13TH ISNI CONGRESS

CONGRESS PROGRAM

SCIENTIFIC PROGRAM

DAY 1 – MONDAY 26 – GSNI

Morning Session – 09.15-13.00

Chairs: Gianvito Martino, Hugh Willison and V. Wee Yong

09.15-09.30: Introduction to the course
09.30-10.15: Microglia in development and disease (Luca Muzio, Italy)
10.15-11.00: Oligodendrocytes in neuroimmunological disorders (Jack Antel, Canada)
11.30-12.15: Astrocytes as key regulators of neuroinflammation (Francisco Quintana, USA)
12.15-13.00: Neurons in CNS inflammatory disorders (Frauke Zipp, Germany)

Afternoon Session – 14.30-18.00

Chairs: Gianvito Martino, Hugh Willison and V. Wee Yong

14.30-15.15: Mitochondria and neuroprotection (Don Mahad, UK)
15.15-16.00: Brain aging and neurodegeneration (Tony Wyss-Coray, USA)
16.30-17.15: Fundamentals of psychoneuroimmunology: implications in neuroimmunological disorders (Asya Rolls, Israel)
17.15-18.00: Viruses in neuroimmunological disorders (Yoshihisa Yamano, Japan)

DAY 2 – TUESDAY 27 – ISNI

Morning Session – 08.00-13.00

Welcome Address 08.00-08.30
Minister of Health
Mayor of Jerusalem
V. Wee Yong
Michal Schwartz
Oded Abramsky – A short history of ISNI

Plenary Symposium: 08.30-10.40
Repair/regeneration, stem cells and neuroimmunomodulation
Chairs: Catherine Lubetzki and Zaal Kokaia
08.30: Remyelination and demyelinating diseases (Catherine Lubetzki, France)
08.52: Therapeutic plasticity of neural stem cells (Gianvito Martino, Italy)
09.13: Neuronal stem cells: the natural resources for regeneration (Tamir Ben-Hur, Israel)
09.35: Mechanisms of somatic adult stem cells with focus on mesenchymal stem cells (Antonio Uccelli, Italy)
09.56: Stem cells in stroke therapy (Zaal Kokaia, Sweden)
10.18: Translational adult stem cell medicine: Clinical experience in neuroimmune and neurodegenerative diseases (Dimitrios Karussis, Israel)

Concurrent Symposia 11.00-13.00
Psychoneuroimmunology: Immunity over mind and mind over immunity/Medical cannabis and its effects
Chairs: Raz Yirmiya and Asya Rolls
11.00: Maternal high fat diet induces neuroinflammatory changes in placenta and alters offspring brain and behavior in mice (Staci Bilbo, USA)
11.20: Effects of stress on immune function: the good, the bad, and the beautiful (Firdaus Dhabhar, USA)
11.40: Immune modulation of memory, neural plasticity and depression (Raz Yirmiya, Israel)
12.00: Harnessing immunity by the reward system (Asya Rolls, Israel)
12.20: The endocannabinoid system – looking back and ahead (Raphael Mechoulam, Israel)
12.40: The role of cannabinoids in neuroprotection (Gareth Pryce, UK)

Autoimmune channelopathies of the CNS
Chairs: Josep Dalmau and Francisco Quintana
11.00: Receptors, channels and associated proteins as targets for humoral immunity in the nervous system (Angela Vincent, UK)
11.24: Involvement of gap junction channels in neuroinflammation (Kleopas Kleopa, Cyprus)
11.48: Autoimmune and paraneoplastic channelopathies of the nervous system (Vanda Lennon, USA)
12.12: Functional effects of synaptic receptor antibodies: from disease to animal models (Josep Dalmau, Spain)
12.36: NMO an anti-AQP4 channelopathy (Brian Weinshenker, USA)

