Università di Genova

Maurizio Cutolo, MD, EULARHon, ACRMaster, Honorary Doctorate

Professor of Rheumatology and Internal Medicine
Senior Consultant Academic Division of Clinical Rheumatology at Department of Internal Medicine and Specialties (DiMI) University of Genova (UNIGE)
Director Laboratory of Experimental Rheumatology at DiMI UNIGE Emeritus Professor
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Workplace email: mcutolo@unige.it *Office phone number*: +39 010 353 7994/ +39 335233621
Scientific Consultant IRCCS Ospedale San Martino Genova

EDUCATION AND TRAINING

1978 Graduation in Medicine
Thesis: "Pathophysiology of Vasculitis" (published)
110/110 with honors University of Naples - Naples - IT

1982 Postgraduation in Rheumatology
Thesis: "Rheumatoid arthritis"
50/50 with honors University of Genova - Genova - IT

1982-1983/1986-1987 Ouside Resident at the **New York University**
Division of Rheumatology Bellevue Hospital New York University New York USA. Winner of an Educational **fellowship bursary**/Grant of the Italian Society for Rheumatology (SIR)

1987 Postgraduation in Internal Medicine
Thesis: "Trace elements in rheumatic diseases" (published)
50/50 with honors University of Genova - Genova - IT

2014 Bucharest Honorary Doctorate (**LAURIS Doctor Honoris Causa in Medicine)**
appointed in Bucharest by the Senatus and Rector (Prof. Joanel Sinescus) following Lectio Magistralis – State University "Carolus Davila" – Bucharest (Romania)

ACADEMIC APPOINTMENTS

1998 - 2000 **Associate Professor on Internal Medicine**
University of Genova - Genova - IT

2002-2023 **Full Professor of Rheumatology**
University of Genova - Genova - IT

2023 ongoing **Emeritus Professor of Rheumatology Senior Consultant**
University of Genova - Genova - IT

ACADEMIC POSITIONS

1998 - 2000
Chief of the Outpatient Clinic, Research Laboratories and Center for Microcirculation
Associate Professor on Internal Medicine
University of Genova DiMI - Genova – IT

2002-2023
Director of the Academic Division of Rheumatology and Laboratories for Rheumatological Research and Postgraduate School of Rheumatology
Director and Consultant Rheumatological Unit IRCCS Polyclinic Hospital San Martino Genova
Full Professor of Rheumatology
University of Genova DiMI - Genova - IT

2023 ongoing
Director of the Laboratories for Rheumatological Research and Senior Consultant - Scientific Consultant Rheumatological Unit IRCCS Polyclinic Hospital San Martino Genova
Emeritus Professor of Rheumatology and Senior Consultant
University of Genova DiMI - Genova - IT

2013 - ongoing
Founder and ongoing Board Member and Tutor of the Board of the **PhD Program on Clinical and Experimental Immunology**
DiSEM/DiMI PhD programme
Medical School University of Geneva - IT

HIGHLY RANKED HONORARY DEGREES and AWARDS

2010 Budapest
Appointed **Honorary Member of the Hungarian Association of Rheumatologists** during the National Congress by the President of the Hungarian Society *23 September 2010*

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2010 Moscow
Appointed **Honorary Member of the Russian Society for Rheumatology** during the National Congress of the Society in Sankt-Peterburg (Russia) *26-29 October 2010*

2014 Bucharest
Appointed with HONORARY DOCTORATE - LAURIS Doctor Honoris Causa in Medicine in Bucharest by the Senatus and Rector (Prof. Joanel Sinescus) following Lectio Magistralis – State University "Carolus Davila" – Bucharest (Romania) *29 and 30 May 2014*

2017 Zurich
Appointed **Honorary Member of the European Alliance of Association for Rheumatology (EULAR)** during the 70th Annual Congress in Madrid (Spain) *14-17 June 2017*

