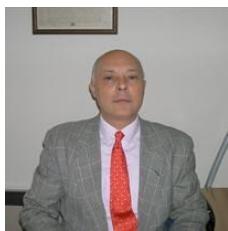


PERSONAL INFORMATION



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[Skype Stem](#)

WORK EXPERIENCE

- 1979-81: fellow in the Laboratory of Electron Microscopy, Department of Human Anatomy, University of Rome "La Sapienza".
- 1981: visiting researcher Lab. Natl. of Health in Paris (prof. J. Dayan): *in vitro* culture studies.
- 1983: researcher, School of Medicine, University of Naples Federico II (Histology).
- 1988/9: fellow Department of Biostructures University of Washington, Seattle (WA, USA). 3D reconstruction of pancreatic islets.
- 1989/91: fellow, III Medical Clinic of the Justus-Liebig Universität, Giessen (Germany) (chairman prof. K. Federlin) and subsequent scientific collaboration.
- since 1992 professor of Histology and Embryology in the Dentistry School of the Second University of Naples;
- since 1996 professor Histology and Embryology in the School of Medicine of the same Institution.
- Since 2005 and Actual Position: full professor of Histology and Embryology, Department of Experimental Medicine. Director of the TERM lab. Co-director in the CGA (Centro Grandi Apparecchiature) and BioTecknet. Director of the Laboratory: Tissue Engineering, Regenerative Medicine and Cancer Stem cell targeting.
Director of Hospital Unit of Diagnostics in Cytometry and Molecular Oncology (Deep Sequencing genes).

EDUCATION AND TRAINING

1968-1973 Classical High school

1973-1979 Medical School University Federico II of Naples, Obtained cum Laude

PERSONAL SKILLS

Mother tongue Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	C1	C1	C1
	Replace with name of language certificate. Enter level if known.				
French	C2	C1	C2	C1	C1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- good communication skills gained through my experience as academic and speaker in many international congress.

Organisational / managerial skills leadership (currently responsible for a team of 10 people)

ADDITIONAL INFORMATION

Funds and collaborations

- Italian MURST (Projects of relevant Interest PRIN-SIRIO-FIRB);
- CNR PROJECT;
- COST "NAMABIO"
- European Community (Eurotransbio);
- PON Prometheus, PON 03 and PON 07 -ESA (European Space Agency); -Campania Region. - Private Companies (Novaxa Leader); -Second University of Naples

- Italian PRIN Miur
Collaborations: Prof. Dubois, ULB, Belgium,
prof. T. Mitsiadis, Institute of Oral Biology Zurich,
prof. Pacifici, Thomas Jefferson University Phi, USA,
prof. Cossu and prof. Sampaolesi San Raffaele-DIBIT, Milan;
prof. Sampaolesi, University of Leuven, Stem cell Institute;
prof. Papagerakis, University of Michigan, Dep. Head and Neck, Ann Arbor;
Dr. A. Perry, Dublin Trinity College,
Prof Evzen Amler, Charles University of Prague, Institute of Biophysics,
Prof Regad, Nottingham Trent University, UK
Prof. Nirmal Robinson, Adelaide (Australia)

Referee and Editor activities:

Referee of several Journals, including:
Stem Cells; Tissue Eng; Cancer Res; Int. J. of cancer;
FEBS letters; JBMR; Cell Death and Differentiation; BMC central; PLOS One; Stem Cells Rev;
ECM J; Biomaterials; J Cell Physiology; J Cell Biochem; Bone; Gene Ther; J Cell Biochem., Cytotherapy, Stem cell
Rev rep; Stem Cells and Regen, frontiers in Physiol; Oncotarget.
Member of the Editorial Board and Top Reviewer of the following International Journals:
-Stem Cells,
-Stem Cells Transl Med
-Plos One; Journal of Dental
research; Stem Cell Reviews
Letters, Stem Cells in Oral
Biology; Cells;Int J Mol Sci

Scientific Society

Member of several societies including the Italian Society of Human Anatomy and Histology

Scientific Activity

Topics: Mesenchymal Stem Cells differentiation into bone and Cancer Stem Cells of osteosarcomas and oral cancer. In particular, he studied: -mesenchymal stem cells, characterizing a subpopulation, called SBP-DPSCs which has demonstrated capability to produce woven bone in vitro. Moreover, he has studied their interactions with scaffolds and tissue formation in engineerized rotating apparatuses. Studies led to the production of a bone tissue in vivo. The studies were then enlarged and applied to humans leading to a successful clinical trial in which mandible bone defects were completely restored. Moreover, he is studying other than the applications of DPSCs, adult Mesenchymal cells of human adipose tissue, with the production in vitro and in vivo of a loose adipose, vascularized connective and other tissues. Mesenchymal stem cells were also loaded on several scaffolds and in 3D their behavior was studied. The ability to drive differentiation has been evidenced. In addition, he studies the cancer stem cells (CSCs) in osteosarcomas. He identified those cells using the CD133 marker and other techniques, then after transplantation into NOD/SCID mice obtained tumours with the same CSCs. Studies on CSCs and compared those cells when forming spheres with adherent ones from sarcomas and oral cancer. Another interesting topic regards the studies of interaction of CSCs with adipose stem cells. Articles on those topics have been published to International Journals with IF. Two International patents have been also obtained and extended worldwide. Studies on several aspects of cancers have also been published.

