

Biennial report (2017-2018)

Study Group

Title of the study group:

NEUROENDOCRINE IMMUNOLOGY of the RHEUMATIC DISEASES (NEIRD)

Study Group Leader's name: **Maurizio Cutolo**

Date of annual report submission: **March 2019**

Summary of last year's activities

- The **EULAR Study Group on NeuroEndocrine Immunology of the Rheumatic Diseases (NEIRD)** was **already founded in 1998 during the EULAR endorsed First International Conference on Neuroendocrine Immune Basis of the Rheumatic Diseases held in Genova** (September 18th-20th, 1998) in order to investigate and disseminate advances on the role of NEI system in Rheumatic Musculoskeletal Diseases (RMD).
- **Major topics of the EULAR SG NEIRD during the last academic years (2017-2018) include:**
 - Circadian rhythms (CR) and chronotherapy in RMDs (Circadian Rhythm got Nobel Prize Medicine 2017)
 - Role/effects and optimisation for the use of glucocorticoids in rheumatic diseases
 - Epigenetic of Pregnancy and rheumatic diseases
 - Vitamin D and immune endocrine effect in RMDs

° **Contribution to the EU Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020), Project title funded by EU: “The Glucocorticoid Low-dose Outcome in Rheumatoid Arthritis Study (GLORIA) (project n°634886)”** (Leader M. Boers, some membres: JA Da Silva, F Buttgereit, J Rovensky, M Cutolo). Published: Harm, benefit and costs associated with low-dose glucocorticoids added to the treatment strategies for rheumatoid arthritis in elderly patients (GLORIA trial): study protocol for a randomised controlled trial. Hartman L, Rasch LA, Klausch T, Bijlsma HWJ, Christensen R, Smulders YM, RButtgereit F8, Cutolo M9, Da Silva JAP1, Opris D, Rovenský J, Middelinck LM, Lems WF, Boers M. *Trials*. 2018;1967. doi: 10.1186/s13063-017-2396-3.

° **Contribution to EULAR Task Force Giant Cell Arteritis Registry –** (Leader F Buttgereit some members: 2018 EULAR recommendations for a core data set to support observational research and clinical care in giant cell arteritis. Ehlers L, Askling J, Bijlsma HW, Cid MC, **Cutolo M**, Dasgupta B, Dejaco C, Dixon WG, Feltelius N, Finckh A, Gilbert K, Mackie SL, Mahr A, Matteson EL, Neill L, Salvarani C, Schmidt WA, Strangfeld A, van Vollenhoven RF, Buttgereit F. *Ann Rheum Dis*. 2019 Mar 21. pii: annrheumdis-2018-214755.

° **Contribution to:** "Disease knowledge index" and perspectives on reproductive issues: A nationwide study on 398 women with autoimmune rheumatic diseases. Andreoli L, et al. Tincani A. *Joint Bone Spine*. 2018 Dec 21. pii: S1297-319X(18)30257-4.

° **Contribution to:** Disease activity assessment of rheumatic diseases during pregnancy: a comprehensive review of indices used in clinical studies. Andreoli L, Gerardi MC, Fernandes M, Bortoluzzi A, Bellando-Randone S, Brucato A, Caporali R, Chighizola CB, Chimenti MS, Conigliaro P, **Cutolo M**, Cutro MS, D'Angelo S, Doria A, Elefante E, Fredi M, Galeazzi M, Gerosa M, Govoni M, Iuliano A, Larosa M, Lazzaroni MG, Matucci-Cerinic M, Meroni M, Meroni PL, Mosca M, Patanè M, Pazzola G, Pendolino M, Perricone R, Ramoni V, Salvarani C, Sebastiani GD, Selmi C, Spinelli FR, Valesini G, Scirè CA, Tincani A. *Autoimmun Rev*. 2019 Feb;18(2):164-176.

Compilation Vitamin D and systemic lupus erythematosus: a review of immunological and clinical aspects. Dall'Ara F, Cutolo M, Andreoli L, Tincani A, Paolino S. *Clin Exp Rheumatol*. 2018 Jan-Feb;36(1):153-162.

