

Greta Maria Minonzio: Curriculum Vitae

Name (s) Surname Greta Maria Minonzio
Date and place of birth: October 12th, 1983 - Milan, Italy
Nationality: Italian
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Current position:

2014 – present **Post Doctoral Researcher** at the **SSCF Swiss Stem Cell Foundation**
CH 6925 Lugano/Gentilino (Switzerland)
Since Apr. 1st **Post Doctoral Research Scholar** at the **Diabetes Research Institute,**
University of Miami Miller School of Medicine – Miami, FL USA
Prof. Camillo Ricordi, M.D., Director

Education:

2010 – 2013 **Ph.D. – Cellular and Molecular Biology**
University of Insubria – Varese, Italy
* Dissertation title: “*Cardiomyogenic differentiation of human multipotent stromal cells: a new approach for regenerative medicine in cardiovascular disease*”.
Supervisor: Dr. Gianni Soldati Ph.D.
2006 – 2008 **Master of Science Degree in Biological Sciences – Cell / Molecular biology branch**
University of Insubria – Varese, Italy
2002 – 2006 **Bachelor of Science Degree in Biological Sciences**
University of Insubria – Varese, Italy
1997 – 2002 Classical Lyceum Diploma – Varese, Italy

Undergraduate Research Experiences:

2007 – 2008 Internship for the **Master’s Degree experimental thesis (Laurea Specialistica)** at the Medical Genetics Laboratory; Supervisor: Prof. Francesco Pasquali, MD, Director Department of Experimental and Clinical Biomedical Sciences, full Professor of Medical Genetics and Academic Dean Medical Faculty University of Insubria, Varese, Italy
Experimental thesis: “***The perspective of medical cytogenetics with the use of the Comparative Genomic Hybridization (CGH) on Microarray***”.
Project concerning cytogenetic studies and analysis of pediatric leukemia and in particular underline the use of advances techniques (aCGH) that has higher resolution than routine chromosome analysis and molecular cytogenetics in patients with constitutional or acquired anomalies or with disorders as Shwachman Syndrome. And also studies on karyotype/phenotype correlation in constitutional chromosome anomalies.
2005 – 2006 Internship for the **Bachelor’s Degree experimental thesis** at the Human Genetics Laboratory; Supervisor: Prof. Paola Campomenosi, Faculty of Sciences Mathematical, Physical and Natural – University of Insubria, Varese, Italy
Experimental thesis: “***Indirect Immunofluorescence and subcellular fractionation: two different Techniques to study RNASET2 subcellular localization***”.
Project concerning the biochemical and functional characterization of a new candidate tumor suppressor gene named RNASET2, which maps on a chromosomal region frequently deleted in many types of cancers including ovarian carcinoma and melanoma.

Job Experiences / Research:

- 2014 – present **Post Doctoral Researcher** at the **SSCF Swiss Stem Cell Foundation** – CH 6925 Lugano/Gentilino (Switzerland), and since April 1st, **Post Doc Research Scholar** at the **Diabetes Research Institute, University of Miami Miller School of Medicine** Miami, FL USA Prof. Camillo Ricordi, M.D., Director
- 2011 – 2013 Research activities **PhD Thesis Project** carried out at the **SCR Stem Cells Research S.A.** – Cardiocentro Ticino CH 6900 Lugano (Switzerland) and since Nov. 1st, 2012 at the **SSCF Swiss Stem Cell Foundation** in CH 6925 Lugano/Gentilino (Switzerland)
- 2008 – 2010 Scientific collaborator and research activities at the **SSCB Swiss Stem Cells Bank S.A** – Cardiocentro Ticino CH 6900 Lugano (Switzerland) and since Oct. 2009 also Scientific Collaborator (40%) at **LDM Laboratorio di Diagnostica Molecolare S.A.** – Cardiocentro Ticino CH 6900 Lugano (Switzerland)

Research activities / Projects:

- **Develop a protocol** for the isolation and culture of human adipose tissue-derived mesenchymal stem cells (AT_MSCs) which fulfils the strict European regulations concerning the Advances therapy Medicinal products.
- **Bone regeneration:** clinically-optimized cell culture conditions in combination with a new 3D-Scaffold for human MSC bone tissue engineering.
- **New serum-free** culture conditions to grow adult adipose tissue-derived multipotent mesenchymal stromal cells (AT-MSCs).
- **Adipose** derived Mesenchymal Stem Cells in **human peri-pericardial** component.
- **“Stimote” PhD project:** *“Cardiomyogenic differentiation of human multipotent stromal cells: a new approach for regenerative medicine in cardiovascular disease”*.
 - * The project consist in the differentiation of adult human Adipose tissue-derived multipotent Stem Cells (ASCs) in cardiac progenitors with two innovative approaches: the use of growth factors and cytokines in a well defined serum-free culture medium and the application of mechanical stimuli to mimic the physiological effect of the heart.

