Vincenza Rita Lo Vasco

Curriculum vitae et studiorum

In 1993 graduated in Medicine and Surgery (July session) and in 1997 in Medical Genetics at Padua Medical School. In 2004 PhD in Human Morphological Sciences at the University of Bologna. In 2017 national scientific qualification for the second band in the Competition Sector 05 / H1 [07/04/2017]. From 01/01/2004 to 28/02/2019 she was assistant professor at University of Rome "Sapienza" in the scientific disciplinary sector BIO / 16 - Human Anatomy (confirmed in 2007). Since 01/03/2019 Associate Professor at the Department of Experimental and Clinical Medicine of the University of Florence for the scientific disciplinary sector BIO / 16 - Human Anatomy. Since 01/03/2020 Associate Professor at the Department of Biomedical, Metabolic and Neuroscience Sciences of the University of Modena and Reggio Emilia. She received Italian Abilitazione Scientifica Nazionale to full professor (Italian 1 Fascia) in April 2021.

Research activity

- characterization of gene expression and morphological characterization of PLC expression in different cyto-types of human osteosarcoma cells, referred to signal transduction networking G proteins. Analysis of the difference in expression of PLCs in different culture conditions and treatments with inhibitory molecules, in order to evaluate a possible therapeutic use. Using epigenetics (siRNA) methods, analyzed the relationship between PLCs and cytoskeleton-related proteins for the study of metastasis mechanisms of osteosarcoma

- expression, analysis and morphological characterization of the PLC family in the monocyte-macrophage line, addressed to the identification of possible markers of differentiation during the polarization of macrophages

-characterization of the expression and morphological characterization of PLCs in human umbilical vein endothelial cells (HUVEC) under different conditions (stimulation or inhibition with pharmacological molecules). Based on this research experience on angiogenesis, collaborated with the Department of Surgical Sciences of Sapienza University on a project aimed at analyzing the processes underlying healing of surgical wounds. Analysis of the expression of PLCs in HUVEC treated with different nutriceuticals with potential therapeutic use

-at the Department of Biomedical, Metabolic and Neural Sciences of the University of Modena and Reggio Emilia she is actually carrying out research on the transduction of the phosphoinositide signal under different experimental conditions in osteoblasts during osteogenesis

- in vitro development of 3D tumor models for the study of the natural history of the disease, cell morphology in the context of the organ and intercellular signaling interaction with matrices of different types

- characterization of gene expression and morphological characterization of the PLC family in quiescent astrocytes (newborn rat) and in rat astrocytoma cells (C6) in different conditions (stimulation or inhibition with pharmacological molecules) in collaboration with the Department of Anatomical Sciences and Pathophysiology of the Locomotor Apparatus of the University of Bologna

-analysis of the role of PLC eta2 (PLCH2 gene) in the deletion syndrome of the chromosomal region 1p36 and in human neuroblastomas

-analysis and review of the role of PLCs in the development of the nervous system

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-characterization of the expression and morphological characterization of PLCs in human quiescent fibroblasts

- analysis of the PLCB1 gene in patients affected with schizoaffective disorders and normal controls in collaboration with the Stanley Brain Research Laboratory of Bethesda (Dr Maree Webster). Based on the three publications on the subject, she was asked for a chapter for volume 98 of "Advances in Psychology Research" by the publisher Nova Publishers;

-analysis of pro-inflammatory cytokines and related factors in fetal vascular lesions with morphological characterization of the intima/media thickening of the fetal aorta in collaboration with the Prenatal Diagnosis Unit and the Institute of Pathological Anatomy of the University of Padua

-analysis of the expression and morphological characterization of PLCs in human endometrium and endometriosis, in collaboration with the Department of Women's and Children's Health of the University of Padua. Based on the two publications on the subject, she was asked a chapter published in the book "Endometriosis: Risk Factors, Symptoms and Management" by Nova Publishers;

