

Break or Meal Function
Industry Session
Partner Session or Symposium
ACTRIMS Invited Session
Poster or Discussion Session

THURSDAY, FEBRUARY 29		
7:30 - 9:00 AM	BREAKFAST	
9:00 - 9:15 AM	BREAK	
9:15 - 10:15 AM	WELCOME & KENNETH P. JOHNSON MEMORIAL LECTURE	
Pioneering B-Cell Therapies		
Anne Cross, Washington University in St. Louis		
10:15 - 10:30 AM	BREAK	
10:30 - 12:05 PM	S1. SESSION 1 – EMERGING CONCEPTS IN MS	

Theme: Highlighting studies that inform our understanding of the pathogenic mechanisms in MS, introduce novel measures to capture disease activity and advance treatment options for affected individuals. *This session will be comprised of platform presentations by Young Investigators selected from submitted abstracts. Each presenter will have 15 minutes total for their presentation – 12 minutes for the presentation and 3 minutes for Q&A.*

Chairs:

Jiwon Oh, University of Toronto

Benjamin Segal, The Ohio State University

Benjamin Segai, The Of	,
10:30 - 10:35	Introduction
10:35 - 10:50	S1.1 Synaptic Injury in the IPL of the Retina is a Predictor of Progression in Multiple Sclerosis
	Christian Cordano, University of California San Francisco
10:50 - 11:05	S1.2 Hypoxia-Related Impairment of Brain Function in Multiple Sclerosis: Insights from
	Near-Infrared Spectroscopy
	Ateyeh Soroush, University of Calgary
11:05 - 11:20	S1.3 Restoring the Multiple Sclerosis Associated Imbalance of Gut Indole Metabolites
	Promotes Remyelination and Suppresses Neuroinflammation
	Larissa Jank, Johns Hopkins University
11:20 - 11:35	S1.4 Multimodal Molecular Profiling of Exosome-Enriched Extracellular Vesicles from B Cells
	in Multiple Sclerosis Patients: Insights into Potential Toxicity Mechanisms
	Gautier Breville, University of Pennsylvania
11:35 – 11: 50	S1.5 Mannose Receptor C Type 2 as a Novel Marker for Brain-Infiltrating CD8+ Cytotoxic T
	cells in Multiple Sclerosis
	Bettina Zierfuss, University of Montreal
11:50 - 12:05	S1.6 Mapping the Functional Interactome in MS Lesions Relevant to Remyelination Failure
	Milos Opacic, Yale University
12:05 - 1:30 PM	LUNCH IN THE HUB



Break or Meal Function
Industry Session
Partner Session or Symposium
ACTRIMS Invited Session
Poster or Discussion Session

Thursday, February 29th continued

12:20 - 1:20 PM SS2. INDUSTRY SUPPORTED CE SATELLITE SYMPOSIUM 2

New Frontiers in Optimizing Patient Outcomes in Multiple Sclerosis: Strategies for Early Intervention to Address Progression Independent of Relapse

This CE activity is provided by AGILE. This independent Industry Supported Satellite Symposium is supported by an educational grant from EMD Serono, Inc. EMD Serono, Inc. is the healthcare business of Merck KGaA, Darmstadt, Germany.

Click here to learn more.

<u>Click here</u> to learn more.		
	BRAIN EXCHANGE 1: GENDER PARITY IN CAREER PROGRESSION	
	Moderators: Ellen Mowry, Johns Hopkins University and Catherine Larochelle, University of	
12:30 - 1:15 PM	Montreal	
	BRAIN EXCHANGE 2: BARRIERS TO PERSONALIZED MEDICINE	
	Moderators: Fiona Costello, University of Calgary and Pavan Bhargava, Johns Hopkins University	
1:30 - 2:30 PM	AP1. LACTRIMS SYMPOSIUM - BRINGING DOWN THE WALLS IN MULTIPLE SCLEROSIS	
Chairs: Fernando Gr	Chairs: Fernando Gracia, LACTRIMS President, Hospital Santo Tomás, Universidad Interamericana de Panamá	
and Carlos Navas, Clinica Universitaria Colsanitas - Hospital San Jose		
1:30 - 1:35	Introduction	
1:35 – 1:50	AP1.1 Setting the Agenda for MS Research in Latin America Results from a Delphi Consensus	
1.55 - 1.50	Juan Ignacio Rojas, Hospital Universitario de CEMIC	
1:50 - 2:05	AP1.2 Big Data Research in MS in LATAM: Future Prospects and Gaps	
1.50 - 2.05	Jefferson Becker, Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS)	
2:05 – 2:20	AP1.3 Breaking Down Race and Ethnicity in MS Across LATAM	
2.03 – 2.20	Teresa Corona, Universidad Nacional Autónoma de México	
2:20 – 2:30	Q&A	
2:30 - 2:45 PM	BREAK	
2:45 - 4:15 PM	S2. SESSION 2 - MS ACROSS POPULATIONS AND ACCESS TO CARE	

