

PERSONAL INFORMATION

Valentina Tedeschi

WORK EXPERIENCE

02/2015- to date

PostDoc, research activity

Department of Biology and Biotechnology "C. Darwin", Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Roma, Italy

04/04-15/04/2016

Collaboration with the Chemokine and Immunity laboratory in the Institute for Research in Biomedicine (IRB)

Bellinzona, Switzerland
Acquisition of cell migration technique

1/11/2011-31/10/2014

PhD Student, research activity

Department of Biology and Biotechnology "C. Darwin", Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Roma, Italy

01/2010-11/2011

Research activity

Stage for Master's degree in the Laboratory of Experimental Pathology directed by Professor Rosa Sorrentino, Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Roma, Italy

EDUCATION AND TRAINING

01/11/2011-31/10/2014

PhD in Pasteurian Sciences

Department of Biology and Biotechnology "C. Darwin", Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Roma, Italy

- Genetic and functional studies of autoimmune disorders
- Functional studies on CD8⁺ T cells involved in autoimmune pathology
- Study on the role of B27 molecules in autoimmune disease

Dissertation: "HLA-B27 and Ankylosing Spondylitis: functional aspects of HLA-B27 molecules and other factors involved in the disease pathogenesis"

Supervisors: Prof Rosa Sorrentino and Dr Maria Teresa Fiorillo

- 02/2009-11/2011 **Master's degree in Biology Applied to Biomedical Research** 110/110 cum laude
 Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Roma, Italia
 Research thesis: "Analysis of CD8⁺ T cells response against both self and viral antigens in patients with Multiple Sclerosis". Training coordinator: Dr Maria Teresa Fiorillo
- 10/2003-01/2009 **Bachelor's degree in Biological Sciences** 108/110
 Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Roma, Italy
 Research thesis: "Production of recombinant proteins for the antigen presentation". Training coordinator: Prof Rosa Sorrentino
- 07/2003 **Classical High school degree** 86/100
 Liceo Classico "F. Stabili", Ascoli Piceno (AP), Italy
- Principal subjects: Italian, Latin, Greek, Philosophy, History, English, Biology, Chemistry, Mathematics, Physics

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	B1	B2	C1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
 Common European Framework of Reference for Languages

Organisational / managerial skills

- Supervision of students of different levels for their laboratory experiences
- Participation in the laboratory administration (orders, contacts with sales representatives, organization of laboratory skills)

Job-related skills

- Prokaryotic and eukaryotic cell cultures
- Cloning technique
- Production of recombinant protein
- PBMC isolation. Depletion of cellular subpopulations
- Generation and production of CD8⁺ T cells
- Cell transfection
- Cell migration (transwell; time laps microscopy)
- Isolation of DNA and RNA from cells
- PCR; RT-PCR; Real-Time PCR
- SNPs analysis
- Telomere length analysis
- Protein Extraction
- Western Blot
- IP
- ELISA
- Multiparametric Flow cytometry
- Pentamer technique
- Cytotoxicity assay
- Immunofluorescence and Confocal Microscopy

Computer skills

- Microsoft Office (Word, Excel, PowerPoint)
- Adobe Photoshop
- Statistical analysis (R)
- Data analysis (ABI ImageLab, ImageJ, BD CellQuest Pro, FlowJo software, ZEN microscope software, GraphPad Prism)

Driving licence B

ADDITIONAL INFORMATION

Reviewer activity

2019-to date: Medical Science Monitor, Biomolecules

Subject Expert

2020-to date: Meccanismi cellulari e molecolari della risposta immune (SSD: MED/04);
Patologia Generale e Immunologia (SSD: MED/04);
Immunopatologia delle malattie neurodegenerative (SSD: MED/04).

Publications

Tedeschi V, Paldino G, Alba J, et al. ERAP1 and ERAP2 Haplotypes Influence Suboptimal HLA-B*27:05-Restricted Anti-Viral CD8+ T Cell Responses Cross-Reactive to Self-Epitopes. *Int J Mol Sci.* 2023;24(17):13335. Published 2023 Aug 28. doi:10.3390/ijms241713335

Mattorre B, **Tedeschi V**, Paldino G, Fiorillo MT, Paladini F, Sorrentino R. The emerging multifunctional roles of ERAP1, ERAP2 and IRAP between antigen processing and renin-angiotensin system modulation. *Front Immunol.* 2022;13:1002375. Published 2022 Sep 20. doi:10.3389/fimmu.2022.1002375

