

Personal Data

Name: Sara

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Gender: Female

Place and date of birth: Mantova (Italy), May, 4th 1985

Nationality: Italian

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Current affiliation: University of Modena and Reggio Emilia; Department of Medical and Surgical Sciences for Children & Adults, via Campi, 287 - 41125 Modena, Italy

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Actual Position: Assistant Professor of General Pathology and Immunology

Metrics overview (Scopus):

H index: 43

Citations: 8,000

Biosketch

From November 1st 2023, I am assistant professor of General Pathology and Immunology (RTDB) at the University of Modena and Reggio Emilia School of Medicine (Italy).

After a research period spent at the University of Valencia (Spain), I obtained the PhD in Clinical and Experimental Medicine (area of interest: Immunology) from the same University in 2013. From then, I have been working as post-doc in the lab of Immunology directed by Prof. Andrea Cossarizza. Most of my work was focused on adaptive immune response during HIV infection, SARS-CoV-2 infection, autoimmune diseases (such as Multiple Sclerosis), and cancer. In particular, I studied the role of rare cells such as iNKT cell, circulating endothelial cells (CEC), mucosal associated invariant T (MAIT) cells and T cells in the aforementioned conditions. More recently, my studies are dedicated to the importance of T cell metabolism in different pathophysiological onsets, such as multiple sclerosis and the tumor microenvironment of non-small cell lung cancer.

I am an International Society for Advancement of Cytometry (ISAC) Marylou Ingram Scholar and Councilor of the same Society. I am very much involved in teaching flow cytometry, being active in giving lessons on panel design in basic and advanced flow cytometry courses organized by the same task force in Europe and China.

My scientific endeavors have been presented in more than 130 publications (more than 20 as first/corresponding/last author) in peer reviewed international journals and more than 20 oral presentations at international meetings.

Notable honors I obtained include: CROI affiliated event for Italian Young Investigator 2013 award, Cyto outstanding poster award in 2015 and in 2017, best basic research award by the Italian Infectious Diseases study group ("Infection Lab") in 2019. In November 2022, I was awarded with USERN laureate title in Medical Sciences.

Finally, I am Associate Editor of Cytometry part A (IF: 4.355).

BIOGRAPHICAL SKETCH

<u>NAME:</u> SARA DE BIASI		<u>POSITION TITLE:</u> Assistant Professor (RTDb)		
<u>EDUCATION/TRAINING</u>				
<u>2007</u>	<u>Bachelor degree in Biotechnology, Univ. of Modena and Reggio Emilia</u>			
<u>2009</u>	<u>Master degree in Medical and Pharmaceutical Biotechnology, Univ. of Modena and Reggio Emilia</u>			
<u>2010-2011</u>	<u>Visiting Student at Centre Investigación Príncipe Felipe, Univ. Valencia (6 months)</u>			
<u>2013</u>	<u>PhD in Clinical and Experimental Medicine, Univ. of Modena and Reggio Emilia</u>			
<u>2022-2025</u>	<u>Degree in Clinical and Biochemical Pathology, Univ. of Modena and Reggio Emilia</u>			
<u>2013-2019</u>	<u>Postdoc, Univ. of Modena and Reggio Emilia</u>			
<u>2019-2023</u>	<u>Associate Professor of Pathology and Immunology (not tenure track)</u>			
<u>2023- now.</u>	<u>Associate Professor of Pathology and Immunology (tenure track)</u>			
<u>INSTITUTION AND LOCATION</u>		<u>DEGREE</u> <u>(if applicable)</u>	<u>MM/YY</u>	<u>FIELD OF STUDY</u>
<u>University of Modena and Reggio Emilia</u>		<u>PhD</u>	<u>02/2013</u>	<u>Immunology</u>

A. Personal Statement

I am Assistant Professor in Pathology and Immunology at the University of Modena and Reggio Emilia, and as of January 2024 the I have published more than 130 papers (13 as corresponding/last name in the last two years) in peer-reviewed journals, with H-index=38. During these years of research in the laboratory of Prof. Andrea Cossarizza, I have developed several scientific and technical competences, also learning how to coordinate projects on Translational Immunology, as well as managing and supervising personnel, master and PhD students. Moreover, I was able to consolidate the intense collaborations with the Clinic of Oncology and Infectious Diseases (Policlinico of Modena) to investigate the biology of T and B cells. During these last 10 years, I focused on rare events, setting up different methodology and protocols for cytofluorimetric analysis and single-cell technologies that are now the state-of-the-art. In 2016 I have been named Scholar of the International Society for Advancement of Cytometry (ISAC), and I served as Councilor (2020-2024). My academic qualifications, my research achievements and my personal motivation push me to propose my own independent research projects in the field of cancer immunology.

