



Stefania Braidotti, PhD

WORK EXPERIENCE

Postdoctoral Research Fellow

Institute for Maternal and Child Health IRCCS Burlo Garofolo [01/02/2023 – Current]

Address: Via dell'Istria, 65/1, 34137 Trieste (Italy)

City: Trieste

Country: Italy

Website: www.burlo.trieste.it

Email address: stefania.braidotti@burlo.trieste.it

Name of unit or department: Department of Pediatrics, Oncohematology - **Business or sector:** Human health and social work activities

Research activity focused on oncology, hematology and cancer immunotherapy

Biologist

Policlinico Triestino S.p.A. [01/2022 – 06/2022]

Address: Trieste (Italy)

City: Trieste

Country: Italy

Name of unit or department: Policlinico Triestino S.p.A. - **Business or sector:** Human health and social work activities

Responsability in COVID-19 vaccine storage, handling and preparation.

EDUCATION AND TRAINING

PhD Program in Reproduction and Developmental Sciences

University of Trieste, Department of Medical Sciences [01/11/2019 – 24/03/2023]

Address: Trieste (Italy)

Field(s) of study: Pharmacology and personalized medicine

Level in EQF: EQF level 8

National classification: PhD

Thesis: Precision therapy for kinase-mediated autoimmune diseases: development of an in vitro system for diagnosis and clinical monitoring

PhD research program focuses on both basic and translational aspects of the pharmacology of innovative drugs (tyrosine kinase inhibitors).

The research interests are focused on the identification and study of the molecular and cellular characteristics that can be used to personalize therapy in pediatric patients affected by inflammatory, leukemic and neuro- autoimmune disorders.

The basic purpose is to perform in vitro pharmacology and molecular studies, development and establishment cell-based assays to evaluate mechanisms of action as drug screening and promising therapeutic solution.

5TH INTERNATIONAL DOCTORAL SUMMER SCHOOL

INSTITUTE OF EDUCATIONAL RESEARCH, EDUCATION ACADEMY, VYTAUTAS MAGNUS UNIVERSITY, KAUNAS, LITHUANIA [17/08/2022 – 19/08/2022]

Address: Online Edition,

Field(s) of study: "Being Strong in Research Methodology in a Sustainable World"

Master's Degree: Master of Science in Medical Biotechnology
University of Trieste, Department of Life Sciences [2017 – 2019]

Address: Trieste (Italy)

Field(s) of study: Pharmacology and Pharmacogenomics

Level in EQF: EQF level 7

National classification: Master degree

Thesis: Experimental Thesis: Title: Pharmacological strategies for *in vitro* evaluation of innovative drugs in the treatment of pediatric acute lymphoblastic leukemia (110/110).

Thesis training had several objectives. The initial one was to develop an *in vitro* assay to measure aberrant ABL1 kinase activity in patients' cells. The long-term goal was to develop a point-of-care device for diagnosis and clinical monitoring, for kinase inhibitors screening. The last one was development of an *in vitro* system to quantify the activity of blinatumomab and to evaluate its predictive effect on clinical response.

Bachelor's Degree: Medical Radiology Techniques, Imaging and Radiotherapy
University of Trieste, Department of Medical Sciences [2012 – 2015]

Address: Trieste (Italy)

Level in EQF: EQF level 6

National classification: Bachelor's Degree

Thesis: Experimental Thesis

Title: MRI for the study of the prostate: technique and sequences optimization (106/110).

