

**INFORMAZIONI PERSONALI****Pietro Formisano**

📍 Dipartimento di Medicina Traslazionale, Università degli studi di Napoli "Federico II",  
Via Sergio Pansini 5, Napoli – 80131, Italia.  
☎ + 39 081 746 4450

✉ [fpietro@unina.it](mailto:fpietro@unina.it)

**ACTUAL POSITION**

**Full Professor of Clinical Pathology (MED/05) Università degli Studi di Napoli "Federico II"**

**PROFESSIONAL EXPERIENCE****Main roles currently held**

**Since 2022** Director of the School of Specialization in Clinical Pathology and Clinical Biochemistry - University of Naples "Federico II"  
**From 2021** Member of the Board of Directors of the Italian Society of Pathology and Translational Medicine (SIPMET)  
**From 2021** Member of the Scientific Committee of the Italian Society of Multi-specialist Regenerative Medicine and Surgery (SIMCRI)  
**Since 2018** Secretary of the National College of Full Professors of Clinical Pathology  
**Since 2018** Coordinator of the Level I Program "Advanced Endocrinological Diagnostics" at the DAI of Clinical Pathology - University Hospital "Federico II"  
**Since 2014** Full Professor of Clinical Pathology at the Department of Translational Medical Sciences - University of Naples "Federico II"  
**Since 2013** Coordinator of the Research Commission of the Department of Translational Medical Sciences - University of Naples "Federico II"

**Main roles covered in the past**

**2018-2021** Member of the Commission for the National Scientific Qualification for the competition sector 06/A2 General Pathology and Clinical Pathology  
**2017-2019** President of the International Non Transfusional Hemocomponents Academy (INTHeMA)  
**2014-2017** Head of U.O.S.D. of Laboratory Diagnostics of Endocrine Diseases at the DAI of Internal Medicine and Clinical Pathology - "Federico II" University Hospital  
**2012-2016** Member of the Scientific Committee of the Italian Society of Diabetology  
**2013-2017** Member of the Board of Directors of INTHeMA  
**2009-2014** Head of the Functional Area of Diagnostics of Endocrine Diseases at the Department of Clinical Pathology of the "Federico II" University Hospital  
**2009-2014** Associate Professor of Clinical Pathology at the University of Naples "Federico II", Italy  
**2005-2009** Associate Professor of General Pathology at the Department of Cellular and Molecular Biology and Pathology "L. Califano" of the University of Naples "Federico II" (Faculty of Medicine and Surgery)  
**1997** Courtesy Associate at the "Diabetes Branch" of the National Institute of Diabetes and Digestive and Kidney Disease, National Institute of Health, Bethesda, USA  
**1997-2013** 1st level Consultant at the Department of Care (DAS) of Clinical Pathology of the Federico II University Hospital  
**1996-2004** University Researcher at the Department of Cellular and Molecular Biology and Pathology "L. Califano" of the University of Naples "Federico II" (Faculty of Medicine and Surgery)  
**1993-1995** Fogarty Fellow, at the "Diabetes Branch", National Institute of Diabetes, Digestive and Kidney Disease - National Institute of Health, Bethesda, USA

**INSTRUCTION AND TRAINING**

**1999** Certified Board in Endocrinology and Metabolic Diseases, "Federico II University of Naples"  
**1995** PhD. in Cellular and Molecular Biology and Pathology, "Federico II University of Naples"  
**1993-1995** Fogarty Fellow, at Diabetes Branch, NIDDK, NIH, Bethesda, USA  
**1990 e 1992** Each year, 3 months, Visiting Fellow at Institute of Microbiology, University of Copenhagen  
**1990** Medical Doctor Degree, "Federico II University of Naples" (*summa cum laude*)  
**1988** 3 months, *Summer Student* at Joslin Diabetes Center, Harvard Medical School, Boston, USA

