BIOGRAPHICAL SKETCH

NAME Melania Lo Iacono	POSITION-TITLE Term-contract worker
Date of Birth: 13/11/1983 Address: Galletti, 275/A, Palermo, Italy E-mail: loiaconomelania83@gmail.com Work phone:+390916802744 Cell phone:+393664941652	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Palermo, Italy	BSc	2006	Molecular biology
University of Palermo, Italy	MS	2008	Stem cells
University of Palermo, Italy	PhD	2009-2011	Regenerative medicine Cell biology

Work experience

05/02/2017
05/01/2018

Term-contract as Researcher with experience in molecular diagnosis of hematological rare diseases

Hematology and rare blood diseases division of Ospedali Riuniti Villa Sofia-Cervello Hospital, Palermo, Italy.

Title of the project: National service 2014: " Domestic Hematological assistance in Sicily.

Skill acquired: molecular biology, cellular biology

3/22/2016-3/21/2017

Term-contract as Researcher with experience in regenerative medicine and cell biology

Hematology and rare blood diseases division of Ospedali Riuniti Villa Sofia-Cervello Hospital, Palermo, Italy.

Title of the project: " National Service plan 2013: Rare diseases, diagnosis, therapy and prevention of rare genetic diseases".

Skills acquired: isolation of perinatal tissue-derived mesenchymal stem cells (WJ-MSCs) by GMP procedure.

6/3/15-7/17/2015

***Lecturer* in histology and embryology**

Faculty of Medicine, University of Palermo, Italy

7/3/2014-
6/30/2015

Fellowship as Researcher
Ospedali Riuniti Villa Sofia-Cervello Hospital in partnership with the Franco e Piera Cutino Foundation, Palermo, Italy. Gene therapy for the treatment of the beta-thalassemia project founded by R.i.Med.RI Regional Network Integrated Clinico-Biological regenerative medicine), Regional Ministry of Industry, Network Sicily CUPG73F12000150004.
Title of the project: "Mobilization and harvest of hematopoietic stem cells derived from peripheral blood of beta-thalassemia patients and evaluation of effectiveness of mobilization protocol with G-CSF and plerixafor".
Skills acquired: isolation of hematopoietic stem cells, isolation and separation of CD34+ cells by magnetic beads (Miltenyi), flow cytometry analysis by ISHAGE methods, colony forming unit assay, real time-PCR, preparation of lentiviral vector

11/1/2012-
10/31/2013

Fellowship as "Young Researcher"
Euro-Mediterranean Institute of Science and Technology, Department of Experimental Biomedicine and Clinical Neuroscience, Human Anatomy division, Policlinico P. Giaccone Hospital of Palermo, Italy.
Title of the project: "Evaluation in vitro of immune-modulatory ability of human mesenchymal stem cells".
Skill acquired: isolation of PBMC by Ficoll-Plaque, co-culture between PBMC and WJ-derived mesenchymal stem cells, flow cytometry analysis, MLR (mixed lymphocyte reaction)

10/14/2013-
05/31/2014

Scolarship for training project: Advanced training for Cyber Brain innovation Polo(Hub).
MIUR-Directorial Decree 254 / RIC of May 18, 2001 funded with D.D 968 / RIC dell'11.11.2011. NOP Research and 2007-2013 competitiveness for convergence regions. Project identification code: PONa3_00210 / F2- CUP B71D11000130007 training.
Title of qualification: "Experts of the monitoring systems, and amplification of the EEG signal"

3/1/2012-
8/31/2013

Post-doctoral Fellowship
Laboratory for Interdisciplinary Stem cells research, Dept. Cardiac surgery, Munich University medical Ctr, Munich, Germany.
Skill acquired: isolation of Wharton's Jelly Mesenchymal Stem Cells with different protocols from human umbilical cord(enzymatic and no-enzymatic procedures), hepatic differentiation and characterization by immunofluorescence, flow cytometry analysis, MLR (mixed lymphocyte reaction)

2007-2010

***Training as quality control manager(H.A.C.C.P., Hazard-Analysis and Critical Control Points*)**
HYDROTECNICA SAS- solutions for water and the environment, Supervisor: Dott. Salvatore Cammarieri as a biologist P. IVA 00258958883.

04/17/2008-12/31/2009

***Training* Biologist**

Department of Experimental Biomedicine and Clinical Neurosciences, Section of Human Anatomy.