2024 Washington
From the American College of Rheumatology (ACR) and the Association of Rheumatology Professionals (ARP) Membership and Awards Committee, MC received the prestigeous **ACR Master Designation** as **AWARD winner** (unique european in 2024) and presented during the Opening Ceremony of the 2024 ACR Annual Meeting *15th November*

2024/2027 Atlanta
On **behalf of the American College of Rheumatology (ACR)** and the ACR Global Engagement Committee, after a competitive selection MC was appointed after competitive selection for the **role of ACR International Adviser**

2025 Zurich
M Cutolo during the **EULAR 2025 Opening Plenary Session** on Wednesday, 11 June 2025 in Barcelona received, after a selective competition, the 2025 EULAR Award Certificate from the EULAR President and nominated for the **yearl 2025** (one award each year) **EULAR 2025 Meritorious Service Award in Rheumatology** in teachingh-training. Research and clinical management

INTERNATIONAL ACHIEVEMENTS, APPOINTMENTS and AWARDS

- **1999 – 2018 Boston**
  Founder of the **Study Group on NeuroEndocrine Immunology (NEI) at the American College of Rheumatology (ACR) Annual Meeting.** The study group was alway well accepted by many colleagues in Rheumatology and Clinical Immunology at ACR because it bridged the different disciplines of Immunology, Endocrinology, and Neuroscience. MC was also invited speaker in 12 of the 18 NEI sessions during the Annual ACR Meeting until November 2018 (ACR Chicago,IL November)
- **1999 - 2021 USA**
  Appointed Scientific Board Member of the American Autoimmune Related Diseases Association (AARDA) *22100 Gratiot Ave. Eastpointe, MI 48021 USA*
- **2004 - 2007 Rome**
  Elected **Vice President of the Italian Society for Rheumatology** (SIR)and co-organizer of the National Congress

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- **2003 - 2007 Zurich**
  Elected **Member of the Scientific Committee of the** European League Against Rheumatic Diseases (EULAR9
- **2008 - 2015 Athens**
  Appointed **Member of the Executive Committee** of the International Society for Neuroimmunomodulation (ISNIM)
- **2009 - 2011 Zurich**
  Appointed **Chairman of Standing Committee for Education and Training** (ESCET) of the European League Against Rheumatic Diseases (EULAR)
- **2010 Zurich**
  Executive President of the 11th Annual Congress of the European League Against Rheumatism (EULAR) Rome, Italy (*June 16 - 19, 2010*)
- **2012 - 2018 Washington**
  Founder of the **Study Group on Capillaroscopy in Rheumatic Diseases at the American College of Rheumatology (ACR)** approved by ACR at the 2012 at Annual ACR Meeting (Washington, DC) *November 9-14, 2012.* **M Cutolo has been the coordinator every Annual ACR Meeting** from November 2012 (ACR Washighton DC) until November 2019 **(**ACR Atlanta,Georgia November**)**
- **2013 - ongoing Bruxelles/Pisa**
  Co-founding member and appointed **Deputy Chair of the European Rare Diseases Network** (ERN) on Rare and Complex Connective Tssue Diseases (ReCONNET)
- **2013-2015 Zurich**
  Member of the **EULAR Foundation for Research FOREUM**
- **2011-2013 Zurich**
  President-elect of the 16th European League Against Rheumatic Diseases (EULAR) and member of Steering Group
- **2013-2015 Zurich**
  M Cutolo served as **Full President of the European League Against Rheumatic Diseases (EULAR)** for a period of 3 years
- **2015 ongoing Rome**
  The Italian Society for Rheumatology (SIR) following the nomination by the President voted and appointed by the board **appointed M CUTOLO liaison officer SIR-EULAR**
- **2015 Zurich**
  Executive President of the 11th Annual Congress of the **European League Against Rheumatism (EULAR)** Rome, Italy (*June 10-13, 2015*)
- **2015 ongoing Rome**
  M Cutolo was named by the Italian Society of Rheumatology as **Chair of the Study Group on Capillaroscopy and Microcirculation in Rheumatic Diseases (CAPSIR)**
- **2014-2015 Atlanta**
  M Cutolo has been **appointed at the ACR Meeting in 2014** and has served as **Chairman of the International League of Associations for Rheumatology (**ILAR) managing the ILAR Committee meetings during the ACR annual Meeting in 2014 and 2015. The Associations/Ligues participating were represented a by the relative Presidents of **ACR (American) , EULAR (European), PANLAR (Pan American), APLAR (Asian), and AFLAR (African)** and interacted under the Chairmanship of MC

