

Federico Stella, MD

Date of birth: 01/09/1996 | **Place of birth:** Varese, Italy | **Nationality:** Italian | **Sex:** Male | **Phone:** (+39) | **Email:** | **Email:** |

Address:

● EDUCATION AND TRAINING

2021 – CURRENT Milan, Italy

RESIDENT DOCTOR IN HAEMATOLOGY (IV YEAR) University of Milan

2015 – 2021 Milan, Italy

MEDICINE AND SURGERY University of Milan

Final grade 110/110 Cum laude |

Thesis CAR T-cells are an effective salvage treatment in relapsed/refractory Primary Mediastinal B-cell Lymphoma

2019 – 2021 Milan, Italy

VIRGILIO PROGRAM: EXCELLENCE IN RESEARCH TRACK. University of Milan, Humanitas University and University of Milan Bicocca

A pre-graduate program for training medical students as physician scientists

2010 – 2015 Varese, Italy

SCIENTIFIC DEGREE Liceo Scientifico Edith Stein

● WORK EXPERIENCE

 **UNIVERSITY OF PENNSYLVANIA - CENTER FOR CELLULAR IMMUNOTHERAPY** – PHILADELPHIA, UNITED STATES
VISITING RESEARCH FELLOW – 10/2024 – CURRENT

Department of Medicine, Division of Hematology Oncology - Perelman Center for Advanced Medicine – Center for Cellular Immunotherapies (Prof. Carl H. June) – Ruella Lab (Prof. Marco Ruella)

During my fellowship in the Ruella Lab, I markedly accelerated my development as a physician-scientist. I achieved full autonomy in the laboratory, completing all required specialized training and certifications, and independently performed the entire CAR T-cell production workflow (from plasmid design and amplification to viral production and cell expansion). I also applied CRISPR-Cas9-based gene editing and conducted in-depth studies of CAR T-cell biology, including proliferation, killing, cytokine secretion, and avidity assays.

In parallel, I consolidated my independence in the design and execution of correlative studies, acquiring advanced expertise in spectral flow cytometry and high-dimensional bioinformatic analyses.

From the clinical side, my training was further enriched by shadowing activities in the Division of Hematology and Oncology dedicated to cellular therapies at the Hospital of the University of Pennsylvania, which broadened my knowledge of clinical practice and patient management in the field of onco-hematology and cellular immunotherapy.

 **UNIVERSITY OF MILAN - FONDAZIONE IRCCS ISTITUTO NAZIONALE DEI TUMORI** – MILAN, ITALY
RESIDENT DOCTOR – 11/2023 – 09/2024

Department of Hematology and Bone Marrow Transplantation
&

Laboratory of Hematology and Bone Marrow Transplantation

Areas of interest: CAR T-cells therapy in Non-Hodgkin Lymphomas (NHL) and multiple myeloma (MM), autologous transplantation in NHL, Hodgkin Lymphomas and MM, allogeneic transplantation in NHL, MM, acute myeloid leukemias and myelodysplastic syndromes.

The combined period of clinical and laboratory experience has been invaluable in my training as a physician scientist, as it allowed me to translate clinical questions arising at the patient's bedside into scientific inquiries which I sought to answer at the laboratory bench. Clinically, I managed patients admitted for immunochemotherapy, CAR T-cell therapy, autologous and allogeneic stem cell transplantation under supervised autonomy. From a laboratory perspective, during this period, I

augmented my skills in flow cytometry (see below) with the ability to independently perform Next Generation Sequencing (from DNA extraction to library preparation and sequencing) experiments for liquid biopsy and monitoring minimal residual disease in patients undergoing CAR T-cell therapy.

The opportunity to present clinical cases in weekly multidisciplinary meetings and to participate in laboratory meetings has been important in developing my scientific communication skills.

UNIVERSITY OF MILAN - FONDAZIONE IRCCS ISTITUTO NAZIONALE DEI TUMORI

RESIDENT DOCTOR – 08/2023 – 10/2023

Ambulatory: multiple myeloma and plasma cell disorders

Area of interest: multiple myeloma, bispecific antibodies, CAR T-cells

I learned both the most modern standard-of-care treatment regimens and the management of patients within clinical research protocols involving innovative treatments such as bispecific antibodies and CAR T-cells.