The activity has allowed us to acquire theoretical and practical skills of molecular biology and cell biology, with particular reference to molecular diagnostic techniques such as RFLP. The study reported the presence of the mutation in the SCN5A gene twins suffering from sudden cardiac death. (See publication of "Applied Immunohistochemistry and Molecular Morphology", 2009).

PERSONAL SKILLS AND COMPETENCES

Mother tongue(s) Italian

Other language(s) English level B1/2

	UNDERSTANDING		SPEAKING		WRITING
	Listening	**Reading**	**Spoken interaction**	**Spoken production**	
Language	**B1/2**	**B1/2**	**B1/2**	**B1/2**	**B1/2**

COMMUNICATION SKILLS

Excellent organizational and interpersonal skills acquired during different workshops organized at the Department of Experimental Biomedicine and Clinical Neurosciences, Section of Human Anatomy , University of Palermo .

Excellent interpersonal skills with students acquired during laboratories organized for students of the faculty of Medicine, of University of Palermo, at the Department of Experimental Biomedicine and Clinical Neurosciences , Section of Human Anatomy.

JOB-RELATED SKILLS

Skills in the use electrophoretic techniques: (proteins and DNA extraction kit), thermal cycler, incubator, spectrophotometer, tools for cell culture (laminar flow hood, centrifuges, chamber Burker). *Techniques acquired*: immunohistochemistry , immucitochemistry, histological staining, protein extraction, Western blotting, DNA and RNA extraction, PCR, RealTime-PCR and RT–PCR,, southern blotting, RFLP analysis with restriction enzymes, two-dimentional electrophoresis, mixed lymphocyte reaction, flow cytometry analysis, transduction, lentiviral preparation, real-time PCR.

Cell culture: isolation and characterization of umbilical cord-derived mesenchymal stem cells. Several differentiation protocol toward hepatic-like phenotype, adipocyte-like, osteocyte-like, chondrocyte-like phenotype. isolation of hematopoietic stem cells, isolation and separation of CD34+ cells by magnetic beads (Miltenyi), flow cytometry analysis by ISHAGE methods, colony forming unit assay, real time-PCR, preparation of lentiviral vector.

COMPUTER SKILLS Word, Excel, Access, Internet Explorer, Graphpad statistic software, adobe photoshop

OTHER SKILLS Peer-reviewer for the following international Journals: " Recent patents on biomarkers", "Recent patents on regenerative medicine", " Current Stem Cells Research & Therapy".

Component of the research staff of the Section of Stem Cells and Tissue Regeneration and Repair, at the Euro-Mediterranean Institute of Science and Technology.

PRESENTATIONS 23 to 26 October 2014- Presentation of two **posters** at the international conference "ESGCT and NVGCT collaborative congress 2014". World Forum, The Hague, The Netherlands. Presentations of two posters entitled:

• "Wharton's jelly mesenchymal stem cells differentiated into hepatocyte-like cells show expression of immunomodulatory molecules"

• "Effectiveness of G-CSF + plerixafor mobilization in β-Thalassemia patients and whole gene expression analysis of the harvested CD34 + cells"

10-12 September 2014 Presentation of a **poster** at the third international conference IPLASS (International Placenta Stem Cell Society) Meeting 2014, entitled "Hepatocyte-like cells differentiated from Wharton's jelly mesenchymal stem cells: functional characterization and expression of immunomodulatory molecules.

23 November 2012- **Invited speaker** for presentation at the conference "International Satellite Symposium AICC-GISM, Mesenchymal Stem Cells: growth factors and cytokines", entitledIsolation and characterization of CD276 + / HLA-E + human sub-endocardial mesenchymal stem cells from chronic heart failure patients: analysis of differentiative potential and immunomodulatory markers expression, Botanical Garden, Palermo.

5-8 September 2012- presentation of a **poster** at the 3rd TERMIS World Congress (2012) entitled: "Wharton's jelly mesenchymal stem cells differentiation towards hepatocyte-like cells: in vitro evidences". Vienna, Austria.

7-10 Giugno 2011- Presentation of a **poster** at the Termis EU 2011 Annual Meeting:Tissue engineering & Regenerative Medicine International Society dal titolo: " Non-classical type HLAS and B7 costimulators revisit:ed analysis of expression and immunomodulatory role in undifferentiated and differentiated MSC isolated from human umbilical cord Wharton's Jelly, Granada, Spagna.