B. Positions and Honors

Year	Description
Positions and Employment	
2013-2019	Post doc fellow at the University of Modena and Reggio Emilia, Italy, Immunology Lab directed by Prof. Andrea Cossarizza
2019-2023	Assistant Professor of Pathology and Immunology at the University of Modena and Reggio Emilia, Italy
2023-now	Assistant Professor of Pathology and Immunology at the University of Modena and Reggio Emilia, Italy (Tenure track)
Professional Memberships	
2010-now	International Society for Advancement of Cytometry (ISAC)
2010-now	Italian Society of Immunology and Clinical Allergology (SIICA)
2016-now	Italian Association of Neuroimmunology (AINI)
2023	European Association for Cancer Research (EACR)
Honors	
CROI-ICAR award	Best researcher Under 40, Turin, May 2013
Best Poster award	“Polyfunctional response of iNKT cells in patients affwcted by Multiple Sclerosis”, CYTO2015, Glasgow, UK, June, 26-30 2015
Best Poster award	“High CD4:CD8 ratio and length of treatment independently correlate to the HIV-DNA intracellular content in different subsets of CD4+ T cells from virologically suppressed HIV patients”, CYTO2017, Boston June 10-14 2017.
Best Poster award	“Immunological predictors of successful and safe anti-rejection therapy in HIV+ patients who underwent liver transplantation”. CYTO 2017, Boston, June 10-14 2017.
Infection Lab award Under 40	Best oral presentation, section basic research, “Immunological predictors of successful and safe anti-rejection therapy in HIV+ patients who underwent liver transplantation”, Milan, October 7-8, 2019.

USERN
Laureate 2022

USERN laureate, Medical Sciences award, Sultan Qaboos University, Mascate, Oman November 10th, 2022.

EDUCATION:3 July 2004

Bachelor at the Scientific lyceum “Belfiore” in Mantova, final evaluation: 96/100.

October 2004 - September 2007

First level degree in Biotechnology obtained in September at the University of Modena and Reggio Emilia, final evaluation: 110/110. Degree thesis in Cellular Immunology entitled “*Viral Dna Quantification in HIV-1 positive patients in structured HAART therapy CD4+ guided interruption*” (Tutor: Prof. Andrea Cossarizza).

October 2007 - September 2009

Master degree in Medical Biotechnology obtained in September 2009 at the University of Modena and Reggio Emilia, final evaluation: 110/110 summa cum laude. Degree thesis in Cellular Immunology entitled “*Immunosuppressive efficacy of Everolimus vs Cyclosporine A in liver transplanted patients: study performed by polychromatic flow cytometry*” (Tutor: Prof. Andrea Cossarizza).

1st January 2010- 25th February 2013

PhD student in “Clinical and experimental medicine”, Laboratory of Immunology, University of Modena and Reggio Emilia, Italy-University of Valencia, Spain. PhD thesis: “*The protease inhibitor atazanavir triggers Autophagy and Mitophagy in human preadipocytes: the "Janus-Faced Role" of Autophagy*” (Tutor: Prof. Andrea Cossarizza, co-Tutor: Prof. José Enrique O'Connor).

16th April 2013 -6th December 2019

Postdoctoral research fellow in the Laboratory of Immunology, University of Modena and Reggio Emilia, Italy.

9th December 2019-8th May 2023

Assistant Professor of Pathology and Immunology (RTA) in the Laboratory of Immunology, University of Modena and Reggio Emilia, Italy.

Research projects

Dr. De Biasi has been fully dedicated to the following research projects:

Italian Foundation Multiple Sclerosis (FISM) 2012 (€ 172,000)

Project title: Phenotype and polyfunctionality of peripheral blood iNKT cells as an immunological marker for different forms of Multiple Sclerosis and following different immunomodulatory treatment.

Duration: 2 years

Italian Foundation Multiple Sclerosis (FISM) 2014 (€ 30,000)

Project title: Respiration and glycolysis in lymphocytes from patients with different forms of multiple sclerosis.

Duration: 1 year

Italian Foundation Multiple Sclerosis (FISM) 2016 (€ 175,000)

Project title: Regulation of cell metabolism in lymphocytes from patients with progressive forms of multiple sclerosis.

Duration: 2 year

December 2019 -May 2023

Assistant Professor (RtdA) of General Pathology and Immunology at the University of Modena and Reggio Emilia, Italy. Project title: “Immuno-Virological Dynamics triggered by anti-HIV therapy Suspension (IMVIDYS)” Duration: 36 month, PRIN 20217 to prof. Andrea Cossarizza.

