Curriculum Vitae

Personal information

Surname / First name	**Tomasetti Marco**
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Nationality	Italian
Date of birth	25/11/1965
Gender	male

Scopus Author ID: 6603719881
Affiliation(s): Università Politecnica delle Marche, Ancona, Italy
Subject area: Biochemistry, Genetics and Molecular Biology Medicine Pharmacology, Toxicology and Pharmaceutics Agricultural and Biological Sciences Chemistry Environmental Science Multidisciplinary Chemical Engineering

Metrics overview

104-Documents by author

3935-Citations

h-index: 40

Work experience

Dates	2023-up to date
Occupation or position held	Researcher
Main activities and responsibilities	**Research activity:** The research group of Occupational Medicine is focused on the study of asbestos-induced carcinogenesis and asbestos-related diseases including lung cancer and malignant pleural mesothelioma. Evaluation of exposome in relation to the epigenetic changes in term of DNA and RNA methylation profile and miRNA levels induced by asbestos exposure that could be translated into changes in transcriptome, proteome, and metabolome biomarkers. The research involves molecular biology techniques and cellular 'in vitro' models including 3D cell culture such as spheroids and organoids from patients. The clinic of occupational medicine provides biological samples (serum and blood cells) of subjects previously and currently exposed to carcinogens including asbestos. In addition, the occupational medicine group closely collaborated with the clinic of Diagnosis and Therapy of Diffuse Infiltrative Pulmonary Diseases, Pleural Pulmonary Diseases and Adult Bronchiectasis, University Hospital of Marche, Ancona, who provides for biological samples such as pleural effusion, lung and pleural biopsies of patients affected by lung cancer and malignant pleural mesothelioma. Recently, has been included in 'PredicMeso platform', an international network of researchers from across the UK and worldwide interested in the study of mesothelioma (https://www.predictmeso.com). MiRNA-based therapy using exosomes as delivery of tumor suppressor miRNA in lung cancer and pleural mesothelioma.
Name and address of employer	Polytechnic University of Marche (UNIVPM), Ancona, Italy
Type of business or sector	Biochemistry, Cell biology, Molecular Biology, Occupational medicine
Dates	1999-2023
Occupation or position held	Research assistant
Main activities and responsibilities	Investigator on research focused on antioxidants such as vitamin E and coenzyme Q10, DNA damage and modulation enzymes involved in DNA repair. Redox properties of coenzyme Q10 to enhance lymphocytes DNA repair capacity: an *in vitro* and *in vivo* study. Vitamin E derivates as apoptogens and study of alpha-tocopheryl succinate in combination with an immunological agent TRAIL and chemotherapics to induce cell death. Pre-clinical study in mice.

Name and address of employer	Polytechnic University of Marche (UNIVPM), Ancona, Italy
Type of business or sector	Toxicology, Biochemistry, Cell biology, Molecular Biology, Pathology

Visiting in foreign labs

From May 2012 to December 2012 – Academic Visiting scholarship at the Apoptosis Research Group, School of Medical Science and Griffith Health Institute, Griffith University, Southport, Qld, 4222, Australia. The project was focused on the study of the effect of MiR126 as tumour suppressor.

From December 2002- to May 2003 **–** Visiting scientist at the Griffith University of Brisbane, Australia, directed by Prof. Jiri Neuzil. The period was focused on the study of the modulation of cell cycle after α-tocopheryl succinate treatment in malignant mesothelioma and osteosarcoma cells.

From July 2001- to August 2001 **-** Visiting scientist at the Pathology Institute, Division of Pharmacology, Linkoping University, Sweden directed by Ulf Brunk. The visit was in the ambit of a collaboration focused on the study of the apoptosis induced by two anti-neoplastic agents, alpha-tocopheryl succinate and TRAIL in mesothelioma cells.

From March 1999- to September 1999 - Visiting Ph.D student at the Rowett Research Institute, DNA instability group (Aberdeen, UK) directed by Dr. A. Collins A. A study was carried out on the effect of CoQ_{10} supplementation in the prevention of DNA oxidative damage. In particular, we investigated whether CoQ_{10} supplementation affects the activity of the DNA endogenous repair enzymes using the Comet assay technique.

From March 1998- to April 1998 **-** Visiting Ph.D student at the Department of Pharmacology, University Hospital of Copenhagen, Denmark directed by Prof. H.E. Poulsen. The visit was aimed at learning the assay of DNA modified bases by HPLC coupled with electrochemical detector.

Journals

Referee for several scientific journals such as Journal Biological Chemistry, Cancer Research, Cell Biology and Toxicology, Investigational New Drugs, Toxicology in Vitro, Carcinogenesis, Free radical Research, BMC cancer, Cancers

Journals Editor

Cancers | MDPI

Teaching

Occupational medicine and safety in the workplace

National scientific qualification
05/E1 – BIOCHEMISTRY –BIO/10 II Associate professor
05/E3 – CLINIC BIOCHEMISTRY-MOLECULAR BIOLOGY-BIO/12 - Associate professor
05/F1 BIOLOGY. BIO/13 - Associate professor
06/N1

Awards

AIUC - Di Tora "Effect of alpha-lipoic acid in the treatment of chronic ulcers subjected to hyperbaric therapy: modulation of genes involved in angiogenesis and tissue remodeling". Year 2009

Supervised students

Bsc in Pathology, MD in Occupational Medicine, PhD in Preventive Medicine.

