

# EUROPEAN FORMAT CURRICULUM VITAE



## PERSONAL INFORMATION

Name	<b>FRUSTERI CRISTINA</b>
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Residence	<b>VIA VECCHIA MARTOGNA N.30, 91016, ERICE (CASA SANTA) TRAPANI (TP), ITALY</b>
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Nationality	Italian
Date of birth	7 <sup>TH</sup> MARCH 1989

## WORK EXPERIENCE

- Date (from – to) 1<sup>st</sup> October 2021 – today
- Position held **Research Fellowship**
- Place of employment G.B. Rossi Hospital, Immunology Section, Verona, Italy
- Experimental project **“FLIP upregulation on myeloid cells promotes tumor progression”**
  
- Date (from – to) 1<sup>st</sup> October 2018 – 30<sup>th</sup> September 2021
- Position held **PhD in “Inflammation, Immunity and Cancer”**
- Place of employment University of Verona, Medicine Department, Immunology Section, G.B. Rossi Hospital, Verona, Italy
- Experimental project **“Targeting immune dysregulation mediated by FLIP and putative FLIP-related pathways to develop new therapeutic approaches”**
- Main professional expertise Expertise in immunology field (pancreatic tumor, lung tumor, myeloproliferative diseases, COVID-19): characterization of cellular, molecular, and functional/immunological mechanisms mediated by FLIP protein, in *in vitro* models (transfected immortalized cell lines) and in murine models; study of FLIP-mediated immunosuppressive function in myeloid compartment of murine models and in peripheral level in tumor patients; analysis of FLIP-correlated pathways involved in immune evasion mechanisms; analysis of new putative and predictive biomarkers for oncology treatments; study of FLIP involvement in the progression of SARS CoV-2 infection; silencing/inhibition of targets involved in the immunosuppression through *in vitro* (peripheral monocytes isolated from tumor patients/patients affected by COVID-19) and *in vivo* experiments (murine models); study of epigenetic role of factors involved in the immune evasion; validation of localization and study of cell co-localization of FLIP through Imaging technique; validation of new putative IDO inhibitors through *in vitro* experiments on polarized macrophages.

- Date (from – to)
  - Position held
- Place of employment
- Experimental project
- Main professional expertise

19<sup>th</sup> March 2018 – 30<sup>th</sup> September 2018

**Fellowship**

University of Verona, Medicine Department, Immunology Section, G.B. Rossi Hospital, Verona, Italy

**“Identification of early markers for the pancreatic tumor diagnosis”**

Expertise in immunology field (pancreatic tumor, myeloproliferative diseases): *in vitro* differentiation and functional characterization of myeloid cells isolated from murine models; Immuno-evasion assays.

- Date (from – to)
  - Position held
- Place of employment
- Experimental project
- Main professional expertise

1<sup>st</sup> January 2017 – 15<sup>th</sup> March 2018

**Fellowship**

IRCCS Cà Granda Foundation – Major General Hospital, Gastroenterology and Endoscopy, Digestive Physiopathology Section, Milan, Italy

**“Molecular and functional characterization of Th17 cell populations in GUT”**

Expertise in IBD (inflammatory bowel diseases) and intestinal tumor (colorectal cancer, CRC) field: LPMC (lamina propria mononuclear cells) purification and functional/molecular characterization of Th17 population from intestinal biopsies and surgery specimens of patients suffered from IBD/CRC.

**EDUCATION AND TRAINING**

- Date (from – to)
  - Type of training
- Institute of training
- Main professional expertise

31<sup>st</sup> March 2016 – 1<sup>st</sup> January 2017

**Internship**

**Centre for Molecular and Translational Oncology (COMT)**, Department of Biosciences, University of Parma, Italy

Expertise in oncology field: Study of clinical progress of maxilla-facial human tumours; Generation of new immunotherapy agents from monoclonal antibodies against membrane proteoglycan NG2/CSPG4.

