

Curriculum Vitae

ALESSIO MAZZONI

Personal data

Date of birth: 25/08/1988

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Education and Professional Experience:

-April-October 2010: Training period at the Immunology lab of Prof. Francesco Annunziato, University of Florence

-13/10/2010: Bachelor's degree in biotechnology, University of Florence 110/110 cum laude

-March-August 2012: Training period at the German Rheumatism Research Centre (DRFZ), Berlin, to acquire skills for DNA methylation analysis

-30/10/2012: Master's degree in medical and Pharmaceutical Biotechnology, University of Florence 110/110 cum laude

-January-April 2013: Research fellow at the University of Florence, Immunology lab. Project title: "Study of the immunoregulatory role of human mesenchymal stem cells"

-2014: Qualification to practice as a biologist

-March 2015: Participate and successfully pass the exam of the course on laboratory animal experimentation, rodent module, at DRFZ, Berlin

- July-October 2015: visiting student at DRFZ, Berlin, to perform experiments on a mouse model of T cell dependent colitis

-12/01/2016: PhD degree in "Medical oncology and surgery and clinical immunology", Second University of Naples

-January 2016-December 2018: AIRC (Italian association for cancer research) post-doctoral research fellow at the University of Florence, Department of Experimental and Clinical Medicine. Project title: "Cellular and molecular mechanisms of immunosurveillance escape in Head Neck Squamous Cell Carcinoma"

-Since June 2017: Student of the Specialization School in Clinical Pathology and Biochemistry, University of Florence.

-12/12/2018: Nominated Subject Expert (Cultore della Materia) in General Pathology for the "Medical and Pharmaceutical Biotechnology" degree course at the University of Florence

-2019: Post-doctoral research fellow at the Department of Experimental and Clinical Medicine, University of Florence: "Advanced cell therapies in autoimmune and onco-hematological diseases"

-From January 2020: Post-doctoral research fellow at the Department of Experimental and Clinical Medicine, University of Florence: “Studio dei meccanismi molecolari responsabili della plasticità delle cellule del sistema immunitario presenti nell’infiltrato tumorale”

Participation to congresses:

- 15th International Congress of Immunology, Milan, Italy 22-27 August 2013. Distinctive features of classic and non-classic (Th17-derived) human Th1 cells. Poster presentation

-12thEAACI Winter School on Basic Research in Allergy and Clinical Immunology, Poiana Brasov, Romania, 30 January-02 February 2014. IL-4-induced gene 1 maintains high Tob1 expression that contributes to TCR unresponsiveness in human T helper 17 cells. Oral presentation

- 9th National Conference of the Italian Society of Immunology, Clinical Immunology and Allergology, Florence, Italy, 28-31 May 2014. Demethylation of the RORC2 and IL17A in human CD4+ T lymphocytes defines Th17 origin of non-classic Th1 cells. Oral presentation

- National retreat of the Italian PhD programs in Immunology and Allergology, Bari, Italy 10-12 October 2014. Demethylation of the RORC2 and IL17A in human CD4+ T lymphocytes defines Th17 origin of non-classic Th1 cells. Oral presentation

- National retreat of the Italian PhD programs in Immunology and Allergology, Catanzaro, Italy 18-20 June 2015. Demethylation of the RORC2 and IL17A in human CD4+ T lymphocytes defines Th17 origin of non-classic Th1 cells. Oral presentation

-4th European Congress of Immunology, Vienna, 6-9 September 2015. Demethylation of the RORC2 and IL17A in human CD4+ T lymphocytes defines Th17 origin of non-classic Th1 cells. Poster presentation

-10th National Conference of the Italian Society of Immunology, Clinical Immunology and Allergology, Abano Terme, Italy, 25-28 May 2016. New insights about the regulation of human Th17 cell response. Oral presentation

-11th National Conference of the Italian Society of Immunology, Clinical Immunology and Allergology, Bari, Italy, 28-31 May 2017. Eomes negatively regulates RORC2 and IL17 expression in human non-classic Th1 cells. Oral presentation