PUBLICATIONS

Articoli pubblicati su riviste scientifiche ISI

1. **Lo Iacono M.** Anzalone R., La rocca G., Baiamonte E., Maggio A., Acuto A. *Wharton's Jelly Mesenchymal Stromal Cells as a feeder layer for the ex vivo expansion of hematopoietic stem and progenitor cells: a review.* Stem cells review and reports, 2015 (in press).
2. Corrao S., Anzalone R., **Lo Iacono M**., Corsello T., Di Stefano A., D'Anna S. Balbi B., carone M., Sala A., Corona D., Timperio A.M., Zolla L., Farina F., De Mavario E.C., Macario A.J., Cappello F., La Rocca G. *Hsp10 nuclear localization and changes in lung cells response to cigarette smoke suggest novel roles for this chaperonin.* Open Biol.20144:140125.DOI:10.1098/rsob.140125. Published 29 October 2014
3. Corrao S., La Rocca G., **Lo Iacono M**., Corsello T., Farina F., Anzalone R. *Umbilical cord revisited: from Wharton's jelly myofibroblasts to mesenchymal stem cells*. Histology and Histopathology 2013; 28(10):1235-1244.
4. La Rocca G, **Lo Iacono M**, Corsello T, Corrao S, Farina F, Anzalone R. *Human Wharton's Jelly Mesenchymal Stem Cells Maintain the Expression of Key Immunomodulatory Molecules When Subjected to Osteogenic, Adipogenic and Chondrogenic Differentiation In Vitro: New Perspectives for Cellular Therapy*. Current Stem Cell Res Ther. 2013, Jan 1; 8(1):100-13.
5. Corrao S., La Rocca G., **Lo Iacono M**., Zummo G., Gerbino A., Farina F., Anzalone R. *New frontiers in regenerative medicine in cardiology: the potential of Wharton's Jelly mesenchymal stem cells.* Curr Stem Cell Res Ther. 2013 Jan 1;8(1):39-45.
6. Anzalone R., Corrao S., **Lo Iacono M**., Loria T., Corsello T. , Cappello F. , Di Stefano A., Giannuzzi G.,Zummo G.,Farina F., La Rocca G. *Isolation and characterization of CD276+/HLA-E+ human sub-endocardial mesenchymal stem cells from chronic heart failure patients: analysis of differentiative potential and immunomodulatory markers expression.* Stem Cells Development 2013 Jan 1;22(1):1-17, DOI: 10.1089/scd.2012.0402.
7. Anzalone R., **Lo Iacono M**., Loria T., Di Stefano A., Giannuzzi P., Farina F., La Rocca G. *Wharton's Jelly Mesenchymal Stem cells as candidates for beta cells regeneration: extending the differenziative and immunomodulatory benefits of adult mesenchymal stem cells for treatment of type 1 diabetes.* Stem cell Rev. 2011, June; vol. 7(2), pp: 342-63.
8. Anzalone R., **Lo Iacono M**., Corrao S., Magno F., Loria T., Cappello F., Zummo G., Farina F., La Rocca G. *New emerging potentials for human Wharton's Jelly Mesenchymal StemCells: immunological features and hepatocyte-like differentiative capacity.* Stem Cells And Development 2010, April, vol.19, N. 4, pp. 423-438.
9. Anzalone R., La Rocca G., Di Stefano A., Magno F., Corrao S., Carbone M., Loria T., Gervasi M., **Lo Iacono M**., Eleuteri E., Colombo M., Cappello F., Farina F., Zummo G., Giannuzzi P*. Role of endothelial cell stress in the pathogenesis of chronic heart failure.* Frontiers in Bioscience 14, 2238-2247, (January 1, 2009) ISSN: 1093-4715.
10. Turillazzi E., Pomara C., La Rocca G., Neri M., Riezzo I., Karch S.B., Anzalone R., **Lo Iacono M.,** Fineschi V*. Immunohistochemical marker for NA+CP type Vα (C-20) and heterozygous nonsense SCN5A mutation W822X in a mild anaphilactic-induced sudden deatH.* Applied Immunohistochemistry Molecular Morphology 2009, vol.17; pp:357-362.
11. La Rocca G., Anzalone R., Corrao S., Magno F., Loria T., **Lo Iacono M**., Di Stefano A., Giannuzzi P., Marasà L., Cappello F., Zummo G., Farina F*. Isolation and characterization of Oct-4+/HLA-G+ mesenchymal stem cells from human umbilical cord matrix: differentiation*

potential and detection of new markers. Histochemistry and Cell Biology 2008, Feb;131(2):267-82.

