

**FORMATO EUROPEO
PER IL CURRICULUM
VITAE**



INFORMAZIONI PERSONALI

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WORK EXPERIENCE

- Date JANUARY 2015
- Occupation or position held Post-doc
- Name and type of organisation Stem Cell Research Laboratory and Diagnostic Laboratory, Section of Hematology, University of Verona, Section of Hematology, Department of Medicine, University of Verona. Policlinico 'G.B. Rossi', P.le L.A. Scuro 10, 37134
- Name of employer Prof. Mauro Kramer

RESEARCH ACTIVITIES

The scientific activity is currently carried out at Stem Cell Research Laboratory, Section of Hematology, University of Verona. Since January 2012, I am involved in different research projects focusing on study of Stem Cells, including:

- Project financed by CARIVERONA Foundation based on the study of bone marrow-derived mesenchymal stem cell use (BM-MSCs) for bone and corneal regeneration and Graft-versus-Host Disease (GvHD) immunotherapy following hematopoietic stem cell transplantation".
- Immunological characterization of Mesenchymal Stromal/Stem Cell (MSC) secretoma, focus on proteomic and genomic analysis of Extracellular Vesicles and on their regenerative and immunomodulatory capabilities.
- Comparison of the immune regulatory properties of bone marrow mesenchymal stromal cells (BM-MSC), olfactory ectomesenchymal stem cells (OE-MSC), leptomeningeal stem cells (LeSC), and three different c-Kit-positive SC types, that is, amniotic fluid stem cells (AFS), cardiac and lung stem cells (CSC and LSC), in view of possible clinical applications in autoimmune and degenerative diseases.
- Project focus on the study of immunological properties of AFS from different gestational age in view to identify novel therapeutic approaches for the treatment of inflammatory diseases.

- 7TH Framework Programme on Research, Technological Development and Demonstration of European Commission REBORNE (Regenerating Bone defects using New biomedical Engineering approaches). The aim of the project is develop clinical trial of MSC-based therapy for bone regeneration, using biomaterials as scaffold for stem cells. Particular attention has been focused on the immunological study of MSCs obtained from bone marrow, adipose tissue and cord blood in presence or not of biomaterial hydroxyapatite and tricalcium-phosphate (HA/TCP).

DIAGNOSTIC ACTIVITIES

The diagnostic activity is conducted at Diagnostic Laboratory, Section of Hematology, University of Verona, where I'm involved in the immunophenotypic diagnosis, classification and monitoring of hematological malignancies, including:

- Lymphoid precursor neoplasms (B- and T-cell precursor acute lymphoblastic leukemia/lymphoma)
- Acute Myeloid Leukemia
- B-, T- and NK-cell lymphoproliferative diseases
- Plasma cell disorders
- Paroxysmal nocturnal hemoglobinuria
- Systemic Mastocytosis

OTHER ACTIVITIES

Scientific referee for Tissue Engineering, Immunological Letters and Scientific Reports

EDUCATION AND TRAINING

- Date (from – to) JANUARY 2012 - DECEMBER 2014
 - Title of qualification awarded Ph.D. in Stem Cells research at University of Verona. Title of Ph.D. thesis “Comparative study of immune regulatory properties of stem cells derived from different tissues”.
 - Name and type of organization LURM (Laboratori Universitari Ricerca Medica), Section of Hematology, Department of Medicine, University of Verona.
Policlinico ‘G.B. Rossi’, P.le L.A. Scuro 10, 37134
 - Date (from – to) AUGUST 2011
 - Title of qualification awarded Professional qualification as Chartered Biologist
 - Name and type of organization University of Palermo
 - Date (from – to) NOVEMBER 2008 - MARCH 2011
 - Title of qualification awarded Master degree in Cellular and Molecular Biology
 - Level in national classification 110/110 cum laude
 - Name and type of organization University of Palermo
- Traineeship at University of Palermo, Department of Cellular and Developmental Biology, where I worked with stem cells and extracellular vesicles. Title of thesis “Regulation mechanisms of metalloproteinase by HSP70 in mouse mesoangioblasts”.

- Principal subjects/occupational skills covered Functional Genomic, Biochemistry Mechanisms, Molecular Genetic, Cellular Biology, Virology, Biophysics, Bioinformatics, Genetics of micro-organisms, Embryology of experimental models.
- Date (from – to) MARCH 2008
- Title of qualification awarded Bachelor's degree in Biological Science at University of Palermo
- Principal subjects/occupational skills covered Biochemistry, Genetic, Molecular Biology, Physiology, Oncology, Cytogenetic, Immunology, Applied Microbiology, Biochemical Methods, Recombinant Technology, Molecular Genetics. Laboratory in : Biochemistry Method, Molecular Method, Genetic and Microbiological.