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- **2017 Zurich**
  President of the EULAR election Committee for the elections of new EULAR Streering Committee and Commmittee Chairs
- **2016 ongoing Manchester**
  Appointed member **of the Steering Committee** of the **Immune Mediated Inflammatory Disease FORUM IMID *(alias CSF forum)*** www.imidforum.com
- **2017 ongoing Zurich**
  Appointed **Advisor** of the Education Committee at the **EULAR School of Rheumatology** (ESoR)
- **2023 ongoing USA**
  Appointed **Member of the Medical and Scientific Advisory Council** of the **Autoimmune Association USA** (world's leading nonprofit dedicated to autoimmune awareness, education, advocacy, and research Clinton Township, Michigan, USA . https://autoimmune.org)
- **2024 Washington**
  On **behalf of the American College of Rheumatology (ACR)** and the Association of Rheumatology Professionals (ARP) Membership and Awards Committee, MC received the **ACR Master Designation** as AWARD winner and presented during the Opening Ceremony of the 2024 ACR Annual Meeting (15th November in Washington)*)*
- **2024/2027 Washington**
  On **behalf of the American College of Rheumatology (ACR) and the ACR Global Engagement Committee**, MC has been selected for the **role of ACR International Adviser.**
- **2024 ongoing Rome**
  Named by the President of the Italian Sciety of Rheumatology (SIR), **Chair of the Scientific Committee of the Italian National Society of Rheumatology** with the mission of the management of the scientific issues related to the Society (28th November 2024)
- **2024 ongoing Rome**
  Named by the Ministry of the University and Research as Emeritus Professor in Rheumatology/Medicine at the University of Genova
- **2025 Zurich**
  M Cutolo during the **EULAR 2025 Opening Plenary Session** on Wednesday, 11 June 2025 in Barcelona, MC received the 2025 EULAR Award Certificate from the EULAR President being nominated for the **yearly** (one each year) **EULAR 2025 Meritorious Service Award in Rheumatology**

INTERNATIONAL RANKING

2024 M Cutolo is ranked 42th amongst top Italian Scientists in Clinical Sciences (Users/mcutolo/Desktop/Top%20Italian%20Scientists.webarchive)

2023 M Cutolo is ranked 4463 amongst top 200.000 world scientists into 22 scientific fields (**Second ranked for the whole University of Genova**) August 2024 data-update for "Updated science-wide author databases of standardized citation indicators" - Elsevier BV (digitalcommonsdata.com) (https://dx.doi.org/10.17632/btchxktzyw)

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Published: 16 September 2024|Version 7 |DOI: 10.17632/btchxktzyw.7.

2024 **M Cutolo** Cutolo secondo Research.com, una piattaforma accademica leader per i ricercatori, appena pubblicata per l'edizione 2024 della Classifica dei Migliori Scienziati nel campo della Medicina, si colloca al 93° posto in Italia e al 3434° posto nel mondo. La classifica completa per l'Italia è disponibile qui: research.com/scientists-rankings/medicine/it. La classifica mondiale completa è disponibile qui: here: research.com/scientists-rankings/medicine/it The full world ranking is available here: research.com/scientists-rankings/medicine

2024 **M Cutolo** is ranked in the top 0.05% of scholars worldwide by Highly Ranked Scholars™ in the latest ScholarGPS 2024 ranking, which includes 350,000 subjects across 177 disciplines and 14 fields. **Maurizio Cutolo** ScholarGPS® ID: 44897975064814 **Highly Ranked Scholar - Lifetime:** #7,185 Overall (All Fields) #1,759 Medicine #26 Rheumatoid arthritis #41 Arthritis https://scholargps.com/scholars/44897975064814/maurizio-cutolo