-33rd Congress SIAAIC Tuscany, Florence, 10-11 November 2017. Phenotypic and functional study of the immune response in a patient with STAT1 gain of function-like syndrome in absence of apparent STAT1 mutations. Poster presentation

-5th European Congress of Immunology, Amsterdam, 2-5 September 2018. Eomes controls the development of Th17-derived (non-classic) Th1 cells during chronic inflammation. Poster presentation

-5th European Congress of Immunology, Amsterdam, 2-5 September 2018. IFN- γ and TNF- α production by T cells in HNSCC stroma promotes a distinct transcriptional signature with immunosuppressive properties by tumor-enriched mesenchymal stem cells. Poster presentation

-II Joint Meeting of the German Society for Immunology (DGfI) and the Italian Society of Immunology, Clinical Immunology and Allergology (SIICA), Munich, 10–13 September 2019. IFN- γ and TNF- α production by T cells in HNSCC stroma promotes a distinct transcriptional signature with immunosuppressive properties by tumor-enriched mesenchymal stem cells. Poster presentation

Congress organization

- SIICA School of Immunology, Bari 26-28 May 2017
- SIICA School of Immunology, Messina 20-22 July 2018
- SIICA-FOCIS European Advanced Course “Bridging basic and clinical Immunology”, Florence 19-21 May 2019
- SIICA International Retreat of PhD students in Immunology, Camogli (Genoa) 5-6 December 2019
- SIICA School of Immunology: Viral Immunology and Vaccinology. Live streaming 14-30 April 2020

Travel grants

- 9th National Conference of the Italian Society of Immunology, Clinical Immunology and Allergology, Florence, Italy, 28-31 May 2014.
- 4th European Congress of Immunology, Vienna, 6-9 September 2015
- 11th National Conference of the Italian Society of Immunology, Clinical Immunology and Allergology, Bari, Italy, 28-31 May 2017
- 5th European Congress of Immunology, Amsterdam, 2-5 September 2018

Seminars

- 24th February 2015, DenoThe Young, University of Florence. Demethylation of the RORC2 and IL17A in human CD4+ T lymphocytes defines Th17 origin of non-classic Th1 cells.

Teacher activity

- February 2020: Invited teacher at the Master in Translational Research in Rheumatology, organized by the Italian Foundation for Arthritis Research (FIRA) and the University of Florence.

Honors and awards

- EFIS-IL Short Term Fellowship 2015. Evaluation of non-classic Th1 cell pathogenicity in a mouse model of colitis
- XXXIII Congress SIAAIC Tuscany: Premio Lapo Tesi. Phenotypic and functional study of the immune response in a patient with STAT1 gain of function-like syndrome in absence of apparent STAT1 mutations
- XXXIV Congress SIAAIC Tuscany: Premio Lapo Tesi. Eomes controls the development of Th17-derived (non-classic) Th1 cells during chronic inflammation
- Premio Giornata della Ricerca Denothe 2019, University of Florence, 12/11/2019. HNSCC-derived mesenchymal stem cells promote the development of T cells with a Tissue-Resident memory like phenotype
- Premio Giovani Ricercatori 2020, funded by Gruppo 2003 and Scienza in Rete. Best COVID-19 publication. Impaired immune cell cytotoxicity in severe COVID-19 is IL-6 dependent.

Publications

The scientific production of Alessio Mazzone consists of 33 scientific articles and 1 editorial on international peer-reviewed journals with a cumulative impact factor of 183.190.