Publications

- 1) Pisanti F.A., **Papaccio G.**, Frascatore S.: Dialysis of haemolysates in glycosylated hemoglobin assay. *Acta Diabetologica Latina, (oggi Acta Diabetologica)* 29, 393-4, 1982.
 - 2) **Papaccio G.** and Pisanti F.A.: Scanning Electron Microscopy of the Cephalopod Gill: a vascular cast study. *J. Electron Microscopy*, 33: 349- 355, 1984.
 - 3) **Papaccio G.**, Pisanti F.A. and Frascatore S.: Acetyl- homocysteine thiolactone-induced increase of Superoxide Dismutase counteracts the effect of subdiabetogenic doses of streptozocin. *Diabetes* 35, 470-474, 1986.
 - 4) **Papaccio G.**, Esposito V.: Hyperglycemic effects of hydrochlorothiazide and propranolol. A biochemical and ultrastructural study. *Acta Diabetologica Latina, (oggi Acta Diabetologica)* 24, 325-330, 1987.
 - 5) Esposito V. and **Papaccio G.**: Nephrotoxicity of Cyclosporin A in diabetic Bio Breeding rats, *Micron*, 19, 227-234, 1988.
 - 6) Pisanti F.A., Frascatore S., **Papaccio G.**: Superoxide dismutase activity in the Bio Breeding rat: a dynamic time-course study. *Life Sciences*, 43, 1625-1632, 1988.
 - 7) **Papaccio G.** and Mezzogiorno V.: Morphological aspects of glucagon and somatostatin islet cells in diabetic bio breeding and low-dose streptozocin-treated wistar rats. *Pancreas* 4, 289-294, 1989.
 - 8) **Papaccio G.**, Esposito V. and Mezzogiorno V.: Multiple low-dose streptozocin-treated rats: biochemical and morphological effects of Cyclosporin A administration. *Cell. Mol. Biol.* 35, 409-420, 1989.
 - 9) **Papaccio G.**, Esposito V. and Mezzogiorno V.: Recovery from pancreatic side effects after the withdrawal of Cyclosporin A treatment in Bio Breeding and Wistar rats. *Micron* 20, 88-97, 1989.
 - 10) **Papaccio G.**, Esposito V.: Cyclosporin administration during pregnancy induces ultrastructural changes on pancreatic Beta-cells of newborn rats. *Cell Tissues and Organs*, 137: 336-341, 1990.
 - 11) **Papaccio G.**, Chieffi-Baccari G., Mezzogiorno V., Esposito V.: Capillary area in early low-dose-Streptozocin treated mice. *Histochemistry*, 95, 19-21, 1990.
 - 12) **Papaccio G.**, Linn T., Federlin K., Volkmann A., Esposito V. and Mezzogiorno V.: Further morphological and biochemical observations on early low dose streptozocin diabetes in mice. *Pancreas*, 6, 659-67, 1991.
 - 13) **Papaccio G.**: Prevention of low-dose-streptozocin induced diabetes by acetyl-homocysteine-thiolactone. *Diabetes Res and Clin Pr*, 13, 95- 102, 1991.
 - 14) **Papaccio G.**, Frascatore S., Esposito V., Pisanti F.A.: Early macrophage infiltration in low dose streptozocin decreases islet superoxide dismutase levels: prevention by silica pretreatment. *Acta Anatomica (oggi Cells Tissues and Organs)* 142: 141-146, 1991.
 - 15) **Papaccio G.**, Latronico M., Frascatore S. and Pisanti F.: Superoxide dismutase in low-dose-treated mice: a dynamic time-course study. *Int. J. Pancreatol.* 10, 253-260, 1991.
 - 16) Sabbatini M., De Nicola L., Uccello F., Romano G., **Papaccio G.** et al.: Medium-term cyclosporin renal dysfunction and its reversibility in rats.
- Am. J. Physiol Sect E**, 260: 898-905, 1991.
- 17) **Papaccio G.**, Esposito V.: Ultrastructural observations on cytotoxic effector cells infiltrating pancreatic islets of low dose streptozocin treated mice. *Virchows Archiv A*, 420: 5-10, 1992.
 - 18) **Papaccio G.**, Chieffi-Baccari G.: Alterations of islet microvasculature in low dose streptozocin treated mice. *Histochemistry and Cell Biol.* 97: 371-374, 1992.
 - 19) **Papaccio G.** and Latronico M.: Diabetes incidence and histopathological lesions in animal models. *Diabetes Res. and Clin. Practice*, 18, 137, 1992.
 - 20) **Papaccio G.**, Chieffi Baccari G., Esposito V.: Immunomodulation of low dose streptozocin diabetes in mice reveals that insulitis is not obligatory for B cell destruction. *J. of Anatomy*, 181, 403-407, 1992.
 - 21) **Papaccio G.**: Gangliosides prevent insulitis but not islet B cell disruption in LDS treated mice. *Diabetes Res. and Clin. Practice*, 19, 9-15, 1993.
 - 22) **Papaccio G.**, Linn T., Chieffi-Baccari G.: Morphological observations on pancreatic islet blood vessels in low dose streptozocin treated mice.
- J. of Anatomy**, 182, 45-53, 1993.
- 23) **Papaccio G.**, Chieffi Baccari G., Mezzogiorno V., Esposito V.: Extra-islet infiltration in NOD mouse: observations after immunomodulation.
- Pancreas**, 8, 459-464, 1993.
- 24) **Papaccio G.**, Chieffi Baccari G., Mezzogiorno V. : In vivo effects of gangliosides on NOD mice. *Acta Anat. (oggi Cells Tissues and Organs)*
- 147: 168-173, 1993.
- 25) **Papaccio G.**, Chieffi Baccari G.: Early insulitis and islet vascular system. *Diabetologia*, 36, 682, 1993.
 - 26) **Papaccio G.**: Insulitis and islet microvasculature in type I diabetes. *Histol. Histopathol.* (invited review), 8: 751-759, 1993.
 - 27) **Papaccio G.** : Is morphology a mere datum or an essential requisite for prediction of a disease? The case of insulitis in type 1 diabetes.
- Biomed Res**, 5 (2): 95-97, 1994.
- 28) **Papaccio G.**, Esposito V., Chieffi Baccari G.: The immunosuppressant FK506 inhibits the damage to mouse pancreatic islets induced by low dose streptozocin. *Cell. Tissue Res.* 277: 573-578, 1994.
 - 29) **Papaccio G.**, Frascatore S and Pisanti F.A: An increase in superoxide dismutase counteracts islet vascular alterations in low dose streptozocin treated mice. *Histochemistry and Cell Biol.* 101: 215-221, 1994.
 - 30) **Papaccio G.**, Strate C and Linn T: Pancreatic duct infiltration in the low-dose streptozocin-treated mouse. *Histol. Histopathol.* 9: 529-534, 1994.
 - 31) **Papaccio G.** : Morphology and Molecular Biology: can the latter ignore the former? An Imaginary Dialogue. *Arch. Histol. Cytol.* 57: 301-303, 1994.
 - 32) Linn T, Strate C, Federlin K and **Papaccio G.**: Inter-cellular-adhesion-molecule-1 (ICAM-1) expression in the islets of non obese diabetic (NOD) and low-dose streptozocin-treated mouse pancreas. *Histochemistry and Cell Biol* 97:371-374, 1994.
 - 33) **Papaccio G.**, Chieffi Baccari G, Strate C and Linn T: Pancreatic duct inflammatory infiltration in the non obese diabetic (NOD) mouse. *J. Anat.*
- 185: 465-470, 1995.
- 34) **Papaccio G.**, Esposito V., Latronico M VG and Pisanti FA : Administration of a nitric oxide synthase inhibitor does not suppress low-dose streptozocin-treated diabetes in mice. *Int J Pancr.* 17: 63-68, 1995.
 - 35) **Papaccio G.**: Inhibition of Nitric oxide formation and prevention of type 1 diabetes. *Autoimmunity*, 20: 69, 1995.
 - 36) **Papaccio G.**, Frascatore S., Pisanti F.A., Latronico M G V and Linn T: Superoxide dismutase in the non obese diabetic mouse: a dynamic time-course study. *Life Sciences* 56: 2223-2228, 1995.