CNS microglia and macrophages in health and disease. Myeloid cells in the brain: origin, fate and effect
Chairs: Daniel Offen and Steffen Jung
11.00: Microglia in brain pathology (Marco Prinz, Germany)
11.20: Mechanisms of microglia regulation in neurodegeneration (Oleg Butovsky, USA)
11.40: The power of one: Immunology in the age of single cell genomics (Orit Matcovitch-Natan on behalf of Ido Amit, Israel)
12.00: Counterbalancing inflammatory processes within the brain (Frauke Zipp, Germany)
12.20: The interplay between glial and immune cells in neuroinflammatory and neurodegenerative conditions (Lior Mayo, Israel)
12.40: Therapeutic activation of macrophages and microglia to suppress brain tumor-initiating cells (V. Wee Yong, Canada)

Satellite Sponsored Lunch Symposium 13.00-14.00
Afternoon Session – 14.00-18.30

Lecture 14.00 – 14.45

The Rita Levi Montalcini Neurobiology Lecture
Chair: Oded Abramsky
Immune system supports brain function from its borders: Rejuvenation by immune checkpoint blockade for fighting Alzheimer’s disease (Michal Schwartz, Israel)

Oral Presentations – 14.45-16.00

Lessons from animal models and implications for novel immunotherapies
Chairs: Avraham Ben-Nun and Talma Brenner
14.45: Differential immune functions of murine subtypes of astrocytes (Ehud Lavi, USA)
14.56: CTLA-4 blockade elicits paraneoplastic neurological disease in a mouse model (Lidia Yshii, France)
15.07: Depletion of CD52+ cells inhibits the development autoimmune encephalomyelitis, but can block the induction of immunological tolerance: Implications for drug-induced secondary autoimmunity in MS (David Baker, UK)
15.18: Use of toll-like receptor agonists for the development of experimental Myasthenia Gravis models with thymic hyperplasia (Sonia Berrih-Aknin, France)
15.29: Astrocyte deformation and neurovascular disruption mediate neuronal injury and cortical damage in experimental autoimmune encephalomyelitis (Raya Eilam, Israel)
15.40: ANTIPHOSPHOLIPID SYNDROME, ANNEXIN ANTIBODIES AND BEHAVIOR (Ronen Weiss, Israel)
15.51: Engineering human CNS-specific regulatory T cells: From CARs to BARs (David Scott, USA)

The effects of microbiome and vaccines in neuroimmunological diseases
Chairs: Scott Zamvil and Illana Gozes
14.45: A Novel Autoantibody Facilitates Brain Microvascular Endothelial Permeability in Neuromyelitis Optica (Jeffrey Bennett, USA)
14.56: Gut Microbiota from Multiple Sclerosis patients triggers autoimmune encephalomyelitis in mice (Kerstin Berer, Germany)
15.07: Super-resolution microscopy and live-cell imaging to reveal probiotic-dendritic cell interaction (Elena Rinaldi, Italy)
15.18: Chronic spinal cord injury attenuates influenza virus specific antiviral immunity (John Bethea, USA)
15.29: ASSESSING THE EFFICACY OF A DNA VACCINE AGAINST AMYLOID-B IN A DOWN-SYNDROME MOUSE MODEL (Eitan Okun, Israel)
15.40: The Immunogenicity of Amyloid Beta Oligomers and Role Along with Their Immune Complexes in Macrophage-Mediated Inflammation (Indre Dalgediene, Lithuania)
15.51: Protective effects of a parasite-derived 68-mer peptide in a relapsing mouse model of multiple sclerosis (Judith Greer, Australia)

CNS barriers and neuroimmunological effects of aging and gender
Chairs: Roland Liblau and Amos Korczyn
14.45: The Hippocampus is a (partially) immune privileged site (Nina Fainstein, Israel)
14.56: CYLD Aggravates Experimental Cerebral Malaria by Impairing CD8+ T cell Responses and Fostering Blood-Brain Barrier Damage (Dirk Schluter, Germany)
15.07: Poly(ADP-ribose) type 1 (PARP) inhibition in leukocytes diminishes inflammation via effects on integrins/cytoskeleton and protects the blood brain barrier (BBB) (Yuri Persidsky, USA)
15.18:let-7 microRNAs protect blood brain barrier (BBB) in ischemia/reperfusion (Slava Rom, USA)
15.29: AAGING AND RECURRENT EPISODES OF NEUROINFLAMMATION PROMOTES PROGRESSIVE EAE IN BIOZZI ABH MICE (Sandra Amor, the Netherlands)
15.40: Ageing influences NADPH-oxidase activation during neuroinflammation (*Helena Radbruch, Germany*)
15.51: The blood meningeal barrier orchestrates the development of autoimmune inflammatory responses (*Jorge Ivan Alvarez, USA*)