UNIVERSITY OF MILAN - IRCCS, CÀ GRANDA OSPEDALE MAGGIORE POLICLINICO – MILAN, ITALY

RESIDENT DOCTOR – 05/2023 – 07/2023

Internal Medicine Rotation: department of hemostasis and thrombosis

Management of hospitalized patients with general internal medicine issues, with a preference for patients suffering from hemorrhagic or thrombotic disorders (congenital or acquired hemophilia, congenital or acquired thrombophilia, deep vein thrombosis, pulmonary embolism).

UNIVERSITY OF MILAN - IRCCS, CÀ GRANDA OSPEDALE MAGGIORE POLICLINICO – MILAN, ITALY

RESIDENT DOCTOR – 11/2022 – 04/2023

Department of Hematology

Management of onco-hematologic patients with acute lymphoblastic or myeloblastic leukemia, both within the context of cooperative group clinical protocols and standard-of-care treatments.

UNIVERSITY OF MILAN - IRCCS, CÀ GRANDA OSPEDALE MAGGIORE POLICLINICO – MILAN, ITALY

RESIDENT DOCTOR – 08/2022 – 10/2022

Department of Transfusional medicine

Transfusion medicine: from screening blood donors to performing stem cell apheresis, leukapheresis, and plasmapheresis procedures (supervised autonomy).

UNIVERSITY OF MILAN - IRCCS, CÀ GRANDA OSPEDALE MAGGIORE POLICLINICO – MILAN, ITALY

RESIDENT DOCTOR – 05/2022 – 07/2022

Department of Hemostasis and thrombosis

Outpatients management of hemorrhagic and thrombotic disorders (congenital or acquired hemophilia, congenital or acquired thrombophilia, deep vein thrombosis, pulmonary embolism).

UNIVERSITY OF MILAN - FONDAZIONE IRCCS ISTITUTO NAZIONALE DEI TUMORI – MILAN, ITALY

RESIDENT DOCTOR – 11/2021 – 04/2022

Department of Hematology and Bone Marrow Transplantation

&

Laboratory of Hematology and Bone Marrow Transplantation

Areas of interest: CAR T-cells therapy in Non-Hodgkin Lymphomas (NHL) and multiple myeloma (MM), autologous transplantation in NHL, Hodgkin Lymphomas and MM, allogeneic transplantation in NHL, MM, acute myeloid leukemias and myelodysplastic syndromes.

Combined period of clinical and laboratory experience (see above). Clinically, I assisted and observed senior colleagues taking care of patients admitted for immunochemotherapy, CAR T-cell therapy, autologous and allogeneic stem cell transplantation under. From a laboratory perspective, during this period, I acquired skills in flow cytometry in particular the extended immunophenotyping of CAR T-cells for in vivo monitoring and immunophenotyping of leukapheresis material.

 – BESOZZO, ITALY

PUBLICATIONS

- 1. Monfrini C*, Stella F* (*co-first), Aragona V, et al. Phenotypic composition of commercial anti-CD19 CAR T cells affects in vivo expansion and disease response in patients with large B-cell lymphoma. Clin Cancer Res. 2022;OF1–OF9. doi:10.1158/1078-0432.CCR-22-0164**
- 2. Stella F, Marasco V, Levati GV, Guidetti A, De Filippo A, Pennisi M, et al. Nonrestrictive diet does not increase infections during post-HSCT neutropenia: Data from a multicenter randomized trial. Blood Adv. 2023;bloodadvances.2023010348. doi:10.1182/bloodadvances.2023010348**
- 3. Carniti C, Caldarelli N, Agnelli L, Torelli T, Ljevar S, Jonnalagadda S, Stella F et al. Monocytes in leukapheresis products affect the outcome of CD19-targeted CAR T-cell therapy in lymphoma. Blood Adv. 2024;15 Feb:bloodadvances.2024012563. doi:10.1182/bloodadvances.2024012563. PMID: 38359407**
- 4. Stella F, Chiappella A, Casadei B, Bramanti S, Ljevar S, Chiusolo P, et al. A multicenter real-life prospective study of axicabtagene ciloleucel versus tisagenlecleucel toxicity and outcomes in large B-cell lymphomas. Blood Cancer Discov. 2024 Jul 2. doi:10.1158/2643-3230.BCD-24-0052. PMID: 38953781**
- 5. Stella F, Chiappella A, Magni M, Bonifazi F, Carniti C, Corradini P, et al. Brexucabtagene autoleucel in-vivo expansion and BTKi refractoriness have a negative influence on progression-free survival in mantle cell lymphoma: Results from the CART-SIE study. Br J Haematol. 2024;00:1–8. doi:10.1111/bjh.19961**
- 6. Stella F, Pennisi M, Chiappella A, Corradini P, et al. Prospective validation of CAR-HEMATOTOX and a simplified version predict survival in patients with large B-cell lymphoma treated with anti-CD19 CAR T cells: Data from the CART-SIE study. Transplant Cell Ther. 2025. doi:10.1016/j.jtct.2025.01.888**
- 7. Magni M, Jonnalagadda S, Bonifazi F, Bonafé M, Ljevar S, Zanirato G, Stella F et al. Chimeric antigen receptor T-cell expansion and systemic inflammation: Diverging impacts on large B-cell lymphoma therapy in the multicenter CART-SIE study. Haematologica. 2025. doi:10.3324/haematol.2025.287528**
- 8. Paruzzo L, Eshaghi K, Ghilardi G, Doucette A, Ho M, Carturan A, Vogl DT, Waxman AJ, Kapur S, Fardella E, Pucillo M, Imparato A, Stella F et al: Access and Outcomes of Minority Health Populations Receiving Commercial Anti-BCMA CAR-T for Myeloma. Blood ICT 2025, doi.org/10.1016/j.bict.2025.100007**
- 9. Barone A, De Philippis C, Stella F, et al. Allogeneic transplantation after failure of CAR-T cells and exposure to bispecific antibodies: feasibility, safety and survival outcomes. Br J Haematol. 2025; 00: 1–9. <https://doi.org/10.1111/bjh.70010>**
- 10. Dodero A, Ceparano G, Casadei B, Angelillo P, Bramanti S, Tisi MC, Ljevar S, Stella F et al. Outcomes of CAR T-cells therapy in High-grade B-cell lymphomas compared to DLBCL: a weighted comparison analysis. Blood Adv 2025; doi: <https://doi.org/10.1182/bloodadvances.2025016117>**

