

PERSONAL INFORMATION

Silvia Tonon✉ silvia.tonon@uniud.it

Sex Female | Date of birth 14/04/1989 | Nationality Italian

POSITION Assistant Professor (RTDA) in General Pathology (MED/04), University of Udine

WORK EXPERIENCE

- March 2017- December 2021
Italy **Post-doctoral fellowship**
University of Udine
- November 2014 – April 2015
Berlin **International exchange for “Doctor Europaeus”**
Study of the epigenetic imprinting of the *il10* gene at the Deutsches Rheuma-Forschungszentrum (DRFZ), research group of Prof Andreas Radbruch (radbruch@drfz.de)
- April 2013 – July 2013
London **Erasmus mobility for Placement Consorzio KTEU EP6**
Study on the role of the microbiota in the development of regulatory B cells at the Medicine Division of University College of London (UCL), research group of Prof Claudia Mauri (c.mauri@ucl.ac.uk)
- September 2010 – October 2013
Italy **Internship in the immunology laboratory at Department of Medical Area (Udine)**
Study of the microenvironment leading to the expansion and differentiation of IL-10 competent B cells and relative signalling pathways involved in IL-10 production. Continuative internship done for bachelor and master degree in the laboratory of Prof Carlo E.M. Pucillo.

EDUCATION

- 2014-2016 **PhD course in Biomedical and Biotechnological Science** EQF level 8
University of Udine.
PhD thesis: “Epigenetic modifications in *il-10* gene *locus* are pivotal for the understanding of IL-10 competence in B cells”. **31st March 2017**
- 2011-2013 **Master degree in Sanitary Biotechnologies** EQF level 7
University of Udine.
Final evaluation 110/110 cum Laude Academic year 2012-2013 (10th October 2013)
Thesis : “IL-10 competent B cell expansion and IL-10 production are differently regulated by immune-mediated and infectious stimuli”.
- 2008-2011 **Bachelor degree in Medical Biotechnologies** EQF level 6
University of Udine.
Final evaluation 105/110 Academic year 2010-2011 (29th September 2011)
Thesis: “Production of anti-inflammatory cytokine IL-10 in B cells: stimuli and signalling pathways”

PUBLICATIONS

IL-10 production by B cells is differentially regulated by immune-mediated and infectious stimuli and requires p38 activation.

Mol. Immunol. doi:10.1016/j.molimm.2014.05.018

Regulatory B cells are induced by gut microbiota–driven interleukin-1 β and interleukin-6 production

Nature Medicine 20,1334–1339 (2014) doi:10.1038/nm.3680

Message in a bottle from the tumor microenvironment: tumor-educated DCs instruct B cells to participate in immunosuppression

Cellular & Molecular Immunology (2017); doi:10.1038/cmi.2017.63

Reciprocal influence of B cells and tumor macro and microenvironments in the ApcMin/+ model of colorectal cancer

Oncoimmunology, 6:8, e1336593 (2017) doi.org/10.1080/2162402X.2017.1336593

IL-10-producing B cells are characterized by a specific methylation signature

Eur. J. Immunol. 2019. 00: 1–13 DOI: 10.1002/eji.201848025

MCs crosstalk with B cells in the gut and sustain IgA response in the inflamed colon

Eur. J. Immunol. 2020. 00: 1–14 DOI: 10.1002/eji.202048668

il-10 Gene Locus DNA Methylation in Regulatory B Cells.

Methods Mol Biol. 2021; 2270:323-339. doi: 10.1007/978-1-0716-1237-8_18.

Purification of Murine and Human IL-10-Producing B Cells from Different Anatomical Compartments.

Methods Mol Biol. 2021; 2270:61-76. doi: 10.1007/978-1-0716-1237-8_4.

Regulatory B cells sec Edition, Methods in Molecular Biology, PrefaceMethods Mol Biol. 2021; 2270: <http://hdl.handle.net/11390/1210620>**LPS Guides Distinct Patterns of Training and Tolerance in Mast Cells** Front. Immunol., 17February 2022 | <https://doi.org/10.3389/fimmu.2022.835348>**Use of organoids in cancer: a new therapeutic and research approach**

Chapter for Handbook of Cancer Immunology, Springer

Mechanism and clinical evidence of immunotherapy in allergic rhinitis Front. Immunol,

Accepted June 2023.

Cancer vaccines: from the state of art to the most promising frontiers in treatment of colorectal cancer,

Pharmaceutics. In revision, June 2023

ADDITIONAL INFORMATION

Membership and Editor activity

SIICA (Società Italiana di Immunologia Immunologia clinica e Allergologia) **member** since 2014**Jr Faculty Member of SIICA** from May 2021**Editor for Springer “Methods in Molecular Biology”**

Editor of the book “Regulatory B Cells - Methods and Protocols, Second Edition”, March 2019 – January 2021

Review Editor for Frontiers in Immunology - Inflammation

From June 2023

Awards

110 Talenti rosa per il lavoro – For best female master students of University of Udine A.Y. 2012/2013, 28th November 2014**Travel grant for “International Retreat of PhD students in immunology”,** SIICA congress in Catanzaro 19-20 June 2015**PhD Award 2018** - University of Udine, for the best PhD thesis in medical Area

