

## PERSONAL INFORMATION

Martina Kunkl



Sex | Date of birth | Nationality | Civil Status

## WORK EXPERIENCE

- |                  |                                                                                                                                                                                                                                                         |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10/2019-now      | <b>Research fellow, research activity</b><br>Department of Biology and Biotechnology "C. Darwin", Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Rome, Italy.<br>Supervisor: Professor Loretta Tuosto                                         |
| 10/2016-10/2019  | <b>PhD student, research activity</b><br>Department of Biology and Biotechnology "C. Darwin", Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Rome, Italy. Phd Defence 26/02/2020<br>Supervisor: Professor Loretta Tuosto                      |
| 05/2016- 10/2016 | <b>Research fellow, research activity</b><br>Department of Biomedical Science, University of Padua<br>Supervisor: Professor Antonella Viola                                                                                                             |
| 12/2013- 12/2015 | <b>Student Internship at Laboratory of Molecular Immunology, research activity</b><br>Department of Biology and Biotechnology "C. Darwin", Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Rome, Italy<br>Supervisor: Professor Loretta Tuosto |

## EDUCATION AND TRAINING

- |                      |                                                                                                                                                                                                                                                                                                                  |                   |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 1/11/2016-31/10/2019 | <b>PhD in Cell and Developmental Biology</b><br>Department of Biology and Biotechnology "C. Darwin", Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Rome, Italy<br>Supervisors: Prof Loretta Tuosto                                                                                                    |                   |
| 12/2015              | <b>Master's degree in Biology and Cellular Technology</b><br>Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Roma, Italia<br>Research thesis: "Role of Phosphatidylinositol 4-phosphate 5-kinase $\alpha$ (PIP5K $\alpha$ ) in T lymphocytes activation. Training coordinator: Professor Loretta Tuosto | 110/110 cum laude |
| 10/2003-01/2009      | <b>Bachelor's degree in Biological Sciences</b><br>Sapienza-University of Rome, Piazzale Aldo Moro 5, 00185 Rome, Italy<br>Research thesis: "Role of T CD4+ regulatory lymphocytes in pathogenesis of cancer". Training coordinator: Professor Loretta Tuosto                                                    |                   |
| 07/2003              | <b>Scientific High school degree</b><br>Liceo Classico "Virgilio", Rome (RM), Italy                                                                                                                                                                                                                              |                   |

## PERSONAL SKILLS

Mother tongue(s) Italian

| Other language(s) | UNDERSTANDING |         | SPEAKING           |                   | WRITING |
|-------------------|---------------|---------|--------------------|-------------------|---------|
|                   | Listening     | Reading | Spoken interaction | Spoken production |         |
| English           | B1            | B1      | B1                 | B2                | B1      |

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

## Job-related skills

- PBMC isolation. Depletion of cellular subpopulations
- Cell Culture
- Isolation of genomic DNA from cells
- RNA isolation and Reverse Transcription
- PCR
- Real-Time PCR
- Protein extraction
- Western blotting
- Immunoprecipitation
- Flow cytometry
- ELISA
- Confocal Microscopy
- Metabolic Assay with Seahorse Agilent
- Chromatin Immunoprecipitation

## Computer skills

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

## Publications

- Kunkl Martina, Amormino Carola, Caristi Silvana, Tedeschi Valentina, Fiorillo Maria Teresa, Levy Revital, Popugailo Andrey, Kaempfer Raymond, Tuosto Loretta. Binding of Staphylococcal Enterotoxin B (SEB) to B7 Receptors Triggers TCR- and CD28-Mediated Inflammatory Signals in the Absence of MHC Class II Molecules. *Frontiers in Immunology* . 10.3389/fimmu.2021.723689
- Kunkl M, Amormino C, Frasca S, Caristi S, Sambucci M, De Bardi M, Arcieri S, Battistini L, Tuosto L. CD28 autonomous signalling orchestrates IL-22 expression and IL-22-regulated epithelial barrier functions in human T lymphocytes. *Front. Immunol.* | doi: 10.3389/fimmu.2020.590964
- Kunkl M, Frasca S, Amormino C, Volpe E, Tuosto L. T Helper Cells: The Modulators of Inflammation in Multiple Sclerosis. *Cells*. 2020;9(2):482. Published 2020 Feb 19. doi:10.3390/cells9020482
- Kunkl M, Sambucci M, Ruggieri S, Amormino C, Tortorella C, Gasperini C, Battistini L, Tuosto L. CD28 Autonomous Signaling Up-Regulates C-Myc Expression and Promotes Glycolysis Enabling Inflammatory T Cell Responses in Multiple Sclerosis. *Cells*. 2019 Jun 11;8(6).