**PERSONAL SKILLS**

Main Language Italian

Other Languages English

- Management Skills** Organization of Scientific Meetings since 2004  
Coordinator, Scientific Committee of Department of Translational Medical Sciences, "Federico II University of Naples" (since 2013); President Elect, International Non Transfusional Hemocomponents Academy (since 2015); Director, U.O.S.D. Laboratory Diagnostics of Endocrine Diseases – "Federico II" University Hospital (since 2014)
- Professional Skills** University Lecturer since 1996 to date  
Members in academic and scientific committees  
Ad hoc reviewer for several peer-reviewed scientific journals
- Scientific Activity** The scientific activity carried out by Pietro Formisano is mainly dedicated to the molecular basis of diseases and to the identification of biomarkers. The results of his research are contained in about 200 papers *in extenso*.  
Prof. Formisano's studies have contributed to the identification of new biochemical mechanisms for the control and regulation of tyrosine kinase activity, endocytosis and the biological function of the insulin receptor. He also contributed to the identification and characterization of genotypic and phenotypic alterations in patients with type 2 diabetes. He then dealt with the role of isoenzymes of the protein kinase C (PKC) family in the transmission of the biological effects of insulin and growth factors, and therefore their role in metabolic and neoplastic pathologies. Prof. Formisano has studied the role of mesenchymal stem cells and the mechanism of action of growth factors in tissue repair and regeneration  
More recently, the studies of Prof. Formisano have been aimed at studying the interactions between metabolic pathologies and the incidence and progression of neoplasms. In particular, the research group coordinated by him has identified new mechanisms through which the production and release of adipocyte factors can be controlled by nutrients (glucose, fatty acids) and control, in turn, the phenotype of breast cancer cells.  
These research activities were first carried out at the Department of Cellular and Molecular Biology and Pathology "L. Califano" and the Center of Endocrinology and Experimental Oncology of the CNR, and then at the Department of Translational Medical Sciences, where Prof. Formisano coordinates a group of young scholars. The work, however, also made use of important collaboration relationships both within the University and with some prestigious Italian, European and American institutions. Among these, the Joslin Diabetes Center of Harvard University in Boston, the University of Copenhagen, the DIBIT of the San Raffaele Hospital in Milan, the Research Laboratory on Polypeptide Hormones and Endocrine Pathophysiology of INSERM in Nice, the Helmholtz Center for Diabetes Munich in Germany, the University of Gothenburg, the Diabetes Branch, the Developmental Endocrinology Branch and the Clinical Endocrinology Branch of the NIH in Bethesda, the Medical College of the University of Ohio and Columbia University in New York.

## FURTHER INFORMATION

### EDITORIAL ACTIVITIES

Reviewer ad hoc for a large number of journals, among which: Diabetologia, Diabetes, J. Biol. Chem., PLOS One, J. Tissue Eng. Regen. Med., Curr. Pharm. Res., J. Cell. Physiol., Acta Diabetologica, Exp. Mol. Pathol., Nature Medicine, Int. J. Mol. Sci., Oncotarget, Cancer Letters, Scientific Reports and many others

### ACCADEMIC AND SCIENTIFIC SOCIETIES AND AWARDS

**1990 - 2010:** Member, American Society for Biochemistry and Molecular Biology  
**1996 to date** Member, European Association for the Study of Diabetes  
**2012 - 2015** Member, Academy of Non Transfusional Hemo-Components. Member, Board of Directors  
**2012 to date** Member, Italian Society for the Study of Diabetes (SID)  
**2016 to date** Member, Italian Society of Mesenchymal Stem Cells (GISM)  
**2012 - 2016** Member Scientific Committee Italian Society for the Study of Diabetes  
**2015 - 2019** President International Non Transfusional Hemocomponents Academy (INTHeMA)  
**2021 to date** – Member Scientific Committee Italian Society of Regenerative Medicine and Surgery (SIMCRI)

### INTERNATIONAL/NATIONAL RESEARCH GRANTS/AWARDS

#### International

- 2011 European Federation for the Study of Diabetes (EFSD) 2011 Research Grant: Adipocyte control of cancer cell growth. (Principal Investigator)  
Duration: 24 months
- 1997 "Courtesy Associate", Diabetes Branch, NIH, Bethesda, MD, USA.