- 37) **Papaccio G**, Pisanti FA, Sellitti S, Frascatore S and Chieffi Baccari G: The vitamin E derivative by U-83836-E in the low-dose streptozocin- treated mouse: effects on diabetes development. *Diabetes Res. and Clin. Pr.* 30:163-171, 1995.
- 38) **Papaccio G**, Sellitti S., Salvatore G. and Chieffi Baccari G.: The Harderian Gland in autoimmune diabetes of the non obese diabetic mouse.
- Microscopy Res and Technique** 34:156-165, 1996.
- 39) **Papaccio G**: Diabetic incidence in animal models of type 1 diabetes: a "natural" decrease? The case of the non obese diabetic (NOD) mouse.

Amer.J. Pathol. 149: 727-728, 1996.

- 40) Caputi M., De Luca L., **Papaccio G.**, D'Aponte A., Cavallotti I., Scala P., Scarano F., Manna M. Gualdiero L. and De Luca B.: Prognostic role of cyclin D1 in non small cell lung cancer: an immunohistochemical analysis. *Eur. J. Histochem.* 41: 133-138, 1997.
- 41) **Papaccio G.**, Latronico MGV, Pisanti FA, Federlin K and Linn T: Adhesion molecules and microvascular changes in the nonobese diabetic (NOD) mouse pancreas. An NO-inhibitor (L-NAME) is unable to block adhesion inflammation-induced activation. *Autoimmunity* 27: 65-77, 1998.
- 42) **Papaccio G.**, Morelli MP, Pisanti FA: Effect of butylated hydroxytoluene (BHT) enriched diet on serum antioxidant activity in pre- and overtly diabetic NOD mice. *Life Sciences* 63: 1357-60, 1998.
- 43) **Papaccio G.**, De Luca B, Pisanti FA: Macrophages and antioxidant status in the NOD mouse pancreas. *J.Cell Biochem* 71: 479-490,1998.
- 44) **Papaccio G.**, Ammendola E, Pisanti FA: Nicotinamide decreases MHC class II but not MHC class I expression and increases ICAM-I structures in the nonobese diabetic (NOD) mouse pancreas. *J Endocrinol* 160: 389-400 1999.
- 45) **Papaccio G.**, De Luca A, Pisanti F.A.and Zarrilli F: Detection of Dendritic cells in the nonobese diabetic (NOD) mouse islet pancreatic infiltrate is correlated with the Th2-cytokine production. *J Cell Biochem* 74: 447-457, 1999.
- 46) **Papaccio G.**, Pisanti FA, Latronico MVG, Ammendola E and Galdieri M: Multiple low-dose as well as single high dose treatment with streptozocin do not generate nitric oxide. *J Cell Biochem* 77: 82-91, 2000.
- 47) **Papaccio G.**, Nicoletti F, Pisanti F.A., Bendtzen K and Galdieri M: Prevention of spontaneous autoimmune diabetes in NOD mice by transferring in vitro antigen-pulsed syngeneic dendritic cells. *Endocrinology* 141: 1500-1505, 2000.
- 48) Nicoletti F., Di Marco R., Conget I., Gomis R., Edwards C.3rd, **Papaccio G.**, Bendtzen K., Sandler S. Sodium fusidate ameliorates the course of diabetes in mice. *J Autoimmunity*. 15: 395-405, 2000.
- 49) **Papaccio G.**, Latronico MVG, Graziano A, Lanza A. and Pedullà M: Tacrolimus, but not Cyclosporine A, significantly increases expression of ICAM-1 and IFN- γ in the NOD mouse. *J Cell Biochem* 81:107-116, 2001.
- 50) Di Marco R, Puglisi G, **Papaccio G.**, Nicoletti A, Patti F, Reggio A, Bendtzen F, Nicoletti F: Sodium fusidate (fusidin) ameliorates the course of monophasic experimental allergic encephalomyelitis in the Lewis rats. *Mult Scler* 7: 101-4, 2001.
- 51) **Papaccio G.**, Pedullà M, Ammendola E, and Todaro M. Cytokine regulatory effects on -1 proteinase inhibitor expression in NOD mouse islet endothelial cells. *J Cell Biochem* 85: 123-130, 2002.
- 52) **Papaccio G.**, Pisanti FA, Di Montefiano R, Graziano A and Latronico MVG: Th1 and Th2 cytokines exert regulatory effects upon islet microvascular areas in the NOD mouse. *J Cell Biochem* 86 651-664, 2002.
- 53) **Papaccio G.**, Nicoletti F, Pisanti FA, Galdieri M, Bendtzen K. An Imidazoline Compound Completely Counteracts Interleukin-1[β] toxic Effects to Rat Pancreatic Islet [β] Cells. *Mol Med*. 8:536-45, 2002.
- 54) Nicoletti F, Di Marco R, **Papaccio G.**, Conget I, Gomis R, Bernardini R, Sims JE, Shoenfeld Y and Bendtzen K. Essential pathogenetic role of endogenous IL-18 in murine diabetes induced by multiple low doses of streptozocin. Prevention of hyperglycemia and insulitis by a recombinant IL-18-binding protein: Fc construct. *Eur J Immunol* 33: 2278-2286, 2003.
- 55) Todaro M, Di Gaudio F, Lavitrano M, Stassi G. and **Papaccio G.** Islet β -cell apoptosis triggered *in vivo* by interleukin-1 β is not related to the inducible nitric oxide synthase pathway: evidence for mithocondrial function impairment and lipoperoxidation. *Endocrinology* 144: 4264-4271, 2003.