- Kunkl M, Mastrogiovanni M, Porciello N, Caristi S, Monteleone E, Arcieri S, Tuosto L. CD28 Individual Signaling Up-regulates Human IL-17A Expression by Promoting the Recruitment of RelA/NF- $\kappa$ B and STAT3 Transcription Factors on the Proximal Promoter. *Front Immunol*. 2019 Apr 24;10: 864.
- Porciello N, Kunkl M, Tuosto L. CD28 between tolerance and autoimmunity: the side effects of animal models. *F1000Res*. 2018 May 30;7. pii: F1000 Faculty Rev-682. doi: 10.12688/f1000research.14046.1. eCollection 2018. Review.
- Porciello N, Grazioli P, Campese AF, Kunkl M, Caristi S, Mastrogiovanni M, Muscolini M, Spadaro F, Favre C, Nunès JA, Borroto A, Alarcon B, Screpanti I, Tuosto L. A non-conserved amino acid variant regulates differential signalling between human and mouse CD28. *Nat Commun*. 2018 Mar 14;9(1):1080. doi: 10.1038/s41467-018-03385-8.
- Kunkl M, Porciello N, Mastrogiovanni M, Capuano C, Lucantoni F, Moretti C, Persson JL, Galandrini R, Buzzetti R, Tuosto L. "ISA-2011B, a Phosphatidylinositol 4-Phosphate 5-Kinase A Inhibitor, Impairs CD28-Dependent Costimulatory and Pro-Inflammatory Signals in Human T Lymphocytes." *Frontiers in Immunology* 8 (2017): 502. PMC. Web. 22 Feb. 2018.
- Porciello N, Kunkl M, Viola A, Tuosto L. 2016 May Phosphatidylinositol 4-Phosphate 5-Kinases in the regulation of T cell activation. *Front. Immunol*. doi:10.3389/fimmu.2016.00186