Amormino C, **Tedeschi V**, Paldino G, et al. SARS-CoV-2 Spike Does Not Possess Intrinsic Superantigen-like Inflammatory Activity. *Cells.* 2022;11(16):2526. Published 2022 Aug 15. doi:10.3390/cells11162526

Tedeschi V, Paldino G, Kunkl M, et al. CD8+ T Cell Senescence: Lights and Shadows in Viral Infections, Autoimmune Disorders and Cancer. *Int J Mol Sci.* 2022;23(6):3374. Published 2022 Mar 21. doi:10.3390/ijms23063374

Kunkl M, Amormino C, **Tedeschi V**, Fiorillo MT, Tuosto L. Astrocytes and Inflammatory T Helper Cells: A Dangerous Liaison in Multiple Sclerosis. *Front Immunol.* 2022;13:824411. Published 2022 Feb 8. doi:10.3389/fimmu.2022.824411

Kunkl M, Amormino C, Caristi S, **Tedeschi V**, Fiorillo MT, Levy R, Popugailo A, Kaempfer R, Tuosto L. Binding of Staphylococcal Enterotoxin B (SEB) to B7 Receptors Triggers TCR- and CD28-Mediated Inflammatory Signals in the Absence of MHC Class II Molecules. *Front Immunol.* 2021;12:723689. Published 2021 Aug 13. doi:10.3389/fimmu.2021.723689

Tedeschi V, Paldino G, Paladini F, Mattorre B, Tuosto L, Sorrentino R, Fiorillo MT. The Impact of the 'Mis-Peptidome' on HLA Class I-Mediated Diseases: Contribution of ERAP1 and ERAP2 and Effects on the Immune Response. *Int J Mol Sci.* 2020 21:9608.

Paladini F, Fiorillo MT, **Tedeschi V**, Mattorre B, Sorrentino R. "The multifaceted nature of aminopeptidases ERAP1, ERAP2 and LNPEP: from evolution to disease" *Front Immunol.* 2020, 11:1576.

Tedeschi V, Alba J, Paladini F, Paroli M, Cauli A, Mathieu A, Sorrentino R, D'Abramo M, Fiorillo MT. "Unusual Placement of an EBV Epitope into the Groove of the Ankylosing Spondylitis-Associated HLA-B27 Allele Allows CD8+ T Cell Activation." *Cells.* 2019 Jun 11;8(6):572. doi: 10.3390/cells8060572.

Paladini F, Fiorillo MT, **Tedeschi V**, D'Otolo V, Piga M, Cauli A, Mathieu A, Sorrentino R. "The rs75862629 minor allele in the endoplasmic reticulum aminopeptidases intergenic region affects human leucocyte antigen B27 expression and protects from ankylosing spondylitis in Sardinia." *Rheumatology (Oxford).* 2019 Dec 1;58(12):2315-2324. doi: 10.1093/rheumatology/kez212.

Paladini F, Fiorillo MT, **Tedeschi V**, Cauli A, Mathieu A, Sorrentino R. "Ankylosing Spondylitis: A Trade Off of HLA-B27, ERAP, and Pathogen Interconnections? Focus on Sardinia." *Front Immunol.* 2019 Jan 25;10:35. doi: 10.3389/fimmu.2019.00035. eCollection 2019.

Cauli A, Dessole G, Piga M, Angioni MM, Pinna S, Floris A, Congia M, Mascia E, Paladini F, **Tedeschi V**, Sorrentino R, Fiorillo MT, Mathieu A. "Expression analysis of HLA-E and NKG2A and NKG2C receptors points at a role for natural killer function in ankylosing spondylitis." *RMD Open.* 2018 Jul 13;4(2):e000597. doi: 10.1136/rmdopen-2017-000597. eCollection 2018.

Paladini F, Fiorillo MT, Vitulano C, **Tedeschi V**, Piga M, Cauli A, Mathieu A, Sorrentino R. "An allelic variant in the intergenic region between ERAP1 and ERAP2 correlates with an inverse expression of the two genes." *Sci Rep.* 2018 Jul 10;8(1):10398. doi: 10.1038/s41598-018-28799-8.

