

PERSONAL INFORMATION



PAMELA DI TOMO

Work address: Laboratory of Vascular and Stem Cell Biology, Department of Medical, Oral and Biotechnological Sciences, University "G. d'Annunzio" CHIETI – PESCARA
Center for Advanced Studies and Technology (CAST, ex CeSI-MeT)
via Luigi Polacchi, 11-13 (ex via Colle dell'Ara) - 66100, Chieti Scalo - Chieti (Italy)

Laboratory (+39) 0871541438

Email pamela.ditomo@unich.it

Sex Female | **Date of birth** 04 October 1981 | **Nationality** Italian

POSITION

RESEARCH TECHNOLOGIST

Laboratory of VASCULAR and STEM CELL BIOLOGY, Department of Medical, Oral and Biotechnological Sciences, University "G. d'Annunzio" CHIETI – PESCARA,
Center for Advanced Studies and Technology (CAST, ex CeSI-MeT), Italy.

Scopus Author ID 22955272200

ORCID ID orcid.org/0000-0003-1995-3306

H-Index 16, Citations 692 (Scopus 02 February 2022)

EDUCATION AND QUALIFICATIONS

2019	Enrolment in the Professional Order of "Medical Technicians of Medical Radiology and Medical Professions of Rehabilitation and Prevention Techniques".
2013	Advanced course in "Methodology of health research applied to the fields of radiology and laboratory medicine".
2003	Three-year Degree BIOMEDICAL LABORATORY TECHNICIAN , University "G. D'Annunzio", Chieti, Italy.
2000	Scientific High School diploma, Liceo Scientifico "F. Masci" of Chieti, Italy.

WORKING EXPERIENCES

2004 - ongoing	Technician in Lab. VASCULAR and STEM CELL BIOLOGY, University "G. d'Annunzio", CAST (ex CeSI-MeT), Via Luigi Polacchi, 11 - 66013, Chieti, Italy
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EXPERIENCE ABROAD

August 2006: Laboratory of Prof. Elisabetta Mueller, National Institute of Diabetes and Digestive and kidney diseases, NIH, Bethesda, Maryland, USA. "Use of new techniques and methods of transfection".

ACQUIRED METHODOLOGIES

- Extraction of primary cells from tissue (umbilical cord, thoracic aorta, amniotic fluid, bone fragments, peripheral blood).
- In vitro cultures and cryo-preservation of various cell lines.
- Flow cytometry techniques and analyzes at FACS Calibur, FACS Cantoll, Amnis ImageStream Imaging (BD Biosciences).
- Electrophoresis and Western blot analysis.
- DNA, RNA and protein extraction from cell lines and tissue, in vitro DNA amplification with Polymerase Chain Reaction (PCR) techniques and Reverse Transcriptase PCR (RT-PCR) and Real-Time PCR.
- Immunofluorescence techniques and confocal microscopy.
- Transfection and gene silencing methods.
- Biobank maintenance of human and animal cells and tissues.

