT

	Introduction by chairs	15:00 - 15:05 CEST
209	Interpreting Propensity Score adjusted studies <i>Speaker:</i> Maria Pia Sormani, IT	15:05 - 15:20 CEST
210	Methods to analyse relapses and MRI lesions <i>Speaker:</i> Brian Healy, US	15:20 - 15:35 CEST
	Statistical significance and clinical relevance <i>Speaker:</i> Florian Deisenhammer, AT	15:35 - 15:50 CEST
	Live discussion	15:50 - 16:00 CEST

Educational Sessions
16:15 - 17:15 CEST

R6

Educational Session 19: Visual outcomes in MS and NMOSD

Supported by an unrestricted educational grant from Novartis

Chair: Letizia Leocani, IT

Chair: Angela Vidal-Jordana, ES

	Introduction by chairs	16:15 - 16:20 CEST
	Visual evoked potentials in MS and NMOSD <i>Speaker:</i> Letizia Leocani, IT	16:20 - 16:35 CEST

Scientific program

211	<p>OCT in MS and NMOSD <i>Speaker:</i> Angela Vidal-Jordana, ES</p> <p>Functional and structural MR imaging of the visual system in MS and NMOSD <i>Speaker:</i> Friedemann Paul, DE</p> <p>Live discussion</p>	<p>16:35 - 16:50 CEST</p> <p>16:50 - 17:05 CEST</p> <p>17:05 - 17:15 CEST</p>
<p><i>Educational Sessions</i> 16:15 - 17:15 CEST</p>		
<p>Educational Session 20: Specific aspects of MS rehabilitation Supported by an unrestricted educational grant from Merck and Novartis <i>Chair:</i> Jennifer Freeman, GB <i>Chair:</i> Peter Feys, BE</p>		
	<p>Introduction by chairs</p>	<p>16:15 - 16:20 CEST</p>
212	<p>Rehabilitation in progressive MS <i>Speaker:</i> Jennifer Freeman, GB</p>	<p>16:20 - 16:35 CEST</p>
213	<p>Assistive technologies/devices and robotics <i>Speaker:</i> Peter Feys, BE</p>	<p>16:35 - 16:50 CEST</p>
214	<p>Managing cognitive dysfunction <i>Speaker:</i> Aurélie Ruet, FR</p> <p>Live discussion</p>	<p>16:50 - 17:05 CEST</p> <p>17:05 - 17:15 CEST</p>

Friday, 10 December, 2021*Educational Sessions*

15:00 - 16:00 CEST

R6

Educational Session 21: Animal models of MS

Supported by an unrestricted educational grant from Novartis

Chair: Jennifer Gommerman, CA*Chair:* Roland Liblau, FR

	Introduction by chairs	15:00 - 15:05 CEST
	Phenotype and function of leukocytes in brain inflammation: discovery of new druggable pathways	15:05 - 15:20 CEST
	<i>Speaker:</i> Katerina Akassoglou, US	
	The regulation of neuroinflammation: from animal models to humans	15:20 - 15:35 CEST
	<i>Speaker:</i> Jennifer Gommerman, CA	
215	Treatment of multiple sclerosis: what can we learn from animal models	15:35 - 15:50 CEST
	<i>Speaker:</i> Roland Liblau, FR	
	Live discussion	15:50 - 16:00 CEST

Educational Sessions

15:00 - 16:00 CEST

R7

Educational Session 22: From typical to atypical demyelination – the role of MRI in identifying MS and characterising its variants (MAGNIMS/ECTRIMS session)

Supported by an unrestricted educational grant from Horizon Therapeutics

Chair: Christian Enzinger, AT*Chair:* Olga Ciccarelli, GB

	Introduction by chairs	15:00 - 15:05 CEST
	Brain MRI findings suggestive of demyelination but atypical for MS	15:05 - 15:20 CEST
	<i>Speaker:</i> Christian Enzinger, AT	
216	Spinal cord MRI findings atypical for MS	15:20 - 15:35 CEST
	<i>Speaker:</i> Olga Ciccarelli, GB	
217	New MRI techniques to characterise MS variants	15:35 - 15:50 CEST
	<i>Speaker:</i> Frederik Barkhof, NL	
	Live discussion	15:50 - 16:00 CEST

Educational Sessions

16:15 - 17:15 CEST

R6

Educational Session 23: Immunological MOAs of novel MS DMTs

Supported by an unrestricted educational grant from Novartis

Chair: Eva Kubala Havrdová, CZ

Chair: Amit Bar-Or, US

	Introduction by chairs	16:15 - 16:20 CEST
	What does not work in multiple sclerosis: lessons from failed clinical trials	16:20 - 16:35 CEST
	<i>Speaker:</i> Eva Kubala Havrdová, CZ	
218	Treatment of progressive multiple sclerosis: potential new targets	16:35 - 16:50 CEST
	<i>Speaker:</i> V. Wee Yong, CA	
	MOA of BTK inhibitors	16:50 - 17:05 CEST
	<i>Speaker:</i> Amit Bar-Or, US	
	Live discussion	17:05 - 17:15 CEST

Educational Sessions

16:15 - 17:15 CEST

R7

Educational Session 24: Autoimmune demyelinating CNS diseases beside NMOSD and MOGAD

Supported by an unrestricted educational grant from Horizon Therapeutics

Chair: Samia Khoury, LB

Chair: Yael Hacoheh, GB

	Introduction by chairs	16:15 - 16:20 CEST
	Clinical and neuroimaging features in rare CNS demyelinating diseases and systemic autoimmune diseases with CNS involvement	16:20 - 16:35 CEST
	<i>Speaker:</i> Dean M Wingerchuk, US	
	How useful are biomarkers for differential diagnosis in CNS demyelination? ACE, ANA & co and their limitation	16:35 - 16:50 CEST
	<i>Speaker:</i> Samia Khoury, LB	
	Post-infectious and post-vaccination CNS demyelination	16:50 - 17:05 CEST
	<i>Speaker:</i> Yael Hacoheh, GB	
	Live discussion	17:05 - 17:15 CEST