December 29th 2020- May 29th 2021

Maternity leave.

November 2023 -now

Assistant Professor (RtdB) of General Pathology and Immunology at the University of Modena and Reggio Emilia, Italy.

October 2024-March 2025

Maternity leave.

Active personal GRANTS:

- Fondo di Ateneo per la Ricerca (FAR) 2023 del Dipartimento di Scienze Mediche e Chiirurgiche Materno-Infantili e dell'Adulto. (27.204,81+300,00 €);

Title of the project: “Individuazione di nuovi meccanismi alla base delle risposte anticorpali inefficaci nelle infezioni virali umane”.

Duration: 1 year

Principal Investigator: Sara De Biasi

- PRIN PNRR 2022 (Under 40) (119.161€). Project number: P2022YKH9R

Title of the project: “Exploring new mechanisms underlying ineffective antibody responses in human and mouse viral infections”.

Duration: 2 years

Principal Investigator: Sara De Biasi

-My First AIRC grant (MFAG) 2023 € 493.350. Project number 29036.

Title of the project: “Unravelling the role of MAIT cells in non small cell lung cancer”.

Duration: 5 years.

Principal Investigator: Sara De Biasi

-GILEAD Scholarship in HIV 2024. €130.000.

Title of the project: “Deciphering and harnessing the metabolic traits of HIV-specific B and T cells”

Duration: 2 years.

Principal Investigator: Sara De Biasi

-CANALETTO PROJECT (Exchange Program for Italian reasearchers), Ministero degli affari esteri e della cooperazione internazionale (MAECI)

Title of the project: “Dissecting the MAIT-driven fingerprint of extracellular vesicles in non small cell lung cancer patients”

Duration: 2 years.

Principal Investigator: Sara De Biasi

PERSONAL SKILLS:

Mother tongue: Italian

Other languages: English (understanding, speaking, writing) Proficient user

Spanish (understanding, speaking, writing) Basic user

French (understanding, speaking, writing) Basic user

Job-related top skills: Flow Cytometry, cell biology, cell culture, immunofluorescence, molecular biology, western blotting, PCR, ELISA.

Computer skills: Proficient user of FlowJo, STATA, Matlab, GraphPad Prism, Office and iWork Packages.

PUBLICATIONS ON PEER-REVIEWED JOURNALS:

