




8th International Congress on Autoimmunity

Granada, Spain | May 9-13, 2012



Final Program

Novel Diagnostic Tools & New Therapeutic
Avenues in Autoimmune Diseases



www.kenes.com/autoimmunity

Sunday, May 13, 2012

10:30-12:30

Hall C

PS48: PREGNANCY AND AUTOIMMUNITY

Supported by an unrestricted educational grant from ASR ONLUS and DOTCOM

Chairpersons: **C. De Carolis, Italy**
H. Carp, Israel
A. Ghirardello, Italy

- 10:30 AUTOIMMUNITY, INFERTILITY AND PREGNANCY LOSS**
H.J.A. Carp, Israel
- 10:45 RECURRENT SPONTANEOUS ABORTION: A RECURRENT LINK BETWEEN PREGNANCY AND AUTOIMMUNITY**
C. De Carolis, Italy
- 11:00 SEARCHING FOR NEW EVIDENCE OF THE POTENTIAL ROLE OF ANTINUCLEAR ANTIBODIES AS A MARKER OF IMMUNE-MEDIATED RECURRENT MISCARRIAGES**
J. Carbone, N. Lanio, S. Sánchez-Ramón, E. Sarmiento, A. Gallego, J. Navarro, M. Rodríguez-Mahou, E. Fernandez-Cruz, Spain
- 11:10 THE FETAL OUTCOMES OF SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS OF DIFFERENT ETHNIC GROUPS IN NORTHERN ISRAEL: LESSONS LEARNED**
J. Feld, A. Kibari, M. Rozenbaum, S. Riskin-Mashiah, L. Eder, A. Laor, I. Rosner, M. Elias, D. Zisman, Israel
- 11:20 INCREASED PREVALENCE OF UNDIAGNOSED CELIAC DISEASE AMONG WOMEN WITH RECURRENT PREGNANCY LOSS: EXPERIENCE IN SPAIN**
M. Tejera-Alhambra, R. Ramos-Medina, Á. García Segovia, M. Rodríguez-Mahou, S. Sánchez-Ramón, Spain
- 11:30 MONOCLONAL ANTIBODY 26 SPECIFIC FOR TETANUS TOXOID AND CROSS REACTIVE WITH B₂GPI INDUCES DIFFERENT REPRODUCTION FAILURES IN BALB/C AND C57BL/6 MICE**
I. Zivkovic, M. Stojanović, V. Petrušić, S. Živančević-Simonović, L. Dimitrijević, Serbia
- 11:40 THE IMPACT OF SJÖGREN'S SYNDROME (SS) ON PERINATAL OUTCOME: A PROSPECTIVE STUDY**
S. De Carolis, S. Salvi, S. Santucci, A. Botta, S. Moresi, R. Rella, M.P. De Carolis, Italy
- 11:50 IMPACT OF ENVIRONMENTAL FACTORS AND AUTOIMMUNITY ON THROMBOEMBOLIC DISORDERS**
S. Ahmad, S.B. Ingersoll, A. Ahmad, USA

MONOCLONAL ANTIBODY 26 SPECIFIC FOR TETANUS TOXOID AND CROSS REACTIVE WITH B₂GPI INDUCES DIFFERENT REPRODUCTION FAILURES IN BALB/C AND C57BL/6 MICE

I. Zivkovic¹, M. Stojanović¹, V. Petrušić¹, S. Živančević-Simonović², L. Dimitrijević¹

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Animal models of antiphospholipid syndrome (APS) based on passive infusion of specific autoantibodies (autoAbs) (monoclonal or polyclonal murine anti-phospholipid (aPL) Abs or human polyclonal aPL Abs from patients with APS) have been described previously. Here we report that passive infusion of MoAb T-26, specific for TTd and crossreactive with b₂GPI, obtained from Balb/c mice after TTd hyperimmunization, induces different reproduction failures in Balb/c and C57BL/6 mice. In addition to its binding to b₂GPI, MoAb T-26 was shown to bind to apoptotic cells in the presence of b₂GPI, as well as to induce fetal resorptions in Balb/c mice, due to its binding to placenta's decidual tissue. In C57BL/6 mice following i.v. application of MoAb T-26, the same pattern of reproductive pathology as for TTd hyperimmunized C57BL/6 mice was observed. Namely, the reduction in fecundity in C57BL/6 mice was pronounced. These results point out to the importance of Abs in disease manifestations. Anti-b₂GPI Abs (when possessing high affinities and specificities towards cryptic epitopes) are shown to be the key factors in fetal resorption. Additionally, they are important in protection from fetal resorption, when having a polyclonal nature, but induce fecundity lowering. Molecular mimicry effects were shown dominant in BALB/c mice, and polyclonal cell activation were shown dominant in C57BL/6 mice. Confirmation of regulatory effects of polyclonally activated antibodies on pathological anti-b₂GPI Abs in C57BL/6 mice was ascertained after passive infusion of anti-idiotypic antibody (anti-Id) MoAb Y7 into pregnant females, which resulted in reproductive failure and fetal resorptions.