#### National

- 2019-2021 POR Regione Campania – Piattaforma Oncologica Comorbidità ed Epigenetica nel Cancro – COEPICA “ (Project Scientific Coordinator) Duration 30 months
- 2016-2018 AIRC Research Grant “Identification of novel glucose-regulated communication signals involved in Tamoxifen resistance in breast cancer cells (Principal Investigator) Duration: 36 months
- 2012 - PON R&C 2007-2013: Study for the realization of a diagnostic platform for the identification of personalized therapeutic strategies for the treatment of type 2 diabetes through genomic and transcriptomic approaches (PON01\_02460)(Unit Coordinator and Training Program Coordinator)Duration: 36 months
- 2011-2014 AIRC Research Grant: Identification of novel molecular pathways for diabetes-associated drug resistance in breast cancer cells. (Principal Investigator) Duration: 36 months

- 2010 PRIN: Identification of molecular, metabolic and clinical determinants in the progression of heart failure: a translational medicine approach to identify novel therapeutic targets (Unit Coordinator) Duration: 36 months
- 2008 FIRB MERIT: Novel molecular networks for the control of energy homeostasis: implications for type 2 diabetes and obesity. (Unit Coordinator) Duration: 36 months
- 2006 PRIN Endoplasmic reticulum stress: a potential novel mechanism of cell damage in diabetes. (Unit Coordinator) Duration: 24 months
- 2004-2006 AIRC Research Grant Molecular mechanisms controlling protein kinase C function in cancer cells. (Principal Investigator) Duration: 36 months
- 2003 PRIN: Molecular mechanisms controlling cell proliferation and apoptosis. (Unit Coordinator) Duration: 24 months
- 2001-2003 AIRC Research Grant - The role of protein kinase C isoforms in growth factor receptor signal transduction. (Principal Investigator) Duration: 36 months
- 1999 – Award Italian Society for the study of Diabetes (SID)
- 1996-1998 AIRC Seed Grant – Molecular basis of oncogenic potential of insulin receptor. (Principal Investigator) Duration: 36 months
- 1994 -I “Fogarty International Center” fellowship
- 1993 - “Istituto Rotariano per l’Italia Meridionale” fellowship
- 1992 - “Fondazione Leonardo di Capua” fellowship.