- 56) Di Marco R, Mangano K, Quattrochi C, Musumeci R, Speciale AM, **Papaccio G.**, Buschard K, Bendtzen K, Nicoletti F Curative effects of sodium fusidate on the development of dinitrobenzenesulfonic acid-induced colitis in rats *Clin Immunol* 109: 266-71, 2003.
- 57) **Papaccio G.**, Graziano A, Valiante S, d'Aquino R, Travali A, and Nicoletti F Interleukin (IL)-1 β toxicity to islet β cells: Efroxan exerts a complete protection. *J. Cell Physiol* 203: 94-102, 2005.
- 58) **Papaccio G.**, Graziano A, d'Aquino R, Valiante S and Naro F A biphasic role of nuclear transcription factor (NF)-kB in the islet β -cell apoptosis induced by Interleukin (IL)-1 β . *J. Cell Physiol*, 204: 124-130, 2005.
- 59) Laino L, d'Aquino R, Graziano A, Lanza V, Carinci F, Pirozzi G, Naro F and **Papaccio G.** Dental pulp stem cells can be detected in aged humans: an useful source for living autologous fibrous bone tissue (LAB). *J. Bone Mineral. Res.*, 20:1394-402, 2005.
- 60) Laino L, Graziano A, d'Aquino R, Pirozzi G, Lanza V, Valiante S, De Rosa A, Naro F, Vivarelli E and **Papaccio G.** An approachable human adult stem cell source for hard-tissue engineering. *J. Cell Physiol*. 206:693-701, 2006.
- 61) **Papaccio G.**, Graziano A, d'Aquino R, Graziano MF, Pirozzi G, Menditti D, De Rosa A, Carinci F and Laino G. Long-term cryopreservation of dental pulp stem cells (SBP-DPSCs) and their differentiated osteoblasts: a cell source for tissue repair. *J. Cell Physiol*. 208: 319-325, 2006.
- 62) **Papaccio G.** and Laino G. First International Meeting on "Stem Cell applications in the Craniofacial region" *J. Cell Physiol*. 208:473-5, 2006.
- 63) **Papaccio G.**, Graziano A, d'Aquino R, De Francesco F, Puca A, Pedullà M. An early but intense cytokine production within the islets may be predictive for type 1 diabetes occurrence in the Bio Breeding (BB) rat. *J. Cell Physiol* 209:1016-20, 2007.
- 64) Pedullà M, Desiderio V, Graziano A, d'Aquino R, Puca A and **Papaccio G.** Effects of a vitamin D₃analog on diabetes in the Bio Breeding (BB) rat. *J. of Cell Biochem*, 100:808-814, 2007.
- 65) Pedulla M, d'Aquino R, Desiderio V, de Francesco F, Puca A, **Papaccio G.** MnSOD mimic compounds can counteract mechanical stress and islet beta cell apoptosis, although at appropriate concentration ranges. *J Cell Physiol*. 212:432-8, 2007.
- 66) d'Aquino R, Graziano A, Sampaolesi M, Laino G, Pirozzi G, De Rosa A, **Papaccio G.** Human postnatal dental pulp cells co-differentiate into osteoblasts and endotheliocytes: a pivotal synergy leading to adult bone tissue formation. *Cell Death Differ* 14(6):1162-1171, 2007.
- 67) Graziano A, d'Aquino R, Cusella De Angelis MG, Laino G, Piattelli A, Pacifici M, De Rosa A and **Papaccio G.** Concave Pit-Containing Scaffold Surfaces Improve Stem Cell-Derived Osteoblast Performance and Lead to Significant Bone Tissue Formation. *PLoS One* 2: e496, 2007.
- 68) Graziano A, d'Aquino R, De Angelis MG, De Francesco F, Giordano A, Laino G, Piattelli A, Traini T, De Rosa A, **Papaccio G.** Scaffold's surface geometry significantly affects human stem cell bone tissue engineering. *J Cell Physiol*. 2008; 214(1):166-72.
- 69) A. Graziano, R. d'Aquino, G. Laino, A. Proto, M. T. Giuliano, G. Pirozzi, A. De Rosa, D. Di Napoli and **G. Papaccio**. Human CD34+ stem cells produce bone nodules *in vivo*. *Cell Proliferation* 2008, 41: 1-11.
- 70) D'Andrea F., De Francesco F. , Ferraro G. A., Desiderio V., De Rosa A. and **Papaccio G.** Large-scale production of Human adipose tissue from stem cells: a new tool for regenerative medicine and tissue banking. *Tissue Eng* 14(3):233-42, 2008.
- 71) Tirino V, Desiderio V, d'Aquino R, De Francesco F, Pirozzi G, Galderisi U,Cavaliere C, De Rosa A and **Papaccio G.** Detection and characterization of CD133+ cancer stem cells in human solid tumours. *PLoS One* - 2008;3:e3469.
- 72) Graziano A, d'Aquino R, Laino G, **Papaccio G.** Dental pulp stem cells: a promising tool for bone re generation 2008 *Stem Cell Rev* 4:21-6.
- 73) d'Aquino R, De Rosa A, Laino G, Caruso F, Guida L, Rullo R, Checchi V, Laino L, Tirino V, **Papaccio G.** Human dental pulp stem cells: from biology to clinical applications. *J Exp Zoolog B Mol Dev Evol*. 2009 312B (5):408-15.