Publications / Submitted patents:

- **Minonzio G.**, Corazza M., Mariotta L., Gola M., Gandolfi E., De Fazio D., Soldati G. FROZEN ADIPOSE-DERIVED MESENCHYMAL STEM CELLS MAINTAIN FULL CAPABILITY TO GROW AND DIFFERENTIATE. (Paper submitted to Cryobiology)
- Soldati G. and **Minonzio G.** A DEFINED SERUM-FREE, XENO-FREE CULTURE MEDIUM FOR IN VITRO DIFFERENTIATION OF CARDIOMIOCYTES FROM ADIPOSE TISSUE-DERIVED MESENCHYMAL STEM CELL (ASCs). (Patent submitted to **WIPO** (World Intellectual Property Organization – Genève, Switzerland))

Experience and Skills:

1. Stem Cells
2. Stem Cell Differentiation
3. Cell Biology
4. Tissue Engineering
5. Cell Culture
6. Molecular Biology
7. Flow Cytometry
8. Cell
9. DNA
10. Regenerative Medicine
11. Immunohistochemistry
12. PCR
13. qPCR
14. COMPARATIVE GENOMIC HYBRIDIZATION (CGH) ON MICROARRAY
15. CYTOGENETICS

MOLECULAR DIAGNOSTICS LABORATORY (LDM) - uses progressive technologies and procedures to evaluate infectious disease, inherited disorders, oncogene copy number, and other gene abnormalities.

- DNA extraction
- Molecular analysis
- PCR (polymerase chain reaction)
- Microbiological analysis
- Microbiological testing (virus)
- Microbiological testing (bacteria)
- Genetic testing
- Pharmaco-genetics testing

Extra competence:

Speaker of **SSCB Swiss Stem Cells Bank SA** for informational meetings with parents: umbilical cord stem cells - their conservation - therapeutic use and possible future cell therapies.

Informatic:

Competent with Microsoft Office programs (in particular Word, Excel and Power Point), Photoshop, ImageJ and PDB Viewer and imaging (Q – FISH Leica Imaging System Ltd). Excellent Internet browsing.

Meetings:

2013. 11th **Annual Meeting** International Society for **Stem Cell Research ISSCR**, June 12-15, BOSTON, MA U.S.A.
- 14th **Giornata di Studio** sulle Cellule Staminali, MILANO Maj 17th, 2013 Sala Napoleonica – Palazzo Greppi
“**Epigenetica e Staminali**” – **UniStem** – Centre of Stem Cell Research, University of Milan
2012. 7th **Interventional Symposium on High Risk Coronary Interventions** - Meet The Experts **MTE 2012**
June 26th - 28th, 2012 University of Lugano – LUGANO (Switzerland)
- 3rd **Lugano Stem Cell Meeting**, June, 25th - 26th, 2012 University of Lugano – LUGANO (Switzerland)
- ECM N. 0080-64317** MILANO, Italy May 7th, 2012 “**Dalla sperimentazione alla pratica clinica: nuovi protocolli terapeutici**” organized by Fondazione Policlinico IRCCS of Milano – Italy in collaboration with **UniStem** – Centre of Stem Cell Research, University of Milan, Italy
- 2nd **Workshop Ph.D. School of Biological and Medical Sciences** – University of Insubria - VARESE, Italy
March 8th - 9th, 2012
2011. “**Special Meeting**” MILANO, Italy Nov. 29th, 2011 “**Crioconservazione cellulare e applicazioni cliniche**”
bio**SKILLS** srl in collaboration with **UniStem** – Centre of Stem Cell Research, University of Milan, Italy
- 11th **Giornata di Studio** sulle Cellule Staminali, MILANO June 24th, 2011 “**Le Staminali nella sperimentazione clinica**” – Centre of Stem Cell Research – **UniStem**, University of Milan, Italy
- 10th **Giornata di Studio** sulle Cellule Staminali, MILANO January 28th, 2011 “**Staminali per il cuore**”
Centre of Stem Cell Research – **UniStem**, University of Milan.
2010. 2nd **Lugano Stem Cell Meeting**, June 22nd - 23rd, - Cardiocentro Ticino - CH - LUGANO (Switzerland)
- 8th **Annual Meeting** International Society for **Stem Cell Research ISSCR**, June 16th -19th, 2010
SAN FRANCISCO, CA U.S.A.
2009. 1st **Italian Mesenchymal Stem Cell Meeting** – MILANO, Italy April 21st, 2009 bio**SKILLS** srl