## RESEARCH ACTIVITY

Number scientific publications: **195**

H-Index (Scopus): **41**

Number citations (Scopus): **5488**

## MAIN PUBLICATIONS (last 5 years)

1. Ambrosio MR, Mosca G, Migliaccio T, Liguoro D, Nele G, Schonauer F, D'Andrea F, Liotti F, Prevete N, Melillo RM, Reale C, Ambrosino C, Miele C, Beguinot F, D'Esposito V, Formisano P. Glucose Enhances Pro-Tumorigenic Functions of Mammary Adipose-Derived Mesenchymal Stromal/Stem Cells on Breast Cancer Cell Lines. *Cancers (Basel)*. 2022 Nov 3;14(21):5421. doi: 10.3390/cancers14215421. PMID: 36358839; PMCID: PMC9655059.
2. Buonaio R, Napolitano F, Parola S, De Placido P, Forestieri V, Pecoraro G, Servetto A, Formisano L, Formisano P, Giuliano M, Arpino G, De Placido S, De Angelis C. Insight on the Role of Leptin: A Bridge from Obesity to Breast Cancer. *Biomolecules*. 2022 Sep 29;12(10):1394. doi: 10.3390/biom12101394. PMID: 36291602; PMCID: PMC9599120.
3. Malfitano AM, D'Esposito V, De Placido P, Tortora M, Ottaviano M, Pietroluongo E, Morra R, Mucci B, Napolitano F, Montella L, Giuliano M, De Placido S, Terracciano D, Palmieri G, Formisano P. Immunological signature of patients with thymic epithelial tumors and Good syndrome. *Front Immunol*. 2022 Aug 18;13:908453. doi: 10.3389/fimmu.2022.908453. PMID: 36059463; PMCID: PMC9434000.
4. Conte M, Petraglia L, Cabaro S, Valerio V, Poggio P, Pilato E, Attena E, Russo V, Ferro A, Formisano P, Leosco D, Parisi V. Epicardial Adipose Tissue and Cardiac Arrhythmias: Focus on Atrial Fibrillation. *Front Cardiovasc Med*. 2022 Jun 30;9:932262. doi: 10.3389/fcvm.2022.932262. PMID: 35845044; PMCID: PMC9280076.
5. D'Esposito V, Di Tolla MF, Lecce M, Cavalli F, Libutti M, Misso S, Cabaro S, Ambrosio MR, Parascandolo A, Covelli B, Perruolo G, Sansone M, Formisano P. Lifestyle and Dietary Habits Affect Plasma Levels of Specific Cytokines in Healthy Subjects. *Front Nutr*. 2022 Jun 24;9:913176. doi: 10.3389/fnut.2022.913176. PMID: 35811952; PMCID: PMC9270017.
6. Cabaro S, Conte M, Moschetta D, Petraglia L, Valerio V, Romano S, Di Tolla MF, Campana P, Comentale G, Pilato E, D'Esposito V, Di Mauro A, Cantile M, Poggio P, Parisi V, Leosco D, Formisano P. Epicardial Adipose Tissue-Derived IL-1 $\beta$  Triggers Postoperative Atrial Fibrillation. *Front Cell Dev Biol*. 2022 May 5;10:893729. doi: 10.3389/fcell.2022.893729. PMID: 35721500; PMCID: PMC9198900.
7. Prevenzano I, Leone A, Longo M, Nicolò A, Cabaro S, Collina F, Panarese I, Botti G, Formisano P, Napoli R, Beguinot F, Miele C, Nigro C. Glyoxalase 1 knockdown induces age-related  $\beta$ -cell dysfunction and glucose intolerance in mice. *EMBO Rep*. 2022 May 27:e52990. doi: 10.15252/embr.202152990. Epub ahead of print. PMID: 35620868.