2025 **M Cutolo** according to **Research.com** is reported as the **second most ranked Professor at the University of Genova ITALY** (D-index 118, citations 67,571) https://research.com/university/medicine/university-of-genoa

SCIENTIFIC PRODUCTION

M Cutolo has produced more than 850 peer reviewed papers listed in PUB MED.
M Cutolo actual **H Index 129** (Google Scholar more than 76,700 citations) and **H Index 104** (Scopus more than 51,000 citations) (August 2025)

ORGANIZATION OF COURSES AND CONFERENCES

- **1998 up 2013**
  Organizer and Chairman of the **5 International Conferences on Neuroendocrine Immune Basis of the Rheumatic Diseases** (NEIRD) in cooperation with ACR/NIH (Santa Margherita ITALY 1998, 2001, 2005, 2009, 2013)
- **From 2003 ongoing**
  Organizer and **Co-Chairman** of the **Workshops/Skill Sessions 2024 Genova**
  Organizer and **Chairman** of the **43rd European Workshop on Rheumatology Research** (EWRR2024) (participants from 35 countries) endorsed by EULAR, Italian Society for Rheumatology (SIR), European Netwok on Rare and
  Complex Connective Tissue Diseases (ERN ReCONNET) and University of Genova (UNIGE) (https://ewrr2024.com)
- **From 2003 ongoing**
  Organiser of the Skill Session Capillaroscopy/Microcirculation and Rheumatic Diseases **during the annual EULAR Congresses** (Lisbon 2003, Berlin 2004, Vienna 2005, Amsterdam 2006, Barcelona 2007, Paris 2008, Copenhagen 2009, Rome 2010, London 2011, Berlin 2012, Madrid 2013, Paris 2014, Rome 2015, London 2016,

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Madrid 2017, Amsterdam 2018, Madrid 2019, Copenhagen 2022, Milan 2023, Vienna 2024, Barcelona 2025 https://www.eular.org)

- **From 2004 ongoing**
  Organizer and **Co-Chairman of the EULAR Live 3 days Courses full immersion** on Capillaroscopy and Rheumatic Diseases (Genova 2004, 2006, 2008, 2010, 2012, 2013, 2014, 2016, 2018, and each year precede the EULAR Congress: Madrid 2019, Copenhagen 2022, Milan 2023, Vienna 2024, Barcelone 2025 Average number of participants 110 from 32-45 Countries
- **2009 and 2010**
  Organizer and **Chairman of the 3 days EULAR Postgraduate Courses** (Torre del Greco Naples - Italy)
- **2016 ongoing**
  Organizer and **Chairman of the** National Study Group on Capillaroscopy and Microcirculation in Rheumatic Diseases Workshop **(CAPSIR)** and Board Meetings **and Annual hands-on** during the Annual Congress of the **Italian Society for Rheumatology** (SIR) (November every year)
- **2020-2023-2025**
  Organization and **Co-Chair First EULAR** (267 participants from 65 countries) **and second online Course** (243 participants from 60 countries) and third (257 paticipants from 47 countries) on Capillaroscopy and Microcirculation in Rheumatic Diseases (7 modules duration 1 year with final examination on line and EULAR diploma/master) EULAR School of Rheumatology https://esor.eular.org)
- 2024 Rome
  Co-Organizer and Moderator of the First Residential and Educational Course for Postgraduates on Rheumatology on Capillaroscopy and Microcirculation on RMDs
  organized by the Italian Society of Rheumatology (SIR) *(Rome 29-30 May 2025)* (www.sircourses.com)