● HONOURS AND AWARDS

European Hematology Association (EHA): awarded with a travel grant and complimentary registration for the EHA2024

American Society for Transplantation and Cellular Therapy (ASTCT): selected for the Translational Science Training Course 2025

Premio Fondazione Beretta 2025 per lo studio e la cura dei tumori

● PUBLICATIONS - ORAL OR POSTER PRESENTATIONS

1. Carniti C, Monfrini C, Aragona V, F. Stella, P.Corradini et al. Tisagenlecleucel and Axicabtagene Ciloleucel Expansion Kinetics and CAR T Cell Attributes in the Infusion Products Are Early Predictors of Clinical Efficacy. Blood. 2021;138(Supplement 1):3877-3877. doi:10.1182/blood-2021-152309

2. F.Stella, V.Marasco, G. Levati, P.Corradini et al. S241: Non-restrictive diet does not increase gastrointestinal infections and febrile neutropenia in patients with neutropenia after stem cell transplantation: data from a multicentre, randomized trial. Oral presentation EHA2022 - HemaSphere: June 2022 - Volume 6 - Issue - p 142-143 doi: 10.1097/01.HS9.0000843856.48795.8b

3. F.Stella, V. Marasco, G. Levati, P. Corradini et al. C036: Non-restrictive diet does not increase gastrointestinal infections and febrile neutropenia in patients with neutropenia after stem cell transplantation: results from neutrodiet multicentre phase iii trial. Oral presentation SIE2022

4. F.Stella, V.Marasco, G.Levati, P.Corradini et al. Non-Restrictive Diet Does Not Increase Infections in Patients with Neutropenia after Stem Cell Transplantation: Final Analysis of the Neutrodiet Multicenter, Randomized Trial. Oral presentation ASH2022 - Blood 2022; 140 (Supplement 1): 417–419. doi: <https://doi.org/10.1182/blood-2022-158662>

5. F.Stella, A.Chiappella, P.Corradini et al. After propensity score weighting axicabtagene ciloleucel confer superior progression-free survival compared to tisagenlecleucel in large b-cell lymphomas: final results of the italian cart-sie study. Poster presentation EHA2024 EHA Library. Stella F. 06/13/2024;419544; P1457

6. F.Stella, A.Chiappella, P.Corradini et al. CAR-HEMATOTOX score predicts overall survival in large b-cell lymphomas treated with anti-cd19 car t-cells: a subgroup analysis of cart-sie. Poster presentation EHA2024 EHA Library. Stella F. 06/13/2024;419533; P1446

7. F.Stella, A.Chiappella, P.Corradini et al. Lo score CAR-HEMATOTOX predice la sopravvivenza nei linfomi a grandi cellule b trattati con car t-cells anti-cd19: risultati di una sottoanalisi del cart-sie. Plenary Oral presentation SIE2024, 23/09/2024; abstrac n°162, B06