- 74) De Rosa A, De Francesco F, Tirino V, Ferraro GA, Paino F, Pirozzi G, Desiderio V, D'Andrea F, **Papaccio G**. A new method for the cryopreserving ASCs: an attractive and suitable large-scale and long-term cell banking technology. **Tissue Eng.** 15: 659-667, 2009.
- 75) De Francesco F, Tirino V, Desiderio V, Ferraro G, D'Andrea F, Giuliano M, Libondi G, Pirozzi G, De Rosa A, **Papaccio G**. Human CD34/CD90 ASCs are capable of growing as sphere clusters, producing high levels of VEGF and forming capillaries., **PLoS One**. 2009 Aug

- 6;4(8):e6537.
- 76) d'Aquino R, De Rosa A, Lanza V, Tirino V, Laino L, Graziano A, Desiderio V, Laino G, **Papaccio G.** Human mandible bone defect repair by the grafting of dental pulp stem/progenitor cells and collagen sponge biocomplexes. *Eur Cell Mater.* 2009;18:75-83.
- 77) L. Spath, V. Rotilio, M. Alessandrini, G. Gambara, L. De Angelis, M. Mancini, T. A. Mitsiadis, E. Vivarelli, F. Naro, A. Filippini, **G. Papaccio**
- Explant-derived human dental stem pulp stem cells enhance differentiation and proliferation potentials *J. Cell. Mol. Med.* 2010; 14:1635-44.
- 78) C. Mangano, A. De Rosa, V. Desiderio, R. d'Aquino, A. Piattelli, F. De Francesco, V. Tirino, F. Mangano and **G. Papaccio.** The Osteoblastic Differentiation of Dental Pulp Stem Cells and Bone Formation on Different Titanium Surface Textures *Biomaterials.* 2010 31: 3543-3551.
- 79) Paino F, Ricci G, De Rosa A, D'Aquino R, Laino L, Pirozzi G, Tirino V, **Papaccio G.** Ecto-mesenchymal stem cells from dental pulp are committed to differentiate into active melanocytes. *Eur Cell Mater.* 2010 Oct 7;20:295-305.
- 80) De Rosa A, Tirino V, Paino F, Tartaglione A, Mitsiadis T, Feki A, D'Aquino R, Laino L, Colacurdi N, **Papaccio G.** Amniotic fluid-derived MSCs lead to bone differentiation when co-cultured with dental pulp stem cells. *Tissue Eng.* 2011 17(5-6):645-53.
- 81) Tirino V, Paino F & d'Aquino R, Desiderio V, De Rosa A, and **Papaccio G.** Methods for the identification, characterization and banking of human dpSCs: current strategies and perspectives *Stem cells Rev Reports* 7: 608-15, 2011.
- 82) Tirino V, Desiderio V, Paino F, De Rosa A, Papaccio F, Fazioli F, Pirozzi G and **Papaccio G.** Human primary bone sarcomas contain CD133⁺ cancer stem cells displaying high tumourigenicity *in vivo*. *FASEB J.* 25: 2022-30; 2011.
- 83) Galli D, Benedetti L, Bongio M, Maliardi V, Silvani G, Ceccarelli G, Ronzoni F, Conte S, Benazzo F, Graziano A, **Papaccio G.**, Sampaolesi M, Cusella De Angelis Mg (2011). In vitro osteoblastic differentiation of human mesenchymal stem cells and human dental pulp stem cells on poly-L-lysine-treated titanium-6-aluminium-4-vanadium. *Journal of biomedical materials research. Part a,* ISSN: 1549-3296, doi: 10.1002/jbm.a.32996.
- 84) Martino S, Tiribuzi R, Ciraci E, Makrypidi G, D'angelo F, Di Girolamo I, Gritti A, Angelis Gm, **Papaccio G.**, Sampaolesi M, Berardi Ac, Datti A, Orlacchio A (2011). Coordinated Involvement of Cathepsins S, D and Cystatin C in the Commitment of Hematopoietic Stem Cells to Dendritic Cells. *The international journal of biochemistry & cell biology*, 43: 775-783, 2011.
- 85) R d'Aquino, V Tirino, V Desiderio, M Studer, GC De Angelis, L Laino, A De Rosa, D Di Nucci, S Martino, F Paino, M Sampaolesi, **G Papaccio** 2011 Human neural crest-derived postnatal cells exhibit remarkable embryonic attributes either *in vitro* or *in vivo* *European Cells & Materials* 21:304-316.
- 86) Mangano C, Paino F, d'Aquino R, De Rosa A, Iezzi G, Piattelli A, Laino L, Mitsiadis T, Desiderio V, Mangano F, **Papaccio G.**, Tirino V Human dental pulp stem cells hook into bicoral scaffold forming an engineered biocomplex. *PLOS One* 2011 6(4):e18721.
- 87) Mitsiadis TA, Feki A, **Papaccio G.** Catón J. Dental pulp stem cells, niches, and notch signaling in tooth injury. *J Dent Res* 2011; 23:275-9.
- 88) Schiraldi C, Stellavato A, D'Agostino A, Tirino V, d'Aquino R, Woloszyk A, De Rosa A, Laino L, **Papaccio G.**, Mitsiadis TA. Fighting for territories: time-lapse analysis of dental pulp and dental follicle stem cells in co-culture reveals specific migratory capabilities. *Eur Cell Mater.* 2012;24:426-40.