1. Maggiolo F., Roat E., Pinti M., Nasi M., Gibellini L., **De Biasi S.**, Airolidi M., Ravasio V., Mussini C., Suter F., Cossarizza A. Mitochondrial changes during D-drug containing once-a-day therapy in HIV+ naïve patients. *Antivir Ther.* 2010;15(1):51-9.
2. Pinti M., Nasi M., Lugli E., Gibellini L., Bertoncelli L., Roat E., **De Biasi S.**, Mussini C., Cossarizza A. T cell homeostasis in centenarians: from the thymus to the periphery. *Curr Pharm Des.* 2010;16(6):597-603.
3. Nasi M., Pinti M., Manzini S., Gibellini L., Manzini L., Bisi L., **De Biasi S.**, Del Giovane C., D'Amico R., Borghi V., Mussini C., Cossarizza A. Predictive value of intracellular HIV-1 DNA levels during CD4-guided treatment interruption in HIV+ patients. *AIDS Res Hum Retroviruses.* 2010 May; 26(5):553-8.
4. Pinti M., Nasi M., Gibellini L., Roat E., **De Biasi S.**, Bertoncelli L., Cossarizza A. The Role of Mitochondria in HIV Infection and Its Treatment. *J Exp Clin Med.* 2010 August; Volume 2, Issue 4:145-155.
5. Pinti M., Gibellini L., **De Biasi S.**, Nasi M., Roat E., O'Connor JE, Cossarizza A. Functional characterization of the promoter of the human Lon protease gene. *Mitochondrion.* 2011 Jan;11(1):200-6.
6. Gallo P., Szathmari A., **De Biasi S.**, Mottolese C. Endoscopic third ventriculostomy in obstructive infantile hydrocephalus: remarks about the so-called 'unsuccessful cases'. *Pediatr Neurosurg.* 2010;46(6):435-41.
7. Cossarizza A., Pinti M., Nasi M., Gibellini L., Manzini S., Roat E., **De Biasi S.**, Bertoncelli L., Montagna JP., Bisi L., Manzini L., Trenti T., Borghi V., Mussini C. Increased plasma levels of extracellular mitochondrial DNA during HIV infection: A new role for mitochondrial damage-associated molecular patterns during inflammation. *Mitochondrion.* 2011 Sep;11(5):750-5.
8. Gibellini L., Pinti M., Nasi M., Montagna JP., **De Biasi S.**, Roat E., Bertoncelli L., Cooper EL., Cossarizza A. Quercetin and cancer chemoprevention. *Evid Based Complement Alternat Med.* 2011;2011:591356
9. **De Biasi S.**, Pinti M., Nasi M., Gibellini L., Bertoncelli L., Manzini S., O'Connor JE, Mussini C., Cossarizza A. HIV-1 infection and the aging of the immune system: Facts, similarities and perspectives. *J Exp Clin Med.* 2011;3(4):143-150.
10. Roat E., **De Biasi S.**, Bertoncelli L., Nasi M., Gibellini L., Pinti M., Manzini S., Di Benedetto F., Rompianesi G., Bo M., Zanella A., Gerunda G.E., Cossarizza A. Immunological advantages of Everolimus vs. Cyclosporin A in liver transplanted recipients, as revealed by polychromatic flow cytometry. *Cytometry A.* 2012 Apr;81(4):303-11.
11. Gibellini L. *, **De Biasi S.** *, Pinti M., Nasi M., Riccio M., Carnevale G., Cavallini G.M., Sala de Oyanguren F.J., O'Connor J.E., Mussini C., De Pol A., Cossarizza A. The protease inhibitor atazanavir triggers autophagy and mitophagy in human preadipocytes. *AIDS.* 2012 Oct 23;26(16):2017-26. *co-first authorship
12. Cossarizza A., Bertoncelli L., Nemes E., Lugli E., Pinti M., Nasi M., **De Biasi S.**, Gibellini L., Montagna JP., Vecchia M., Manzini L., Meschiari M., Borghi V., Guaraldi G., Mussini M. T Cell Activation but Not Polyfunctionality after Primary HIV Infection Predicts Control of Viral Load and Length of the Time without Therapy. *PLoS One.* 2012;7(12):e50728.
13. Maffei R., Bulgarelli J., Fiorcari S., Bertoncelli L., Martinelli S., Guarnotta C., Castelli I., Deaglio S., Debbia G., **De Biasi S.**, Bonacorsi G., Zucchini P., Narni F., Tripodo C., Luppi M., Cossarizza A., Marasca R. Monocytic population in chronic lymphocytic leukemia shows altered composition and deregulation of genes involved in phagocytosis and inflammation. *Haematologica.* 2013 Jul;98(7):1115-23.

