

DANIELA BOSISIO

Marital status Married, three children
Address Brescia, Via G. Borsi 10
Current position Full Professor, SSD MED/04 General Pathology
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RESEARCH EXPERIENCE

2017-2020 Associate Professor SSD MED/04 General Pathology, Section of Oncology and Experimental Immunology, Department of Molecular and Translational Medicine, Università degli Studi di Brescia.

2005-2017 Assistant professor, section of Oncology and experimental Immunology, Department of Molecular and Translational Medicine, Università degli Studi, Brescia, Italy.

2005 PhD, Open University, London. Title of the thesis: "The TIR superfamily of immune receptors: distribution, regulation and mechanisms of cellular activation".

2002-2005 PhD and postdoctoral Fellow, laboratory of Transcriptional Regulation of Inflammatory Genes, I.R.B., Bellinzona, Switzerland (supervisor Dr. Gioacchino Natoli).

1999-2002 Fellow and PhD student, Immunology Lab, Department of Immunology and Cellular Biology, I.R.F. Mario Negri, Milano, Italy (supervisor Prof. Alberto Mantovani)

RESEARCH INTERESTS

My research interests lie in the field of Innate immune activation and regulation since the beginning of my career, with a special focus on the role of the TLR family of pattern recognition receptors and downstream NF- κ B signaling. In the recent years, we have focused on the characterization of novel mechanisms of innate immune cell activation in sterile inflammation and autoimmunity such as endosomal TLR triggering by extracellular nucleic acids, including microRNAs

PUBLICATIONS: Author of 72 publications in international peer-reviewed journals, more than 4800 citations, *h*-index 34

TOP 5 PUBLICATIONS

1. Gaudenzi C, Schioppa T, Passari M, Zucchi G, Tiberio L, Vahidi Y, Scutera S, Musso T, Sozzani S, Del Prete A, Salvi V, Bosisio D. Extracellular microRNAs induce dendritic cell-dependent joint inflammation and potentiate osteoclast differentiation via TLR7/8 engagement. *J Autoimmun.* 145:103189 (2024). <https://pubmed.ncbi.nlm.nih.gov/38442677/>
2. Salvi V, Nguyen HO, Sozio F, Schioppa T, Gaudenzi C, Laffranchi M, Scapini P, Passari M, Barbazza I, Tiberio L, Tamassia N, Garlanda C, Del Prete A, Cassatella MA, Mantovani A, Sozzani S, Bosisio D. SARS-CoV-2-associated ssRNAs activate inflammation and immunity via TLR7/8. *JCI Insight,* 6(18):e150542 (2021). <https://pubmed.ncbi.nlm.nih.gov/34375313/>
3. Salvi V, Gianello V, Busatto S, Bergese P, Andreoli L, D'Oro U, Zingoni A, Tincani A, Sozzani S, Bosisio D. Exosome-delivered microRNAs promote IFN- α secretion by human plasmacytoid DCs via TLR7. *JCI Insight,* 3(10). pii: 98204 (2018). <https://pubmed.ncbi.nlm.nih.gov/29769437/>
4. Bosisio D., Marazzi I., Agresti A., Shimizu N., Bianchi M.E., Natoli G. A hyper-dynamic equilibrium between promoter-bound and nucleoplasmic dimers controls NF- κ B-dependent gene activity. *EMBO Journal,* 25; 798-810 (2006). <https://pubmed.ncbi.nlm.nih.gov/16467852/>
5. Muzio M., Bosisio D., Polentarutti N., D'Amico G., Stoppacciaro A., Mancinelli R., van't Veer C., Penton-Rol G., Ruco L. P., Allavena P., Mantovani A. Differential expression and regulation of Toll-like receptors

(TLR) in human leukocytes: selective expression of TLR3 in dendritic cells. Journal of Immunology, 164: 5998-6004 (2000). <https://pubmed.ncbi.nlm.nih.gov/10820283/>

SCIENTIFIC SOCIETIES: SIICA (Società Italiana di Immunologia, Immunologia Clinica e Allergologia) member (2001-today); SIICA secretary-treasurer (2021-today)

MAIN FUNDINGS: Futuro in Ricerca 2008; PRIN 2005, 2007, 2009, 2017, 2022, 2022PNRR

TEACHING ACTIVITY: responsible for several university and specialization courses in Immunology and Pathology since 2005

INSTITUTIONAL ACTIVITIES

- Rector delegate for orientation and tutoring, 2021-today
- Member of the Council of the Department of Department of Molecular and Translational Medicine, Università degli Studi di Brescia, 2021-today
- Member of the Organizing Committee of the new Master Degree Course "Pharmacy", University of Brescia, 2017-2019
- Member of the Faculty Board of the PhD programs "Scienze Biomediche e Medicina Traslazionale", Università degli Studi di Brescia, 2013-today and "Biologia e Patologia Molecolare e Cellulare", Università degli Studi di Verona, 2006-2012

OTHER ACTIVITIES

- SIICA (Società Italiana di Immunologia, Immunologia Clinica e Allergologia) secretary/treasurer
- Associate editor for Frontiers in Immunology, IJMS, ExRNA
- External tutor (UniBS) of the Erasmus Plus program and thesis co-supervisor for two students from the Katholieke Universiteit, Leuven, Belgium (2017) and the University of Barcelona, Spain (2018)
- Tutor of 10 Bachelor or Master Degree thesis, 6 PhD students and 13 fellowship projects of the University of Brescia. Tutor of 1 PhD student of the University of Verona
- Research project evaluation for the Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO), Belgium (2018) and MIUR (FIRB2010, PRIN2008)
- Translator for several Italian editions of "Basic Immunology", Abbas & Lichtman, Elsevier and "Cellular and Molecular Immunology", Abbas, Lichtman, Pillai, Elsevier

DISSEMINATION

- Local organizer of the SIICA "UniVAX Day" 2018-2019-2020-2021-2022-2023-2024
- Online lessons for secondary school students "Cos'è e come funziona un vaccino: focus sui vaccini anti-SARS-CoV-2", jan-april 2021, febr 2022 and febr 2023 (10 schools, more than 500 students)
- Lessons for secondary school teachers within the project "I Lincei per una nuova didattica nella scuola: una rete nazionale"
- Conferences in secondary schools and interviews on the local TV "Teletutto" on oncological research and cancer prevention (http://scuola.airc.it/incontri_con_la_ricerca.asp "Le scuole") 2014-2019
- Organizer of the "Week of Immunology" (funding: MIUR 00369-ex legge 6/2000). Brescia, 2014

Autorizzo al trattamento dei dati personali ai sensi del DLGS 30/06/2003 numero 196 e successive modifiche.

Brescia, 24/04/2024

In fede,


Daniela Bosisio