International Joint Israel-Greek-Italian Neuroimmunological Meeting

Organised by the Israeli Society (ISNI) under auspice of the Greek Academy of Neuroimmunology (HELANA) and the Italian Society (AINI)

Elounda, Crete, Greece 11-14 June 2015

SCIENTIFIC PROGRAM
THURSDAY 11.6.2015

19:00 Arrivals, Get together and registration

19:45 Opening Remarks:
Dimitrios Karussis, President of the Israeli Society of Neuroimmunology
Domna Karagogeos, Local host and on behalf of the Greek Neuroimmunological Society

20:00 Special opening lecture:
The immune system and neuroprotection
Michal Schwarz (Weizmann Institute of Science, Rehovot, Israel)

Welcome Dinner

FRIDAY 12.6.2015

SESSION 1 (9:00-11:00): General Neuroimmunology
Chairpersons: Alon Monsonego and Joab Chapman

09:00 Neuroimmunology of Alzheimer’s disease
Alon Monsonego (Ben-Gurion University, Beer Sheva, Israel)

09:20 Inflammatory aspects of epilepsy
Dana Ekstein, Sara Eyal (Hebrew University, Jerusalem, Israel)

09:50 Immune (antibody) mediated encephalopathies and epilepsy
Mia Levitte (Hebrew University, Jerusalem, Israel)

10:10 Neurological complications of systemic autoimmune diseases
Joab Chapman (Tel Aviv University, Israel)

10:30 Immune intervention in PRION disease animal model
Theodoros Sklaviadis (Aristotle University, Thessaloniki, Greece)

10:50-11:20 Coffee break and poster view
SESSION 2 (11:30-13:00):

Chairpersons: Leslie Probert and Nathan Karin

11:30  
An intimate relationship: axoglial interactions around the node of Ranvier  
Domna Karagogeos (University of Crete, Greece)

11:40  
The small molecule prokineticin 2 in CNS autoimmunity  
Rosetta Pedotti (Besta Institute, Milan, Italy)

12:00  
Local self-renewing of microglia is dependent on Interleukin-1 signaling  
Ari Waisman (University of Mainz, Germany)

12:20  
From anti VLA-4 to regulatory T cell based therapies of MS  
Nathan Karin (Technion - Israel Institute of Technology, Haifa, Israel)

12:40  
Animal models for multiple sclerosis: strengths and weaknesses  
Lesley Probert (Pasteur Institute, Athens, Greece)

13:00  
HLA and neuroimmunological diseases  
Avraham Ben Nun (Weizmann Institute of Science, Rehovot, Israel)

13:20-14.15  
Lunch break & poster view

SESSION 3: (14:15-16:00): Stem cells in Neuroimmunology: What is their place? What have we learned in the last decade?

Chairpersons: Antonio Uccelli, Tamir Ben-Hur

14:15  
Neuronal stem cells for neurological diseases  
Tamir Ben Hur (Hebrew University, Jerusalem, Israel)

14:35  
Adult stem cells with focus on mesenchymal stem cells in MS: immunomodulating aspects  
Antonio Uccelli (University of Genoa, Italy)

15:00  
Unmodified and modified mesenchymal stem cells in ALS and MS: update of the Hadassah clinical trials  
Dimitrios Karussis, Ibrahim Kassis, Panayiota Petrou (Hebrew University, Jerusalem, Israel)
Concerns about the clinical applications of stem cells in neurological diseases
Nikolaos Grigoriadis (Aristotle University, Thessaloniki, Greece)

Modified Mesenchymal Stem Cells: A novel cellular Therapy Paradigm for the treatment of Multiple Sclerosis
Ibrahim Kassis, Moriel Ben-Zwi, Panayiota Petrou, Michelle Halimi, Dimitrios Karussis (Hadassah-Hebrew University, Jerusalem, Israel)

SESSION 4 (16:00-18:00): Selected Abstract presentations
Chairpersons: Domna Karagogeos, Fulvio Baggi

Autologous regulatory (Treg) cells generated ex-vivo, suppress autoimmune diseases
Aricha R, Reuveni D, Souroujon M, Fuchs S (Weizmann Institute of Science, Rehovot; Open University, Raanana, Israel)

Differential modulation of the juxtaparanodal complex in multiple sclerosis
Kastriti M, Sargiannidou I, Kleopa KA, Karagogeos D (University of Crete, Heraklion, Crete, Greece; Cyprus Institute of Neurology and Genetics, Nicosia, Cyprus)

Foxp3 hi CD45RA/CD39+ Treg cells in multiple sclerosis
Gargano F, Sambucci M, De Bardi M, Gasperini C, Ruggieri S, De Rosa V, Matarese G, Borsellino G, Battistinil (Santa Lucia Foundation, San Camillo Hospital, Rome; Institute of Endocrinology and Experimental Oncology, National Research Council, Naples; University of Salerno, Italy)

Fumarates modulate microglia activation through a novel HCAR2 signaling pathway and rescue synaptic dysregulation in inflamed CNS
Parodi B, Mancardi GL, Centonze D, Kerlero de Rosbo N, Uccelli A, Rossi S, Morando S, Cordano C, Bragoni A, Motta C, Usai C, Wipke BT, Scannevin RH (University of Genoa, Italy; Tor Vergata University, Rome, Italy; Biogen Idec, MA, USA)
17:00