PERSONAL SKILLS AND COMPETENCES

- MOTHER TOUNGE **ITALIAN**
- OTHER LANGUAGES **ENGLISH**
- Reading skills GOOD
 - Writing skills GOOD
 - Verbal skills GOOD

SOCIAL SKILLS AND COMPETENCES

The course of my study is mainly based on laboratory activities that require collaboration between multiple people. This enabled me to learn the right skills to get good cooperation and a faster and secure reaching of objectives. Creed of being an efficient person, open to the dialogue, tolerant to stress, in a position to have relationships with the next one.

ORGANIZATION SKILLS

Excellent, acquired during my work experiences.

TECHNICAL SKILLS AND COMPETENCES

BIOLOGICAL ENVIRONMENT

Cell Culture:

Isolation and culture of stem cells derived from different tissues (bone marrow, adipose tissue, neural tissue, lung, etc).
Co-culture of stem cells with different immune effector cells.
Purification and characterization of Extracellular Vesicles (microvesicles, Exosomes and Ectosomes).

Functional Assays:

Proliferation assays by use of different labels (CFSE, 3H-thimidina)
Apoptotic Assays (saggio caspasi-3, annexin V, tunel)
Cytotoxicity Assays (Delfia)

Flow Cytometry:

Immunophenotyping of normal, reactive and malignant leukocytes
Functional assays (proliferation, apoptosis, cell cycle)
Excellent knowledge of analysis softwares of flow cytometry data (CellQuest, DIVA, FlowJo).

Proteomic and Molecular Assays:

DNA, mRNA and miRNA isolation
Western Blot, Zymography
PCR, Real-Time PCR e Reverse Transcriptase PCR

Project and Data Management

COMPUTER ENVIRONMENT

Excellent knowledge of Windows and Mac OS X
Excellent knowledge of Microsoft Office and graphic and statistical softwares (PhotoShop, Prism - Graphpad).

DRIVING LICENSES

Driver's licence A,B, nautical

ADDITIONAL INFORMATION

PUBLICATIONS

Differential and transferable modulatory effects of mesenchymal stromal cell-derived extracellular vesicles on T, B and NK cell functions

Di Trapani M, Bassi G, Midolo M, Gatti A, Kamga PT, Cassaro A, Carusone R, Adamo A, Krampera M.

Scientific Reports - 2016 Apr 13;6:24120

Notch signalling drives bone marrow stromal cell-mediated chemoresistance in acute myeloid leukemia.

Takam Kamga P, Bassi G, Cassaro A, Midolo M, **Di Trapani M**, Gatti A, Carusone R, Resci F, Perbellini O, Gottardi M, Bonifacio M, Nwabo Kamdje AH, Ambrosetti A, Krampera M.

Oncotarget - 2016 Mar 7

Effect of a novel ceramic biomaterial on immune modulatory properties and differentiation potential of human mesenchymal stromal cells of different origin

Bassi G, Guilloton F, Menard C, **Di Trapani M**, Deschaseaux F, Sensebe L, Schrezenmeier H, Giordano R, Bourin P, Dominici M, Tarte K, Krampera M.

Tissue Engineering - Part A Oct 16, 2014

CD117⁺ Amniotic Fluid Stem Cells vary their immune regulatory properties according to gestational age

Di Trapani M, Bassi G, Fontana E, Giacomello L, Pozzobon M, Guillot PV, De Coppi P, Krampera M.

Stem Cells Dev. Jul 29, 2014

Comparative study of immune regulatory properties of stem cells derived from different tissues

Di Trapani M, Bassi G, Ricciardi M, Fontana E, Bifari F, Pacelli L, Giacomello L, Pozzobon M, Feron F, De Coppi P, Anversa P, Fumagalli G, Decimo I, Menard C, Tarte K, Krampera M.

Stem Cells Dev. Jul 2, 2013

COURSES

- Date (from – to) MAY 4TH AND JUNE 29TH, 2016
CEINGE - Biotecnologie Avanzate, Napoli
La Citometria dell'emoglobinuria Parossistica Notturna
- Date (from – to) MARCH 11TH-12TH 2016
Ospedale Bambin Gesù
Italian EuroFlow workshop
- Date (from – to) SEPTEMBER 25TH - 27TH, 2012
Scientific Campus "Enrico Mattei" - Università degli Studi di Urbino "Carlo Bo".
National school of Flow Cytometry - XXX National Conference of Flow Cytometry.
- Date (from – to) JUNE 20TH - 22TH, 2012
Polo Chimico Bio Medico - University of Ferrara.
Stem Cell Research Italy International Society for Cellular Therapy-Europe
AICC - Joint Meeting
- Date (from – to) MAY 22TH - 23TH, 2012
University of Verona.
Advanced course of Flow Cytometry - Oncological and immunologia applications.
- Date (from – to) NOVEMBER 15TH, 2011
University of Verona.
Education course C.I.R.S.A.L. (Centro Interdipartimentale di Servizio alla Ricerca Sperimentale che utilizza Animali da Laboratorio).

