The Neuro Endocrine Immune Network (NEI) is the most important communication-system in human body to maintain the health status. The altered interaction between the nervous system, the immune/inflammatory cells and the endocrine system plays an important role in the pathophysiology of autoimmunity. The involvement of the adrenal steroid hormones in the immune response is fundamental and follow a circadian rhythm. The nocturnal ability of the neuroendocrine immune system to mount an efficient immune and inflammatory response, with related clinical consequences, is matter of important chronotherapeutical approaches with exogenous steroids, in particular with glucocorticoids (GCs). Other important steroid hormones involved in the NEI are the sex hormones (pregnancy) and the D hormone.

**Major topics of the EULAR SG NEIRD during the last academic years (2016-2017) include:**

* Circadian rhythms and chronotherapy in rheumatic diseases
* Role/effects of glucocorticoids in rheumatic diseases
* Pregnancy and rheumatic diseases
* Vitamin D involvement in rheumatic diseases

**Recent Research projects involving EULAR/NEIRD endorsement/contribution**


Courses and meetings (2016-2017)


° Contribution to the “Third International symposium & Imaging workshop Giant cell arteritis, Polymyalgia Rheumatica & Large vessel vasculitis, March 10-13, 2016 Southend, UK: “Modified release prednisone in PMR”, F Buttgeriet, E Matteson, B Dasgupta, M Cutolo

° Contribution to the PANLAR/EULAR Symposium at PANLAR Congress (April 12-2016 Panama) Session Title: “Neuroendocrineimmunology Meets Rheumatoid Arthritis”

° Contribution on behalf of EULAR together with the European Pain Federation (EFIC) to the 1st EFIC/EULAR Topical Symposium 2016 on “Acute and Chronic Joint Pain” Session: “Chronobiology of chronic pain” M Cutolo: held in Dubrovnik, from 21 – 23 September 2016.

° Contribution to the XVI Mediterranean Congress of Rheumatology held in Serajevo (Croatia) 2-4.sep.2016. Session on NEIRD title “Rheumatoid Arthritis: Risk Factors and Neuroendocrine Mechanisms”


Chapters of Books (2016-2017)


° Chapter - Title: “NeuroEndocrine Immunology of Rheumatic Diseases”. EULAR Textbook on Rheumatic Diseases Chapter 2 - Straub RH, Pongratz G, Sulli A, Cutolo M. BMJ 2015

Selected publications (2016-2017)

• The EULAR points to consider for use of antiinflammatory drugs before pregnancy, and during pregnancy and lactation. Götestam Skorpen C et al. Ann Rheum Dis. 2016 May;75:795-810


• Glucocorticoids and chronic inflammation. Straub RH, Cutolo M. Rheumatology (Oxford). 2016 Dec;55(suppl 2):ii6-ii14

• Glucocorticoids and chronotherapy in RA. Cutolo M. RMD Open. 2016 Mar 18;2(1)


• European multicentre pilot survey to assess vitamin D status in rheumatoid arthritis patients and early development of a new Patient Reported Outcome questionnaire (D-PRO.) (EULAR project No CLI064) Vojinovic J, Tincani A et al. Autoimmun Rev. 2017 May;16(5):548-554

• Vitamin D deficiency and clinical correlations in systemic sclerosis patients: a retrospective analysis for possible future developments. Trombetta A et al. PLOS ONE in press 2017 [PONE-D-17-09891]