8. Scrima R, Agriesti F, Pacelli C, Piccoli C, Pucci P, Amoresano A, Cela O, Nappi L, Tataranni T, Mori G, Formisano P, Capitanio N. Myoglobin expression by alternative transcript in different mesenchymal stem cells compartments. *Stem Cell Res Ther*. 2022 May 21;13(1):209. doi: 10.1186/s13287-022-02880-6. PMID: 35598009; PMCID: PMC9123686.
9. Marino MM, Nastro BM, D'Agostino M, Risolo R, De Angelis A, Settembre G, Rienzo M, D'Esposito V, Abbondanza C, Formisano P, Ballini A, Santacroce L, Di Domenico M, Boccellino M. Do axis gut-breast microbiota orchestrate cancer progression? *Endocr Metab Immune Disord Drug Targets*. 2022 Mar 31. doi: 10.2174/1871530322666220331145816. Epub ahead of print. PMID: 35362389.
10. Conte M, Petraglia L, Poggio P, Valerio V, Cabaro S, Campana P, Comentale G, Attena E, Russo V, Pilato E, Formisano P, Leosco D, Parisi V. Inflammation and Cardiovascular Diseases in the Elderly: The Role of Epicardial Adipose Tissue. *Front Med (Lausanne)*. 2022 Feb 15;9:844266. doi: 10.3389/fmed.2022.844266. PMID: 35242789; PMCID: PMC8887867.
11. Parrillo L, Spinelli R, Costanzo M, Florese P, Cabaro S, Desiderio A, Prevenzano I, Raciti GA, Smith U, Miele C, Formisano P, Napoli R, Beguinot F. Epigenetic Dysregulation of the Homeobox A5 (HOXA5) Gene Associates with Subcutaneous Adipocyte Hypertrophy in Human Obesity. *Cells*. 2022 Feb 18;11(4):728. doi: 10.3390/cells11040728. PMID: 35203377; PMCID: PMC8870634.
12. Petraglia L, Conte M, Comentale G, Cabaro S, Campana P, Russo C, Amaranto I, Bruzzese D, Formisano P, Pilato E, Ferrara N, Leosco D, Parisi V. Epicardial Adipose Tissue and Postoperative Atrial Fibrillation. *Front Cardiovasc Med*. 2022 Feb 4;9:810334. doi: 10.3389/fcvm.2022.810334. PMID: 35187125; PMCID: PMC8854347.
13. Ambrosio MR, Magli E, Caliendo G, Sparaco R, Massarelli P, D'Esposito V, Migliaccio T, Mosca G, Fiorino F, Formisano P. Serotonergic receptor ligands improve Tamoxifen effectiveness on breast cancer cells. *BMC Cancer*. 2022 Feb 15;22(1):171. doi: 10.1186/s12885-021-09147-y. PMID: 35168555; PMCID: PMC8845285.
14. Spinelli R, Florese P, Parrillo L, Zatterale F, Longo M, D'Esposito V, Desiderio A, Nerstedt A, Gustafson B, Formisano P, Miele C, Raciti GA, Napoli R, Smith U, Beguinot F. ZMAT3 hypomethylation contributes to early senescence of preadipocytes from healthy first-degree relatives of type 2 diabetics. *Aging Cell*. 2022 Mar;21(3):e13557. doi: 10.1111/ace1.13557. Epub 2022 Feb 11. PMID: 35146866; PMCID: PMC8920444.
15. Pignalosa FC, Desiderio A, Mirra P, Nigro C, Perruolo G, Ulianich L, Formisano P, Beguinot F, Miele C, Napoli R, Fiory F. Diabetes and Cognitive Impairment: A Role for Glucotoxicity and Dopaminergic Dysfunction. *Int J Mol Sci*. 2021 Nov 16;22(22):12366. doi: 10.3390/ijms222212366. PMID: 34830246; PMCID: PMC8619146.