- analysis of the expression and morphological characterization of the PLCs in the brains of individuals who died by suicide, in collaboration with the Department of Legal and Occupational Medicine, Toxicology and Public Health of the University of Padua

-analysis of the role of polymorphisms of the ACE and NPY genes in the human heart in order to evaluate their possible use in the prognosis of cardiovascular risk

-analysis of signal transduction systems in Alzheimer's disease

-analysis of the transduction system of the phosphoinositide signal in alcohol abuse, in collaboration with the Legal Medicine Unit of the University of Verona

-at the University of Florence recently created the research group for the development of programs (artificial intelligence) for the morphological analysis of cellular/subcellular specimens aimed at the automatic identification of subgroups (cells, tissues, chromosomes)

- contributed to the study of the role of BDNF and cytokines in the pathogenesis of autism in collaboration with the Department of Psychology of the University of Gothenburg (Sweden) and the Department of Anatomy, Histology, Legal Medicine and Orthopedics of the Sapienza University

- participated in a research project for the analysis of adipokines in the context of a clinical-translational study aimed at verifying their possible use as a target of molecular therapy in collaboration with the Department of Medical Surgical Sciences and Biotechnology of the Sapienza University

-at Sense Organs Department of Sapienza University, collaborated in the characterization of neurotransmitters in cholesteatoma and of neurotransmitters and neurotrophins in human tonsils. Collaborated on the following research projects: 1) characterization of the inflammatory elements in the wall of endotracheal prostheses; 2) analysis of inflammatory elements in cartilage tissue diseases in ENT patients; 3) analysis of risk factors in dysphagia patients

-at the Department of Biomedical, Metabolic, and Neural Sciences of the University of Modena and Reggio Emilia, she conducts research on: phosphoinositide signal transduction under different experimental conditions in osteoblasts during osteogenesis; the role of PLCs in the migration of human osteosarcoma cells.

EDITORIAL ACTIVITIES

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• Participation in Editorial Boards of international journals

Since 2012 member of the International Editorial Board of the "Asian Pacific Journal of reproduction" magazine [ISSN: 2305-0500; Publisher Elsevier]. Managing Editor of the WebmedCentral publication site [personal page http://www.webmedcentral.com/wmc_editor_details/3243]

Since 2013 member of the Editorial Board of the following journals: Case Reports in Dentistry [ISSN: 2090-6447 (Print); ISSN: 2090-6455 (Online); Publisher Hindawi], American Journal of Medical and Biological Research [ISSN (Print): 2328-4080, ISSN (Online): 2328-4099; Sci.EP publisher], Journal of Cancer Research and Treatment [ISSN (Print): 2374-1996 ISSN (Online): 2374-2003; Sci.EP publisher], Research in Psychology and Behavioral Sciences [ISSN (Print): 2333-4371, ISSN (Online): 2333-438X; Publisher Sci.EP]. Since 2014 member of the Editorial Boards of Journal of Tumor [ISSN 1819-6187; Publisher ACT Publishing Group Limited] and PeerJ (peer-reviewed academic journal) [page https://peerj.com/RitaLoVasco/]. Since 2015 member of the Editorial Board of the SM Journal of Depression Research and Treatment [ISSN: 2573-3389; Publisher SM Group-SM Open Access Journals] and American Journal of Medical and Biological Research [ISSN (Print): 2328-4080 ISSN (Online): 2328-4099; Publisher Sci.EP]; Regional Editor [http://www.medt.com.es/editors.php] of Molecular Enzymology and Drug Targets.

Since 2016 member of the Editorial Board of Journal of Controversies in Biomedical Research [ISSN: 2205-5975; Publisher Codon Publications].

Since 2018, invited by editor Oscar Gonzalez-Perez, she is Review Editor of Frontiers in Neuropathology, and since 2022, invited by editor Valerio Astolfi, she is Review Editor of Frontiers in Neurophysiology [personal page https://loop.frontiersin.org/people/522946/overview].