° **Compilation Hypothesis:** Can neuroendocrine immune (NEI) testing of individual RA patients guide benefits to harms ratio in glucocorticoid therapy? Masi AT, Imrich R, **Cutolo M**. *Arthritis Care Res*. 2017 Oct 26. ¹

- ° **Compilation** Glucocorticoid management in rheumatoid arthritis: morning or night low dose? Paolino S, Cutolo M, Pizzorni C. *Reumatologia*. 2017;55(4):189-197
- ° **Compilation** Circadian rhythms and rheumatoid arthritis. **Cutolo M. Joint Bone Spine**. 2018 Sep 15. pii: S1297-319X(18)30178-7.
- ° **Compilation**. Psychoneuroimmunology-developments in stress research. Straub RH, Cutolo M. *Wien Med Wochenschr*. 2018 Mar;168(3-4):76-84.
- ° **Compilation** 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). Vojinovic J, Tincani A, Sulli A, Soldano S, Andreoli L, Dall'Ara F, Ionescu R, Pasalic KS, Balcune I, Ferraz-Amaro I, Tlustochowicz M, Butrimiene I, Punceviciene E, Toroptsova N, Grazio S, Morovic-Vergles J, Masaryk P, Otsa K, Bernardes M, Boyadzhieva V, Salaffi F, **Cutolo M**. *Autoimmun Rev*. 2017 May;16(5):548-554.
- ° **Compilation** Vitamin D supplementation in the prevention and management of major chronic diseases not related to mineral homeostasis in adults: research for evidence and a scientific statement from the European society for clinical and economic aspects of osteoporosis and osteoarthritis (ESCEO). Bischoff-Ferrari HA, Bruyere O, Cooper C, **Cutolo M**, Kanis JA, Kaufman JM, Reginster JY, Rizzoli R, Brandi ML. *Endocrine*. 2017 May;56(2):245-261
- ° **Compilation** Steroids and Autoimmunity. Trombetta AC, Meroni M, Cutolo M. *Front Horm Res*. 2017;48:121-132.
- ° **Compilation** Air Travel, Circadian Rhythms/Hormones, and Autoimmunity. Torres-Ruiz J, Sulli A, **Cutolo M**, Shoenfeld Y. *Clin Rev Allergy Immunol*. 2017 Aug;53(1):117-125.
- ° **Compilation** Vitamin D deficiency and clinical correlations in systemic sclerosis patients: A retrospective analysis for possible future developments. Trombetta AC, Smith V, Gotelli E, Ghio M, Paolino S, Pizzorni C, Vanhaecke A, Ruaro B, Sulli A, Cutolo M. *PLoS One*. 2017 Jun 9;12(6):e0179062.
- ° **Compilation** Modified-release prednisone for polymyalgia rheumatica: a multicentre, randomised, active-controlled, double-blind, parallel-group study. Cutolo M, Hopp M, Liebscher S, Dasgupta B, Buttgerit F. *RMD Open*. 2017 Mar 17;3(1):e000426
- ° **Contribution of NEIRD to the NEI Study Group at ACR 2017**. Washington, Sunday, November 13, 2016. Convention Ctr: Chairs/Speakers: Frank Buttgerit, Georg Pongratz, Maurizio Cutolo Title: "New Concepts to reduce Glucocorticoid toxicity"
- ° **Contribution to the EULAR Postgraduate course, Belgrade (Serbia)**, 22-25 Oct 2017 Session Title: "Optimizing the use of glucocorticoids in rheumatic diseases"
- ° **Contribution to the XVII Mediterranean Congress of Rheumatology held in Genova (Croatia)** 12-14 April 2018. Session on NEIRD title "Sun, Vitamin D and autoimmune rheumatic diseases"
- ° **Contribution to: NEIRD Endorsement to the X ISNIM (International Society for Neuro Immuno Modulation) CONGRESS: "Translational NeuroImmunoModulation"** Rome 26-28.5.2017: ISNIM "Session 1: Neuroimmunomodulation and autoimmune diseases".
- ° **Contribution to: 39th EWRR 2019 Workshop** from the 28th February to the 2nd March, in Lyon, France. PRESENTATION TITLE: Sex hormones and autoimmunity.
- " **Contribution to ESCEO Conference** February 06, 2019, 09:00 am – 01:30 pm La Réserve, Geneva
Alternative treatments for osteoarthritis: stem cells, platelet-rich plasma, autologous chondrocyte transplantation: 10:25: Vitamin D as a treatment for osteoarthritis: what is the current level of evidence? – Maurizio Cutolo