14. Nasi M., Riva A., Borghi V., D'Amico R., Del Giovane C., Casoli C., Galli M., Vicenzi E., Gibellini L., **De Biasi S.**, Clerici M., Mussini C., Cossarizza A., Pinti M. Novel genetic association of TNF- α -238 and PDCD1-7209 polymorphisms with long-term non-progressive HIV-1 infection. *Int J Infect Dis.* 2013 17 (10) , pp. e845-e850.
15. Resca E, Zavatti M, Bertoni L, Maraldi T, **De Biasi S**, Pisciotta A, Nicoli A, La Sala GB, Guillot PV, David AL, Sebire NJ, De Coppi P, De Pol A. Enrichment in c-Kit(+) enhances mesodermal and neural differentiation of human chorionic placental cells. *Placenta.* 2013 Jul;34(7):526-35.
16. Cossarizza A, **De Biasi S**, Gibellini L, Bianchini E, Bartolomeo R, Nasi M, Mussini C, Pinti M. Cytometry, immunology, and HIV infection: Three decades of strong interactions. *Cytometry A.* 2013 Aug;83(8):680-91.
17. Guaraldi G, Zona S, Cossarizza A, Vernacotola L, Carli F, Lattanzi A, Beghetto B, Orlando G, **De Biasi S**, Termini R, Garau M. Randomized Trial to Evaluate Cardiometabolic and Endothelial Function in Patients with Plasma HIV-1 RNA Suppression Switching to Darunavir/Ritonavir with or without Nucleoside Analogues. *HIV Clin Trials.* 2013 Jul-Aug;14(4):140-8.
18. Ferraro D, **De Biasi S**, Vitetta F, Simone AM, Federzoni L, Borghi V, Cossarizza A, Nichelli PF, Sola P. Recurrent Varicella following Steroids and Fingolimod in a Multiple Sclerosis Patient. *J Neuroimmune Pharmacol.* 2013 Dec;8(5):1059-61.
19. Pinti M, Cevenini E, Nasi M, **De Biasi S**, Salvioli S, Monti D, Benatti S, Gibellini L, Cotichini R, Stazi MA, Trenti T, Franceschi C, Cossarizza A. Circulating mitochondrial DNA increases with age and is a familiar trait: Implications for "inflamm-aging". *Eur J Immunol.* 2014 May;44(5):1552-62.
20. Gibellini L., Pinti M., Beretti F, Pierri CL., Onofrio A., Riccio M., Carnevale G., **De Biasi S.**, Nasi M., Torelli F., Boraldi F., De Pol A., Cossarizza A. Sirtuin 3 interacts with Lon protease and regulates its acetylation status. *Mitochondrion* 2014 Sep;18:76-81.
21. Riccio M, Carnevale G, Cardinale V, Gibellini L, **De Biasi S**, Pisciotta A, Carpino G, Gentile R, Berloco PB, Brunelli R, Bastianelli C, Napoletano C, Cantafora A, Cossarizza A, Gaudio E, Alvaro D, De Pol A. Fas/Fas ligand apoptosis pathway underlies immunomodulatory properties of Human Biliary Tree Stem/Progenitor Cells. *J Hepatol.* 2014 Nov;61(5):1097-105.
22. Nasi M, Pinti M, **De Biasi S**, Gibellini L, Ferraro D, Mussini C, Cossarizza A. Aging with HIV infection: A journey to the center of inflammAIDS, immunosenescence and neuroHIV. *Immunol Lett.* 2014 Nov;162(1 Pt B):329-33.
23. Nasi M., Alboni S., Pinti M., Gibellini L., **De Biasi S.**, Benatti S., Borghi V., Brunello N., Mussini C., Cossarizza A. Successful treatment of HIV increases the expression of IL-18 receptor α -chain short transcript. *JAIDS* 2014 Nov 1;67(3):254-7.
24. Seguin SJ, Morelli FF, Vinet J, Amore D, **De Biasi S**, Poletti A, Rubinsztein DC, Carra S. Inhibition of autophagy, lysosome and VCP function impairs stress granule assembly. *Cell Death Differ.* 2014 Dec;21(12):1838-51.
25. Gibellini L., Pinti M., Boraldi F., Giorgio V., Bernardi P., Nasi M., **De Biasi S.**, Pinton P., Quagliano D., Cossarizza A. Silencing of mitochondrial Lon protease deeply impairs mitochondrial proteome and function in colon cancer cells. *FASEB Journal* 2014 Dec;28(12):5122-35.
26. **De Biasi S.**, Gibellini L., Cossarizza A. Uncompensated polychromatic analysis of mitochondrial membrane potential using JC-1 and multilaser excitation. *Current Protocols in Cytometry* 2015;7.32.1-7.32.11.
27. Pisciotta A, Carnevale G, Meloni S, Riccio M, **De Biasi S**, Gibellini L, Ferrari A, Bruzzesi G, De Pol A. Human dental pulp stem cells (hDPSCs): isolation, enrichment and comparative differentiation of two sub-populations. *BMC Dev Biol.* 2015 Mar 14;15:14.