Selection of chapters in books and on line modules with authorship

Editor of the volumes of the Annals of the New York Academy of Sciences: "Neuroendocrine Immune Bssis of the Rheumatic Diseases" (vol 876/1999, vol 966/2002, vol 1069/200 and vol 1193/2010) **CoEditor** of the volumes of the of the Rheumatic Diseases Clinics of North America "Neuroendocrine Immunology of the Rheumatic Diseases" (Saunders) (vol 26:4/ 2000, vol 31:1/2005)
Co-Editor of the volume 22, issue 6: "Modern imaging techniques: a revolution for rheumatology practice". Best Pract Res Clin Rheumatol (Elsevier) – 2008
Editor of the first textbook on capillaroscopy entitled: Atlas of capillaroscopy in Rheumatic Diseases - Elsevier 2010 endorsed by EULAR.
Author Chapter "Neuroendocrine immunology in rheumatic diseases" in the EULAR Compendium on Rheumatic Diseases (2009, chapt 50 BMJ and chapter 2 in the 2013 in the Kelley's Textbook of Rheumatology (2010-2011, chap 121)
Author Chapter "Effects of the Neuroendocrine System on Development and Function of the Imune System" in Rheumatology - Fifth edition by Marc C. Hochberg, Alan J. Silman, Josef S. Smolen, Michael E. Weinblatt, MD, and Michael H. Weisman, MD. (2010, chap 24, Elsevier).
- Varga J, ed. Scleroderma: From pathogenesis to Comprehensive Management. New York: Springer Science+Business Media, LLC. 2012. Chapter:3

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Co-Author Cutolo M, Smith V. Nailfold Capillaroscopy, p 331-346.
Co-Author 1st EULAR On-line Course on Systemic Sclerosis September 2011 - June 2012. Module: **Co-Author** Assessment tools of the microcirculation.
Editors Cutolo M & Smith V, Novel insights into systemic sclerosis management. Future Science Group. Future Medicine Ltd,Unitec House, 2 Albert Place, London N3 1QB, UK 2013. Published by Future Medicine Ltd www.futuremedicine.com
Co-Editor 3rd EULAR On-line Course in Systemic Sclerosis September 2013 – June 2013. Module: 3. in **Co-Authors** Cutolo M, Smith V. Nailfold capillaroscopy and other methods to assess the microvasculopathy in systemic sclerosis. Hachulla E & Czirjak L, eds. EULAR Textbook on Systemic Sclerosis. BMJ. 2013.Chapter: 14.
Co-Authors Cutolo M, Smith V. Nailfold capillaroscopy and other methods to assess the microvasculopathy in systemic sclerosis, p 129-138 - Wigley F et al, eds. Raynaud's Phenomenon – A guide to Pathogenesis and Treatment. Springer Publishing. 2014. Chapter: 10c.
Co-Editor 2021-2023 of the First EULAR on line Course on Capillaroscopy and Microcirculation in RMDs (7 modules).
Co-Editor from 2019 and following updates of the First EULAR Module on line on Nutrition in RMD. **Editor** from 2020.of the Special Issues of the Journal Nutrients: Vitamin D and autoimmunity.
Co-Editor and Author of chapters for the **Springer Textbook** "Nailfold Capillaroscopy in Rheumatological Diseases" (Published on October-November 2025).

Editor or Editorial Board member and Peer Review Journals

- **1983 ongoing**
  Editorial Member, Associate Editor (from 2020) and now **Senior Editor** of **Clinical and Experimental Rheumatology** *(Chief Editor S. Bombardieri)*
- **1998 - 2008** Member of the **Editorial Board of Rheumatology (Oxford)**
- **2002 - 2005** Member of the **Advisory Board of Arthritis and Rheumatology** *(Editor D Pisetsky) Official Journal of ACR*
- **2003 ongoing** Member of the **Editorial Board of Annals of the Rheumatic Diseases** *Official Journal of EULAR (IF 2022, 27.4)*
- **2015 ongoing** Member of the **Editorial Board of RMD open** *Official Journal of EULAR*
- **2024** **Co-Editor** with S. Bombardieri of the new Journal (May 2024) **Journal of Environmental Rheumatology**
- **2025** **Co-Editor** of the volume **Rheumatoid Arthritis and Nutrition: Bridging Diet and Disease Management** a special issue of **Nutrients** (ISSN 2072-6643) series "Clinical Nutrition"