**Poster Session – 16.00-17.00**

- CNS and its barriers: The “privilege” to be “isolated”?
- Gender and aging: Effects on the immune system and brain plasticity
- Lessons from animal models and implications in the pathogenesis of human neuroinflammatory diseases
- MS immunotherapy: Old and new players (from the bench to bedside)
- The microbiome and external infectious challenges in neuroimmunological diseases
- Vaccines in neuroimmunology

**Hot topics – 17.00-18.30**

Old and new paths of inflammation and immune intervention at the level of the peripheral nerves, the NMJ and the muscles
**Chairs:** Marinos Dalakas and Sonia Berrih-Aknin
17.00: The importance of thymic education in neuromuscular junction autoimmunity (*Sonia Berrih-Aknin, France*)
17.18: Towards antigen-specific apheresis of autoantibodies in MG – A model therapeutic approach (*Socrates Tzartos, Greece*)
17.36: Immune mediated neuropathies and myopathies (*Marinos Dalakas, USA*)
17.54: Neuroinflammation in the peripheral nerves (*Hugh Willison, UK*)
18.12: Updates in clinical and therapeutic aspects of myasthenia gravis (*Robert Lisak, USA*)

**Industry Sponsored Workshops (16.30 – 17.45)**

MS immunotherapy: Old and new players (from the bench to bedside) (17.30 – 18.45)
**Chairs:** Howard Weiner and Ludwig Kappos
17.30: MS treatment: the era of monoclonals (*Ludwig Kappos, Switzerland*)
17.49: MS treatment: the era of orals (*Giancarlo Comi, Italy*)
18.07: B cell directed therapies in relapsing and progressive MS – an update (*Hans-Peter Hartung, Germany*)
18.26: Aggressive immunotherapy with autologous hematopoietic stem cell transplantation in MS (*Mark Freedman, Canada*)

**DAY 3 – WEDNESDAY 28 – ISNI**

**Morning Session – 08.30-13.00**

**Satellite Sponsored Workshop – 08.00 – 08.45**

**Plenary Symposium – 08.45-10.40**

Neuroinflammation beyond traditional neuroimmune diseases (epilepsy, ALS, Alzheimer’s, stroke)
**Chairs:** Dan Frenkel and Serge Rivest
08.45: Neuroinflammation in ALS (Stanely Appel, Houston, USA)
09.08: Immunology of stroke: where are we heading next? (Fu-Dong Shi, China)
09.31: The dynamics of monocytes and microglia in Alzheimer’s disease (Serge Rivest, Canada)
09.54: Neuroinflammation in epileptogenesis: mechanisms and consequences (Annamaria Vezzani, Italy)
10.17: NF-κB as a therapeutic target in ALS. (Jean-Pierre Julien, Canada)

Concurrent Symposia – 11.00-13.00

The double edged sword of immunity in neurodegeneration
Chairs: Trevor Kilpatrick
11.00: Cellular mechanisms of CNS immunoregulation (David Brown, Australia)
11.24: Microglial function and dysfunction in MS (Trevor Kilpatrick, Australia)
11.48: Invariant NKT cells regulation of neuroinflammation (Takashi Yamamura, Japan)
12.12: Control of autoimmune CNS inflammation by astrocytes (Francisco Quintana, USA)
12.36: Immune-based therapy for AD (Maya Koronyo-Hamaoui, USA)