High school leaving qualification in scientific studies
Liceo Scientifico Guglielmo Oberdan [2007 – 2011]

Address: Trieste (Italy)

Level in EQF: EQF level 5

National classification: High school qualification

PROFESSIONAL SKILLS

Professional skills

- Mammalian cell culture and primary cell culture of leukemic blasts, PBMCs;
- PBMC purification from blood/bone marrow aspirates, and B/T-lymphocytes purification;
- iPSC (induced pluripotent stem cell) culture and differentiation;
- NSC (neural stem cell) culture and differentiation;
- Protein, RNA and DNA extraction from cultured cells and primary cells;
- Functional Assays (ELISA assays);
- Cytotoxicity (MTT assay) and proliferation assays (3H thymidine incorporation assay)
- Western Blot, Dot blot, PCR and Real-Time qPCR (SNP genotyping, copy number assays, gene expression);
- Cell cycle analysis (with propidium iodide);

Personal skills

- Strong 4-years experience of lab-working with excellent ability in design, supervision, planning as well as the execution of experiments and interpret results in biological-pharmacological field;
- Creative scientific mindset supported by excellent qualifications;
- Pro-positive attitude to work with an experimental design know-how;
- Ability to work independently but also in team;
- Attitude in manage multiple projects;
- Strong communication and presentation skills;
- Adaptability, motivation, problem-solving, and analytical skills

DIGITAL SKILLS

Microsoft office (Outlook, Word, Excel, PowerPoint, Publisher, Access, Teams) / Zoom / Skype / Google Drive / Google Docs / Microsoft Office 365 / Zootero / Endnote X9 / GraphPad PRISM / Image J/Fiji / ChemiDoc Imaging Systems / BioRad CFX / basic photo editing (GIMP) / Bio-Rad Image Lab

LANGUAGE SKILLS

Mother tongue(s): **Italian**

Other language(s):

English

LISTENING B1 READING B2 WRITING B2

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

PUBLICATIONS

[Cytofluorimetric assay to investigate variability in blinatumomab in vitro response.](#)

[2021]

Invited Original Article

Stefania Braidotti, Raffaella Franca, Marilena Granzotto, Elisa Piscianz, Alberto Tommasini, Marco Rabusin, Gabriele Stocco, Giuliana Decorti. **Cytofluorimetric assay to investigate variability in blinatumomab in vitro response.** Front. Biosci. (Landmark Ed) 2022, 27(2), 39.

[A novel ELISA-based peptide biosensor assay for screening ABL1 activity in vitro: a challenge for precision therapy in BCR-ABL1 and BCR-ABL1 like leukemias.](#)

[2021]

Invited Original Article

Oksana Montecchini, **Stefania Braidotti**, Raffaella Franca, Giulia Zudeh, Christian Boni, Claudio Sorio, Eleonora Toffoletti, Marco Rabusin, Alberto Tommasini, Giuliana Decorti, Gabriele Stocco, **A novel ELISA-based peptide biosensor assay for screening ABL1 activity in vitro: a challenge for precision therapy in BCR-ABL1 and BCR-ABL1 like leukemias**, Original Article (Invited), Frontiers in Pharmacology, (2021) DOI: 10.3389/fphar.2021.749361

[Understanding thiopurine methyltransferase polymorphisms for the targeted treatment of hematologic malignancies.](#)

[2021]

Invited Expert Opinion

Raffaella Franca, **Stefania Braidotti**, Gabriele Stocco & Giuliana Decorti, **Understanding thiopurine methyltransferase polymorphisms for the targeted treatment of hematologic malignancies**, Expert Opinion on Drug Metabolism & Toxicology (Invited), (2021), DOI: 10.1080/17425255.2021.1974398

[Cytofluorimetric assay to investigate interpatient variability on blinatumomab response: an in vitro proof-of-concept.](#)

[2021]

Abstract Publication

Stefania Braidotti, Marilena Granzotto, Elisa Piscianz, Alessia Di Silvestre, Marco Rabusin, Gabriele Stocco, Raffaella Franca, Giuliana Decorti, **Cytofluorimetric assay to investigate interpatient variability on blinatumomab response: an in vitro proof-of-concept**, Pharmadvances (Abstract publication) Volume 3, issue 1, 2021, DOI: 10.36118/pharmadvances.03.2021.01

CONFERENCES AND SEMINARS

Participation in national and international conferences starting from 2019

HONOURS AND AWARDS

Best Poster Awards

[2021]

Winners of the best poster awards at **40th National Congress of the SIF** (March, 9-13 2021). Title: "*Cytofluorimetric assay to investigate interpatient variability on blinatumomab response: an in vitro proof-of-concept*"

Abstract Selection

[2021]

Selection of the abstract entitled "*Cytofluorimetric assay to investigate interpatient variability on blinatumomab response: an in vitro proof-of-concept*" as ePoster presentation at the **40th National Congress of the SIF** (March, 9-13 2021).