Scopus: H-index: 10; citations: 682 (30 April 2021)

Google Scholar: H-index: 13; citations: 1366 (30 April 2021)

- 1) Mazzoni A, Di Lauria N, Maggi L, Salvati L, Vanni A, Capone M, Lamacchia G, Mantengoli E, Spinicci M, Zammarchi L, Kiros ST, Rocca A, Lagi F, Colao MG, Parronchi P, Scaletti C, Turco L, Liotta F, Rossolini GM, Cosmi L, Bartoloni A, Annunziato F for the COVID-19 Research Group. First dose mRNA vaccination is sufficient to reactivate immunological memory to SARS-CoV-2 in recovered COVID-19 subjects. *J Clin Invest*. 2021. In press.
- 2) Mazzoni A, Maggi L, Capone M, Vanni A, Spinicci M, Salvati L, Kiros ST, Semeraro R, Pengue L, Colao MG, Magi A, Rossolini GM, Liotta F, Cosmi L, Bartoloni A, Annunziato F. Heterogeneous magnitude of immunological memory to SARS-CoV-2 in recovered individuals. *Clinical and Translational Immunology*. 2021. In press.
- 3) Meoni G, Ghini V, Maggi L, Vignoli A, Mazzoni A, Salvati L, Capone M, Vanni A, Tenori L, Fontanari P, Lavorini F, Peris A, Bartoloni A, Liotta F, Cosmi L, Luchinat C, Annunziato F, Turano P. Metabolomic/lipidomic profiling of COVID-19 and individual response to tocilizumab. *PLoS Pathog*. 2021 Feb 1;17(2):e1009243. doi: 10.1371/journal.ppat.1009243. PMID: 33524041; PMCID: PMC7877736.
- 4) Maschmeyer P, Heinz GA, Skopnik CM, Lutter L, Mazzoni A, Heinrich F, von Stuckrad SL, Wirth LE, Tran CL, Riedel R, Lehmann K, Sakwa I, Cimaz R, Giudici F, Mall MA, Enghard P, Vastert B, Chang HD, Durek P, Annunziato F, van Wijk F, Radbruch A, Kallinich T, Mashreghi MF. Antigen-driven PD-1+ TOX+ BHLHE40+ and PD-1+ TOX+ EOMES+ T lymphocytes regulate juvenile idiopathic arthritis in situ. *Eur J Immunol*. 2021 Apr;51(4):915-929. doi: 10.1002/eji.202048797. Epub 2021 Feb 2. PMID: 33296081.
- 5) Gallo O, Locatello LG, Mazzoni A, Novelli L, Annunziato F. The central role of the nasal microenvironment in the transmission, modulation, and clinical progression of SARS-CoV-2 infection. *Mucosal Immunol*. 2021 Mar;14(2):305-316. doi: 10.1038/s41385-020-00359-2. Epub 2020 Nov 26. PMID: 33244161; PMCID: PMC7690066.
- 6) Salvati L, Occhipinti M, Gori L, Ciani L, Mazzoni A, Maggi L, Capone M, Parronchi P, Liotta F, Miele V, Annunziato F, Lavorini F, Cosmi L. Pulmonary vascular improvement in severe COVID-19 patients treated with tocilizumab. *Immunol Lett*. 2020 Dec;228:122-128. doi: 10.1016/j.imlet.2020.10.009. Epub 2020 Nov 5. PMID: 33161002; PMCID: PMC7644186.
- 7) Mazzoni A, Maggi L, Capone M, Spinicci M, Salvati L, Colao MG, Vanni A, Kiros ST, Mencarini J, Zammarchi L, Mantengoli E, Menicacci L, Caldini E, Romagnani S, Liotta F, Morettini A, Rossolini GM, Bartoloni A, Cosmi L, Annunziato F. Cell-mediated and humoral adaptive immune responses to SARS-CoV-2 are lower in asymptomatic than symptomatic COVID-19 patients. *Eur J Immunol*. 2020 Dec;50(12):2013-2024. doi: 10.1002/eji.202048915. Epub 2020 Nov 9. PMID: 33080068.
- 8) Peruzzi B, Bencini S, Capone M, Mazzoni A, Maggi L, Salvati L, Vanni A, Orazzini C, Nozzoli C, Morettini A, Poggesi L, Pieralli F, Peris A, Bartoloni A, Vannucchi AM, Liotta F, Caporale R, Cosmi L, Annunziato F. Quantitative and qualitative alterations of circulating myeloid cells and plasmacytoid DC in SARS-CoV-2 infection. *Immunology*. 2020 Dec;161(4):345-353. doi: 10.1111/imm.13254. Epub 2020 Oct 6. Erratum in: *Immunology*. 2021 Feb;162(2):248. PMID: 32870529; PMCID: PMC7692244.