Theme: The session will focus on barriers to equitable research, care delivery, and the interplay of genetics and social determinants of health in multiple sclerosis.

Each speaker has 15 minutes and 25 minutes reserved for questions at the end.

Chairs:

Dalia Rotstein, University of Toronto

Kathleen Munger, MultiCare Neuroscience & Sleep Medicine

2:45 - 2:50	Introduction
2:50 - 3:05	S2.1 Accelerating Research Through Open Science : A Funder's Perspective
	Viviane Poupon, Brain Canada
3:05 - 3:20	S2.2 Improving Access to MS Care Through Technology
	Marisa McGinley, Cleveland Clinic
3:20 - 3:35	S2.3 <u>Debate:</u> Racial and Ethnic Disease Phenotype Differences Are Driven by Genetics (YES)
	Philip De Jager, Columbia University
3:35 - 3:50	S2.4 <u>Debate:</u> Racial and Ethnic Disease Phenotype Differences Are Driven by Genetics (NO)
	Annette Langer-Gould, Kaiser Permanente
3:50 - 4:15	Q&A
4:15 - 4:30 PM	BREAK



Break or Meal Function
Industry Session
Partner Session or Symposium
ACTRIMS Invited Session
Poster or Discussion Session

Thursday, February 29th continued

4:30 - 5:35 PM	CF1. CUTTING FDGF DEVELOPMENTS

Theme: Cutting-edge platform presentations selected from submitted abstracts.

Each presenter will have 15 minutes total for their presentation – 12 minutes for the presentation and 3 minutes for Q&A.

Chairs:

Scott Zamvil, University of California - San Francisco

Shannon Dunn, University of Toronto

Shannon Dunn, University of Toronto	
4:30 - 4:35	Introduction
4:35 – 4:50	CE1.1 Obesity Negatively Affects Disease Progression, Cognitive Functioning, and Quality
	of Life in People with Multiple Sclerosis
	Lars Alfredsson, Karolinska Institute
4:50 - 5:05	CE1.2 Innate Immune Regulator NLRX1 protects the Anterior Visual Pathway Against
	Inflammatory Neurodegeneration
	Marjan Gharagozloo, Johns Hopkins University
5:05 - 5:20	CE1.3 Spatiotemporal Profiling of Senescence-Associated Secretory Phenotype at the
	Brain Barriers in a Marmoset Model of Multiple Sclerosis
	Jing-Ping Lin, National Institutes of Health
5:20 - 5:35	CE1.4 Assessment of Biological Aging in People with Multiple Sclerosis Using Epigenetic
	Clocks and p16INK4a
	Yinan Zhang, The Ohio State University
5:35 - 6:00 PM	COCKTAIL BREAK IN THE HUB
6:00 - 7:30 PM	POSTER SESSION 1
7:45 - 9:00 PM	IWIMS EVENT - TRAILBLAZERS AND INNOVATORS IN MS

All are welcome and encouraged to join iWiMS for a special session at the ACTRIMS Forum. This session will feature an enlightening and empowering panel discussion featuring trailblazing women neurologists in the field of multiple sclerosis (MS). The panelists will share the challenges and rewards of going against the grain, proposing new or initially unpopular ideas, and fighting inequities in the field.

FRIDAY, MARCH 1	
7:30 - 9:00 AM	BREAKFAST
8:00 - 9:00 AM	SS3. INDUSTRY SUPPORTED CE SATELLITE SYMPOSIUM 3

BTK Inhibitors Across the Spectrum of MS: Investigator Updates & Expert Insights

This CE activity is jointly provided by Letters & Sciences and Partners for Advancing Clinical Education. This independent Industry Supported Satellite Symposium is supported by an educational grant from Sanofi.