#### Conference/ abstract

- Martina Kunkl, Manolo Sambucci, Carola Amormino, Serena Ruggieri, Carla Tortorella, Claudio Gasperini, Luca Battistini, and Loretta Tuosto. CD28 and associated class 1A PI3K regulates the glycolytic metabolic program associated to pro-inflammatory T cell responses in Multiple Sclerosis. 13th edition of the Romanian National Cytometry Congress. Oral Presentation
- Martina Kunkl, Manolo Sambucci, Serena Ruggieri, Carola Amormino, Silvana Caristi, Claudio Gasperini, Luca Battistini and Loretta Tuosto. CD28 and associated class 1A PI3K regulates the glycolytic metabolic program associated to pro-inflammatory T cell responses in Multiple Sclerosis. II Joint Meeting of the German Society for Immunology (DGfI) and the Italian Society of Immunology, Clinical Immunology and Allergology (SIICA) 10–13 September 2019 • Munich (DE). Poster
- Martina Kunkl, Marta Mastrogiovanni, Nicla Porciello, Silvana Caristi, Emanuele Monteleone, Stefano Arcieri, Loretta Tuosto. RelA/NF- $\kappa$ B and STAT3 transcription factors cooperate in trans-activating the human IL-17A proximal promoter in response to CD28 individual stimulation. II Joint Meeting of the German Society for Immunology (DGfI) and the Italian Society of Immunology, Clinical Immunology and Allergology (SIICA) 10–13 September 2019 • Munich (DE). Poster
- Martina Kunkl, Manolo Sambucci, Serena Ruggieri, Carola Amormino, Silvana Caristi, Claudio Gasperini, Luca Battistini and Loretta Tuosto. CD28 and associated class 1A PI3K regulates the glycolytic metabolic program associated to pro-inflammatory T cell responses in Multiple Sclerosis. Congresso Annuale FISM 2019. 29-31 Maggio 2019. Hotel A.Roma Lifestyle. Roma. Poster
- Nicla Porciello, Martina Kunkl, Paola Grazioli, Antonio F. Campese, Silvana Caristi, Marta Mastrogiovanni, Michela Muscolini, Francesca Spadaro, Cédric Favre, Jacques A Nunès, Aldo Borroto, Balbino Alarcon, Isabella Screpanti and Loretta Tuosto The importance of being Proline: biochemical and functional difference between human and mouse CD28 cytoplasmic tail. XV FISV congress 2018. Sapienza University. Poster.
- Nicla Porciello, Martina Kunkl, Paola Grazioli, Antonio F. Campese, Silvana Caristi, Marta Mastrogiovanni, Michela Muscolini, Francesca Spadaro, Cédric Favre, Jacques A Nunès, Aldo Borroto, Balbino Alarcon, Isabella Screpanti and Loretta Tuosto The importance of being Proline: biochemical and functional difference between human and mouse CD28 cytoplasmic tail. EMBO Workshop Lymphocyte antigen receptor signalling. 25 – 29 August 2018 | Siena, Italy. Poster.
- Martina Kunkl, Manolo Sambucci, Serena Ruggieri, Luisa Loconte, Silvana Caristi, Claudio Gasperini, Luca Battistini and Loretta Tuosto. Role of CD28 and associated class 1A PI3K in the regulation of the cellular metabolic programs associated to pro-inflammatory T cell responses in Multiple Sclerosis. Congresso Annuale FISM 2018. 28-30 Maggio 2018. l'Auditorium Antonianum in viale Manzoni. Roma. Poster
- Martina Kunkl, Nicla Porciello, Marta Mastrogiovanni, Cristina Capuano, Federica Lucantoni, Chiara Moretti, Jenny L. Persson, Ricciarda Galandrini, Raffaella Buzzetti and Loretta Tuosto. Inhibition of phosphatidylinositol 4-phosphate 5-kinase-a impairs CD28-dependent costimulatory and pro-inflammatory signals in human T lymphocytes. XI National Congress of the Italian Society of Immunology, Clinical Immunology and Allergology Bari , 27-28 May 2016. Poster.

- Martina Kunkl, Nicla Porciello, Marta Mastrogiovanni, Cristina Capuano, Federica Lucantoni, Chiara Moretti, Jenny L. Persson, Ricciarda Galandrini, Raffaella Buzzetti and Loretta Tuosto. Inhibition of phosphatidylinositol 4-phosphate 5-kinase- $\alpha$  impairs CD28-dependent costimulatory and pro-inflammatory signals in human T lymphocytes. ENII Summer School of Immunology 6-13 May 2017 Porto Cervo. Oral presentation/poster
- N Porciello, M. Kunkl, M. Muscolini, C. Camperio, S. Caristi, C. Capuano, A. Viola, R. Galandrini, L. Tuosto; Phosphatidylinositol 4-phosphate 5-kinase  $\alpha$  is a critical regulator of CD28 signaling functions. X National Congress of the Italian Society of Immunology, Clinical Immunology and Allergology. Abano Terme, 25-28 May 2016. Oral presentation.

*Autorizzo la pubblicazione del mio curriculum vitae e il trattamento dei dati personali in esso contenuti in base all'art. 13 del D. Lgs. 196/2003 e all'art. 13 GDPR 679/16*

Data  
1/09/2021