- 9) Palterer B, Bartalesi F, Mazzoni A, Maggi L, Provenzano A, Vergoni F, Giglio S, Annunziato F, Parronchi P. Disseminated Mycobacterium xenopi in an Adult with IL-12R β 1 Deficiency. *J Clin Immunol*. 2020 Nov;40(8):1166-1170. doi: 10.1007/s10875-020-00848-w. Epub 2020 Aug 27. PMID: 32856198.
- 10) Maggi L, Capone M, Mazzoni A, Liotta F, Cosmi L, Annunziato F. Plasticity and regulatory mechanisms of human ILC2 functions. *Immunol Lett*. 2020 Nov;227:109-116. doi: 10.1016/j.imlet.2020.08.004. Epub 2020 Aug 18. PMID: 32822747.
- 11) Vannucchi AM, Sordi B, Morettini A, Nozzoli C, Poggese L, Pieralli F, Bartoloni A, Atanasio A, Miselli F, Paoli C, Loscocco GG, Fanelli A, Para O, Berni A, Tassinari I, Zammarchi L, Maggi L, Mazzoni A, Scotti V, Falchetti G, Malandrino D, Luise F, Millotti G, Bencini S, Capone M, Piccinni MP, Annunziato F, Guglielmelli P; RUXO-COVID Study Group. Compassionate use of JAK1/2 inhibitor ruxolitinib for severe COVID-19: a prospective observational study. *Leukemia*. 2021 Apr;35(4):1121-1133. doi: 10.1038/s41375-020-01018-y. Epub 2020 Aug 19. PMID: 32814839; PMCID: PMC7437386.
- 12) Margheri F, Maggi L, Biagioni A, Chillà A, Laurenzana A, Bianchini F, Bani D, Capone M, Mazzoni A, Rossi MC, Liotta F, Cosmi L, Giani T, Cimaz R, Fibbi G, Annunziato F, Del Rosso M. Th17 lymphocyte-dependent degradation of joint cartilage by synovial fibroblasts in a humanized mouse model of arthritis and reversal by secukinumab. *Eur J Immunol*. 2021 Jan;51(1):220-230. doi: 10.1002/eji.202048773. Epub 2020 Aug 9. PMID: 32691428.
- 13) Vultaggio A, Vivarelli E, Virgili G, Lucenteforte E, Bartoloni A, Nozzoli C, Morettini A, Berni A, Malandrino D, Rossi O, Nencini F, Pieralli F, Peris A, Lagi F, Scocchera G, Spinicci M, Trotta M, Mazzetti M, Parronchi P, Cosmi L, Liotta F, Fontanari P, Mazzoni A, Salvati L, Maggi E, Annunziato F, Almerigogna F, Matucci A. Prompt Predicting of Early Clinical Deterioration of Moderate-to-Severe COVID-19 Patients: Usefulness of a Combined Score Using IL-6 in a Preliminary Study. *J Allergy Clin Immunol Pract*. 2020 Sep;8(8):2575-2581.e2. doi: 10.1016/j.jaip.2020.06.013. Epub 2020 Jun 19. PMID: 32565226; PMCID: PMC7303032.
- 14) Carnasciali A, Amoriello R, Bonechi E, Mazzoni A, Ravagli C, Doumet S, Cappiello L, D'Elios MM, Baldi G, Ballerini C. T Cell Delivery of Nanoparticles-Bound Anti-CD20 Monoclonal Antibody: Successful B Cell Depletion in the Spinal Cord during Experimental Autoimmune Encephalomyelitis. *J Neuroimmune Pharmacol*. 2020 Jun 9. doi: 10.1007/s11481-020-09931-w. Epub ahead of print. PMID: 32514635.
- 15) Mazzoni A, Salvati L, Maggi L, Capone M, Vanni A, Spinicci M, Mencarini J, Caporale R, Peruzzi B, Antonelli A, Trotta M, Zammarchi L, Ciani L, Gori L, Lazzeri C, Matucci A, Vultaggio A, Rossi O, Almerigogna F, Parronchi P, Fontanari P, Lavorini F, Peris A, Rossolini GM, Bartoloni A, Romagnani S, Liotta F, Annunziato F, Cosmi L. Impaired immune cell cytotoxicity in severe COVID-19 is IL-6 dependent. *J Clin Invest*. 2020 May 28:138554. doi: 10.1172/JCI138554. Online ahead of print. PMID: 32463803
- 16) Mazzoni A, Maggi L, Montaini G, Ramazzotti M, Capone M, Vanni A, Locatello LG, Barra G, De Palma R, Gallo O, Cosmi L, Liotta F, Annunziato F. Human T cells interacting with HNSCC-derived mesenchymal stromal cells acquire tissue-resident memory like properties. *Eur J Immunol*. 2020 May 22. doi: 10.1002/eji.202048544. Online ahead of print. PMID: 32441311