Gender and aging: effects on the immune system and brain plasticity
Chairs: Domna Karagogeos and Anat Achiron
11.00: Circulatory factors as modulators of brain function (Tony Wyss-Coray, USA)
11.24: Age-associated immunological dysfunction of the choroid plexus negatively affects brain function (Kuti Baruch, Israel)
11.48: Microglia and the aging brain (Jon Laman, the Netherlands)
12.12: Aging and gender effects in neurodegeneration and MS (Therese Treves, Israel on behalf of Amos Korczyn, Israel)
12.36: Aging; a factor to tip-over neuronal capacity to tame neuroinflammation (Shohreh Issazadeh-Navikas, Denmark)

CNS and its barriers: the “privilege” to be “isolated”? 
Chairs: Alexandre Prat and Nikolaos Grigoriadis
11.00: Immune surveillance in the CNS (Dorian McGavern, USA)
11.24: BBB disability in multiple sclerosis (Alexandre Prat, Canada)
11.48: The choroid plexus proteins: from AD to neurogenesis (Fernanda Marques, Portugal)
12.12: Immune privilege and autoimmunity in the neuroretina (Rachel Caspi, USA)
12.36: Molecular mechanisms of dendritic and effector myeloid cells transmigration in the CNS in demyelination (Krzysztof Selmaj, Poland)

Satellite Sponsored Lunch Symposium 13.00-14.00

Afternoon Session 14.00-18.30

Lecture 14.00 – 14.45

The Newsom-Davis Lecture
Chairs: V. Wee Yong and Cedric Raine
Effector and regulatory T cells in CNS autoimmunity (Vijay Kuchroo, USA)

Oral Presentations 14.45-16.00
CNS myeloid cells in health and disease

Chairs: Ari Waisman and Adi Vaknin-Dembinsky
14.45: Manipulating IFN-I signaling in the brain throughout life reveals a novel homeostatic microglial regulator (Aleksandra Deczkowska, Israel)
14.56: Engulfment of living Th17 cells by microglia within the brain without subsequent cell death (Beatrice Wasser, Germany)
15.07: Single nucleus RNA-Seq reveals dynamics of adult newborn neurons (Naomi Habib, USA)
15.18: Reduced microglial activity in the early stages of autoimmune CNS inflammation leads to enhanced glutamate transmission in the basolateral amygdala (Shaona Acharjee, Canada)
15.29: The farnesoid-X-receptor in myeloid cells controls central nervous system autoimmunity in an IL-10-dependent fashion (Martin Herold, Germany)
15.40: Sall1 Defines Microglia Fate and Function (Anne Buttgereit, Switzerland)
15.51:

Neuroinflammation beyond traditional neuroimmune diseases

Chairs: Jonathan Kipnis and Rina Aharoni
14.45: CD8 T cell-mediated killing of orexinergic neurons induces a narcolepsy-like phenotype in mice (Raphael Bernard-Valnet, France)
14.56: Regulatory Role of Cytosolic Phospholipase A2 Alpha in Induction of CD40 in Microglia (Yafa Fetfet Malada-Edelstein, Israel)
15.07: Aberrant activation of classical complement pathway mediates synaptic loss in a mouse model of spinal muscular atrophy (Aleksandra Vukojicic, USA)
15.18: Transiently breaking immune tolerance by targeting Foxp3+CD4+ regulatory T cells mitigates Alzheimer’s disease pathology (Neta Rosenzweig, Israel)
15.29: Induction of the type I interferon response in neurological forms of Gaucher disease (Einat Vitner, Israel)
15.40: Non-invasive intranasal treatment of angiotensin related drugs as potential therapy for Alzheimer’s disease (Nofar Torika-Nadiv, Israel)
15.51: Cellular investigations with human antibodies associated with the IgLON5 syndrome (Lidia Sabater, Spain)