Training courses

- "FROM WHOLE GENOME TO SINGLE GENE: GENE EXPRESSION PROFILING" (Applied Biosystems), Rome, Italy, 21 January 2004.
- GILSON Italia, Ce.S.I.-Me.T., University "G. d'Annunzio" Chieti-Pescara, Italy, 23 November 2004.
- "THE RNA SYMPOSIA SERIES: MESSENGER, MICRO AND INTERFERING" (Applied Biosystems) Health Institute, Rome, Italy, 25 October 2006.
- "CITOMETRY: A TECHNIQUE OF TODAY FOR TOMORROW BIOMEDICINE", Ce.S.I.-Me.T., University "G. d'Annunzio" Chieti-Pescara, 3-4 May 2007.
- "APPLICATIONS OF FLOW CITOMETRY IN THE RESEARCH LABORATORY", National Cancer Institute, via Venezian, 1, Milan, Italy, 17-18 October 2007.
- "EUROPEAN RNA SYMPOSIA TOUR", Policlinico Umberto I – University La Sapienza, Viale Regina Elena, 324, Rome, Italy, 26 November 2007
- "NEW HIGH THROUGHPUT TECHNOLOGIES IN MOLECULAR DIAGNOSTICS", L'Aquila, Italy, 29 October 2013.
- "CIRCULATING ENDOTHELIAL CELLS WORKSHOP", Ce.S.I.-Me.T., University "G. d'Annunzio" Chieti-Pescara, Italy, 16 January 2014.
- Course "USE OF LIQUID NITROGEN IN CHIRIOBIOLOGY" (Rivoira Pharma Srl), Ce.S.I.-Me.T., University "G. d'Annunzio" Chieti-Pescara, Italy, 2 December 2015.
- Special Application Training in "Basic Flow Cytometry" (Miltenyi Biotec) at Miltenyi Biotec srl, Bologna, Italy, 15 November 2017.
- Special Application Training in "Advanced Flow Cytometry" (Miltenyi Biotec) at Miltenyi Biotec srl, Bologna, Italy, 6 December 2017
- Course "Correct use of ultracentrifuges and high performance, ensuring maximum productivity and safety" (Beckman Coulter Srl), Ce.S.I.-Me.T., University "G. d'Annunzio" Chieti-Pescara, Italy, 29 November 2018.
- Course "Biobanks at the time of Big Data", Neuromed – Mediterranean Neurological Institute at I.R.C.C.S. Neuromed, Pozzilli, Italy, 13 May 2019.
- "Training and refresher course regarding the risks and safety procedures associated with the use of liquid nitrogen and cryogenic material", on-line, Rivoira company, Italy, 10 March 2021.
- Course "Training of workers on safety" organized by the Prevention and Safety at Work Sector of University "G. d'Annunzio" Chieti-Pescara, Italy, 7-8 April 2021.

PERSONAL SKILLS

Mother tongue

Italian

Second language

French, English (school level)

ADDITIONAL INFORMATION

Member of Scientific Society

SCR Italy (Stem Cell Research Italy)
Stem TeCh group (group for the study of Stem Cells Chieti-Teramo)
SID (Italian Society of Diabetology)
GIC (Italian Society of Cytometry)

Patents

1. *Italian Patent* n. IT1388790-B (RM2008A000177) 03/03/2008 "Anti-inflammatory composition for human and animal administration comprises Centella asiatica and lipoic acid".
2. *Italian Patent* n. 02017000104529, 09/19/2017. "Ovothiols for the treatment of chronic low-grade systemic inflammation and the related pathologies".
3. *European Patent* n. 18782202.8, PCT/IB2018/057098, 17/09/2018 "Ovothiols for the treatment of chronic low-grade systemic inflammation and the related pathologies".
4. *USA Patent* n. 16/646716, PCT/IB2018/057098, 17/09/2018 "Ovothiols for the treatment of chronic low-grade systemic inflammation and the related pathologies".
5. *Cina Patent* n. (pending), PCT/IB2018/057098, 17/09/2018 "Ovothiols for the treatment of chronic low-grade systemic inflammation and the related pathologies".

Conferences at National and International Meetings

- XI National Conference "BIOLOGICAL ASPECTS OF NITROGEN OXIDE", Urbino, Italy, 19 September 2006.
- XXII National Conference "ITALIAN SOCIETY OF DIABETOLOGY" (SID), Turin, Italy, 26-29 May 2008.

- 1° JOINT MEETING Stem Cell Research Italy - International Society for Cellular Therapy-Europe, Montesilvano (PE), Italy, 10-12 June 2011.
- 1° National Meeting Italian Nitric Oxide Society (iNOS), Rimini, Italy, 14-16 October 2011.
- XXV National Conference "ITALIAN SOCIETY OF DIABETOLOGY" (SID), Bologna, Italy, 29-30 May 2014.
- Annual meeting of the SID Diabetes and Atherosclerosis Study Group, Bologna, Italy, 23-24 March 2018.
- XXVII National Conference "ITALIAN SOCIETY OF DIABETOLOGY" (SID), Rimini, Italy, 18 May 2018.