Since 2022 she is invited Editorial Board member of Experimental and Therapeutic Medicine. Since 2025 is Academic Editor of Cell Signaling ISSN: 2837-8253.

Other publishing activities

• among the curators of the Cytogenetics in cancer and Chromosomes in cancer web page http://www.infobiogen.fr/services/chromcancer/Genes/PLCB1ID41742ch20p12.html

• among the editors of the PLCB1 page (Follo MY, Lo Vasco V, Martinelli G, Palka G, Cocco L) of Atlas of Genetics and Cytogenetics in Oncology and Haematology [http://atlasgeneticsoncology.org//Genes/PLCB1ID41742ch20p12.html]

BOOKS

1. The phosphoinositides signal transduction pathway in astrocytes (by Vincenza Rita Lo Vasco) Chapter III in the volume Astrocytes: Structure, Functions and Role in Disease. (2012) [Neuroscience Research Progress series by NovaPublishers Inc., New York] Editor: Oscar Gonzalez-Perez.

2. The phosphoinositide signal transduction pathway in endometriosis. A potential prognostic and therapeutic tool (by Vincenza Rita Lo Vasco) in the volume Endometriosis: risk factors, symptoms and management. (2013) [Obstetrics and Gynecology Advances series of the NovaPublishers Inc. publishing house, New York] Editors: Marta Juarez, Luna Tomas.

3. Phosphoinositide signal transduction pathway and major depression (by Vincenza Rita Lo Vasco) Chapter 7 in the volume Advances in Psychology Research (vol. 98) (2013) [publishing house NovaPublishers Inc., New York] Editor: Alexandra M. Columbus.

4. Phosphoinositide-Specific Phospholipase C Enzymes and Cognitive Development and Decline (by Vincenza Rita Lo Vasco) Chapter 14 in the volume Phospholipases in Health and Disease. (2014) [Advances in Biochemistry in Health and Disease series of the Springer publishing house, New York] Editors: P.S. Tappia, N.S. Dhalla.

5. (translation from English) Chapters 13 and 14 of Elements of Human Anatomy (Gilroy, AM);

6. (translation from English) Anatomy of Pilates (Isacowitz, R and Clippinger, K);

7. chapters in the Compendium of Human Anatomy (Mezzogiorno A. et al) (under revision).

OTHER COMMITMENTS AND SCIENTIFIC ASSIGNMENTS

1. Consultant for Telethon Science in the years 1995, 1996, 1997 and 1999.

2. Member for several years of the following scientific societies: SIGU, SIAI, ISHC.

3. Member of the Science Advisory Board since 2006.

4. Member of the Guidepoint Global Advisors since 2006.

5. Member of the register of auditors of the Ministry of University and Research (MIUR) for the evaluation of ministerial research programs from 2009 to 2016.

6. Member of the Wils (Women in life sciences database) of the European Molecular Biology Organization (EMBO) since 2010.

7. From 2010 to 2012 she was an expert in the European Education, Audiovisual and Culture Executive Agency for Erasmus projects.

8. auditor for the 2011-14 VQR (referee cineca).

9. From 2011 at now WebmedCentral Lead Faculty for the Genetics specialty.

10. From 2014 to 2018 expert of the European Research Council (ERC).

11. Expert Peer-Reviewers for Italian Scientific Evaluation (REPRISE) since 2016 (ERC sectors LS2_6, LS3_1, LS5_2, LS7_2, LS6_3) (title in progress).

12. 2019-2021 AVA Disciplinary Expert (for the evaluation and accreditation of universities) of ANVUR (current title).

13. Since April 2021 Disciplinary Expert for the University of Modena and Reggio Emilia

14. Since 2024 member of the board of the HIP HEALTH INNOVATIVE PRODUCTS AND TECHNOLOGIES - HIP-TECH PhD at the University of Modena and Reggio Emilia.

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