16. Liparoti M, Troisi Lopez E, Sarno L, Rucco R, Minino R, Pesoli M, Perruolo G, Formisano P, Lucidi F, Sorrentino G, Sorrentino P. Functional brain network topology across the menstrual cycle is estradiol dependent and correlates with individual well-being. *J Neurosci Res*. 2021 Jun 10. doi: 10.1002/jnr.24898. Epub ahead of print.
17. Cimmino I, Prisco F, Orso S, Agognon AL, Liguoro P, De Biase D, Doti N, Ruvo M, Paciello O, Beguinot F, Formisano P, Oriente F. Interleukin 6 reduces vascular smooth muscle cell apoptosis via Prep1 and is associated with aging. *FASEB J*. 2021 Nov;35(11):e21989. doi: 10.1096/fj.202100943R. PMID: 34679197.
18. Cabaro S, D'Esposito V, Di Matola T, Sale S, Cennamo M, Terracciano D, Parisi V, Oriente F, Portella G, Beguinot F, Atripaldi L, Sansone M, Formisano P. Cytokine signature and COVID-19 prediction models in the two waves of pandemics. *Sci Rep*. 2021 Oct 21;11(1):20793. doi: 10.1038/s41598-021-00190-0. PMID: 34675240; PMCID: PMC8531346.
19. Siano MA, Marchetti V, Pagano S, Di Candia F, Alessio M, De Brasi D, De Luca A, Pinna V, Sestito S, Concolino D, Tartaglia M, Strisciuglio P, D'Esposito V, Cabaro S, Perruolo G, Formisano P, Melis D. Risk of autoimmune diseases in patients with RASopathies: systematic study of humoral and cellular immunity. *Orphanet J Rare Dis*. 2021 Oct 2;16(1):410. doi: 10.1186/s13023-021-02050-6. PMID: 34600590; PMCID: PMC8487584.
20. La Camera G, Gelsomino L, Malivindi R, Barone I, Panza S, De Rose D, Giordano F, D'Esposito V, Formisano P, Bonofiglio D, Andò S, Giordano C, Catalano S. Adipocyte-derived extracellular vesicles promote breast cancer cell malignancy through HIF-1 $\alpha$  activity. *Cancer Lett*. 2021 Aug 21;521:155-168. doi: 10.1016/j.canlet.2021.08.021. Epub ahead of print. PMID: 34425186.
21. Bruno A, Di Sano C, Simon HU, Chanez P, Patti AM, Di Vincenzo S, Dino P, D'Esposito V, Formisano P, Beguinot F, Pace E. Leptin and TGF- $\beta$ 1 Downregulate PREP1 Expression in Human Adipose-Derived Mesenchymal Stem Cells and Mature Adipocytes. *Front Cell Dev Biol*. 2021 Jul 13;9:700481. doi: 10.3389/fcell.2021.700481. PMID: 34327205; PMCID: PMC8315375.
22. Perna AF, Russo L, D'Esposito V, Formisano P, Bruzzese D, Vigorito C, Coppola A, Lombardi P, Russo D, Ingrosso D. Lanthionine, a Novel Uremic Toxin, in the Vascular Calcification of Chronic Kidney Disease: The Role of Proinflammatory Cytokines. *Int J Mol Sci*. 2021 Jun 26;22(13):6875. doi: 10.3390/ijms22136875. PMID: 34206780; PMCID: PMC8269354.
23. Iacone R, Iaccarino Idelson P, Formisano P, Russo O, Lo Noce C, Donfrancesco C, Macchia PE, Palmieri L, Galeone D, di Lenarda A, Giampaoli S, Strazzullo P. Iodine Intake Estimated by 24 h Urine Collection in the Italian Adult Population: 2008-2012 Survey. *Nutrients*. 2021 May 1;13(5):1529. doi: 10.3390/nu13051529.
24. D'Esposito V, Ambrosio MR, Liguoro D, Perruolo G, Lecce M, Cabaro S, Aprile M, Marino A, Pilone V, Forestieri P, Miele C, Bruzzese D, Terracciano D, Beguinot F, Formisano P. In severe obesity, subcutaneous adipose tissue cell-derived cytokines are early markers of impaired glucose tolerance and are modulated by quercetin. *Int J Obes (Lond)*. 2021 May 15. doi: 10.1038/s41366-021-00850-1. Epub ahead of print.
25. Leone A, Nigro C, Nicolò A, Prevenzano I, Formisano P, Beguinot F, Miele C. The Dual-Role of Methylglyoxal in Tumor Progression - Novel Therapeutic Approaches. *Front Oncol*. 2021 Mar 22;11:645686. doi: 10.3389/fonc.2021.645686.
26. Liotti A, La Civita E, Cennamo M, Crocetto F, Ferro M, Guadagno E, Insabato L, Imbimbo C, Palmieri A, Mirone V, Liguoro P, Formisano P, Beguinot F, Terracciano D. Periprosthetic adipose tissue promotes prostate cancer resistance to docetaxel by paracrine IGF-1 upregulation of TUBB2B beta-tubulin isoform. *Prostate*. 2021 May;81(7):407-417. doi: 10.1002/pros.24117.
27. Mirra P, Desiderio A, Spinelli R, Nigro C, Longo M, Parrillo L, D'Esposito V, Carissimo A, Hedjazifar S, Smith U, Formisano P, Miele C, Raciti GA, Beguinot F. Adipocyte precursor cells from first degree relatives of type 2 diabetic patients feature changes in hsa-mir-23a-5p, -193a-5p, and -193b-5p and insulin-like growth factor 2 expression. *FASEB J*. 2021 Apr;35(4):e21357. doi: 10.1096/fj.202002156RRR.
28. Ottaviano M, Giuliano M, Tortora M, La Civita E, Liotti A, Longo M, Bruzzese D, Cennamo M, Riccio V, De Placido P, Picozzi F, Parola S, Daniele B, Botti G, Formisano P, Beguinot F, De Placido S, Terracciano D, Palmieri G. A New Horizon of Liquid Biopsy in Thymic Epithelial Tumors: The Potential Utility of Circulating Cell-Free DNA. *Front Oncol*. 2021 Feb 4;10:602153. doi: 10.3389/fonc.2020.602153.