9:00 - 9:15 AM	BREAK



Break or Meal Function
Industry Session
Partner Session or Symposium
ACTRIMS Invited Session
Poster or Discussion Session

Friday, March 1 continued

0.45 40.45 884	CO SESSION O CAIS DADDIEDS THINKING OUTSIDE THE DOV
9·15 - 10·45 ΔM	SS SESSION 3 - CNS BARRIERS THINKING OUTSIDE THE ROX

Theme: Exploring CNS barriers and their associated cells outside the traditional model of the blood brain barrier. Each speaker has 15 minutes and 25 minutes reserved for questions at the end.

Chairs:

Stephanie Zandee, Université de Montréal

Jessica Williams, Cleveland Clinic	
9:15 – 9:20	Introduction
9:20 - 9:35	S3.1 Ependymal Cells and Their Role in CNS Inflammation
	Jo Anne Stratton, McGill University
9:35 - 9:50	S3.2 Choroid Plexus as Route of CNS Inflammation
	Maria Lehtinen, Boston Children's Hospital, Harvard Medical School
9:50 - 10:05	S3.3 Imaging the Choroid Plexus
	Niels Bergsland, University at Buffalo
10:05 – 10:20	S3.4 Mechanisms of Blood Brain Barrier Disruption in Neuroinflammatory Disease
	Dimitrios Davalos, Cleveland Clinic
10:20 - 10:45	Q&A
10:45 - 11:00 AM	Break
11:00 AM - 12:05 PM	CE2. CUTTING EDGE DEVELOPMENTS

Theme: Cutting-edge platform presentations selected from submitted abstracts.

Each presenter will have 15 minutes total for their presentation – 12 minutes for the presentation and 3 minutes for Q&A.

Chairs:

Kevin O'Connor, Yale University

Carlos Camara-Lemarroy, University of Calgary

carros carriara Ecritario y	, diliversity of eargury
11:00 - 11:05	Introduction
11:05 - 11:20	CE2.1 Probing Viral Specificity of Clonally Expanded CD8+ T Cells in the Cerebrospinal Fluid
	in Multiple Sclerosis
	Fumie Hayashi, University of California, San Francisco
11:20 - 11:35	CE2.2 Increased Aerobic Glycolysis is Present in Early Multiple Sclerosis and Varies by
	Treatment
	Bradley Judge, Washington University in St. Louis
11:35 - 11:50	CE2.3 Clemastine Fumarate Accelerates Accumulation of Disability in Progressive Multiple
	Sclerosis by Enhancing Pyroptosis
	Joanna Kocot, National Institutes of Health
11:50 - 12:05	CE2.4 Association Between Paramagnetic Rim Lesions and Future Cognitive Performance
	in Multiple Sclerosis
	Hannah Schwartz, Cornell University



Break or Meal Function
Industry Session
Partner Session or Symposium
ACTRIMS Invited Session
Poster or Discussion Session

Friday, March 1 continued

12:05 - 1:30 PM	LUNCH IN THE HUB	
12:20 - 1:20 PM	SS4. INDUSTRY SUPPORTED CE SATELLITE SYMPOSIUM 4	
Neuromyelitis Optica Spectrum Disorder: Diagnosis and Treatment Insights for the Multiple Sclerosis Team		
This CE activity is provided by Vindico Medical Education. This independent Industry Supported Satellite Symposium is		
supported by an educational grant from Horizon Therapeutics USA, Inc.		

2:45 - 4:15 PM	S4. SESSION 4 – BARRIERS TO NEURAL REPAIR	
2:30 - 2:45 PM	BREAK	
2:20 - 2:30	Q&A	
2:05 – 2:20	Robert McBurney, Accelerated Cure Project for Multiple Sclerosis	
1:50 - 2:05	AP2.3 PROs in MS Registries and Clinical Care	
	Letizia Leocani, Vita-Salute San Raffaele University	
1:35 – 1:50	AP2.2 Are the Wearable Devices Mature to Monitor MS?	
	Paola Zaratin, Italian MS Society & Foundation	
	Global PROMS Initiative	
	AP2.1 PROs, From Clinical Trials to Clinical Practice and Vice-Versa: Lesson Learnt from	
1:30 - 1:35	Introduction	
Chairs: Giancarlo Comi, IRCCS San Raffaele Hospital and University and Mark Freedman, University of Ottawa		
1:30 - 2:30 PM	CENTER	
	AP2. EUROPEAN CHARCOT FOUNDATION SYMPOSIUM - MOVING THE PATIENT AT THE	
12:30 - 1:15 PM	Moderators: Andy Solomon, University of Vermont and Marwa Kaisey, Cedars-Sinai	
	BRAIN EXCHANGE 4: DIFFERENTIAL DIAGNOSIS: BARRIERS AND CHALLENGES	
	Moderators: Shannon Kolind, <i>University of British Columbia</i> and Erin Beck, <i>Mount Sinai</i>	
	BRAIN EXCHANGE 3: BARRIERS TO IMAGING MYELIN	
supported by an education	indigrant from more on merupeatics 65A, inc.	