Yair-Sabag S, **Tedeschi V**, Vitulano C, Barnea E, Glaser F, Melamed Kadosh D, Taurog JD, Fiorillo MT, Sorrentino R, Admon A. "The Peptide Repertoire of HLA-B27 may include Ligands with Lysine at P2 Anchor Position." *Proteomics.* 2018 May;18(9):e1700249. doi: 10.1002/pmic.201700249. Epub 2018 Mar 13

Vitulano C, **Tedeschi V**, Paladini F, Sorrentino R, Fiorillo MT. "The interplay between HLA-B27 and ERAP1/ERAP2 aminopeptidases: from anti-viral protection to spondyloarthritis." *Clin Exp Immunol.* 2017 Dec;190(3):281-290. doi: 10.1111/cei.13020. Epub 2017 Aug 30. Review.

Fiorillo MT, Paladini F, **Tedeschi V**, Sorrentino R. "HLA Class I or Class II and Disease Association: Catch the Difference If You Can." *Front Immunol.* 2017 Nov 7;8:1475. doi: 10.3389/fimmu.2017.01475. eCollection 2017

Tedeschi V, Vitulano C, Cauli A, Paladini F, Piga M, Mathieu A, Sorrentino R, Fiorillo MT. The Ankylosing Spondylitis-Associated HLA-B*2705 Presents a B*0702-Restricted EBV Epitope and Sustains the Clonal Amplification of Cytotoxic T Cells in Patients. *MOL MED* 22: 215-223 2016 doi: 10.2119/molmed.2016.00031

Nurzia E, Narzi D, Cauli A, Mathieu A, **Tedeschi V**, Caristi S, Sorrentino R, Böckmann RA, Fiorillo MT. Interaction pattern of Arg62 in the A-pocket of differentially disease-associated HLA-B27 subtypes suggests distinct TCR binding modes. PlosOne, 2012; 7(3):e32865.doi:10.371/journal.pone.0032865

Conferences

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".
Tedeschi V. "Hypermotility of CD8+ T cells in SpA: a link to immunosenescence" INTERNATIONAL WORKSHOP ON ANKYLOSING SPONDYLITIS: TALES OF MOLECULES AND PATIENTS, Bellinzona, October 12-13, 2023 (oral presentation)

La sottoscritta Valentina Tedeschi dichiara di essere consapevole che il presente curriculum vitae sarà pubblicato sul sito istituzionale dell'Ateneo, nella Sezione "Amministrazione trasparente", nelle modalità e per la durata prevista dal d.lgs. n. 33/2013, art. 15.
Tedeschi V. "The curious case of HLA-B*2705 HLA class Iopathies, towards a better understanding of disease mechanisms and treatment "Clinicians meet biologists" - Workshop on HLA class Iopathies. Amsterdam, Friday 28th June 2019 (oral presentation)

Tedeschi V, Paladini F, Principato E, Paldino G, Iuliano A, Paroli M, Cauli A, Sorrentino R, Fiorillo MT. "Defective chemokine response of peripheral CD8+ T cells in patients with Ankylosing Spondylitis parallels with an intrinsic hypermotility" 5th International Conference of translational medicine on pathogenesis and therapy of immunomediated diseases- Innate immunity, inflammation and experimental models of human diseases. May 16th - 18th, 2019 Università degli Studi di Milano Milan, Italy (poster presentation)

Tedeschi V. "Dissecting the role of HLA-B*27 at the crossroads between "MHC-I-opathy"and antiviral defense". Giornata Romana di Immunologia Università 'La Sapienza', 6 June 2016 (oral presentation)

Tedeschi V, Vitulano C, Cauli A, Mathieu A, Paladini F, Kormann D, Bockmann R, Sorrentino R, Fiorillo MT. "HLA-B*2705 and its double implication in viral defense and autoimmunity: unpredicted presentation of an immunodominant viral epitope devoid of the classical B27 binding motif". 4th European Congress of Immunology, Vienna, 6-9 September 2015 (poster presentation)

Tedeschi V, Vitulano C, Mathieu A, Cauli A, Sorrentino R, Fiorillo MT. "HLA-B27 in Ankylosing Spondylitis: presentation of antigens devoid of the canonical binding motif". IX NATIONAL CONFERENCE of the SIICA, Florence, 28-31 May 2014 (poster presentation)

Tedeschi V, Nurzia E, Mechelli R, Salvetti M, Uchanska-Ziegler B, Saenger W, Sorrentino R, Fiorillo MT. "Transaldolase as target of CD8+ T cell reactivity in patients with Multiple Sclerosis: a functional/structural study". Convegno FISM, 26-27 Maggio 2011, Roma (poster presentation)

Honours and awards Immuno Tools special Awards 2014

References References available upon request

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".

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Data
05/02/2024