MAJOR and SEMINAL TOPICS in RESEARCH

Neuroendocrine Immunology of Rheumatic Diseases (NEIRD) and circadian rhythms

M Cutolo and TEAM have produced original and seminal research on NEIRD since 1990, with the original discovery of sex hormone functional receptors on rheumatoid arthritis (RA) synovial macrophages. M Cutolo showed that cultured macrophages metabolise sex hormones up to the active metabolites and modulate the immune response. On the other hands, circadian rhythms drive during the night the immune system activation through hormones mainly cortisol,

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and in particular conditions of their deficiency like in chronic inflammatory diseases such as RA, the immune response at night is not dowregulated. To this purpose, for instance, the study of presence of adrenocortical insufficiency (related to the chronic stress induced by the diseases) through baseline dynamic testing of adrenal function, adrenal glucocorticoids and steroids circadian evaluation, induced to the production of the first programmed release prednisone following the researches of the Cutolo Team since from 2000.

Cutolo M et al. Presence of estrogen-binding sites on macrophage-like synoviocytes and CD8+, CD29+, CD45RO+ T lymphocytes in normal and rheumatoid synovium. Arthritis Rheum. 1993 Aug;36(8):1087-97
Cutolo M, Straub RH, Bijlsma JW.Neuroendocrine-immune interactions in synovitis. Nature Clin Pract Rheumatol. 2007 Nov;3(11):627-34.
Straub RH, Bijlsma JW, Masi A, Cutolo M. Role of neuroendocrine and neuroimmune mechanisms in chronic inflammatory rheumatic diseases--the 10-year update. Semin Arthritis Rheum. 2013 Dec;43(3):392-404.
Cutolo M et al. Circadian rhythms in RA. Ann Rheum Dis. 2003 Jul;62(7):593-6
Straub RH & Cutolo M. Circadian rhythms in rheumatoid arthritis: implications for pathophysiology and therapeutic management. Arthritis Rheum. 2007 Feb;56(2):399-408
Cutolo M. Rheumatoid arthritis: circadian and circannual rhythms in RA. Nature Rev Rheumatol. 2011 Aug 2;7(9):500-2.
Burmester GR, Bijlsma JWJ, Cutolo M, McInnes IB. Managing rheumatic and musculoskeletal diseases - past, present and future. Nature Rev Rheumatol. 2017 Jul;13(7):443-448.
Cutolo M, Straub RH. Sex steroids and autoimmune rheumatic diseases: state of the art. Nature Rev Rheumatol. 2020 Nov;16(11):628-644
Cutolo M et al. Glucocorticoids in rheumatoid arthritis still on first line: the reasons. Expert Rev Clin Immunol. 2021 May;17(5):417-420
Straub RH, Cutolo M. A History of Psycho-Neuro-Endocrine Immune Interactions in Rheumatic Diseases. Neuroimmunomodulation. 2024;31(1):183-210
Cutolo M, Gotelli E. The Importance of Neuroendocrine Immunology Pathways in the Course of COVID-19. Neuroimmunomodulation. 2024;31(1):62-64

Identification of M1/M2 phenotypes in rheumatoid arthritis and systemis sclerosis

M Cutolo and TEAM have among the firsts evaluated the transition of M1/M2 macrophages from RA patients and their *in vitro* modulation linked to the disease status. Then, have identified for the first time, the phenotypes of circulating monocytes and lung and skin derived macrophages in systemic sclerosis (SSc). In particular, the transition from macrophages M1 to M2 has been evaluted *in vitro* studies, as well as the cell membrane and functional markers that identify the M1 and M2 when modulated by drugs. A particular circulating hybrid monocyte phenotype M1/M2 has been detected for the first time in SSc patients.