Theme: Basic and clinical topics on barriers to, and proposed solutions for, remyelination. *Each speaker has 15 minutes and 25 minutes reserved for questions at the end.*

Chairs:

Jason Plemel, *University of Alberta*Veronique Miron, *University of Toronto*

Veronique Miron, University of Toronto	
2:45 – 2:50	Introduction
2:50 - 3:05	S4.1 Next Generation Animal Models for Studying Remyelination in MS
	Jennifer Orthmann - Murphy, University of Pennsylvania
3:05 - 3:20	S4.2 Engineering 3D Platforms to Overcome Barriers of Drug Discovery for MS
	Krystyn Van Vliet, Cornell University
3:20 - 3:35	S4.3 Immune Barriers to Remyelination
	Jeffrey Huang, Georgetown University
3:35 - 3:50	S4.4 Barriers in Remyelination Trials
	Ari Green, University of California, San Francisco
3:50 - 4:15	Q & A
4:15 - 4:30 PM	BREAK
4:30 - 5:30 PM	BP1. NMSS BARANCIK AWARD PRESENTATION AND TALK
Dr. Segio Baranzini, PhD, University of California, San Francisco	
5:30 - 6:00 PM	COCKTAIL BREAK IN THE HUB
6:00 - 7:30 PM	POSTER SESSION 2



Break or Meal Function
Industry Session
Partner Session or Symposium
ACTRIMS Invited Session
Poster or Discussion Session

SATURDAY, MARCH 2	
7:30 - 9:00 AM BREAKFAST	
8:00 - 9:30 AM	AP3. JOINT NAIMS & IMSVISUAL SYMPOSIUM: VASCULAR/METABOLIC/ADVANCED IMAGING USING PORTABLE PLATFORMS
Chairs:	
NAIMS: Joel Stein, Unive	rsity of Pennsylvania and Shannon Kolind, University of British Columbia
IMSVISUAL: Ahmed Toos	γ, University College London and Angela Vidal-Jordana, Multiple Sclerosis Centre of Catalonia-
Vall d'Hebron University	Hospital
8:00 - 8:05	Introduction
8:05 – 8:25	AP3.1 Adaptive Optics in MS
8:05 - 8:25	Daniel Harrison, University of Maryland
0.25 0.45	AP3.2 Portable MRI for Multiple Sclerosis
8:25 – 8:45	Joel Stein, University of Pennsylvania
	AP3.3 Complement Dependent Cytotoxicity Drives Retinal Ganglion Cell Loss in a Novel In
8:45 - 8:55	Vivo Model of Neuromyelitis Optica
	Oliver Gramlich, <i>University of Iowa</i>
	AP3.4 Feasibility and Tolerability of Portable, Low-Field Brain MRI for Outpatients with
8:55 - 9:05	Multiple Sclerosis
	Andrew Ham, Massachusetts General Hospital
	AP3.5 In-vivo Investigation of the Modulation of Retinal Atrophy by Oral Disease
9:05 - 9:15	Modifying Therapies in Relapsing Multiple Sclerosis: A Prospective Study
	Omar Ezzedin, Johns Hopkins University
	AP3.6 Portable Ultra-Low Field MRI for Progressive Multifocal Leukoencephalopathy:
9:15 - 9:25	Feasibility and Diagnostic Potential in Comparison to High-Field MRI
	Serhat Okar, National Institutes of Health
9:30 - 9:45 AM	BREAK
9:45 - 11:15 AM	S5. SESSION 5 – REHABILITATION WITHOUT BORDERS
Theme: Examine the me	chanisms of rehabilitation and how to further rehabilitation trials.
Each speaker has 15 min	utes and 25 minutes reserved for questions at the end.
Chairs:	
Kathy Zackowski, Nation	al MS Society
Gabrielle Macaron, Unive	ersité de Montréal
9:45 - 9:50	Introduction
9:50 - 10:05	S5.1 Exercise as a Therapeutic Intervention in Multiple Sclerosis
	Lara Pilutti, University of Ottawa
10:05 - 10:20	S5.2 Basic Mechanisms That May Underpin Repair/Rehabilitation
	Don Mahad, University of Edinburgh
10:20 - 10:35	S5.3 Cognitive Rehabilitation in Multiple Sclerosis: What Has Been Achieved?
	Nancy Chiaravalloti, Kessler Foundation
10:35 - 10:50	S5.4 Rehabilitation Clinical Trials: Barriers and Unmet Needs
	Robert Motl, University of Illinois at Chicago
10:50 - 11:15	Q&A
11:15 - 11:30 AM	BREAK