CONFERENCES

- Date (from – to) NOVEMBER 12TH-13TH, 2015 UNDER 40 IN HEMATOLOGY
Differential and transferable modulatory effects of mesenchymal stromal cell-derived extracellular vesicles on T, B and NK cell functions
Di Trapani M
- Date (from – to) APRIL 23TH-26TH, 2014 - 20TH INTERNATIONAL SOCIETY FOR CELLULAR THERAPY (ISCT) ANNUAL MEETING
Comparative study of immune regulatory properties of stem cells derived from different tissues
Di Trapani M, Bassi G, Ricciardi M, Fontana E, Bifari F, Pacelli L, Giacomello L, Pozzobon M, Feron F, De Coppi P, Anversa P, Fumagalli G, Decimo I, Menard C, Tarte K, Krampera M.

CD117⁺ Amniotic Fluid Stem Cells vary their immune regulatory properties according to gestational age
Mariano Di Trapani, Giulio Bassi, Emanuela Fontana, Luca Giacomello, Michela Pozzobon, Pascale V Guillot Paolo De Coppi, Mauro Krampera

Effects of a novel ceramic biomaterial on immune modulatory properties and differentiation potential of mesenchymal stromal cells
Giulio Bassi, Fabien Guilloton, Cedric Menard, **Mariano Di Trapani**, Isabelle Bezier, Frederic Deschaseaux, Luc Sensebe, Serge Baroth, Hubert Schrezenmeier, Markus Rojewski, Rosaria Giordano, Philippe Bourin, Massimo Dominici, Karin Tarte, Mauro Krampera

Modulatory effect on B cell functions of mesenchymal stromal cells
Eliana Amati, Giulio Bassi, **Mariano Di Trapani**, Francesco Liotta, Francesco Annunziato, Omar Perbellini, Mario Ricciardi, Giovanni Pizzolo, Maria Teresa Scupoli, Mauro Krampera
- Date (from – to) OCTOBER 20TH - 23TH, 2013 - 44th NATIONAL CONGRESS SIE - SOCIETÀ ITALIANA DI EMATOLOGIA
Comparative study of immune regulatory properties of stem cells derived from different tissues
Di Trapani M, Bassi G, Ricciardi M, Fontana E, Bifari F, Pacelli L, Giacomello L, Pozzobon M, Feron F, De Coppi P, Anversa P, Fumagalli G, Decimo I, Menard C, Tarte K, Krampera M.
- Date (from – to) GENNARY 17TH - 19TH, 2013 - XII Congress of the Italian Society of Experimental Hematology
Microporous biphasic calcium phosphate granules (MBCP+) retain immunological properties of bone marrow-derived mesenchymal stromal cells and promote osteoblastic differentiation
Bassi G, Guilloton F, Ménard C, Pacelli L, **Di Trapani M**, Carusone R, Bifari F, Sansebé L, Deschaseaux F, Baroth S, Schrezenmeier H, Layrolle P, Tarte K, Krampera M, on behalf of reborne consortium (7
Pg S26 |Haematologica| 2012; 97(s2)
- Date (from – to) DECEMBER 20TH - 21TH, 2010 - VIII Congress of Cell Biology Department at University of Urbino "Carlo Bo".
Effects of an inflammatory mediator as H2O2 on mesoangioblast stem cells
Turturici G, Cavallaro A, Barone F, Di Trapani M, Sconzo G, Geraci F.
- Date (from – to) MAY 7TH - 8TH, 2010 - XXI Annual congress ABCD on cellular stress: survival and apoptosis at University of Palermo

Another function of Hsp70 in mesoangioblast stem cells

Fabiana Geraci, Giuseppina Turturici, Maria Magdalena Barreca, **Mariano Di Trapani**,
Gabriella Sconzo.

AWARDS AND HONOR

OCTOBER 19TH - 21TH,, 2016 XIV NATIONAL CONGRES SIES

Assignment of a SIES travel award for the selected oral presentation: Differential and transferable modulatory effects of mesenchymal stromal cell-derived extracellular vesicles on T, B and NK cell functions

NOVEMBER 12TH-13TH, 2015 UNDER 40 IN HEMATOLOGY

Selected for the final contest of Under 40 in Hematology for the oral presentation: Differential and transferable modulatory effects of mesenchymal stromal cell-derived extracellular vesicles on T, B and NK cell functions

Declaration

I declare that the information reported in this Curriculum Vitae are correct and true. I authorize the processing of my personal data, including the sensible ones, according to the Law Decree 196/2003, for the purposes involved in this candidacy notice.

Date

July 22th 2016