28. Ripa M, Pogliaghi M, Chiappetta S, Galli L, Pensieroso S, Cavarelli M, Scarlatti G, **De Biasi S**, Cossarizza A, De Battista D, Malnati M, Lazzarin A, Nozza S, Tambussi G. Dynamics of adaptive and innate immunity in patients treated during primary human immunodeficiency virus infection: results from Maraviroc in HIV Acute Infection (MAIN) randomized clinical trial. *Clin Microbiol Infect*. 2015 Sep;21(9):876.e1-4.
29. Nasi M, Cristani A, Pinti M, Lamberti I, Gibellini L, **De Biasi S**, Guazzaloca A, Trenti T, Cossarizza A. Decreased Circulating mtDNA Levels in Professional Male Volleyball Players. *Int J Sports Physiol Perform*. 2016 Jan;11(1):116-121.
30. Gibellini L, Bianchini E, **De Biasi S**, Nasi M, Cossarizza A, Pinti M. Natural Compounds Modulating Mitochondrial Functions. *Evid Based Complement Alternat Med*. 2015;2015:527209.
31. Nasi M, **De Biasi S**, Bianchini E, Digaetano M, Pinti M, Gibellini L, Pecorini S, Carnevale G, Guaraldi G, Borghi V, Mussini C, Cossarizza A. Analysis of inflammasomes and antiviral sensing components reveals decreased expression of NLRX1 in HIV-positive patients assuming efficient antiretroviral therapy. *AIDS*. 2015 Sep 24;29(15):1937-41.
32. Gibellini L*, **De Biasi S***, Nasi M, Carnevale G, Pisciotta A, Bianchini E, Bartolomeo R, Polo M, De Pol A, Pinti M, Cossarizza A. Different origin of adipogenic stem cells influences the response to antiretroviral drugs. *Exp Cell Res*. 2015 Oct 1;337(2):160-9.* co-first authorship
33. Gibellini L, Pinti M, Bartolomeo R, **De Biasi S**, Cormio A, Musicco C, Carnevale G, Pecorini S, Nasi M, De Pol A, Cossarizza A. Inhibition of Lon protease by triterpenoids alters mitochondria and is associated to cell death in human cancer cells. *Oncotarget*. 2015 Sep 22;6(28):25466-83.
34. Nasi M, **De Biasi S**, Bianchini E, Gibellini L, Pinti M, Scacchetti T, Trenti T, Borghi V, Mussini C, Cossarizza A. Reliable and accurate CD4⁺ T cell count and percent by the portable flow cytometer CyFlow MiniPOC and "CD4 Easy Count Kit-Dry", as revealed by the comparison with the gold standard dual platform technology. *PLoS One*. 2015 Jan 26;10(1):e0116848.
35. Pisciotta A, Riccio M, Carnevale G, Lu A, **De Biasi S**, Gibellini L, La Sala GB, Bruzzesi G, Ferrari A, Huard J, De Pol A. Stem cells isolated from human dental pulp and amniotic fluid improve skeletal muscle histopathology in mdx/SCID mice. *Stem Cell Res Ther*. 2015 Aug 28;6:156.
36. Ligabue G, Damiano F, Cuoghi A, **De Biasi S**, Bellei E, Granito M, Aldo T, Cossarizza A, Cappelli G. p-Cresol and Cardiovascular Risk in Kidney Transplant Recipients. *Transplant Proc*. 2015 Sep;47(7):2121-5.
37. **De Biasi S**, Cerri S, Bianchini E, Gibellini L, Persiani E, Montanari G, Luppi F, Carbonelli CM, Zucchi L, Bocchino M, Zamparelli AS, Vancheri C, Sgalla G, Richeldi L, Cossarizza A. Levels of circulating endothelial cells are low in idiopathic pulmonary fibrosis and are further reduced by anti-fibrotic treatments. *BMC Med*. 2015 Nov 9;13:277.
38. Nasi M, Cristani A, Pinti M, Lamberti I, Gibellini L, **De Biasi S**, Guazzaloca A, Trenti T, Cossarizza A. Decreased Circulating mtDNA Levels in Professional Male Volleyball Players. *Int J Sports Physiol Perform*. 2016 Jan;11(1):116-121.
39. Carnevale G, Pisciotta A, Riccio M, **De Biasi S**, Gibellini L, Ferrari A, La Sala GB, Bruzzesi G, Cossarizza A, de Pol A. Optimized Cryopreservation and Banking of Human Bone-Marrow Fragments and Stem Cells. *Biopreserv Biobank*. 2016 Apr;14(2):138-48. doi: 10.1089/bio.2015.0001.
40. Gibellini L, **De Biasi S**, Nasi M, Iannone A, Cossarizza A, Pinti M. Mitochondrial Proteases as Emerging Pharmacological Targets. *Curr Pharm Des*. 2016;22(18):2679-88.
41. Pinti M, Gibellini L, Nasi M, **De Biasi S**, Bortolotti CA, Iannone A, Cossarizza A. Emerging role of Lon protease as a master regulator of mitochondrial functions. *Biochim Biophys Acta*. 2016 Aug;1857(8):1300-6.