29. Iorio GG, Conforti A, Vallone R, Carbone L, Matarazzo M, De Rosa A, De Rosa P, Picarelli S, Fedele F, Perruolo G, Formisano P, Iorio R, Alviggi C, Di Dato F. Reproductive function of long-term treated patients with hepatic onset of Wilson's disease: a prospective study. *Reprod Biomed Online*. 2021 Apr;42(4):835-841. doi: 10.1016/j.rbmo.2020.12.012. Epub 2020 Dec 27.
30. Longo M, Zatterale F, Naderi J, Nigro C, Oriente F, Formisano P, Miele C, Beguinot F. Low-dose Bisphenol-A Promotes Epigenetic Changes at Ppar $\gamma$  Promoter in Adipose Precursor Cells. *Nutrients*. 2020 Nov 13;12(11):3498. doi: 10.3390/nu12113498.
31. Parisi V, Cabaro S, D'Esposito V, Petraglia L, Conte M, Campana P, Gerundo G, Abitabile M, Tuccillo A, Accadia M, Comentale G, Pilato E, Sansone M, Leosco D, Formisano P. Epicardial Adipose Tissue and IL-13 Response to Myocardial Injury Drives Left Ventricular Remodeling After ST Elevation Myocardial Infarction. *Front Physiol*. 2020 Oct 15;11:575181. doi: 10.3389/fphys.2020.575181.
32. Iacone R, Iaccarino Idelson P, Campanozzi A, Rutigliano I, Russo O, Formisano P, Galeone D, Macchia PE, Strazzullo P; MINISAL-GIRCSI Study Group. Relationship between salt consumption and iodine intake in a pediatric population. *Eur J Nutr*. 2021 Jun;60(4):2193-2202. doi: 10.1007/s00394-020-02407-w. Epub 2020 Oct 21. PMID: 33084957; PMCID: PMC8137629.
33. D'Esposito, V., Ambrosio, M.R., Giuliano, M., Cabaro, S., Miele, C., Beguinot, F., Formisano, P. Mammary Adipose Tissue Control of Breast Cancer Progression: Impact of Obesity and Diabetes (2020) *Frontiers in Oncology*, 10, art. no. 1554
34. Cimmino, I., Fiory, F., Perruolo, G., Miele, C., Beguinot, F., Formisano, P., Oriente, F. Potential mechanisms of bisphenol a (BPA) contributing to human disease (2020) *International Journal of Molecular Sciences*, 21 (16), pp. 1-22.
35. Cimmino, I., Faggiano, A., Perruolo, G., Modica, R., Bottiglieri, F., Covelli, B., Colao, A., Beguinot, F., Formisano, P., Oriente, F. Diagnosis of Flier's syndrome in a patient with nondiabetic hypoglycemia: a case report and critical appraisal of the literature (2020) *Endocrine*, 69 (1), pp. 73-78.
37. Mancino, G., Sibilio, A., Luongo, C., Di Cicco, E., Miro, C., Cicatiello, A.G., Nappi, A., Sagliocchi, S., Ambrosio, R., De Stefano, M.A., Di Girolamo, D., Porcelli, T., Murolo, M., Saracino, F., Perruolo, G., Formisano, P., Stornaiuolo, M., Dentice, M. The Thyroid Hormone Inactivator Enzyme, Type 3 Deiodinase, Is Essential for Coordination of Keratinocyte Growth and Differentiation (2020) *Thyroid*, 30 (7), pp. 1066-1078.
38. Campitelli, M., Desiderio, A., Cacace, G., Nigro, C., Prevenzano, I., Leone, A., de Simone, S., Campiglia, P., Formisano, P., Raciti, G.A., Beguinot, F., Miele, C. Citrus aurantium L. Dry extracts ameliorate adipocyte differentiation of 3T3-L1 cells exposed to tnfa by down-regulating MiR-155 expression (2020) *Nutrients*, 12 (6), art. no. 1587, .
39. Parrillo, L., Spinelli, R., Longo, M., Desiderio, A., Mirra, P., Nigro, C., Fiory, F., Hedjazifar, S., Mutarelli, M., Carissimo, A., Formisano, P., Miele, C., Smith, U., Raciti, G.A., Beguinot, F. Altered PTPRD DNA methylation associates with restricted adipogenesis in healthy first-degree relatives of Type 2 diabetes subjects (2020) *Epigenomics*, 12 (10), pp. 873-888.
40. D'Esposito, V., Lecce, M., Marenzi, G., Cabaro, S., Ambrosio, M.R., Sammartino, G., Misso, S., Migliaccio, T., Liguoro, P., Oriente, F., Fortunato, L., Beguinot, F., Sammartino, J.C., Formisano, P., Gasparro, R. Platelet-rich plasma counteracts detrimental effect of high-glucose concentrations on mesenchymal stem cells from Bichat fat pad (2020) *Journal of Tissue Engineering and Regenerative Medicine*, 14 (5), pp. 701-713.

41. Parisi, V., Petraglia, L., Cabaro, S., D'Esposito, V., Bruzzese, D., Ferraro, G., Urbani, A., Grieco, F.V., Conte, M., Caruso, A., Grimaldi, M.G., de Bellis, A., Severino, S., Campana, P., Pilato, E., Comentale, G., Raia, M., Scalia, G., Castaldo, G., Formisano, P., Leosco, D. Imbalance Between Interleukin-1 $\beta$  and Interleukin-1 Receptor Antagonist in Epicardial Adipose Tissue Is Associated With Non ST-Segment Elevation Acute Coronary Syndrome (2020) *Frontiers in Physiology*, 11, art. no. 42, .
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