Autoimmune channelopathies and neuromuscular diseases

Chairs: Angela Vincent and Vanda Lennon
14.45: Effect of Maternal Antibodies Directed to the Astrocytic Water Channel Protein AQP4 in Neuromyelitis Optica Pregnancies (Simone Mader, USA)
14.56: Review of GAD antibody assay in over 850 patients and analysis of clinical phenotype and response to immunotherapy in 15 Stiff Person Syndrome patients (Saiju Jacob, UK)
15.07: Intrathecal plasma cells are clonally expanded and produce pathogenic antibodies in anti-NMDA-R encephalitis (Norbert Goebels, Germany)
15.18: Methylation and expression profiles of monocytes in monozygotic twins: role in Myasthenia Gravis (Nili Avidan, Israel)
15.29: Characterization of the role of miR-150-5p in myasthenia gravis (Mélanie Cron, France)
15.40: Preconditioned MSCs treat myasthenia gravis in a humanized preclinical model (Sonia Berrih-Aknin, France)
15.51: Targeting plasma cells with proteasome inhibitors for treatment of myasthenia gravis (Marina Damas, the Netherlands)

Poster Session – 16.00-17.00

- Autoimmune channelopathies of the CNS
- Neuroinflammation beyond traditional neuroimmune diseases
- Old and new paths of inflammation and immune intervention at the level of the peripheral nerves, the NMJ and the muscles
- Psychoneuroimmunology: Immunity over mind and mind over immunity
- CNS microglia and macrophages in health and disease. Myeloid cells in the brain: origin, fate and effect
- The double edged sword of immunity in neurodegeneration

**Hot topics 17.00-18.30**

**Revisiting B cells and B cell targeting in Neuroimmunologic Disease**

**Chairs:** Amit Bar-Or and Hans-Peter Hartung

17.00: Brief intro/session scope and objectives *(Amit Bar-Or, Canada)*
17.03: Peripheral B cell contributions to multiple sclerosis *(Amit Bar-Or, Canada)*
17.21: B-cells and Targeting B cell Trafficking in CNS inflammation *(Scott Zamvil, USA)*
17.38: B cells in CNS compartmentalized/meningeal inflammation *(Jennifer Gommerman, Canada)*
17.56: The unique capacity of VH4+ B cells to recognize gray matter targets in the brain *(Nancy Monson, USA)*
18.13: B cells in MS and other neuroimmune diseases *(Hartmut Wekerle, Germany)*

**Personalized neuroimmunology/genetic and immune biomarkers to individualize diagnosis and treatment in neuroimmunology**

**Chairs:** Andrew Goodman and Ariel Miller

17.00: Clinical and MRI phenotypes for personalization of the treatment of MS patients *(Xavier Montalban, Spain)*
17.18: Deciphering MS genetics to identify immune pathways *(David Hafler, USA)*
17.36: Genes meet the environment: the gut microbiome in MS *(Sergio Baranzini, USA)*
17.54: The quest for the target antigens of multiple sclerosis *(Reinhard Hohlfeld, Germany)*
18.12: The impact of environmental factors, stress and Vitamin D in MS *(Ariel Miller, Israel)*

**Industry Sponsored Workshop (17.00 – 18.30)**

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**DAY 4 – THURSDAY 29 – ISNI**

**Morning Session – 08.30-13.00**

**Satellite Sponsored Workshop 08.00 – 08.40**

**Plenary Symposium – 08.40-10.40**

**Pathogenetic immune mechanisms in neuroinflammation and demyelination in EAE and Multiple Sclerosis**

**Chairs:** Jack Antel and Hartmut Wekerle

08.40: Meningeal immunity in neurological diseases *(Jonathan Kipnis, USA)*
09.04: Tissue Inflammation: the role of pathogenic phagocytes *(Burkhard Becher, Switzerland)*
09.28: Variable immunopathogenetic patterns in CNS demyelinating conditions *(Hans Lassmann, Austria)*
09.52: Immune regulatory networks in neuroinflammation and their possible pharmacological modification *(Heinz Wiendl, Germany)*
10.16: Astrocytes and microglia interplay in autoimmune demyelination *(Jack Antel, Canada)*
Concurrent Symposia – 11.00-13.00

The microbiome and external infectious challenges in neuroimmunological diseases (A and B)

Chairs: Gurumoorthy Krishnamoorthy

A: The microbiome
11.00: Microbial view of central nervous system autoimmunity (Gurumoorthy Krishnamoorthy, Germany)
11.24: Metagenomic cross-talk: the regulatory interplay between immunogenomics and the microbiome (Eran Elinav, Israel)
11.48: You need guts to make new neurons – the impact of gut flora on neurogenesis (Susanne Wolf, Germany)
12.12: Microbiome in MS (Howard Weiner, USA)
12:20: A short overview of the microbiome in NMO (Scott Zamvil, USA)