42. Boraldi F, Bartolomeo A, **De Biasi S**, Orlando S, Costa S, Cossarizza A, Quaglino D. Innovative Flow Cytometry Allows Accurate Identification of Rare Circulating Cells Involved in Endothelial Dysfunction. *PLoS One*. 2016 Aug 25;11(8):e0160153.
43. **De Biasi S**, Gibellini L, Bianchini E, Nasi M, Pinti M, Salvioli S, Cossarizza A. Quantification of mitochondrial reactive oxygen species in living cells by using multi-laser polychromatic flow cytometry. *Cytometry A*. 2016 Dec;89(12):1106-1110.
44. **De Biasi S**, Bianchini E, Nasi M, Digaetano M, Gibellini L, Carnevale G, Borghi V, Guaraldi G, Pinti M, Mussini C, Cossarizza A. h1 and Th17 pro-inflammatory profile characterizes iNKT cells in virologically suppressed HIV+ patients with low CD4/CD8 ratio. *AIDS*. 2016 Nov 13;30(17):2599-2610.
45. Gibellini L,* **De Biasi S***, Bianchini E, Bartolomeo R, Fabiano A, Manfredini M, Ferrari F, Albertini G, Trenti T, Nasi M, Pinti M, Iannone A, Salvarani C, Cossarizza A, Pellacani G. Anti-TNF- α Drugs Differently Affect the TNF α -sTNFR System and Monocyte Subsets in Patients with Psoriasis. *PLoS One*. 2016 Dec 9;11(12):e0167757.* co-first authorship
46. Carnevale G, Pisciotta A, Riccio M, Bertoni L, **De Biasi S**, Gibellini L, Zordani A, Cavallini GM, La Sala GB, Bruzzesi G, Ferrari A, Cossarizza A, de Pol A. Human dental pulp stem cells expressing STRO-1, c-Kit and CD34 markers in peripheral nerve regeneration. *J Tissue Eng Regen Med*. 2016 Dec 11.
47. **De Biasi S**, Simone AM, Nasi M, Bianchini E, Ferraro D, Vitetta F, Gibellini L, Pinti M, Del Giovane C, Sola P, Cossarizza A. iNKT Cells in Secondary Progressive Multiple Sclerosis Patients Display Pro-inflammatory Profiles. *Front Immunol*. 2016 Nov 30;7:555.
48. Nasi M, **De Biasi S**, Gibellini L, Bianchini E, Pecorini S, Bacca V, Guaraldi G, Mussini C, Pinti M, Cossarizza A. Ageing and inflammation in patients with HIV infection. *Clin Exp Immunol*. 2017 Jan;187(1):44-52. doi: 10.1111/cei.12814.
49. Bianchini E, **De Biasi S**, Simone AM, Ferraro D, Sola P, Cossarizza A, Pinti M. Invariant natural killer T cells and mucosal-associated invariant T cells in multiple sclerosis. *Immunol Lett*. 2017 Jan 21;183:1-7.
50. Gibellini L, Pecorini S, **De Biasi S**, Bianchini E, Digaetano M, Pinti M, Carnevale G, Borghi V, Guaraldi G, Mussini C, Cossarizza A, Nasi M. HIV-DNA content in different CD4+ T-cell subsets correlates with CD4+ cell: CD8+ cell ratio or length of efficient treatment. *AIDS*. 2017 Jun 19;31(10):1387-1392.
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64. De Biasi S, Lo Tartaro D, Effective antigen-specific T- and B-cell response in MS patients on immunomodulatory drugs after three doses of SARS-CoV-2 mRNA vaccine, AINI 2023, Palermo, 03-07/05/2023
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66. De Biasi S, Lo Tartaro D, Effective antigen-specific T- and B-cell response in MS patients on immunomodulatory drugs after three doses of SARS-CoV-2 mRNA vaccine, CYTO 2024, Edinburgh (UK) 04-08/05/2024
67. De Biasi S, Lo Tartaro D, et al. Metabolic pathways engaged by antigen-specific T and B cells after SARS-CoV-2 vaccination in multiple sclerosis patients on different immunomodulatory drugs reveal immunosenescence and predict vaccine efficacy. 6th international conference on translational immunology SIICA, Monopoli (Bari, Italy), 22-24/05/2024.

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BOOK CHAPTER

M. Girardis, S. Busani, and S. De Biasi. Immune System Dysfunction and Multidrug-resistant Bacteria in Critically Ill Patients: Inflammasomes and Future Perspectives. J.-L. Vincent (ed.), Annual Update in Intensive Care and Emergency Medicine 2015, Springer International Publishing Switzerland 2015. DOI 10.1007/978-3-319-13761-2_8

PRIZE AND AWARD

- Special recognition for second level thesis "*Immunosuppressive efficacy of Everolimus vs Cyclosporine A in liver transplanted patients: study performed by polychromatic flow cytometry*". (Tutor: Prof. Andrea Cossarizza) during *XXVIII NATIONAL CYTOMETRY CONFERENCE (GIC)*, October 1-2 2010, Urbino, Italy.
- University Scholarship for outstanding student, concerning academic year 2008-2009, Modena, May 2011.
- EFIS/EJI travel bursary "Course in Basic and Translational Immunology". September 27th-28th 2011, Riccione, Italy.
- IFREC-SiGN WINTER SCHOOL ON ADVANCED IMMUNOLOGY travel bursary. Singapore, January 19-26 2013
- Student travel award CYTO 2013, San Diego (CA), 19-22 May 2013
- Prize for Italian Young Investigators received at CROI-V ICAR 2013, Turin May, 12-14 2013.
- SIICA Student travel Awards ICI 2013, Milan, 22-27 August 2013.
- Outstanding poster Award, CYTO 2015, Glasgow, June 26-30, 2015
- International Society for Advancement in Flow Cytometry (ISAC) Marylou Ingram Scholar 2016-2020.
- Outstanding poster Award, CYTO 2017, Boston, June 10-14, 2017
- Outstanding poster Award, CYTO 2017, Boston, June 10-14, 2017
- First Prize for basic research in Infectious Diseases, Infection LAB, Milano, October, 2019.
- USERN laureate in Medical Sciences. November 10th 2022, Muscat, Oman.