- 17) Cossarizza A, Chang HD, Radbruch A, et al. Guidelines for the use of flow cytometry and cell sorting in immunological studies (second edition). *Eur J Immunol.* 2019 Oct;49(10):1457-1973. doi: 10.1002/eji.201970107. 4.695 (2018)
- 18) Mazzoni A, Maggi L, Liotta F, Cosmi L, Annunziato F. Biological and clinical significance of T helper 17 cell plasticity. *Immunology.* 2019 Dec;158(4):287-295. doi: 10.1111/imm.13124. Epub 2019 Oct 14. I.F. 4.147 (2018)
- 19) Mazzoni A, D'Elis MM, Mayaregua DR, Spinicci M, Strohmeyer M, Cosmi F, Cosmi L. Prevalence of allergy and asthma in a rural community of children and adults in Bolivian Chaco. *Immunol Lett.* 2019 Aug 7. pii: S0165-2478(19)30405-5. doi: 10.1016/j.imlet.2019.08.001. I.F. 2.552 (2018)
- 20) Maggi L, Mazzoni A, Cimaz R, Liotta F, Annunziato F, Cosmi L. Th17 and Th1 Lymphocytes in Oligoarticular Juvenile Idiopathic Arthritis. *Front Immunol.* 2019 Mar 14;10:450. doi: 10.3389/fimmu.2019.00450. eCollection 2019. Review. 4.716 (2018)
- 21) Cosmi L, Maggi L, Mazzoni A, Liotta F, Annunziato F. Biologicals targeting type 2 immunity: Lessons learned from asthma, chronic urticaria and atopic dermatitis. *Eur J Immunol.* 2019 Sep;49(9):1334-1343. doi: 10.1002/eji.201948156. 4.695 (2018)
- 22) Maggi L, Rossettini B, Montaini G, Matucci A, Vultaggio A, Mazzoni A, Palterer B, Parronchi P, Maggi E, Liotta F, Annunziato F, Cosmi L. Omalizumab dampens type 2 inflammation in a group of long-term treated asthma patients and detaches IgE from FcεRI. *Eur J Immunol.* 2018 Sep 25. doi: 10.1002/eji.201847668. 4.695 (2018)
- 23) Barra G, Lepore A, Gagliardi M, Somma D, Matarazzo MR, Costabile F, Pasquale G, Mazzoni A, Gallo C, Nuzzo G, Annunziato F, Fontana A, Leonardi A, De Palma R. Sphingosine Kinases promote IL-17 expression in human T lymphocytes. *Sci Rep.* 2018 Sep 5;8(1):13233. doi: 10.1038/s41598-018-31666-1. I.F. 4.011 (2018)
- 24) Mazzoni A, Maggi L, Siracusa F, Ramazzotti M, Rossi MC, Santarlasci V, Montaini G, Capone M, Rossettini B, De Palma R, Kruglov A, Chang HD, Cimaz R, Maggi E, Romagnani S, Liotta F, Cosmi L, Annunziato F. Eomes controls the development of Th17-derived (non-classic) Th1 cells during chronic inflammation. *Eur J Immunol.* 2019 Jan;49(1):79-95. doi: 10.1002/eji.201847677. Epub 2018 Nov 22. I.F. 4.695 (2018)
- 25) SIICA Junior Faculty, Cassani B, Castriconi R, Mazzoni A, Piconese S, Sciumè G. The SIICA School of Immunology 2017: a gathering for NGS (next generation scientists). *Eur J Immunol.* 2017 Sep;47(9):1402-1404. doi: 10.1002/eji.201770095. I.F. 4.248 (2017)
- 26) Santarlasci V, Mazzoni A, Capone M, Rossi MC, Maggi L, Montaini G, Rossettini B, Cimaz R, Ramazzotti M, Barra G, De Palma R, Maggi E, Liotta F, Cosmi L, Romagnani S, Annunziato F. Musculin inhibits human T-helper 17 cell response to interleukin 2 by controlling STAT5B activity. *Eur J Immunol.* 2017 Sep;47(9):1427-1442. doi: 10.1002/eji.201746996. I.F. 4.248 (2017)
- 27) Maggi L, Montaini G, Mazzoni A, Rossettini B, Capone M, Rossi MC, Santarlasci V, Liotta F, Rossi O, Gallo O, De Palma R, Maggi E, Cosmi L, Romagnani S, Annunziato F. Human circulating group 2 innate lymphoid cells can express CD154 and promote IgE production. *J Allergy Clin Immunol.* 2017 Mar;139(3):964-976.e4. doi: 10.1016/j.jaci.2016.06.032. I.F. 13.258 (2017)