B: External infectious challenges in neuroimmunological conditions
12.36: Neuropathogenesis and neuroimmunology of human African trypanosomiasis (sleeping sickness) (Peter Kennedy, UK)

Vaccines in neuroimmunology
Chairs: Irun Cohen and Joab Chapman
11.00: Boosting immunity as a novel approach for treating neuropsychiatric disorders (Gil Lewitus, Israel)
11.24: Vaccination techniques to induce anti-ergotypic and anti-idiotypic T-cell responses in MS (Irun Cohen, Israel)
11.48: Vaccines for Alzheimer’s disease: past, present and future (Alon Monsonego, Israel)
12.12: Vaccination-induced neuroinflammatory diseases
12.36: Vaccination-induced “ASIA” (Shoenfeld) syndrome

Lessons from animal models and implications in the pathogenesis of human neuroinflammatory diseases
Chairs: Stephen Miller
11.00: The role of chemokines as an immune checkpoint in CNS autoimmunity (Nathan Karin, Israel)
11.20: T cells and cytokines as mediators of neuroinflammation and as targets for immunotherapy (Thomas Korn, Germany)
11.40: Innate and adaptive immune responses in the CNS (Ari Waisman, Germany)
12.00: Deciphering the role of T cells in rare autoimmune diseases of the CNS using animal models (Roland Liblau, France)
12.20: Microvesicles: What is the role in multiple sclerosis and neuroinflammation? (Roberto Furlan, Italy)
12.40: GM-CSF drives EAE progression and relapses via modulation of mDCs and inflammatory monocytes and is regulated by micro-RNA 223 (Stephen D. Miller, USA)

Satellite Sponsored Lunch Symposium – 13.00-14.00

Afternoon Session – 14.00-18.30

Lecture 14.00 – 14.45

The Immunology Lecture

Chairs: Michal Schwartz and Roberto Furlan
Alexander Rudensky, USA
**Oral Presentations – 14.45-16.00**

**Pathogenic mechanisms of neuroinflammation and demyelination in EAE/MS**

**Chairs:** Hugh Willison and Arnon Karni

14.45: High Dimensional Analysis of the Myeloid Landscape in Multiple Sclerosis (*Brian Leung, Switzerland*)

14.56: A unique TGFbeta-1-driven genomic program links astrocytosis, low-grade inflammation and chronic demyelination in the spinal cord of multiple sclerosis patients (*Serge Nataf, France*)

15.07: Microvesicles as a possible biomarker for microglia activation in vivo during phases of disease activity in Multiple Sclerosis and their correlation with different stages of disease course (*Tommaso Croese, Italy*)

15.18: Phosphorylation of alphaB-crystallin supports reactive astrogliosis in demyelination (*Hedwich F. Kuipers, USA*)

15.29: B cell repertoire expansion occurs in meningeal ectopic lymphoid tissue (*Klaus Lehmann-Horn, Germany*)

15.40: ALCAM regulates B cells migration across the barriers of the CNS (*Camille Grasmuck, France*)

15.51: Double negative (CD19+CD27-IgD-CD20-) B cells are up-regulated in auto-antibody associated neurological diseases and show similarities to plasmablasts on a transcriptome level (*Miriam Kaminski, Germany*)

**Repair and regeneration mechanisms in neuroimmunology**

**Chairs:** Tamir Ben-Hur and Ibrahim Kassis

14.45: Oncostatin M signaling is essential for robust remyelination (*Niels Hellings, Belgium*)

14.56: Lipid metabolism modulates the immunomodulatory properties of Mesenchymal Stem Cells (*Laura Lovato, Italy*)

15.07: Prickle1 as positive regulator of oligodendrocyte differentiation (*Rina Ilona Zilkha-Falb, Israel*)