- Date (from – to)
- Title of qualification awarded
  - Institute of education
  - Experimental thesis

October 2012 – October 2014

**Masters Degree in Medical, Veterinary and Pharmaceutical Biotechnology (LM-9)**

(Curriculum: Biotechnology applied to regenerative and restorative medicine), Honours Degree University of Parma, Italy

**“PKC $\epsilon$  expression in peripheral CD4<sup>+</sup> T-cells in immune-mediated skin diseases”**

- Date (from – to)
- Title of qualification awarded
  - Institute of education
  - Experimental thesis

2007 – 2011

**Bachelor Degree in Biotechnology**, (Curriculum: Biomedical), Honours Degree

Università degli Studi di Palermo, Italy

**“CD8<sup>+</sup> lymphocytes cytotoxicity in response to *Mycobacterium tuberculosis*'s peptides presented in the HLA-E molecule context”**

**PERSONAL SKILLS AND EXPERTISE**

MOTHER TONGUE  
OTHER LANGUAGES

ITALIAN  
ENGLISH (B2)

TECHNICAL/EXPERIMENTAL  
SKILLS AND EXPERTISE

**Management of biobanks of tumor patients and patients suffered from IBD.**  
**Writing of mouse experimental protocols for CIRSAL (“Centro Interdipartimentale di Servizio alla Ricerca Sperimentale”) approval.**  
**Tutoring for Bachelor, Masters, Medicine Degree.**  
**Epigenetics:** ATACseq setting on human monocytes.  
**Cell Biology:** Myeloid progenitors’ isolation from mouse models; Isolation of LPMC (Lamina propria mononuclear cells) from intestinal biopsies/surgery samples of IBD/CRC patients; Neutrophils/PBMC isolation from peripheral blood; Cell isolation from murine tissues; Cell

isolation through Immunomagnetic Separation; Eukaryotic Primary and immortalized Cell Lines culture; Cell Co-culture, Hybridoma culture; In vitro Cell differentiation; Toxicity Test; Suppressive Assay; Immuno-evasion Assay.

**Biochemistry:** Western Blotting; Nucleus/Cytoplasm separation; Protein Immuno-precipitation; ELISA; Protein digestion.

**Molecular Biology:** Plasmid Vector Preparation; Extraction and Purification of Plasmid DNA; Enzymatic Digestion through restriction enzymes; Production of Lentivirus particles; Genic Silencing/Overexpression in immortalized cell culture through mRNA transfection/viral transfection; RNA extraction from cells, tumour biopsies, intestinal specimens; Retro-transcription; Semi-Quantitative PCR; Sample Preparation for RNAseq.

**Imaging:** Cell Morphology Analysis by using microscopy technique (Immunofluorescence, Immunohistochemistry, Phase-contrast Microscopy, Optic Microscopy); Image Acquisition and Computer Processing, Immunohistochemistry Technique.

**Flow Cytometry:** Multiparametric analysis of surface/intracellular immune markers; Viability assay; Putative biomarkers validation.

**Animal House facility:** Genotype Screening; Tumor monitoring; Blood withdrawal; Organs isolation.

**Data Elaboration Software:** FlowJo; Prism; CorelDraw; Leica; Imaris Microscopy Analysis Software; IHC Profiler; ImageJ; EndNote.

## CERTIFICATES AND OTHER COMPETENCES

- Date
- Certification awarded
- Name and type of organization providing certificate

10-17/09/2021

### Public Speaking Course

University of Verona

- Date
- Certification awarded
- Name and type of organization providing certificate

10/05/2021

### Safety Course: Magnetic Resonance

University of Verona

- Date
- Certification awarded
- Name and type of organization providing certificate

10/5/2019

### Fire-Prevention Course

National Fire Brigade, Verona

- Date
- Certification awarded
- Name and type of organization providing certificate

17/10/2018

### CIRSAL Course for animal house facility

University of Verona

- Date
- Certification awarded
- Final mark
- Name and type of organization providing certificate

06/2015

### Certificate of License to practice as Freelance Biologist 177/200

University of Parma

- Dates (from – to)
- Certification awarded
- Name and type of organization providing certificate