Crucial role of IL-1β/IL-1R in the fine-tune modulation of Th17 features in multiple sclerosis
Bianco M, De Bardi M, Battistini L, Centonze D, Volpe E, Sette C (Santa Lucia Foundation, University Tor Vergata, Rome, Italy)

17:15

Immunomodulation by a tolerogenic recombinant fusion protein containing acetylcholine eceptor T-cell-epitope 146-162 in mouse experimental myasthenia gravis
Consonni A, Marolda R, Cordiglieri C, Ravanelli I, Verolin M, Lycke NY, Mantegazza R, Baggi F (Neurological Institute “Carlo Besta”, Milan, Italy; Toleranzia AB, Gothenburg, University of Gothenburg, Sweden)

17:30

A robust type I interferon gene signature from blood RNA defines quantitative but not qualitative differences for three major IFNβ drugs
Harari D, Orr I, Rotkopf R, Baranzini SE, Schreiber G (Weizmann Institute of Science, Rehovot, Israel; University of California at San Francisco, CA, USA)

20:00-24:00

Social Evening

SATURDAY 13.6.2015
SESSION 5 (9:00-12:30): Clinical Neuroimmunology-Multiple Sclerosis
Chairpersons: Dimitrios Karussis and Ariel Miller

09:00

New mechanisms of the new and old immunomodulators
Ron Milo (Ben-Gurion University, Ashkelon, Israel)

09:20

Neuro-regenerative factors and their role in multiple sclerosis
Arnon Karni (Tel Aviv University, Israel)

09:40

From synthetic glycopeptides to the discovery of bacterial proteins cross-reacting with anti-N-(Glycosylation) antibodies in Multiple Sclerosis
Anna Maria Papini (University of Florence, Italy)
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10:00
**Updates on NMO spectrum immunopathogenesis**
Adi Vaknin-Dembinsky (Hebrew University, Jerusalem, Israel)

10:20
**Clinical applications of neuroimmunological research**
Ariel Miller (Technion - Israel Institute of Technology, Haifa, Israel)

10:40
**Immunomodulation vs immunosupression in MS therapy**
Nikolaos Grigoriadis (Aristotle University, Thessaloniki, Greece)

11:00
**Novel and radical approaches for induction of long term tolerance in MS**
Dimitrios Karussis (Hebrew University, Jerusalem, Israel)

11:20
**Invited lecture: Overview of modern management of MS**
Ludwig Kappos (Basel, Switzerland)

12:15-13.30
Lunch break and poster view

SESSION 6 (13:30-15:45): Neuroimmunology of the Neuromuscular junction, in the memory of Miriam Souroujon
Chairpersons: Sara Fuchs and Talma Brenner

13:30
**Few words in memory of Miriam**
Sara Fuchs (Weizmann Institute of Science, Rehovot, Israel)

13:40
**New autoantibodies in neuromuscular diseases**
Socrates Tzartos (Pasteur Institute, Athens, Greece)

14:10
**The plasminogen activator system in myasthenia gravis and autoimmunity**
Talma Brenner (Hebrew University, Jerusalem, Israel)

14:30
**Myasthenia Gravis, a paradigmatic antibody-mediated autoimmune disease**
Fulvio Baggi (Carlo Besta Institute, Milan, Italy)

14:50
**Neuro-Behcet disease**
Aksel Siva (Istanbul University, Turkey)

15:15-15:45
Coffee break and poster view
SESSION 7 (15:45-17:30): Selected Abstract presentations

Chairpersons: Ron Milo and Carlo Avolio

15:45

Immunogenetics of pediatric multiple sclerosis: towards a personalized therapeutic approach

Anagnostouli M, (University of Athens, Greece)

16:00

NG2, expressed by immune and neural cells, displays multiple roles in development of experimental autoimmune encephalomyelitis

Ferrara G, Morando S, Errede M, Girolamo F, Ivaldi F, Panini N, Erba E, Perris R, Bendotti C, Mennini T, Garzetti L, Furlan R, Kerlero de Rosbo N, Virgintino D, Uccelli A (University of Genoa, University of Bari School of Medicine; Mario Negri Institute for Pharmacological Research, Milan; National Cancer Institute Aviano, University of Parma; San Raffaele Scientific Institute, Milan, Italy)

16:15

The spectrum of post vaccination inflammatory CNS demyelinating syndroms

Panayiota Petrou, Dimitrios Karussis (Hadassah University Hospital, Jerusalem, Israel)

16:30

Tracking inflammation in the epileptic rat brain by bi-functional nanoparticles


16:45

Prion like aggregation of MBP in chronic demyelination

Frid K, Einstein O, Friedman-Levi Y, Binyamin O, Ben Hur T, Gabizon R (Hadassah University Hospital, Jerusalem, Israel)

17:00

miRNAs shuttled by exosomes derived from immunomodulatory mesenchymal stem cells modulate activation of microglia