Abstract Selection

[2021]

selection of the abstract entitled "*Cytofluorimetric assay to investigate interpatient variability on blinatumomab response: an in vitro proof-of-concept*" as ePoster presentation at the American Society for Clinical Pharmacology and Therapeutics (**ASCPT Annual Meeting**) (March 8-17, 2021).

VOLUNTEERING

Volunteer at Molecular Pharmaceutics and Pharmacogenomics Laboratory

[Fondazione Callerio ONLUS, Department of Life Sciences - University of Trieste, 20/07/2019 – 31/10/2019]

SCIENTIFIC SOCIETIES

Member of the Italian Society of Pharmacology (SIF)

[2019 – Current]

Student/Trainee Member of the American Society for Clinical Pharmacology and Therapeutics (ASCPT)

[2021 – Current]

Member of the Society for Immunotherapy of Cancer

[2023 – Current]

Member of the Italian Society of Hematology (SIE)

[2023 – Current]

OTHER PUBLICATIONS

Publications for the SIF Pharmacogenetics newsletter of the Italian Society of Pharmacology:

[2020 – Current]

Massively parallel variant characterization identifies NUDT15 alleles associated with thiopurine toxicity (n. 128 - May 2020);

Effect of *SLCO1B1* Polymorphisms on High-Dose Methotrexate Clearance in Children and Young Adults With Leukemia and Lymphoblastic Lymphoma (n. 133 - November 2020);

Hepatic sinusoidal obstruction syndrome and short-term application of 6-thioguanine in pediatric acute lymphoblastic leukemia (n.138 - April 2021);

Influence of genetic variants in asparaginase pathway on the susceptibility to asparaginase-related toxicity and patients' outcome in childhood acute lymphoblastic leukemia (n.142 - September 2021);

The influence of MTHFR genetic polymorphisms on methotrexate therapy in pediatric acute lymphoblastic leukemia (n. 145 - December 2021).

Evaluation of cytogenetic and molecular markers with MTX-mediated toxicity in pediatric acute lymphoblastic leukemia patients (n.149 - April 2022).

Genetic Polymorphisms Associated with Vincristine Pharmacokinetics and Vincristine-Induced Peripheral Neuropathy in Pediatric Oncology Patients (n. 153 - September 2022)

THESIS CO-SUPERVISOR

Thesis co-supervisor

Thesis co-supervisor in Pharmacology and Pharmacotherapy experimental thesis "In vitro effects of tyrosine kinase inhibitors in immortalized human leukemic cell lines: cytotoxicity and phosphorylation of a biosensor peptide" (2021).

Thesis co-supervisor in Sciences in Medical Biotechnology experimental thesis: "Precision therapy in oncohematological diseases: development of an *in vitro* system to measure the kinase activity of JAK2" (2021).

Thesis co-supervisor in Sciences in Medical Biotechnology experimental thesis: "Precision therapy with tyrosine kinase inhibitors in oncohematological diseases: optimization of peptide-based biosensor assay" (2022).

Thesis co-supervisor in Sciences in Medical Biotechnology experimental thesis: "Patient-specific induced pluripotent stem cells and derived-neural stem cells as an *in vitro* model for primary immunodeficiencies" (2022).

Thesis co-supervisor in Biological Sciences and Technologies experimental thesis: "Role of GST gene polymorphisms in the onset of SOS/VOD in pediatric patients undergoing hematopoietic stem cell transplantation" (2022).

ACHIEVEMENT OF THE PROFESSIONAL LICENCE

Biologist

[2022 – Current]

Admitted to the profession of Biologist, Section A (State examination of professional abilitation).