08/08/2014 – 11/08/2014

### Certificate of “Prevention and Job Security General Training” Course (Module 1: General Training; Module 2: Specific Training: Low Risk; Module 3: Specific Training: Medium Risk)

University of Parma

- Date
- Certification awarded

31/05/2013

### Certificate of “Training and Information about workplace risks: Basics about security and health in workplace” Course

- Name and type of organization providing certificate  
University of Parma, Department of Biomedical, Biotechnological and Translational Science (S.Bi.Bi.T.)
- Date  
05/07/2017
- Certification awarded  
**Certificate of English Language, B2 Level (Cambridge)**
- Name and type of organization providing certificate  
Cambridge English, Language Assessment, Part of the University of Cambridge
- Date  
06/07/2017
- Certification awarded  
**Certificate of English Language, B2 Level (IELTS)**
- Name and type of organization providing certificate  
Cambridge English, Language Assessment, Part of the University of Cambridge
- Date  
01/08/2016
- Certification awarded  
**Certificate of English Language, C1 Level (CEFR)**
- Name and type of organization providing certificate  
Servizio Linguistico dell'Ateneo di Milano – SLAM

## PUBLICATIONS

1. Chiara Musiu<sup>1\*</sup>, Annalisa Adamo<sup>1\*</sup>, Simone Caligola<sup>1</sup>, **Cristina Frusteri<sup>1</sup>**, Francesca Lupo<sup>2</sup>, Federico Boschi<sup>3</sup>, Alice Busato<sup>4</sup>, Ornella Poffe<sup>1</sup>, Cristina Anselmi<sup>1</sup>, Antonio Vella<sup>1</sup>, Tian Wang<sup>1</sup>, Carmine Carbone<sup>5</sup>, Pasquina Marzola<sup>4</sup>, Mirko D'Onofrio<sup>6</sup>, Stefano Francesco Crinò<sup>7</sup>, Vincenzo Corbo<sup>2</sup>, Roberto Salvia<sup>6</sup>, Silvia Sartoris<sup>1</sup>, Claudio Bassi<sup>6</sup>, Vincenzo Bronte<sup>1</sup>, Ugel Stefano<sup>1#</sup>, Salvatore Paiella<sup>6§</sup>, Francesco De Sanctis<sup>1#§</sup>. **Local thermal ablation breaks immune tolerance in pancreatic cancer.** Manuscript in preparation.
2. Annalisa Adamo<sup>1\*</sup>, **Cristina Frusteri<sup>1\*</sup>**, Sara Pilotto<sup>2.#\*</sup>, Simone Caligola<sup>1\*</sup>, Lorenzo Belluomini<sup>2</sup>, Ornella Poffe<sup>1</sup>, Davide Rizzini<sup>1</sup>, Luca Giacobazzi<sup>1</sup>, Antonio Vella<sup>1</sup>, Stefania Canè<sup>1</sup>, Silvia Dusi<sup>1</sup>, Giulia Sartori<sup>2</sup>, Jessica Insolda<sup>2</sup>, Marco Sposito<sup>2</sup>, Ursula Cesta Incani<sup>2</sup>, Carmine Carbone<sup>3</sup>, Geny Piro<sup>3</sup>, Francesca Pettinella<sup>4</sup>, Silvia Sartoris<sup>1</sup>, Francesco De Sanctis<sup>1</sup>, Patrizia Scapini<sup>4</sup>, Stefano Dusi<sup>4</sup>, Marco Antonio Cassatella<sup>4</sup>, Emilio Bria<sup>3</sup>, Michele Milella<sup>1</sup>, Vincenzo Bronte<sup>5.†</sup> and Stefano Ugel<sup>1.†.#</sup>. **Immune checkpoint blockade therapy mitigates systemic inflammation and affects cellular FLIP-expressing monocytic myeloid-derived suppressor cells in non-progressor non-small cell lung cancer patients.** Under revision in Cancer Immunology Research.