- 89) Tirino V, Desiderio V, Paino F, De Rosa A, Papaccio F, La Noce M, Laino L, De Francesco F, **Papaccio G.** Cancer stem cells in solid tumors: an overview and new approaches for their isolation and characterization. *FASEB J.* 2013 Jan;27(1):13-24. doi: 10.1096/fj.12-218222. Epub 2012 Sep 28.
- 90) Desiderio V, De Francesco F, Schiraldi C, De Rosa A, La Gatta A, Paino F, d'Aquino R, Ferraro GA, Tirino V, **Papaccio G.** Human Ng2+ adipose stem cells loaded *in vivo* on a new crosslinked hyaluronic acid-Lys scaffold fabricate a skeletal muscle tissue. *J Cell Physiol.* 2013 Aug;228(8):1762-73. doi: 10.1002/jcp.24336.
- 91) Giuliani A, Manescu A, Langer M, Rustichelli F, Desiderio V, Paino F, De Rosa A, Laino L, d'Aquino R, Tirino V, **Papaccio G.** Three years after transplants in human mandibles, histological and in-line holotomography revealed that stem cells regenerated a compact rather than a spongy bone: biological and clinical implications *Stem Cells Transl Med.* 2013 Apr;2(4):316-24.
- 92) Czerwinski MJ, Desiderio V, Shkeir O, Papagerakis P, Lapadatescu MC, Owen JH, Athanassiou-Papaefthymiou M, Zheng L, **Papaccio G.**, Prince ME, Papagerakis S. In vitro Evaluation of Sialyl Lewis X Relationship with Head and Neck Cancer Stem Cells. *Otolaryngol Head Neck Surg.* 2013 , 149: 97-104.
- 93) Paino F, La Noce M, Tirino V, Naddeo P, Desiderio V, Pirozzi G, De Rosa A, Laino L, Altucci L, **Papaccio G.** Histone Deacetylase inhibition with Valproic Acid down-regulates Osteocalcin gene expression in Human Dental Pulp Stem Cells and Osteoblasts: Evidence for HDAC2 involvement. *Stem Cells.* 2013 Sep 16. doi: 10.1002/stem.1544. 2014 Jan;32(1):279-89.
- 94) Desiderio V, Paino F, Nebbioso A, Altucci A, Pirozzi G, Papaccio F, La Noce M, De Rosa A, **Papaccio G** and Tirino V. Molecular Profiling of Human Primary Chondrosarcoma-Derived Spheres Reveals Specific and Target Genes Involved in Multidrug Resistance and Metastasis. *J Carcinog & Mutagen.* 5: 152, 2014.
- 95) La Noce M, Paino F, Spina A, Naddeo P, Montella R, Desiderio V, De Rosa A, **Papaccio G.**, Tirino V, Laino L. Dental pulp stem cells: State of the art and suggestions for a true translation of research into therapy. *J Dent.* 42: 761-768, 2014.
- 96) Desiderio V, Tirino V, **Papaccio G.**, Paino F. Bone defects: Molecular and cellular therapeutic targets. *Int J Biochem Cell Biol.* 2014 Apr 2; 1C:75-78. doi: 10.1016/j.biocel.2014.03.025.
- 97) La Noce M, Mele L, Tirino V, Paino F, De Rosa A, Naddeo P, Papagerakis P, **Papaccio G.**, Desiderio V Neural crest stem cell population in craniomaxillofacial development and tissue repair.. *Eur Cell Mater.* 2014 Oct 28;28:348-57.
- 98) Desiderio V, Papagerakis P, Tirino V, Zheng L, Matossian M, Prince ME, Paino F, Mele L, Papaccio F, Montella R, **Papaccio G.**, Papagerakis
- S. Increased fucosylation has a pivotal role in invasive and metastatic properties of head and neck cancer stem cells. *Oncotarget.* Jan 1;6(1):71-84.
- 99) Naddeo P, Laino L, La Noce M, Piattelli A, De Rosa A, Iezzi G, Laino G, Paino F, **Papaccio G.**, Tirino V. Surface biocompatibility of differently textured titanium implants with mesenchymal stem cells. *Dent Mater.* 2015 Mar;31(3):235-43. doi: 10.1016/j.dental.2014.12.015. Epub 2015 Jan 10.
- 100) D'Agostino A, Stellavato A, Busico T, Papa A, Tirino V, **Papaccio G.**, La Gatta A, De Rosa M, Schiraldi C. In vitro analysis of the effects on wound healing of high- and low-molecular weight chains of hyaluronan and their hybrid H-HA/L-HA complexes. *BMC Cell Biol.* 2015 Jul 11;16:19. doi: 10.1186/s12860-015-0064-6.
- 101) Perillo E, Porto S, Falanga A, Zappavigna S, Stiuso P, Tirino V, Desiderio V, **Papaccio G.**, Galdiero M, Giordano A, Galdiero S, Caraglia M. Liposome armed with herpes virus-derived gH625 peptide to overcome doxorubicin resistance in lung adenocarcinoma cell lines. *Oncotarget.* 2016 Jan 26;7(4):4077-92. doi: 10.18632/oncotarget.6013.
- 102) Mele L, Vitiello PP, Tirino V, Paino F, De Rosa A, Liccardo D, **Papaccio G.**, Desiderio V. Changing Paradigms in Cranio-Facial Regeneration: Current and New Strategies for the Activation of Endogenous Stem Cells. *Front Physiol.* 2016 Feb 24;7:62. doi: 10.3389/fphys.2016.00062. eCollection 2016.