**Original Peer-Reviewed
Publications (total number)**

28

**10 Most Significant Publications
(all career)**

1. Di Tomo P, Alessio N, Falone S, Pietrangelo L, Lanuti P, Cordone V, Santini SJ, Di Pietrantonio N, Marchisio M, Protasi F, Di Pietro N, Formoso G, Amicarelli F, Galderisi U, Pandolfi A. "Endothelial cells from umbilical cord of women affected by gestational diabetes: A suitable in vitro model to study mechanisms of early vascular senescence in diabetes". FASEB J. 2021 Jun;35(6):e21662. **IF: 5.19**
2. Mandatori D, Pipino C, **Di Tomo P**, Schiavone V, Ranieri A, Pantalone S, Di Silvestre S, Di Pietrantonio N, Ucci M, Palmerini C, Failli P, Di Pietro N, Pandolfi A. "Osteogenic transdifferentiation of vascular smooth muscle cells isolated from spontaneously hypertensive rats and potential menaquinone-4 inhibiting effect." J Cell Physiol 2019 Nov;234(11):19761-19773. **IF: 3.923**
3. Ucci M, **Di Tomo P**, Tritschler F, Cordone VGP, Lanuti P, Bologna G, Di Silvestre S, Di Pietro N, Pipino C, Mandatori D, Formoso G, Pandolfi A. "Anti-inflammatory Role of Carotenoids in Endothelial Cells Derived from Umbilical Cord of Women Affected by Gestational Diabetes Mellitus." Oxid Med Cell Longev. 2019 Jan 30;2019:8184656. **IF: 4.94**
4. Alessio N, Pipino C, Mandatori D, **Di Tomo P**, Ferone A, Marchisio M, Melone MAB, Peluso G, Pandolfi A, Galderisi U. Mesenchymal stromal cells from amniotic fluid are less prone to senescence compared to those obtained from bone marrow: An in vitro study. J Cell Physiol. 2018 Jun 15. **IF: 4.10**
5. Castellano I, **Di Tomo P**, Di Pietro N, Mandatori D, Pipino C, Formoso G, Napolitano A, Palumbo A, Pandolfi A. "Anti-Inflammatory Activity of Marine Ovolithin A in an In Vitro Model of Endothelial Dysfunction Induced by Hyperglycemia". Oxid Med Cell Longev. 2018 Apr 19;2018:2087373. **IF: 4.94**
6. Mandatori D, Penolazzi L, Pipino C, **Di Tomo P**, Di Silvestre S, Di Pietro N, Trevisani S, Angelozzi M, Ucci M, Piva R, Pandolfi A. "Menaquinone-4 enhances osteogenic potential of human amniotic fluid mesenchymal stem cells cultured in 2D and 3D dynamic culture systems". J Tissue Eng Regen Med. 2017 May 16. **IF: 3.98**
7. Codagnone M, Recchiuti A, Lanuti P, Pierdomenico AM, Cianci E, Patruno S, Mari VC, Simiele F, **Di Tomo P**, Pandolfi A, Romano M. Lipoxin A4 stimulates endothelial miR-126-5p expression and its transfer via microvesicles. FASEB J. 2017 Jan 18. **IF: 5.498**
8. Di Pietro N., **Di Tomo P.**, Di Silvestre S., Giardinelli A., Pipino C., Morabito C., Formoso G., Mariggio M.A., Pandolfi A. Increased iNOS activity in Vascular Smooth Muscle Cells from diabetic rats: potential role of Ca²⁺/Calmodulin-dependent Protein Kinase II delta 2 (CaMKIIdelta2). Atherosclerosis. 2013 Jan;226 (1):88-94. **IF: 3.971**
9. **Di Tomo P.**, Canali R., Ciavardelli D., Di Silvestre S., De Marco A., Giardinelli A., Pipino C., Di Pietro N., Virgili F., Pandolfi A.. "Beta carotene and Lycopene affect endothelial response to TNF- α reducing nitro-oxidative stress and interaction with monocytes". Molecular Nutrition and Food Research. 2012 Feb;56(2):217-27. **IF: 4.31**
10. Formoso G., **Di Tomo P.**, Andreozzi F., Succurro E., Di Silvestre S., Prudente S., Perticone F., Trischitta V., Sesti G., Pandolfi A., Consoli A. The TRIB3 R84 variant is associated with increased carotid intima-media thickness in vivo and with enhanced MAPK signalling in human endothelial cells. Cardiovasc Res. 2011 Jan 1;89(1):184-92. Epub 2010 Aug 5. PubMed PMID: 20693163. **IF: 6.051**