Co-author and author of Abstracts / Poster presented at Congress:

2009

S. Bardelli, **G. Minonzio**, G. Pertici, G. Aita, V. Albertini, M. Gola, G. Astori, T. Moccetti, G. Soldati and T. Tallone. CLINICALLY-OPTIMIZED CELL CULTURE CONDITIONS IN COMBINATION WITH A NEW 3D-SCAFFOLD FOR HUMAN MSC TISSUE ENGINEERING. *International Society for Stem Cell Research ISSCR, 7th Annual Meeting* - July 8-11, 2009 Barcelona (Spain).

S. Bardelli, **G. Minonzio**, G. Aita, G. Pertici, V. Albertini, D. Vigetti, M. Gola, T. Moccetti, T. Tallone and G. Soldati. CLINICALLY-OPTIMIZED CELL CULTURE CONDITIONS IN COMBINATION WITH A NEW 3D-SCAFFOLD FOR HUMAN MSC TISSUE ENGINEERING. *World Conference On Regenerative Medicine, Leipzig (Germany) October 29-31, 2009*

T. Tallone, **G. Minonzio**, G. Pertici, G. Aita, S. Bardelli, M. Gola, V. Albertini and G. Soldati. – NEW DEFINED CELL CULTURE CONDITIONS IN COMBINATION WITH A NEW 3D-SCAFFOLD FOR MSCS BONE TISSUE ENGINEERING. *22nd European Conference on Biomaterials, ESB 2009, September 7-11, CH - 2009 Lausanne (Switzerland)*.

2010

T. Tallone, **G. Minonzio**, G. Aita, S. Bardelli, M. Gola and G. Soldati. NEW SERUM-FREE CULTURE CONDITIONS TO GROW ADULT ADIPOSE TISSUE-DERIVED MULTIPOTENT MESENCHYMAL STROMAL CELLS (AT-MSCS). *USGEB Annual Meeting, Lugano (Switzerland), February 11-12, 2010*.

S. Bardelli, **G. Minonzio**, G. Aita, V. Albertini, G. Astori, T. Tallone, T. Moccetti and G. Soldati. ADIPOSE DERIVED MESENCHYMAL STEM CELLS IN HUMAN PERI-PERICARDIAL COMPONENT. *7th International Symposium on Stem Cell Therapy and Cardiovascular Innovations, Madrid (Spain), May 6th – 7th 2010*.

G. Minonzio, E. Gandolfi, G. Aita, G. Turconi, S. Panella, T. Tallone, V. Albertini, T. Moccetti, G. Soldati, and S. Bardelli. COMPARISON OF HUMAN ADIPOSE - DERIVED SVF CELL YIELD AT DIFFERENT SUBCUTANEOUS ANATOMICAL SITES AND WITH DIFFERENT TYPES OF TISSUE - HARVESTING SURGICAL PROCEDURES. *2nd Lugano Stem Cell Meeting, Cardiocentro Ticino - Lugano (Switzerland), June 22nd – 23rd 2010*.

G. Minonzio, T. Tallone, G. Aita, G. Turconi, S. Panella, V. Albertini, S. Regazzoni, T. Moccetti, G. Soldati and S. Bardelli. COMPARATIVE EVALUATION OF THE EFFICIENCY OF THREE DIFFERENT DIGESTIVE ENZYMES FOR THE ISOLATION OF THE STROMAL VASCULAR FRACTION FROM HUMAN ADIPOSE TISSUE. *2nd Lugano Stem Cell Meeting, Cardiocentro Ticino - Lugano (Switzerland), June 22nd – 23rd 2010*.

S. Panella, **G. Minonzio**, G. Turconi, C. Kornfeld, E. Gandolfi, V. Albertini, S. Regazzoni, T. Tallone, T. Moccetti, S. Bardelli and G. Soldati. SETTING UP A PROCEDURE FOR ACCURATE HUMAN ADIPOSE-DERIVED MESENCHYMAL STEM CELL COUNTING BY CYTOFLUORIMETRIC ANALYSIS. *2nd Lugano Stem Cell Meeting, June 20 - 23, 2010 CH - Lugano*.