3. Francesco De Sanctis<sup>1</sup>, Alessia LaMolinara<sup>2</sup>, Federico Boschi<sup>3</sup>, Chiara Musiu<sup>1</sup>, Simone Caligola<sup>1</sup>, Rosalinda Trovato<sup>1</sup>, Alessandra Fiore<sup>1</sup>, **Cristina Frusteri<sup>1</sup>**, Cristina Anselmi<sup>1</sup>, Ornella Poffe<sup>1</sup>, Tiziana Cestari<sup>1</sup>, Stefania Canè<sup>1</sup>, Silvia Sartoris<sup>1</sup>, Rosalba Giugno<sup>3</sup>, Giulia Del Rosario<sup>4</sup>, Barbara Zappacosta<sup>5</sup>, Francesco Del Pizzo<sup>6</sup>, Matteo Fassan<sup>7</sup>, Erica Dugnani<sup>8</sup>, Lorenzo Piemonti<sup>8-9</sup>, Salvatore Paiella<sup>10</sup>, Roberto Salvia<sup>10</sup>, Rita T. Lawlor<sup>11</sup>, Vincenzo Corbo<sup>12</sup>, Park Youngkyu<sup>13-14</sup>, David Tuveson<sup>13-14</sup>, Claudio Bassi<sup>10</sup>, Aldo Scarpa<sup>11-12</sup>, Manuela Iezzi<sup>2</sup>, Stefano Ugel<sup>1</sup> and Vincenzo Bronte<sup>1</sup>. **Breaking the nitrosative stress fuels antitumour function of antigen-specific cytotoxic T lymphocytes in pancreatic cancer.** GUT Journal. December 2021.
4. Chiara Musiu<sup>1,15</sup>, Simone Caligola<sup>1,15</sup>, Alessandra Fiore<sup>1,2,15</sup>, Alessia Lamolinara<sup>3</sup>, **Cristina Frusteri<sup>1</sup>**, Francesco Domenico Del Pizzo<sup>3</sup>, Francesco De Sanctis<sup>1</sup>, Stefania Canè<sup>1</sup>, Annalisa Adamo<sup>1</sup>, Francesca Hofer<sup>1</sup>, Roza Maria Barouni<sup>1</sup>, Andrea Grilli<sup>4</sup>, Serena Zilio<sup>5</sup>, Paolo Serafini<sup>5</sup>, Evelina Tacconelli<sup>6</sup>, Katia Donadello<sup>7</sup>, Leonardo Gottin<sup>7</sup>, Enrico Polati<sup>7</sup>, Domenico Girelli<sup>8</sup>, Ildo Polidoro<sup>9</sup>, Piera Amelia Iezzi<sup>9</sup>, Domenico Angelucci<sup>10</sup>, Andrea Capece<sup>10</sup>, Ying Chen<sup>11,12</sup>, Zheng-Li Shi<sup>11</sup>, Peter J. Murray<sup>2</sup>, Marco Chilosi<sup>13</sup>, Ido Amit<sup>14</sup>, Silvio Bicciato<sup>4</sup>, Manuela Iezzi<sup>3</sup>, Vincenzo Bronte<sup>1,16</sup> and Stefano Ugel<sup>1,16</sup>. **Fatal cytokine release syndrome by an aberrant FLIP/STAT3 axis.** Cell Death & Differentiation, September 2021.
5. Vincenzo Salemme<sup>1</sup>, Mauro Vedelago<sup>1</sup>, Alessandro Sarcinella<sup>1</sup>, Federico Moietta<sup>1</sup>, Enrico Moiso<sup>1,2,3</sup>, Giorgia Centonze<sup>1</sup>, Marta Manco<sup>1</sup>, Andrea Guala<sup>1</sup>, Alessia Lamolinara<sup>4</sup>, Costanza Angelini<sup>1</sup>, Alessandro Morellato<sup>1</sup>, Dora Natalini<sup>1</sup>, Raffaele Calogero<sup>1</sup>, Danny Incarnato<sup>5</sup>, Salvatore Oliviero<sup>6</sup>, Laura Conti<sup>1</sup>, Manuela Iezzi<sup>4</sup>, Daniela Tosoni<sup>7</sup>, Giovanni Bertalot<sup>7</sup>, Francesco De Santis<sup>8</sup>, **Cristina Frusteri<sup>8</sup>**, Stefano Ugel<sup>8</sup>, Vincenzo Bronte<sup>8</sup>, Federica Cavallo<sup>1</sup>, Paolo Provero<sup>9</sup>, Daniela Taverna<sup>1</sup>, Emilia Turco<sup>1</sup>, Salvatore Pece<sup>7,10\*</sup> and Paola Defilippi<sup>1</sup>. **The protein p140Cap imparts a protective immune response in the tumor**