- 103) Stellavato A, Tirino V, de Novellis F, Della Vecchia A, Cinquegrani F, De Rosa M, **Papaccio G**, Schiraldi C. Biotechnological Chondroitin a Novel Glycosaminoglycan With Remarkable Biological Function on Human Primary Chondrocytes. J Cell Biochem. 2016 Sep;117(9):2158- doi: 10.1002/jcb.25556. Epub 2016 May 11

- 104) Paino F, La Noce M, Di Nucci D, Nicoletti GF, Salzillo R, De Rosa A, Ferraro GA, **Papaccio G**, Desiderio V, Tirino V. Human adipose stem cell differentiation is highly affected by cancer cells both in vitro and in vivo: implication for autologous fat grafting. *Cell Death Dis.* 2017 Jan 19;8(1):e2568. doi: 10.1038/cddis.2016.308.
- 105) Paino F, La Noce M, Giuliani A, De Rosa A, Mazzoni S, Laino L, Amler E, **Papaccio G**, Desiderio V, Tirino V. Human DPSCs fabricate vascularized woven bone tissue: a new tool in bone tissue engineering. *Clin Sci (Lond).* 2017 Apr 25;131(8):699-713. doi: 10.1042/CS20170047. Epub 2017 Feb 16.
- 106) Papaccio F, Paino F, Regad T, **Papaccio G**, Desiderio V, Tirino V. Concise Review: Cancer Cells, Cancer Stem Cells, and Mesenchymal Stem Cells: Influence in Cancer Development. *Stem Cells Transl Med.* 2017 Dec;6(12):2115-2125. doi: 10.1002/sctm.17-0138. Epub 2017 Oct 26.
- 107) Mele L, Paino F, Papaccio F, Regad T, Boocock D, Stiuso P, Lombardi A, Liccardo D, Aquino G, Barbieri A, Arra C, Coveney C, La Noce M, Papaccio G, Caraglia M, Tirino V, Desiderio V. A new inhibitor of glucose-6-phosphate dehydrogenase blocks pentose phosphate pathway and suppresses malignant proliferation metastasis in vivo. *Cell Death Dis.* 2018 May 1;9(5):572. doi: 10.1038/s41419-018-0635-5.
- 108) La Noce M, Paino F, Mele L, Papaccio G, Regad T, Lombardi A, Papaccio F, Desiderio V, Tirino V. HDAC2 depletion promotes osteosarcoma's stemness both in vitro and in vivo: a study on a putative new target for CSCs directed therapy. *J Exp Clin Cancer Res.* 2018 Dec 3;37(1):296. doi: 10.1186/s13046-018-0978-x.
- 109) La Noce M, Mele L, Laino L, Iolascon G, Pieretti G, Papaccio G, Desiderio V, Tirino V, Paino F. Cytoplasmic Interactions between the Glucocorticoid Receptor and HDAC2 Regulate Osteocalcin Expression in VPA-Treated MSCs. *Cells.* 2019 Mar 5;8(3):217. doi: 10.3390/cells8030217.
- 110) Mele L, la Noce M, Paino F, Regad T, Wagner S, Liccardo D, Papaccio G, Lombardi A, Caraglia M, Tirino V, Desiderio V, Papaccio F. Glucose-6-phosphate dehydrogenase blockade potentiates tyrosine kinase inhibitor effect on breast cancer cells through autophagy perturbation *J Exp Clin Cancer Res* 2019 Apr 12;38(1):160. doi: 10.1186/s13046-019-1164-5.
- 111) Mele L, Del Vecchio V, Liccardo D, Prisco C, Schwerdtfeger M, Robinson N, Desiderio V, Tirino V, Papaccio G, La Noce M. The role of autophagy in resistance to targeted therapies *Cancer Treat Rev* 2020 May 30;88:102043. doi: 10.1016/j.ctrv.2020.102043.
- 112) Mele L, Del Vecchio V, Marampon F, Regad T, Wagner S, Mosca L, Bimonte S, Giudice A, Liccardo D, Prisco C, Schwerdtfeger M, La Noce M, Tirino V, Caraglia M, **Papaccio G**, Desiderio V, Barbieri A. β -2-AR blockade potentiates MEK1/2 inhibitor effect on HNSCC by regulating the Nrf2-mediated defense mechanism. *Cell Death Dis* 2020 Oct 13;11(10):850. doi: 10.1038/s41419-020-03056-x.