Tardito S ....and Cutolo M. Macrophage M1/M2 polarization and rheumatoid arthritis. Autoimmun Rev. 2019 Nov;18(11):102397
Cutolo M et al. CTLA4-Ig treatment induces M1-M2 shift in cultured monocyte-derived macrophages from healthy subjects and rheumatoid arthritis patients. Arthritis Res Ther. 2021 Dec 24;23(1)
*Cutolo et al. The Role of M1/M2 Macrophage Polarization in Rheumatoid Arthritis Synovitis. Front Immunol. 2022 May 19;13:867260 (→ **July 2025 44K Total views 25,7K Downloads 364 Citations**)*
Soldano S. and Cutolo M. Increase in circulating cells coexpressing M1 and M2 macrophage surface markers in patients with systemic sclerosis. Ann Rheum Dis. 2018 Dec;77(12):1842-1845

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Trombetta AS. and Cutolo M. A circulating cell population showing both M1 and M2 monocyte/macrophage surface markercharacterizes systemic sclerosis patients with lung involvement. Respir Res. 2018 Sep 24;19(1):186
Cutolo M et al. Dynamic macrophage phenotypes in autoimmune and inflammatory rheumatic diseases. Nat Rev Rheumatol. 2025 Jul 28. doi: 10.1038/s41584-025-01279

Focalised research on the effects of the secosteroid D (vitamin D) deficiency in autoimmunity and SARSCov2 infection (COVID-19)

M Cutolo and TEAM have for the first time deeply investigated the role of calcitriol (1,25(OH)2 D3) deficiency in autoimmune RMDs (ARDs) and in COVID patients. The endogenous serum metabolite of
vitamin D (calcitriol) is considered a true steroid hormone (D hormone), and like glucocorticoids (GCs) and gonadal hormones, may exert several immunomodulatory activities. Serum vitamin D deficiency (25(OH) D), and therefore reduced 1,25(OH)2 D3 availability, is considered a risk factor for several chronic/inflammatory or autoimmune conditions, including infectious

diseases, type 1 diabetes, multiple sclerosis, and especially autoimmune rheumatic diseases (ARD). In ARD inparticular, 1,25(OH)2 D3 regulates both innate and adaptive immunity, potentiating the innate response (antimicrobial activity)
but reducing adaptive immunity (antigen presentation, T and B cell activities). Conversely, vitamin D deficiency seems to play a role in increasing autoantibody production by B cells, and seasonal vitamin D declines may trigger flares in ARDs, as recently shown.). Dramatic the effects of calcitriol deficiency in COVID-19 patients and herefore by SARSCov2 infection as risk factor for disease severity and dead.

Cutolo M et al. Circannual vitamin D serum levels and disease activity in rheumatoid arthritis: Northern versus Southern Europe. Clin Exp Rheumatol. 2006 Nov-Dec;24(6):702-4
Cutolo M et al. Vitamin D involvement in rheumatoid arthritis and systemic lupus erythaematosus. Ann Rheum Dis. 2009 Mar;68(3):446-7
Cutolo M. Further emergent evidence for the vitamin D endocrine system involvement in autoimmune rheumatic disease risk and prognosis. Ann Rheum Dis. 2013 Apr;72(4):473-5
Cutolo M et al. Evidences for a protective role of vitamin D in COVID-19.RMD Open. 2020 Dec;6(3):e001454.
*Cutolo M, Gotelli E The 2023's Growing Evidence Confirming the Relationship between **Vitamin D**and Autoimmune Diseases. Nutrients. 2023 Nov 13;15(22):4760.*
Sulli A .. and Cutolo M. Vitamin D and Lung Outcomes in Elderly COVID-19 Patients. Nutrients. 2021 Feb 24;13(3):717.
Cutolo M et al. Involvement of the secosteroid vitamin D in autoimmune rheumatic diseases and COVID-19. Nature Rev Rheumatol. 2023 May;19(5):265-287
Hysa E … Cutolo M. Vitamin D and Muscle Status in Inflammatory and Autoimmune Rheumatic Diseases: An Update. Nutrients. 2024 Jul 19;16(14):2329

First definition of nailfod video capillaroscopy patterns in systemic sclerosis, theirs score and their prognostic role