Marini C, Parodi D, Scialo C, Kerlero de Rosbo N, Uccelli A, Giundi D (University of Genoa, Italy)
Glatiramer Acetate Depot: Towards Clinical Application
Bleich Kimelman N, Rubnov S, DanonU, Marom E, Miller A (Mapi-Pharma Ltd, Ness Ziona, Technion- Israel Institute of Technology, Haifa, Israel)

Social Evening

SUNDAY 14.6.2015

SESSION 8 (9:00-10:30): Workshop on Stroke Immunology and cell therapies
Chairpersons: Nikolaos Grigoriadis, Arnon Karni

09:00 The immunology of acute stroke: from mechanisms to clinical translation
Theodoros Karapanagiotidis (Aristotle University, Thessaloniki, Greece)

09:20 Immunological therapies in acute stroke: overview of ongoing clinical trials
Georgios Tsivgoulis (National and Kapodestrian University of Athens, Greece)

09:40 Neuro-inflammatory aspects of migraine
Dimos Mitsikostas (Naval Hospital of Athens, Greece)

10:00 AAN 2015 updates in Multiple Sclerosis
Vasileios Mastorodimos (University Hospital of Heraklion, Crete, Greece)

10:20 Questions and Round table discussion

SESSION 9 (10:45-11:30): Professional meeting of the Israel society of Neuroimmunology
Lunch and afternoon departures
POSTERS:

1. Monocyte derived microvesicles in patients with multiple sclerosis. Effects of current immune treatments for the disease
   Blonda M, Grasso R, Amoruso A, Sollazzo MT, Di Francescantonio V, Avolio C (University of Foggia, Italy)

2. Contactin-2/TAG-1 affects oligodendrocyte populations and CNS myelination
   Zoupi L, Savvaki M, Kalemaki A, Kalafatakis I, Karagogeos D (University of Crete & I.M.B.B.-FoRTH, Heraklion, Crete, Greece)

3. Increased neutralization capacity of TNF-α MS patients is not related to levels of soluble TNF receptors or anti-TNF-α autoantibodies
   Mausner-Fainberga K, Kolba H, Feuermannia YD, Karni A (Tel Aviv Sourasky Medical Center, Tel Aviv University, Israel)

4. Astrocytes regulate immune cell activation and demyelination during CNS neuroinflammation
   Colombo E, Di Dario M, Dina G, Fredrickx E, Finardi A, Garzetti L, Triolo D, Furlan R, Taveggia C, Quattrini A, Farina C (San Raffaele Scientific Institute, Milan, Italy)

5. Anti-KIR4.1 antibodies in patients with neuromyelitis optica (NMO)
   Brill L, Karussis D, Paul F, Ruprecht K, Petrov P, Vaknin-Dembinsky A (Hebrew University, Jerusalem, Israel; Charite University, Berlin, Germany)

6. Gene expression analysis of histamine receptors in peripheral blood mononuclear cells from individuals with clinically-isolated syndrome and different stages of multiple sclerosis
   Costanza M, Di Dario M, Steinman L, Farina C, Pedotti R (Neurological Institute Foundation IRCCS; San Raffaele Scientific Institute, Milan, Italy; Stanford University, CA, USA)
7. **Treatment with anti-FcεRI antibody increases T cell autoimmunity against myelin antigen and exacerbates experimental autoimmune encephalomyelitis**

   Musio S, Costanza M, Abolafio G, Fontana E, Poliani L, Pedotti R (Neurological Institute Foundation IRCCS, Milan; Fondazione IRCCS “Istituto Nazionale dei Tumori”; University of Brescia, Italy)

8. **Significant differential expression of MMP9 in cerebrospinal fluid of MS and CIS**

   Bonechi E, Aldinucci A, Galante A, Biagioli T, Repice AM, Massacesi L, Ballerini C (University of Florence, Italy)

9. **Study on genetic variants associated to multiple sclerosis by exome sequencing in a high prevalence family**

   Mattei G, Mechelli R, Ricigliano VAG, Buscarinu MC, Annibali V, Frontali M, Ristori G, Salvetti M (Faculty of Medicine and Psychology, Sapienza University of Rome; National Research Council of Italy, Rome, Italy)

10. **Treatment of a multiple sclerosis animal model with a novel nanodrop formulation of Pomegranate seed oil**


11. **First-year adherence to treatment with fingolimod and dimethyl fumarate among Israeli patients with relapsing multiple sclerosis**

    Daniel Golan, Shani Levy, Ariel Miller (Technion - Israel Institute of Technology, Haifa, Israel)

12. **Adherence to treatment with fingolimod after switching from interferon beta among patients with multiple sclerosis**

    Daniel Golan, Shani Levy, Ariel Miller (Technion - Israel Institute of Technology, Haifa, Israel)
13. The different quaking protein (QKI) isoforms in inflammatory demyelinating diseases of the central nervous system (CNS).

Ina Leykin, Hanna Charbit, MSc, Livnat Brill, MSc, Dimitrios Karussis, MD, PhD, Iris Lavon PhD, and Adi Vaknin-Dembinsky, MD, PhD. (Hadassah Medical Center, Hebrew University, Jerusalem, Israel)