Peer-Reviewed Publications (last 10 years)

1. Anacletio F, Ferrante R, Mandatori D, Antonucci I, Capanna M, Damiani V, Di Tomo P, Ferrante R, Ranaudo M, De Laurenzi V, Stuppia L, De Fabritiis S. "Different Strategies for the Identification of SARS-CoV-2 Variants in the Laboratory Practice." *Genes (Basel)*. 2021 Sep 16;12(9):1428. doi: 10.3390/genes12091428.
2. De Angelis F, Mandatori D, Schiavone V, Melito FP, Valentinuzzi S, Vadini M, **Di Tomo P**, Vanini L, Pelusi L, Pipino C, Del Boccio P, D'Arcangelo C, Pandolfi A. "Cytotoxic and Genotoxic Effects of Composite Resins on Cultured Human Gingival Fibroblasts." *Materials (Basel)*. 2021 Sep 11;14(18):5225. doi: 10.3390/ma14185225.
3. Baldassarre MPA, **Di Tomo P**, Centorame G, Pandolfi A, Di Pietro N, Consoli A, Formoso G. "Myoinositol Reduces Inflammation and Oxidative Stress in Human Endothelial Cells Exposed In Vivo to Chronic Hyperglycemia". *Nutrients*. 2021 Jun 27;13(7):2210. doi: 10.3390/nu13072210.
4. **Di Tomo P**, Alessio N, Falone S, Pietrangelo L, Lanuti P, Cordone V, Santini SJ, Di Pietrantonio N, Marchisio M, Protasi F, Di Pietro N, Formoso G, Amicarelli F, Galderisi U, Pandolfi A. "Endothelial cells from umbilical cord of women affected by gestational diabetes: A suitable in vitro model to study mechanisms of early vascular senescence in diabetes". *FASEB J*. 2021 Jun;35(6):e21662. doi: 10.1096/fj.202002072RR.
5. Di Carlo P, Chiacchiaretta P, Sinjari B, Aruffo E, Stuppia L, De Laurenzi V, **Di Tomo P**, Pelusi L, Potenza F, Veronese A, Vecchiet J, Falasca K, Ucciferri C. Air and surface measurements of SARS-CoV-2 inside a bus during normal operation. *PLoS ONE* 15(11):e0235943. <https://doi.org/10.1371/journal.pone.0235943>.
6. Mandatori D, Pipino C, **Di Tomo P**, Schiavone V, Ranieri A, Pantalone S, Di Silvestre S, Di Pietrantonio N, Ucci M, Palmerini C, Failli P, Di Pietro N and Pandolfi A. Osteogenic transdifferentiation of vascular smooth muscle cells isolated from spontaneously hypertensive rats and potential menaquinone-4 inhibiting effect. *J Cell Physiol*. 2019;1–13. DOI: 10.1002/jcp.28576.