● CONFERENCES & SEMINARS

Post-American Society of Hematology (ASH) Congress – Genova, February 2022 (Auditory)

European Haematology Association (EHA) 2022 Congress – Wien, June 2022 (Oral presentation)

Società Italiana di Ematologia (SIE) 2022 Congress – Rome, September 2022 (Oral presentation)

American Society of Hematology (ASH) 2022 Congress – New Orleans, Dec. 2022 (Oral presentation)

Post-American Society of Hematology (ASH) Congress – Milan, February 2023 (Auditory)

T-cell and NK-cell based immunotherapies for Lymphoid Malignancies – Milan, September 2023

Progressi in Ematologia: I Giovani come Protagonisti – Naples, June 2023 (Auditory)

- Società Italiana di Ematologia (SIE) 2023 Congress – Rome, September 2023 (Auditory)
- New Drugs in Hematology Congress – Bologna, January 2024 (Auditory)
- Post-American Society of Hematology (ASH) Congress – Verona, February 2024 (Auditory)
- European Haematology Association (EHA) 2024 Congress – Madrid, June 2024 (Poster presentation)
- T-cell and NK-cell based immunotherapies for Lymphoid Malignancies – Bologna, September 2024
- Società Italiana di Ematologia (SIE) 2024 Congress – Milan, September 2024 (Plenary Oral Presentation)

● NETWORKS & MEMBERSHIPS

- Società Italiana Ematologia (SIE)
- European Hematology Association (EHA)
- American Society for Transplantation and Cellular Therapy (ASTCT)
- American Society of Hematology (ASH)

● EDITORIAL AND PEER REVIEW ACTIVITIES

- Peer Review Activity for: Wiley (HemaSphere), Springer Nature (Scientific Reports), Taylor and Francis (Cancer Investigation)

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---------|---------------|---------|-------------------|--------------------|---------|
| | Listening | Reading | Spoken production | Spoken interaction | |
| ENGLISH | C1 | C1 | C1 | C1 | C1 |
| FRENCH | A1 | A1 | A1 | A1 | A1 |
| SPANISH | A1 | A1 | A1 | A1 | A1 |

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

● CERTIFICATIONS

- Basic life support (BLS) - University of Milan
- CITI Human Research (Biomedical Research) 1 - Basic Course. Record ID: 65663484
- CITI Good Clinical Practice 1 - Basic Course. Record ID: 65663485
- CITI Biomedical Responsible Conduct of Research 1 – Basic Course. Record ID: 65663487

● TEACHING ACTIVITIES

- Tutoring of medical students at University of Milan involved in clinical rotations.
- CORSO-SEMINARIO “Masterclass in onco-hematologyY”, Accademia Nazionale Medicina, Milano 26-27/09/2023

● **INFORMATIC SKILLS**

Proficient in Microsoft Office Suite.

Extensive experience in database management using Excel and RedCap, with a focus on organizing and analyzing complex datasets.

Statistical analysis using GraphPad Prism and R, including univariate analyses (such as t-tests, Mann-Whitney tests, and Wilcoxon tests), multivariate analyses (logistic regression) and survival analysis techniques (Kaplan-Meier curves, log-rank tests, and Mantel-Cox tests).

Flow cytometry data interpretation (SpectroFlow, FloJo and R).

Proficient in creating high-quality scientific figures, graphical abstracts, and presentation materials using Adobe Illustrator.

● **LAB SKILLS**

Flow-cytometry: Extended immunophenotyping of CAR T-cells for in vivo monitoring, immunophenotyping of leukapheresis material.

Next-generation sequencing: from DNA/RNA extraction to library preparation and sequencing.

Cell-culture: CAR T-cell production, spanning plasmid amplification, lentivirus preparation, and T-cell expansion.

Gene editing: performing knockouts using CRISPR-Cas9.

Specific trainings: Protecting Patient Information (HIPAA) (UPHS), Bloodborne Pathogens, Laboratory and Biological Safety (EHRs), Species-specific Hands-On training Mouse.

Biobanking.

● **OTHER**

ORCID: <https://orcid.org/0000-0003-3401-1309>

Scopus ID: 57835270400

Google Scholar: <https://scholar.google.com/citations?user=DnAPbn8AAAAJ&hl=en>

Author h-index (Scopus) = 4

Federico Stella, MD

Philadelphia, Pennsylvania (USA) , 21/09/2025



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