Conferences

Poster at “IX national congress of SIICA”, Firenze 28-31 May 2014**Oral presentation** “International Retreat of PhD students in immunology”, Catanzaro 19-20 June 2015.**Poster** at SIBBM “From Genomes to Functions”, Torino 1-3 July 2015**Oral presentation** “X national congress of SIICA”, Abano Terme 25-28 May 2016**Oral presentation** at “XI national congress of SIICA”, 28-31 May 2017**Moderator** “UNIVAX DAY”, 21st February 2020**Poster** at “XII national congress of SIICA”, Virtual 26-28 May 2021

Moderator "UNIVAX DAY", 17th March 2021
Moderator "Vaccini, quando la scienza spiega", Udine 18th May 2021
Moderator "UNIVAX DAY", Udine 19th April 2022
Poster at "XIII SIICA national congress", Naples 23-26 May
Moderator "UNIVAX DAY", Udine 10th February 2023
Invited speaker "Attune user meeting 2023", Amsterdam 21st -22nd March 2023

Courses ETICA E CONCEZIONE DEI PROGETTI, MODULI 9, 10, 11, DM AGOSTO 2021, LEGISLAZIONE NAZIONALE ED ETICA LIVELLO 1, MODULI 1 E 2, DM 5 AGOSTO 2021, BIOLOGIA E GESTIONE DEGLI ANIMALI DA LABORATORIO, MODULI 3.1, 4, 5, 6.1, 7. DM 5 AGOSTO 2021 RODITORI E LAGOMORFI.
Corso sulla sperimentazione animale OPBA-MBPE, Trieste Maggio 2020
Bioinformaticcs for Immunologists, EMBL, Hinxton (Cambridge) July 2019
On the top of Genetics Udine, 22-23 June 2015
Cytomere and More (7th Modena Advanced Course in Cytometry) Modena, 17-21 September 2018

Academic appointments

- Dr Andrea Drusin supervisor for his bachelor degree in Biotechnologies (L-2) ("Analisi dell'espressione del gene Interleuchina 10 in cellule B murine in seguito a stimolazione via TLR9")
- Dr Madalina Pavel supervisr for her Bachelor degree in Biomedical laboratory techniques (SNT/3) ("Metodologie per la valutazione del ruolo di NFAT nell'espressione del gene il-10 nelle cellule B murine")
- Dr Luca Tosoni supervisor for his Master degree in Medicine and Surgery ("Analisi mutazionale di organoidi murini come modello di carcinogenesi del cancro del colon-retto")
- Dr Serena Buzzi supervisor for her bachelor degree in Biotechnologies (L-2) "Confronto di due matrici per la crescita 3D di organoidi intestinali sani murini"
- Laboratory activity (24hr) for "Microbioma e Immune Response", Master Degree in molecular biotechnologies a.y. 2017/2018, 2018/2019, 2020/2021, 2021/2022, 2022/2023
- Lecture on "B cell subpopulation" for third year class of Medicine and Surgery, November 2019
- Lecture on "B cell subpopulation" for third year class of Medicine and Surgery, November 2021
- Lecture on "B cell subpopulation" for third year class of Medicine and Surgery, November 2022
- Lecturer "Nuovi approcci allo studio e alla cura dei tumori" Superior School -Uniuod
- Lecture on "why man and women get sick and heal differently?" – comprendere la medicina personalizzata in una prospettiva di genere aa 2022-2023
- 2022-2023 Professor of General Pathology and Immunology, School of Nursing, University of Udine (Pordenone)
- Lecturer "introduction to Flow Cytometry" in the PhD course in Biomedical and Biotechnological Science, University od Udune

Scientific activities

Organizer of "XIII SIICA National Congress 2022", Napoli
 Organizer of "XIV SIICA National Congress 2023", Verona

AIRC - Deciphering the molecular mechanisms driving the interplay between tumor-associated immune cells and cancer cells – IG Pucillo

Correlazione fra acidi grassi a catena corta e le cellule B regolatorie nei pazienti affetti da sclerosi multipla – CEUR 3920 22.06.2021

PERSONAL SKILLS

Mother Tongue Italian

Other languages

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C1 | C2 | C1 | C1 | C1 |
| French | A1 | A1 | A1 | A1 | A1 |

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Job-related skills

- Handling and manipulation of murine models (subcutaneous and intraperitoneal injections)
- Cell line, primary cell culture and colon and pancreatic organoids
- Isolation of immune cells from murine organs (B cells, T cells, Mast cells mainly) and human peripheral blood
- Multiparameter Flow cytometry analysis and cell-sorting (BD, FACS-Ariall, Attune NxT)
- ELISA assay
- RNA, DNA extraction and primer design for end-point PCR, qPCR
- Bacterial transformation and cloning
- Transfection of eukaryotic cells
- SNP identification by Sanger Sequencing
- Methylation study by using Bisulphite-cloning sequencing (Sanger sequencing) and pyrosequencing
- Chromatin-Immune precipitation
- Confocal microscopy
- Transcriptomic analysis
- Lentiviral infections
- GC-MS for the analysis of shorty fatty acids


Informatics skills

Proficient user of Windows OS, Office (Word, Excel, Access, Power Point) and Web browsers.
Basic user of Ubuntu.
Image Editing: Adobe Photoshop, Adobe Illustrator, inkscape.
Flow cytometry analysis: FlowJo, BD FacsDiva
Statistical analysis: GraphPad Prims 5
Bioinformatics tools: UCSC, Vista, Blast, other databases and analysis of datasets of GEO
R platform

Personal Data

In compliance with the GDPR and the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document

SIGNATURE



19 June 2023, Udine