- 28) Capone M, Maggi L, Santarlaschi V, Rossi MC, Mazzoni A, Montaini G, Cimaz R, Ramazzotti M, Piccinni MP, Barra G, De Palma R, Liotta F, Maggi E, Romagnani S, Annunziato F, Cosmi L. Chitinase 3-like-1 is produced by human Th17 cells and correlates with the level of inflammation in juvenile idiopathic arthritis patients. *Clin Mol Allergy*. 2016 Nov 8;14:16. I.F. N.A.
- 29) Maggi L, Cimaz R, Capone M, Santarlaschi V, Rossi MC, Mazzoni A, Montaini G, Pagnini I, Giani T, Simonini G, Scaletti C, Liotta F, Maggi E, Annunziato F, Cosmi L. Immunosuppressive Activity of Abatacept on Circulating T Helper Lymphocytes from Juvenile Idiopathic Arthritis Patients. *Int Arch Allergy Immunol*. 2016;171(1):45-53. I.F. 2.720 (2016)
- 30) Maggi L, Margheri F, Luciani C, Capone M, Rossi MC, Chillà A, Santarlaschi V, Mazzoni A, Cimaz R, Liotta F, Maggi E, Cosmi L, Del Rosso M, Annunziato F. Th1-Induced CD106 Expression Mediates Leukocytes Adhesion on Synovial Fibroblasts from Juvenile Idiopathic Arthritis Patients. *PLoS One*. 2016 Apr 28;11(4):e0154422. doi: 10.1371/journal.pone.0154422. I.F. 4.411 (2016)
- 31) Mazzoni A, Santarlaschi V, Maggi L, Capone M, Rossi MC, Querci V, De Palma R, Chang HD, Thiel A, Liotta F, Cosmi L, Maggi E, Radbruch A, Romagnani S, Dong J, Annunziato F. Demethylation of the RORC2 and IL17A in human CD4+ T lymphocytes defines Th17 origin of non-classic Th1 cells. *J Immunol*. 2015 Apr 1;194(7):3116-26. doi: 10.4049/jimmunol.1401303. I.F. 4.985 (2015)
- 32) Liotta F, Querci V, Mannelli G, Santarlaschi V, Maggi L, Capone M, Rossi MC, Mazzoni A, Cosmi L, Romagnani S, Maggi E, Gallo O, Annunziato F. Mesenchymal stem cells are enriched in head neck squamous cell carcinoma, correlates with tumour size and inhibit T-cell proliferation. *Br J Cancer*. 2015 Feb 3. doi: 10.1038/bjc.2015.15. I.F. 5.569 (2015)
- 33) Santarlaschi V, Maggi L, Mazzoni A, Capone M, Querci V, Rossi MC, Beltrame L, Cavalieri D, De Palma R, Liotta F, Cosmi L, Maggi E, Romagnani S, Annunziato F. IL-4-induced gene 1 maintains high Tob1 expression that contributes to TCR unresponsiveness in human T helper 17 cells. *Eur J Immunol*. 2014 Mar;44(3):654-61. doi: 10.1002/eji.201344047. I.F. 4.034 (2014)
- 34) Maggi L, Santarlaschi V, Capone M, Rossi MC, Querci V, Mazzoni A, Cimaz R, De Palma R, Liotta F, Maggi E, Romagnani S, Cosmi L, Annunziato F. Distinctive features of classic and nonclassic (Th17 derived) human Th1 cells. *Eur J Immunol*. 2012 Dec;42(12):3180-8. doi: 10.1002/eji.201242648. I.F. 4.970 (2012)