PARTICIPATION AS INVITED SPEAKER IN NATIONAL AND INTERNATIONAL CONGRESS/COURSE

- Functional Cytometry: A practical approach European Society of Clinical and Cell Analysis (ESCCA) Summer School 2015, University of Valencia, Valencia, Spain, July, 05-08 2015
- "Flow Cytometry for the identification of rare T cells", Annual Meeting of European Society of Clinical and Cell Analysis (ESCCA 2015, Taormina, Italy) September 29-October 03 2015
- "La citometria a flusso nella diagnostica: un aiuto moderno per gli immunologi clinici", Annual Meeting of European Society for Clinical and Cell Analysis (ESCCA 2015, Taormina, Italy), September 29-October 03 2015
- "Flow Cytometry for the identification of rare cells", 13th international conference Hematopoiesis Immunology, Budapest, June, 3-4 2016
- "The art of rare events detection", Revolutionary Science Day (ThermoFisher), Geneva, May, 3-4 2016

- Functional Cytometry: A practical approach. European Society of Clinical and Cell Analysis (ESCCA) Summer School 2016, University of Valencia, Valencia, Spain, June 27, July 01 2016
- Warsaw ISAC Flow Cytometry Workshop, May 11th-14th 2017
- Functional Cytometry: A practical approach. European Society of Clinical and Cell Analysis (ESCCA) Summer School 2017, University of Valencia, Valencia, Spain, June 27-28, 2017
- Paris ISAC Flow Cytometry Workshop, April 9th -13th 2018
- "Multiparametric analysis of rare events detection", Labex day, University Of Strasbourg, Strasbourg, France, 06-08 June 2018.
- "Analysis of T cells and iNKT cells in HIV infection", Annual meeting of the European Society for Clinical and Cell Analysis (ESCCA), Valencia, Spain, 13-15 September 2018
- ISAC Flow Cytometry course (Cytomore), Modena, Italy, September 17-21, 2019
- "Immunological predictors of succesful and safe anti-rejection therapy in HIV + patients who underwent liver transplantation", Cytoflex User Meeting, Berlin, Germany, 22-23 November 2018
- Second advanced Flow Cytometry course, Amsterdam, Holland, 02 Lab, 3-5 December 2018
- "T cell antigen-specific response after papilloma virus immunization in HIV patients", European Attune User Meeting, London, England, March 20, 2019
- "T cell antigen-specific response after papilloma virus immunization in HIV patients", World Immune Regulation Meeting (WIRM), Davos, Switzerland, 6-9 April 2019
- LEFT ISAC Flow Cytometry Workshop, Prague, Czech Rep., 12-14 April 2019
- China BD LEFT ISAC Flow Cytometry Workshop, Shanghai 06-12 July, 2019.
- - CYTO Virtual Interactive 2021: "Endogenous control of inflammation characterizes pregnant women with asymptomatic or paucisymptomatic SARS-CoV-2 infection," June 7–10, 2021.
- National Cytometry Conference (GIC): "Characteristics of the immune response to SARS-CoV-2 infection," June 14–18, 2021.
- Iberian Cytometry Society Congress: "Single-cell approaches for T cell monitoring in viral infections and cancer," June 14–18, 2021.
- ICAR 2021 Congress: "Immune system biology to fight COVID-19," Riccione, Italy, October 22, 2021.
- FlowTEX 2022: "Single-cell approaches for T cell monitoring in cancer," March 23, 2022.
- National Cytometry Conference (GIC): "Cellular metabolism and immunology: functional and phenotypic approaches," May 14–18, 2021.
- ISAC-Turkish Cytometry Course 2022: "Understanding Infection and Immunity of SARS-CoV-2: from diagnostics to therapies for COVID-19," September 2022.
- Swiss Cytometry Society Congress 2023, Immunology Session: "Understanding infection and immunity of SARS-CoV-2," Zurich, February 1–3, 2023.

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