Article in extenso on international scientific reviews

1. Anzalone R., **Lo Iacono M**. Corrao s., Corsello T., Farina F., La Rocca G. *Recent Patents and Advances in Hepatocyte-Like Cells Differentiation by Perinatal Stem Cells.* Recent Patents on Regenerative Medicine 2013, 3, 227-236.
2. Anzalone R, **Lo Iacono M**, Di Stefano A, Giannuzzi P, Farina F, La Rocca G. *Recent Patents on Oxidative Stress-Related Biomarkers in Chronic Heart Failure: The Central Role of Endothelium and Myeloperoxidase.*Recent Patents on Biomarkers 2013, 3, 176-182
3. **Lo Iacono M**., Anzalone R., Corrao S., Corsello T., Loreto C., Sansalone S, Sergio M., Cimador M., Giuffrè M., Farina F., La Rocca G. *Recent Advances in Derivation of Functional Hepatocytes from Placental Stem Cells.* The Open Tissue Engineering and Regenerative Medicine Journal, 2013, 6, 12-25.
4. La Rocca G, Corrao S, **Lo Iacono M,** Corsello T, Farina F, Anzalone R (2012). *Novel Immunomodulatory Markers Expressed by Human WJ-MSC: an Updated Review in Regenerative and Reparative Medicine.* Open Tissue Eng Regen Med J. 2012; 5:50-58, DOI: 10.2174/1875043501205010050.
5. **Lo Iacono M**., Anzalone R., Corrao S., Giuffrè M., Cappello F., Farina F., La Rocca G. *Perinatal and Wharton's Jelly-Derived Mesenchymal Stem Cells in Cartilage Regenerative Medicine and Tissue Engineering Strategies*. The Open tissue Engineering medicine Journal 2011,4, 72-81.
6. Magno Francesca, Corrao Simona, Loria Tiziana, **Lo Iacono Melania***. Role of smads in respiratory disease pathogenesis.* Capsula Eburnea 2008, 3(15):1-7,. ISSN:1970-5492.
7. Loria T, Corrao S., Magno F., **Lo Iacono M**., Anzalone R., La Rocca G. *Telomerase activity and telomeric states in cell proliferative and differentiative mechanisms*. Capsula Eburnea 2008, 3 (17):1-5 ISSN: 1970-5492.

Chapter on book

1. Anzalone R, **Lo Iacono M**, Corsello T, Rastellini C, Cicalese L, Farina F, La Rocca G. (2014). Wharton's jelly mesenchymal stem cells for the treatment of type I diabetes. In: Perinatal Stem Cells, A. Atala and S.E. Murphy Eds, pp. 313-324, Springer.
2. Anzalone R., Farina F., **Lo Iacono M**., Corrao S., Corsello T., Zummo G., La Rocca G., *Wharton's Jelly Mesenchymal Stem Cells and immune modulation: regenerative medicine meets tissue repair*. Perinatal Stem Cells, Second Edition 2013, pag. 77-88.. Edited by Kyle J. Cetrulo, Curtis L. Cetrulo, Jr.,and Rouzbeh R. Taghizadeh. Wiley-Blackwell. Published 2013 by John Wiley & Sons, Inc.

3. Corrao S, La Rocca G, Anzalone R, Magno F, Loria T, **Lo Iacono M**., Conway De Macario E, Macario AJL, Cappello F, Farina F. *The balance of Hsp expression during pregnancy: the role of placenta.* Experimental Medicine Reviews –Morphophysiological Remarks.2008, vol. 2, p. 149-156, BAGHERIA-PALERMO: PLUMELIA RICERCA.

4. Magno F, La Rocca G, Anzalone R, Corrao S, Loria T, **Lo Iacono M.,** Spagnolo G, Di Stefano A, Balbi B, Zummo G. *TGFbeta signaling: Roles of Smads.* Experimental Medicine Reviews – Morphophysiological Remarks 2008, vol. 2, p.25-33, BAGHERIA-PALERMO: PLUMELIA RICERCA.
5. La Rocca G., Anzalone R., Magno F., Corrao S., Carbone M., Loria T., Gervasi M., **Lo Iacono M**., Zummo G. and Farina F. *New perspectives on the roles of proteinases and lung structural cells in the pathogenesis of chronic obstructive pulmonary disease.* Experimental Medicine Review Morphophysiological Remarks. Palermo, Italy-vol. 1, 2007, vol. 1, p. 29-36 BAGHERIA-PALERMO: PLUMELIA RICERCA.

Dr. Lo Iacono Melania is an author of **several abstracts** to national and international congresses

Palermo, 11/14/2016 Melania Lo Iacono