Books

Francesco Annunziato, Laura Maggi, Alessio Mazzoni. T-Helper Cells. *Methods and Protocols*. 2021, Humana, New York, NY

Memberships

SIICA: Società Italiana di Immunologia, Immunologia Clinica e Allergologia (Italian Society of Immunology, Clinical Immunology and Allergology)

From March 2017: Member of the Junior Faculty of the Società Italiana di Immunologia, Immunologia Clinica e Allergologia.

Reviewer Activity

Alessio Mazzoni is reviewer for *European Journal of Immunology*, *BMC Immunology*, *Frontiers in Immunology*, *Immunology Letters*, and ad hoc reviewer for *New England Journal of Medicine*, *Clinical Science*, *PLOS One*.

Editorial Board

Alessio Mazzoni is member of the editorial board of BMC Immunology.

Alessio Mazzoni is Guest Editor for Frontiers in Immunology, Research Topic “Deciphering the T Cell Response in SARS-CoV-2 Infection”

Thesis co-supervisor

Alessio Mazzoni has been co-supervisor of eight Bachelor thesis in Biotechnology at the University of Florence.

Personal Skills

-Laboratory:

-Cell Biology: T cell cloning and culture; T cell recovery from solid organs; Mesenchymal stem cells culture

-Molecular Biology: DNA/RNA extraction; RNA reverse transcription; PCR; quantitative PCR; single cell gene expression analysis; transfections; transduction approaches via lentiviral vectors; DNA methylation analysis; Chromatin Immunoprecipitation

-Flow cytometry: immunophenotyping; evaluation of intracellular cytokines and transcription factors; cytokine secretion assay; quantification of soluble proteins via cytometric bead array; apoptosis and cell proliferation; signal transduction pathways; NK and T CD8+ cells degranulation assays.

-Functional assays: Characterization of human T, B and NK cells responses in vitro. Assessment of NK and T cell activation in vitro in response to leukemic cell lines (K562) and to freshly recovered leukemic blasts.

-Animal experimentation: Experience with mouse models of T cell-dependent colitis, DSS colitis and Experimental Autoimmune Encephalomyelitis.

These laboratory skills have been applied to the phenotypic and functional characterization of the immune response both in physiologic and pathologic conditions, such as juvenile idiopathic arthritis, Crohn's disease, allergy, celiac disease, multiple sclerosis, onco-hematological diseases.

Firenze, 30/04/2021