Patent

HIGH EFFICACY ONCOLOGICAL THERAPY BASED ON MIRNA
PRIORITY NUMBER
102021000010001
KEYWORDS:cancer, exosome release, inhibition, Exosomes, Malignant mesothelioma, mir-126, miRNAbased, therapy.
https://www.univpm.it/Entra/Engine/RAServeFile.php/f/Innovazione_tecnologica/brevetti/High_efficacy_oncological_therapy_based_on_miRNA.pdf

Projects

2023-2025: Proof of Concept PNRR VALUE ""miRNA for the treatment of cancer, EXO-ONCO-MIR" funded by the Italian Ministry of Economic Development.

Education and training

Dates	1995-1999
Title of qualification awarded	PhD in Biochemistry and Biophysics
Principal subjects/occupational skills covered	The PhD program was focused on the study of the redox properties of antioxidants, including coenzyme Q10. The antioxidant activity of coenzyme Q10 was assessed in lipoproteins and DNA to prevents their oxidation, which results in pathological effects. These studies involved DNA damage and repair, focusing on the effect of in vivo antioxidant supplementation to stimulate DNA repair enzymes. I found that in vivo supplementation with coenzyme Q10 inhibited ex vivo-induced oxidative stress both directly and by enhancing DNA repair enzymatic activity.
Name and type of organisation providing education and training	Polytechnic University of Marche (UNIVPM), Ancona, Italy
Level in national or international classification	PhD

Dates	1996 - 2000
Title of qualification awarded	Master's in clinical Biochemistry
Principal subjects/occupational skills covered	The course program has been focused on the study of Biochemistry, Clinical chemistry, Pathology, Pharmacology. Thesis entitled: 'Comet assay in the clinical practice: effect of coenzyme Q_{10} in the inhibition of DNA damage and in the modulation of its enzyme repair'.
Name and type of organisation providing education and training	University of Camerino, Macerata, Italy
Level in national or international classification	Post-graduate
Dates	1991-1992
Title of qualification awarded	Post graduate degree in Clinic-Chemistry
Principal subjects/occupational skills covered	Biochemical and Chemical Clinic Analysis. Serology, Microbiology, Pathology and Haematology analyses.
Name and type of organisation providing education and training	Military Hospital of Bologna, Bologna, Italy
Level in national or international classification	Training
Dates	1985-1990
Title of qualification awarded	Biological Science
Principal subjects/occupational skills covered	Chemistry, Biochemistry, Mathematics, Physic, Anatomy, Histology, Physiology, Cell Biology, Genetics. Thesis: "Morphological study of Miniature Electric Post-Synaptic Potential (MEPP) during neuromuscular junction maturation following enervation and regeneration of nerve".
Name and type of organisation providing education and training	University of Urbino, Pesaro-Urbino, Italy
Level in national or international classification	Biological Science degree
Dates	1980-1985
Title of qualification awarded	High School
Principal subjects/occupational skills covered	Chemistry, Biochemistry, Mathematics, Physic, Genetics, Botanic, Agriculture,
Name and type of organisation providing education and training	Technical Institute of Agriculture, Pesaro-Urbino, Italy
Level in national or international classification	High School

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s) **English**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	B2	Adept user	C1	Advanced user	B2	Adept user	C1	Advanced user	C1	Advanced user
Language										

(*) Common European Framework of Reference for Languages

Social skills and competences

Collaborative personality inclined to share knowledge and experience with other scientists.

Organizational skills and competences

Good at coordinating research projects and organizing work in the laboratory including the management of the personnel. Demands on staff but able to motivate people and focus on attaining the goals

Technical skills and competences

Cell culture, molecular and cell biology techniques, microarrays (gene and miRNA expression), siRNA silencing, plasmid transfections, quantitative-RT-PCR, flow cytometry (FACS), cell cycle assay, apoptosis evaluation, comet assay, immune-histochemistry, optical-fluorescence and confocal microscopy, spectrophotometry, ELISA analysis, immunoprecipitation (IP), chromatin immunoprecipitation (ChIP)

Computer skills and competences

Excellent computer skills: over 20 years' experience working with Microsoft Word; Excel, PowerPoint, Adobe Photoshop, SPSS statistical software

Artistic skills and competences

Other skills and competences

Driving licence

Class B

Additional information

Member of PredicMeso platform', an international network of researchers from across the UK and worldwide interested in the study of mesothelioma (https://www.predictmeso.com)

Collaborations:

Prof. Giuseppe Matullo
University of Turin, Biomedical Sciences

Prof- Federico Ronchese
Department of Medical Sciences, Clinical Unit of Occupational Medicine, University of Trieste, Trieste, Italy.

Prof. Jiri Neuzil,

chool of Pharmacy and Medical Science, Griffith University, Southport, Qld, Australia

Marco Baralle,
International Centre for Genetic Engineering and Biotechnology, Trieste, Italy.