S. Bardelli, **G. Minonzio**, S. Panella, G. Turconi, V. Albertini, F. Siclari, S. Demertzis, R. Trunfio, T. Torre, T. Tallone, T. Moccetti and G. Soldati. PERI-PERICARDIAL ADIPOSE TISSUE AS A SOURCE OF STEM CELLS. *2nd Lugano Stem Cell Meeting, June 20 - 23, 2010 Lugano (Switzerland)*.

2011

Tallone T., Realini C., **Minonzio G.**, Panella S., and Soldati G. – A NEW SPECIALLY FORMULATED DEFINED XENO-FREE TISSUE CULTURE MEDIUM FOR GROWTH AND EXPANSION OF HUMAN (AT-MSCS). *World Conference On Regenerative Medicine, Leipzig (Germany) November 2-4, 2011*

Barile L., Torre T., Tallone T., **Minonzio G.**, Soldati G., Siclari F., Moccetti T., Vassalli G.
Depts. of Cardiology, Cardiovascular Surgery and Cell Therapy Unit, Fondazione Cardiocentro Ticino, Lugano (Switzerland).
CELLS BASED ON STAGE-SPECIFIC EMBRYONIC ANTIGEN-1 (SSEA-1) EXPRESSION.

2012

G. Minonzio, T. Tallone, S. Panella, L. Barile, C. Realini, T. Moccetti and G. Soldati.
Academic Supervisor: P. Campomenosi - University of Insubria - Varese, Italy
HUMAN ADIPOSE DERIVED MULTIPOTENT STROMAL CELLS (ASCS) FOR CARDIOMYOGENIC DIFFERENTIATION. Part 1: Extraction and culturing of ASCs and first differentiation experiments. **2nd Workshop Ph.D. School of Biological and Medical Sciences - University of Insubria** – Varese, Italy *March 8th - 9th, 2012*

G. Minonzio, S. Panella, L. Barile, M. Corazza, T. Moccetti, I. Stefanini, G. Soldati and T. Tallone
HUMAN ADIPOSE DERIVED MULTIPOTENT STROMAL CELLS (ASCS) FOR CARDIOMYOGENIC DIFFERENTIATION. *3rd Lugano Stem Cell Meeting, June 25th - 26th, 2012 University of Lugano, (Switzerland)*

Barile L., Torre T., Tallone T., **Minonzio G.**, Soldati G., Siclari F., Moccetti T., Vassalli G.
ISOLATION AND CHARACTERIZATION OF HUMAN ADULT CARDIAC MESENCHYMAL PROGENITOR CELLS BASED ON STAGE-SPECIFIC EMBRYONIC ANTIGEN-1 (SSEA-1) EXPRESSION.
3rd Lugano Stem Cell Meeting, June 25th - 26th, 2012 University of Lugano, (Switzerland)

Panella S., **Minonzio G.**, Realini C., Corazza M., Moccetti T., Soldati G. and Tallone T. A NEW SPECIALLY FORMULATED DEFINED XENO-FREE TISSUE CULTURE MEDIUM FOR GROWTH, EXPANSION AND DIFFERENTIATION OF HUMAN ASCS. *3rd Lugano Stem Cell Meeting, June 25th - 26th, 2012 University of Lugano – (Switzerland)*

Corazza M. , **Minonzo G.** , Panella S. , Barile L. , Moccetti T. , Soldati G. and Tallone T.
NEW DEFINED CELL CULTURE CONDITIONS IN COMBINATION WITH A NEW 3D-SCAFFOLD FOR ASCS BONE
TISSUE ENGINEERING. 3rd Lugano Stem Cell Meeting, June 25th - 26th, 2012 University of Lugano – (Switzerland)

D. Nicolis, R. Gardenghi, C. Tavilla, M. Corazza, W. Amaro, D. Crivelli, T. Tallone, S. Panella, **G. Minonzo**, G. Soldati, T. Moccetti and I. Stefanini. STAGRA – MEDICAL DEVICE FOR TREATMENT OF ADIPOSE TISSUE TO EXTRACT MESENCHYMAL STEM CELLS. 3rd Lugano Stem Cell Meeting, June 25th-26th, 2012 University of Lugano – (Switzerland)