7. Ucci M, **Di Tomo P**, Tritschler F, Cordone VGP, Lanuti P, Bologna G, Di Silvestre S, Di Pietro N, Pipino C, Mandatori D, Formoso G, Pandolfi A. Anti-inflammatory Role of Carotenoids in Endothelial Cells Derived from Umbilical Cord of Women Affected by Gestational Diabetes Mellitus. *Oxid Med Cell Longev*. 2019 Jan 30;2019:8184656. doi: 10.1155/2019/8184656.
8. Di Pietro N, Potenza MA, Di Silvestre S, Addabbo F, Di Pietrantonio N, **Di Tomo P**, Pipino C, Mandatori D, Palmerini C, Failli P, Bonomini M, Montagnani M, Pandolfi A. Calcimimetic R-568 vasodilatory effect on mesenteric vascular beds from normotensive (WKY) and spontaneously hypertensive (SHR) rats. Potential involvement of vascular smooth muscle cells (vSMCs). *PLoS One*. 2018 Aug 9;13(8):e0202354. doi: 10.1371/journal.pone.0202354.
9. Pipino C, Mandatori D, Buccella F, Lanuti P, Preziuso A, Castellani F, Grotta L, **Di Tomo P**, Marchetti S, Di Pietro N, Cichelli A, Pandolfi A, Martino G. Identification and Characterization of a Stem Cell-Like Population in Bovine Milk: A Potential New Source for Regenerative Medicine in Veterinary. *Stem Cells Dev*. 2018 Nov 15;27(22):1587-1597.
10. Alessio N, Pipino C, Mandatori D, **Di Tomo P**, Ferone A, Marchisio M, Melone MAB, Peluso G, Pandolfi A, Galderisi U. Mesenchymal stromal cells from amniotic fluid are less prone to senescence compared to those obtained from bone marrow: An in vitro study. *J Cell Physiol*. 2018 Jun 15.
11. Castellano I, **Di Tomo P**, Di Pietro N, Mandatori D, Pipino C, Formoso G, Napolitano A, Palumbo A, Pandolfi A. Anti-Inflammatory Activity of Marine Ovolin A in an In Vitro Model of Endothelial Dysfunction Induced by Hyperglycemia. *Oxid Med Cell Longev*. 2018 Apr 19;2018:2087373. doi: 10.1155/2018/2087373. eCollection 2018.
12. **Di Tomo P**, Lanuti P, Di Pietro N, Baldassarre MPA, Marchisio M, Pandolfi A, Consoli A, Formoso G. Liraglutide mitigates TNF- α induced pro-atherogenic changes and microvesicle release in HUVEC from diabetic women. *Diabetes Metab Res Rev*. 2017 Jul 28.
13. Mandatori D, Penolazzi L, Pipino C, **Di Tomo P**, Di Silvestre S, Di Pietro N, Trevisani S, Angelozzi M, Ucci M, Piva R, Pandolfi A. Menaquinone-4 enhances osteogenic potential of human Amniotic Fluid Mesenchymal Stem Cells Cultured in a 2D and 3D dynamic culture system. *J Tissue Eng Regen Med*. 2017 May 16.