microenvironment by reducing the cancer stem cell compartment through inhibition of the  $\beta$ -Catenin. Submitted in Cancer Cell.

6. Mia Aaboe Jørgensen<sup>1</sup>, Stefano Ugel<sup>2</sup>, Mie Linder Hübbe<sup>1</sup>, Marco Caretta<sup>1</sup>, María Perez Penco<sup>1</sup>, Stine Emilie Weis-Banke<sup>1</sup>, Evelina Martinenaite<sup>1,3</sup>, Katharina Kopp<sup>3</sup>, Marion Chapellier<sup>3</sup>, Annalisa Adamo<sup>2</sup>, Francesco De Sanctis<sup>2</sup>, **Cristina Frusteri**<sup>2</sup>, Manuela Iezzi<sup>5</sup>, Mai-Britt Zocca<sup>3</sup>, Daniel Hargbøl Madsen<sup>1</sup>, Ayako Wakatsuki Pedersen<sup>3</sup>, Vincenzo Bronte<sup>2</sup> §, Mads Hald Andersen<sup>1,3,4</sup>. **Arginase 1-based immune modulatory vaccines shows anti-cancer immunity in synergy with anti-PD-1 checkpoint blockade.** Cancer Immunology research, September 2021.
7. Annalisa Adamo\*, **Cristina Frusteri**\*, Maria Teresa Pallotta; Tracey Pirali, Silvia Sartoris and Stefano Ugel. **Moonlighting proteins are important players in cancer immunology.** Frontiers in Immunology, January 2021.
8. Johanna Sophie Alfen<sup>1\*</sup>, Paola Larghi<sup>1,2\*</sup>, Federica Facciotti<sup>1\*</sup>, Nicola Gagliani<sup>3,4\*</sup>, Roberto Bosotti<sup>1</sup>, Moira Paroni<sup>1</sup>, Stefano Maglie<sup>1</sup>, Paola Guarin<sup>1</sup>, C. M. Vasco<sup>1</sup>, V. Ranzani<sup>1</sup>, **Cristina Frusteri**<sup>6</sup>, Andrea Iseppon<sup>4</sup>, Monica Moro<sup>1</sup>, Maria Cristina Crosti<sup>1</sup>, Stefano Gatti<sup>5</sup>, Massimiliano Pagani<sup>1,5</sup>, Flavio Caprioli<sup>2,6,7</sup>, Sergio Abrignani<sup>1,7</sup>, Richard A. Flavell<sup>4,8</sup> and Jens Geginat<sup>1</sup>. **Intestinal IFN-g-producing Tr1-cells co-express CCR5 and PD-1, and down-regulate IL-10 in the inflamed gut of IBD patients.** Journal of Allergy and clinical Immunology, January 2018.

#### CONGRESSES

##### PRESENTATION AND POSTER:

- Date (from – to) 5-8<sup>th</sup> September, 2022
- Name and type of Conference **CIMT, Academy of Translational Cancer Immunology, Summer School;** Illasi, Italy
  
- Date (from – to) 26-28<sup>th</sup> September, 2022
- Name and type of Conference **21<sup>st</sup> International Conference on Progress Vaccination Against Cancer (PIVAC22);** Molecular Biotechnology Center, Turin, Italy
  
- Date (from – to) 13-15<sup>th</sup> October, 2022
- Name and type of Conference **XX NIBIT Annual Meeting, Translating knowledge into the clinic;** Padova, Italy

#### REFERENCES:

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Verona, 24/10/2022

Signature

*Cristina Frusteri*