15.18: Human embryonic stem cell -derived oligodendrocyte progenitor cells provide long term immune-regulation and protection in a chronic-relapsing model of multiple sclerosis (*Tamir Ben-Hur, Israel*)

15.29: Investigating the role of astrocytes’ anti-excitotoxicity potential for neuronal damage formation in experimental autoimmune encephalomyelitis – an in vivo two-photon imaging approach (*Volker Siffrin, Germany*)

15.40: The Role of Astrocytic Dopamine D2 Receptor in neuroinflammation: Implication for Parkinson’s disease (*Jiawei Zhou, China*)

15.51: Understanding Remyelination Failure: GM-CSF Blocks Oligodendrocyte Progenitor Cell Differentiation (*Andrew Robinson, USA*)

**Personalized neuroimmunology and novel imaging techniques**

**Chairs:** Aksel Siva and Alon Monsonego

14.45: Molecular profiling of damage and repair in the CSF by translating transcriptome data to CSF proteome (*Nellie Anne Martin, Denmark*)

14.56: Therapy with Eculizumab for Patients with Primary p.Cys89Tyr mutation in the CD59 gene (*Dror Mevorach, Israel*)

15.07: Intravital imaging of calcium activities in the encephalitogenic T cells during their journey to CNS (*Kawakami Naoto, Germany*)

15.18: Retina atrophy is more prominent in the early phases of multiple sclerosis and is associated with clinical disease activity: a cohort study (*Elena H. Martinez-Lapiscina, Spain*)

15.29: Wiring or Networking: Anatomical and Functional Changes in the Visual System following Optic Neuritis (*Yaël Backner, Israel*)

15.40: Brain lesion load and anatomic distribution in patients with juvenile clinically isolated syndrome predicts rapid conversion to multiple sclerosis (*Shay Menascu, Israel*)
15.51: Towards an improved classification of relapsing demyelinating syndromes of the central nervous system in children (Yael Hacohen, UK)

Poster Session – 16.00-17.00

- Pathogenetic immune mechanisms in neuroinflammation and demyelination in EAE and Multiple Sclerosis
- The role of B cells and B-cell, targeting treatment in MS (and other neuroimmune disease-revisited)
- Personalized neuroimmunology / genetic and immune biomarkers to individualize diagnosis and treatment in neuroimmunology
- Novel imaging of visual and other pathways as models for research and biomarkers of neuroinflammation and neuroregeneration
- Repair / regeneration, stem cells and neuroimmunomodulation
- Pediatric MS

Technology Talk – 17.00-18.30

Novel imaging and visual testing techniques as biomarkers of neuroinflammation and neuroregeneration

Chairs: Friedemann Paul and Daniel Reich
17.00: OCT as an imaging technique for neuroinflammation and neurodegeneration (Friedemann Paul, Germany)
17.18: Radiologically isolated syndrome (RIS) (Aksel Siva, Turkey)
17.36: Novel techniques for assessing demyelination and regeneration (Netta Levin, Israel)
17.45: High resolution MRI of lesion repair in multiple sclerosis (Daniel Reich, USA)
18.12: Advanced MR techniques for imaging demyelination and neurodegeneration (Matilde Inglese, USA)

Industry Sponsored Workshop (17.00 – 18.00)

Special session/event organized by the Israeli Society of Neuroimmunology

Philosophical and spiritual aspects of neuroimmunology
18.00: The philosophy of autoimmunity (Irun Cohen, Israel)
18.30: Ancient Greek philosophical and biblical roots of neuroimmunology and neuroimmunological effects of faith (Dimitrios Karussis, Israel)
19.00: The impact of stress on human ontology (George Chrousos, Greece/USA)

Pediatric neuroimmunology (17.00-18.15)

Chairs: Tanuja Chitnis and Ron Milo
17.00: Pediatric encephalitis and cerebelitis (Yael Hacohen, USA)
17.19: Stress and neuro-endocrienoimmunology in children and adolescents (George Chrousos, Greece/USA)
17.37: Pediatric MS and related syndromes (Tanuja Chitnis, USA)
17.56: Autoimmune epilepsy- from symptoms to synapse (Sukhvir Wright, UK)