14. Codagnone M, Recchiuti A, Lanuti P, Pierdomenico AM, Cianci E, Patruno S, Mari VC, Simiele F, **Di Tomo P**, Pandolfi A, Romano M. Lipoxin A4 stimulates endothelial miR-126-5p expression and its transfer via microvesicles. *FASEB J*. 2017 Jan 18.
15. Bonomini M, Di Silvestre S, **Di Tomo P**, Di Pietro N, Mandatori D, Di Liberato L, Sirolli V, Chiarelli F, Indiveri C, Pandolfi A, Arduini A. Effect of peritoneal dialysis fluid containing osmo-metabolic agents on human endothelial cells. *Drug Des Devel Ther*. 2016 Nov 28; 10:3925-3932.
16. Di Pietro N, Giardinelli A, Sirolli V, Riganti C, **Di Tomo P**, Gazzano E, Di Silvestre S, Panknin C, Cortese-Krott MM, Csonka C, Kelm M, Ferdinandy P, Bonomini M, Pandolfi A. Nitric oxide synthetic pathway and cGMP levels are altered in red blood cells from end-stage renal disease patients. *Mol Cell Biochem*. 2016 Jun; 417(1-2):155-67. doi: 10.1007/s11010-016-2723-0.
17. **Di Tomo P**, Di Silvestre S, Cordone V.G.P., Giardinelli A, Faricelli B., Pipino C., Lanuti P., Peng T., Formoso G., Yang D., Arduini A., Chiarelli F., Pandolfi A. and Di Pietro N. Centella Asiatica and Lipoic Acid, or a combination thereof, inhibit monocyte adhesion to endothelial cells from umbilical cords of gestational diabetic women. *Nutr Metab Cardiovasc Dis*. 2015 Jul; 25(7):659-66.
18. Pipino C., Pierdomenico L., **Di Tomo P**, Di Giuseppe F., Cianci E., D'Alimonte I., Morabito C., Centurione L., Antonucci I., Mariggiò M.A., Di Pietro R., Ciccarelli R., Marchisio M., Romano M., Angelucci S. and Pandolfi A. Molecular and phenotypic characterization of human amniotic fluid-derived cells. A morphological and proteomic approach. *Stem Cells Dev*. 2015 Jun 15; 24(12):1415-28.
19. Di Fulvio P., Pandolfi A., Formoso G., Di Silvestre S., **Di Tomo P**, Giardinelli A., De Marco A., Di Pietro N., Taraborrelli M., Sancilio S., Di Pietro R., Piantelli M., Consoli A. "Features of endothelial dysfunction in gestational diabetic women umbilical cord vessels". *Nutr Metab Cardiovasc Dis*. 2014 Dec; 24(12):1337-45.
20. Pipino C., **Di Tomo P**, Mandatori D., Cianci E., Lanuti P., Cutrona M.B., Penolazzi L., Pierdomenico L., Lambertini E., Antonucci I., Sirolli V., Bonomini M., Romano M., Piva R., Marchisio M., Pandolfi A. Calcium Sensing Receptor Activation by Calcimimetic R-568 in Human Amniotic Fluid Mesenchymal Stem Cells: Correlation with Osteogenic Differentiation. *Stem Cells Dev*. 2014 Dec 15;23(24):2959-71. doi: 10.1089/scd.2013.0627.
21. **Di Tomo P**, Pipino C., Lanuti P., Morabito C., Pierdomenico L., Sirolli V., Bonomini M., Miscia S., Mariggiò M.A., Marchisio M., Barboni B. and Pandolfi A. Calcium Sensing Receptor Expression in Ovine Amniotic Fluid Mesenchymal Stem Cells and the Potential Role of R-568 during Osteogenic Differentiation. *PLoS One*. 2013 Sep 9;8(9):e73816.
22. D'Alimonte I., Lannutti A., Pipino C., **Di Tomo P**, Pierdomenico L., Cianci E., Antonucci I., Marchisio M., Romano M., Stuppia L., Caciagli F., Pandolfi A., Ciccarelli R. Wnt Signaling Behaves as a "Master Regulator" in the Osteogenic and Adipogenic Commitment of Human Amniotic Fluid Mesenchymal Stem Cells. *Stem Cell Rev. and Reports* 2013 Oct;9(5):642-54.
23. Di Castelnuovo A., Di Pietro N., **Di Tomo P**, Di Silvestre S., Pipino C., Nenna G., Bonomini M., Iacoviello L., Pandolfi A., Metabolic Syndrome in Survivors from the 2009 Earthquake in Italy. *Nutr Metab Cardiovasc Dis*. 2013 Jan;23(1):e5-8.
24. Di Pietro N., **Di Tomo P**, Di Silvestre S., Giardinelli A., Pipino C., Morabito C., Formoso G., Mariggiò M.A., Pandolfi A. Increased iNOS activity in Vascular Smooth Muscle Cells from diabetic rats: potential role of Ca²⁺/Calmodulin-dependent Protein Kinase II delta 2 (CaMKIIdelta2). *Atherosclerosis*. 2013 Jan;226 (1):88-94.
25. **Di Tomo P**, Canali R., Ciavardelli D., Di Silvestre S., De Marco A., Giardinelli A., Pipino C., Di Pietro N., Virgili F., Pandolfi A. β -Carotene and lycopene affect endothelial response to TNF- α reducing nitro-oxidative stress and interaction with monocytes. *Mol Nutr Food Res*. 2012; 56:217-27.