R. Gardenghi, D. Nicolis, G. Montù, M. Corazza, T. Tallone, S. Panella, **G. Minonzo**, G. Soldati, T. Moccetti and I. Stefanini. STIMIOTE – A MEDICAL DEVICE FOR THE DIFFERENTIATION OF MESENCHYMAL STEM CELLS INTO CARDIOMYOCYTES AND TECNOCYTES.
3rd Lugano Stem Cell Meeting, June 25th - 26th, 2012 University of Lugano – (Switzerland)

Panella S., **Minonzo G.** , Corazza M., Baffi F. , Kornfeld C. , Moccetti T. , Soldati G. and Tallone T.
ADULT HUMAN ADIPOSE TISSUE CONTAINS SEVERAL TYPES OF MULTIPOTEN CELLS.
3rd Lugano Stem Cell Meeting, June 25th - 26th, 2012 University of Lugano – (Switzerland)

2013

G. Minonzo, M. Corazza, L. Mariotta, M. Gola, M. DeEguileor, L. Pulze and G. Soldati.
CARDIOMYOGENIC DIFFERENTIATION IN HUMAN ADIPOSE DERIVED MULTI POTENT STROMAL CELLS (ASCs).
11th Annual Meeting International Society for Stem Cell Research ISSCR, June 12 - 15, 2013 – BOSTON, MA U.S.A.

M. Corazza, **G. Minonzo**, L. Mariotta, M. Gola, M. DeEguileor, L. Pulze and G. Soldati. – NEW DEFINED CELL CULTURE CONDITIONS IN COMBINATION WITH A 3D-SCAFFOLD FOR ASCS BONE TISSUE ENGINEERING.
11th Annual Meeting International Society for Stem Cell Research ISSCR, June 12 - 15, 2013 – BOSTON, MA U.S.A.

Katie Slater¹, Jeff Partridge¹, Kerry Thompson¹, Paula Flaherty¹, Susan Qian¹, **Greta Minonzo**², Mauro Gola², Gianni Soldati² Saxena Deepa¹ - ¹Corning Life Sciences, Bedford, MA, United States, ²Swiss Stem Cell Foundation, Lugano, Switzerland
SYNTHETIC PEPTIDE COATED SURFACE FOR CULTURE OF HUMAN MESENCHYMAL STEM CELLS IN DEFINED AND XENO-FREE MEDIA.
11th Annual Meeting International Society for Stem Cell Research ISSCR, June 12 - 15, 2013 – BOSTON, MA U.S.A.

2014

Minonzo Greta¹, Boffito Monica², Corazza Mattia¹, Mariotta Luca¹, Mattu Clara², Sartori Susanna², Gola Mauro¹, Ciardelli Gianluca², Soldati Gianni¹ - ¹Swiss Stem Cell Foundation, Lugano, Switzerland, ²Politecnico di Torino, Department of Mechanical and Aerospace Engineering, Torino, Italy
CARDIOMYOGENIC DIFFERENTIATION WITH ELECTRO MECHANICAL STIMULI OF HUMAN ADIPOSE DERIVED MULTIPOTENT STEM CELL ASCS ON POLYURETHANE BASED SCAFFOLDS.
12th Annual Meeting International Society for Stem Cell Research ISSCR, June 18 - 21, 2014 – VANCOUVER, CANADA

Extra Experiences:

- June 2010 Visiting GENENTECH ROCHE – SOUTH SAN FRANCISCO, CA U.S.A.
Prof. Napoleone Ferrara, MD LABORATORY'S, Genentech fellow - Research Drug Discovery.
- June 2009 Visiting GENETHON DNA BANK – 91002 EVRY CEDEX (France) to know the methods of DNA extraction, activities of laboratory and banking.

Voluntary service activity:

- 2000 - 2009 Pioneer of Croce Rossa Italiana (C.R.I.) certificate; Course of First Aid and Basic Life Support (B.L.S.); Qualifying examination to 118 (first aid) and sport turns; Formation camp Croce Rossa Italiana (C.R.I.) of Varese Italy; Activity of first aid, social charitable in Hospital, management centre emergency for homeless.

Language Certificates

- 2002 - 2002 **TOEIC** Certificate (Test of English for International Communication) ATC Language and Travel Dunluice House, Strand Road, Bray, Co. Winklow, (IRELAND).

Membership in scientific societies:

International Society for Stem Cell Research (ISSCR)