- 113) Vitiello PP, Martini G, Mele L, Giunta EF, De Falco V, Ciardiello D, Belli V, Cardone C, Matrone N, Poliero L, Tirino V, Napolitano S, Della Corte C, Selvaggi F, **Papaccio G**, Troiani T, Morgillo F, Desiderio V, Ciardiello F, Martinelli E. Vulnerability to low-dose combination of irinotecan and niraparib in ATM-mutated colorectal cancer. *Journal of Experimental and Clinical Cancer Research*, 2021, 40(1), 15doi: 10.1186/s13046-020-01811-8.
- 114) La Gatta A, Tirino V, Cammarota M, La Noce M, Stellavato A, Pirozzi AVA, Portaccio M, Diano N, Laino L, **Papaccio G**, Schiraldi C. Gelatin-biofermentative unsulfated glycosaminoglycans semi-interpenetrating hydrogels via microbial-transglutaminase crosslinking enhance osteogenic potential of dental pulp stem cells. *Regen Biomater.* 2021 Jun 12;8(3): rbaa052. doi: 10.1093/rb/rbaa052. eCollection 2021 Jun.
- 115) Marcella La Noce , Antonietta Stellavato, Valentina Vassallo, Marcella Cammarota, Luigi Laino, Vincenzo Desiderio, Vitale Del Vecchio, Giovanni Francesco Nicoletti, Virginia Tirino, Gianpaolo Papaccio, Chiara Schiraldi and Giuseppe Andrea Ferraro. Hyaluronan-Based Gel Promotes Human Dental Pulp Stem Cells Bone Differentiation by Activating YAP/TAZ Pathway. *Cells Open Access* Volume 10, Issue 11 November 2021 Article number 2899
- 116) Marfella R, D'Onofrio N, Sardu C, Scisciola L, Maggi P, Coppola N, Romano C, Messina V, Turriziani F, Siniscalchi M, Maniscalco M, Boccalatte M, Napolitano G, Salemma L, Marfella LV, Basile E, Montemurro MV, Papa C, Frascaria F, Papa A, Russo F, Tirino V, **Papaccio G**, Galdiero M, Sasso FC, Barbieri M, Rizzo MR, Balestrieri ML, Angelillo IF, Napoli C, Paolisso G. Does poor glycaemic control affect the immunogenicity of the COVID-19 vaccination in patients with type 2 diabetes: The CAVEAT study *Diabetes Obes Metab.* 2022 Sep 8. doi: 10.1111/dom.14547., 24(1), pp. 160–165
- 117) Guida F, Iannotta M, Misso G, Ricciardi F, Boccella S, Tirino V, Falco M, Desiderio V, Infantino R, Pieretti G, de Novellis V, **Papaccio G**, Luongo L, Caraglia M, Maione S, Guida F, Iannotta M, Misso G, Ricciardi F, Boccella S, Tirino V, Falco M, Desiderio V, Infantino R, Pieretti G, de Novellis V, **Papaccio G**, Luongo L, Caraglia M, Maione S *Pain.* 2022 Aug 1;163(8):1590-1602. doi: 10.1097/j.pain.0000000000002549.
- 118) La Noce M, Nicoletti GF, **Papaccio G**, Del Vecchio V, Papaccio F. Insulitis in Human Type 1 Diabetic Pancreas: From Stem Cell Grafting to Islet Organoids for a Successful Cell-Based Therapy. *Cells.* 2022 Dec 6;11(23): 3941. doi: 10.3390/cells11233941.
- 119) Del Vecchio V, Mele L, Panda SK, Sanchez-Pajares IR, Mosca L, Tirino V, Barbieri M, Buzzese F, Luciano A, Marino FZ, Accardo M, Nicoletti GF, **Papaccio G**, Barbieri A, Desiderio V. Cell Death Dis. 2023 Sep 19;14(9):613 doi: 10.1038/s41419-023-06129-9.

PATENTS

1- "Stem cells obtained from pulp of deciduous or permanent teeth and of dental germ, able to produce human bone tissue" PCT/EP2005/0081; WO 2006/010600

2- "Selection of an embryonic-like stem cell population from Human preriodontal folliculi" n. WO2007/096115A2

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