Break or Meal Function
Industry Session
Partner Session or Symposium
ACTRIMS Invited Session
Poster or Discussion Session

11:30 AM - 12:15 PM	LB1: LATE-BREAKING RESEARCH & CLINICAL TRIALS (NON-CE SESSION)	
Chairs:		
Myla Goldman, Virginia Commonwealth University		
Amit Bar-Or, University of Pennsylvania		
11:30 – 11: 35	Introduction	
11: 35 – 11: 45	LB 1.1 Effects of Repeated Autologous Mesenchymal Stem Cell Transplantation On Cognition And Serum Biomarkers In Progressive MS: Interim Analysis Of An Open Label Extension Trial Dimitrios Karussis, Hadassah University	
11:45 – 11:55	LB 1.2 Primary Outcome of a Phase 2 Clinical Trial of Tolebrutinib, A Brain-penetrant BTK Inhibitor, For the Modulation Of Chronically Inflamed White Matter Lesions In MS María Gaitán, National Institutes of Health	
11:55 – 12:05	LB 1.3 Identification Of CVL-1001 And CVL-2001 As Selective Brain Penetrant Therapeutics for Enhanced Remyelination Brad Lang, Convelo	
12:05 – 12:15	LB 1.4 Efficacy and Safety of Evobrutinib Versus Teriflunomide in Relapsing Multiple Sclerosis: Results From the Phase 3 evolutionRMS 1 and 2 Trials Xavier Montalban, CEMCAT	
12:15 - 1:30 PM	LUNCH	
12:30 - 1:15 PM	DIFFERENTIAL DIAGNOSIS IN PEDIATRIC AND LATE ONSET MULTIPLE SCLEROSIS: AN UPDATE FROM THE ACTRIMS DIFFERENTIAL DIAGNOSIS CONSORTIUM	
12:30 – 12:42	Background and MS Mimics for LOMS Le Hua, Cleveland Clinic	
12:42 – 12: 54	Mimics for POMS Cheryl Hemingway, Great Ormond Street Hospital for Children (London)	
12:54 – 1:06	Future Directions and the Role of Imaging/Biomarkers Orhun Kantarci, Mayo Clinic	
1:06 – 1:15	Q & A	
1:30 - 3:00 PM	S6. SESSION 6 – BARRIERS IN CLINICAL TRIALS	

Theme: Effective clinical trial design including representation, outcome optimization, and participant selection. *Each speaker has 15 minutes and 25 minutes reserved for questions at the end.*

Chairs:

Francesca Bagnato, Vanderbilt University

Annette Okai, North Texas Institute of Neurology and Headache

1:30 - 1:35	Introduction
1:35 - 1:50	S6.1 Selecting Informative Patients for Phase 2 Progressive Trials in MS
	Marcus Koch, University of Calgary
1:50 - 2:05	S6.2 Ensuring Representation in Clinical Trials
	Mitzi Joi Williams, Joi Life Wellness
2:05 - 2:20	S6.3 Visual System as a Model for Neuroprotection Trials
	Shiv Saidha, Johns Hopkins University
2:20 - 2:35	S6.4 Imaging Outcomes for Phase 2 Trials Targeting Compartmentalized Inflammation
	María Inés Gaitán, National Institutes of Health
2:35 - 3:00	Q & A
3:00 - 3:15 PM	AWARDS PRESENTATION & CLOSING