M Cutolo and TEAM proposed for the first time in 2000 a new classification for the microvascular patterns (early, active, late) observed in systemic sclerosis (SSc based) on the nailfoldvideo Capillaroscopy (NVC). MC has identified also the “very early” NVC signature in SSc, the only one that with Raydaud’s phenomenon (RP) and presence of autoantibodies

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allows a very early suspicion for SSc. NVC is today mandatory for the very early/early differential diagnosis between benign RP and RP associated to SSc. Furthermore, based on the qualtification of the NVC changes it is possible a prediction of clinical complications in Connective tissues Diseases, mainly in SSc and related lung and skin involvement. Also and logically, in SSc, the microangiopathy, as assessed as biomarker by NVC, has been associated with markers of the disease such as angiogenic/static factors and SSc-specific antibodies. Moreover, morphological assessments of the microcirculation (capillaroscopy) correlates with functional assessments of peripheral blood flow (such evaluated by Laser Doppler). From those studies the European League Against Rheumatism (EULAR) and the American College of Rheumatology (ACR) introduced in 2013 the NCV analysis among the criteria for the classification of SSc.

Cutolo M, Sulli A, Smith V. Assessing microvascular changes in systemic sclerosis diagnosis and management. Nature Rev Rheumatol. 2010
Cutolo M et al. Nailfold Videocapillaroscopic Features and Other Clinical Risk Factors for DigitalUlcers in Systemic Sclerosis: A Multicenter, Prospective Cohort Study. CAP Study Investigators. Arthritis Rheum 2016 Oct;68(10):2527-39
Cutolo M, Sulli A. Therapy. Optimized treatment algorithms for digital vasculopathy in SSc. Nature Rev Rheumatol. 2015 Oct;11(10):569-71
Cutolo M et al. Nailfold Videocapillaroscopic Features and Other Clinical Risk Factors for DigitalUlcers in Systemic Sclerosis: A Multicenter, Prospective Cohort Study. CAP Study Investigators. Arthritis Rheumatol. 2016;68(10):2527-39.
Oliver Distler …. Cutolo M et al. Nintedanib for Systemic Sclerosis-Associated Interstitial Lung Disease. New Engl J Med 2019 Jun 27;380(26):2518-2528.
Cutolo M, Smith V. Detection of microvascular changes in systemic sclerosis and other rheumatic diseases. Nature Rev Rheumatol. 2021 Nov;17(11):665-677.
Bellando Randone S.....Cutolo M et al. Progression of patients with Raynaud's phenomenon to systemic sclerosis: a five-year analysis of the European Scleroderma Trial and Research group multicentre, longitudinal registry study for Very Early Diagnosis of Systemic Sclerosis (VEDOSS) Lancet Rheumatol 2021 3: e834–43
Correia AM … Cutolo M. Differences in nailfold capillaroscopy findings between limited and diffuse cutaneous systemic sclerosis: a detailed analysis. RMD Open. 2025 Jul 5;11(3):e005716

International Mentorship

From 2008 up now M Cutolo has hosted and acted as mentor for 87 people, among them *medical students, postgraduates, research fellows, PhD, rheumatologists, EULAR and ERASMUS Scholars, professors* for internship at the Research Laboratory of Experimental Rheumatology or at the Clinical Division of Rheumatology in Genova for periods ranging from 2 weeks up to 24 months.
Since 2023, MC has been hosting doctors and paramedical staff, as well as patients visiting the Clinical Division of Rheumatology, in the EU European Exchange Programme for the ERN ReCONNET project.

The countries of origin of the fellows were: *UK, Canada, China, Russia, Germany, South Africa, Brasil, Israel, Japan, Brasil, Peru, Australia, Portugal, Albania, Rumania, Estonia, Latvia, Sweden, Finland, Croatia, Poland, Greece, Ukraine, Jordan, Chile, Hong Kong, Moldovia, Serbia, Colombia, France, Russia, Hungary, Egypt, Argentina, Bolivia, Mexico, Turkey, Spain, Irland, Belgium, Malaysia*.
The original documents and CV of each fellow are availabl on file.

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