



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

Supervisor: Prof. Arianna Vignini

Department of Odontostomatologic and Specialized Clinical Sciences

<https://www.disco.univpm.it/>



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

Supervisor: Prof. Arianna Vignini

Research Group Description: the Supervisor

Prof. Arianna Vignini, PhD, MSc

Associated Professor in Biochemistry - School of Medicine at Università Politecnica delle Marche, Ancona, Italy.

Head of the Laboratory of Medical Biochemistry and Nutrition.

- Graduate with a degree in biological sciences at University of Ancona
- Postgraduate training in the Department of Chemistry and Biochemistry at Windsor University, Canada
- Master's degree in Chemistry and Biochemistry.
- Specialization in Nutrition
- PhD in Clinical Pathophysiology and Molecular Medicine
- PhD in Food and Health

Author of more than 125 peer-reviewed articles, 2855 citations and Scopus h-index = 32.

<https://orcid.org/0000-0002-2496-7932>

Scopus Author Identifier: 6603133912

Funded projects and awards

- **2001 Cariverona Project** "Platelets and Alzheimer's Disease: Biochemical Studies of Possible Early Markers";
- **2002 Young Researcher Project** – "Migraine and Inhibition of Nitric Oxide Synthase: A New Possible Therapeutic Principle"
- **2004 Eli Lilly Award for Best Poster**, VI National Congress of Italian Society of Medical Andrology, Session "Spermatogenesis, Fertilization"
- **2007 PRIN** - Study of the Expression of NOS Genes and Oxidative Stress Markers in Infertile and/or Subfertile Subjects
- **2009 PRIN** - Immunohistochemical and Expression Analysis of NOS Isoforms in Infertile and/or Subfertile Subjects
- **2018: eCapital award** for the business idea C.H.E.F. (Customize Health Enjoying Food)
- **2018: grant promoted by FEBS** for the organization of an event on the "Microbiome" which took place in Ancona on May 31st, 2019
- **2021 FASTER Valorization Program** (Facilitate the Technological Development of Research Outcomes), PoC Project: Bioactive Compound for the Treatment of Chronic Wounds – COBA
- **2022 PRIN** - Patient Lipidome As biomarker of Cancer immunotherapy (PALACE study)
- **2022 Fondazione Salesi** - The role of nutrition, folate metabolism, and epigenetics in the pathogenesis and clinical manifestation of endometriosis
- **2023 MIMIT** - MEDICALBOOK: a digital platform for innovative, personalized services for individual well-being
- **2024 Regione Marche** - Broadening the range of new functional products from Spinosi (ZERO +)



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

Supervisor: Prof. Arianna Vignini

Research Group Description: the Group

Laboratory of Medical Biochemistry and Nutrition

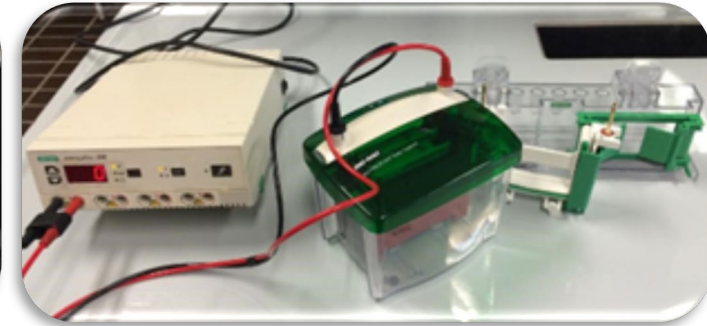
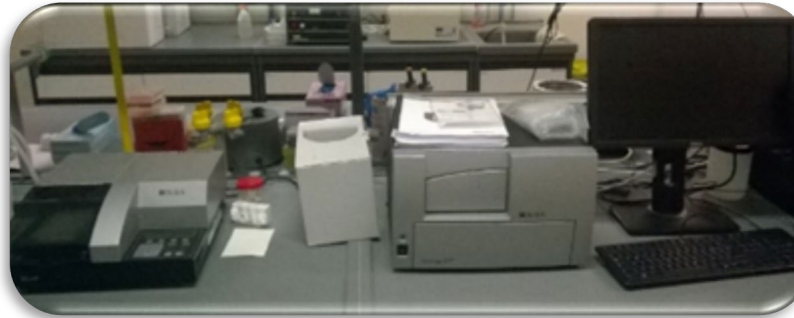
<https://disco.univpm.it/laboratorio-di-biochimica-medica-e-della-nutrizione-responsabile/>

Team work: the group is currently formed by an Associate Professor and two PhD students



Research interests:

- The study of biological membrane changes induced by metabolic diseases (e.g., diabetes, obesity), atherosclerosis, hypertension, eating disorders (such as anorexia and bulimia), neurodegenerative diseases (e.g., Alzheimer's, Parkinson's, and multiple sclerosis), autism, and the role of antioxidants and pro-oxidant molecules, including nitric oxide, its derivatives such as peroxynitrite
- Male and female reproductive system disorders related to the production of reactive nitrogen and oxygen species, as well as the depletion of antioxidant systems
- Taste sensitivity both in health and disease
- Bioactive compounds and their role in NCDs
- Adherence to Mediterranean Diet both in health and disease



Equipment:

Refrigerated Centrifuge, UV-VIS Spectrophotometer, Bench Centrifuge, Water purification system, Basic laboratory equipment, Thermostatic Bath, Multimodal microplate reader, Equipment for Electrophoresis and Western Blot, Equipment for Cell Cultures, Spectrofluorimeters with Polarizers and Thermostated Cells





UNIVERSITÀ
POLITECNICA
DELLE MARCHE

The Department of Odontostomatologic and Specialized Clinical Sciences

Director: Prof. Andrea Giovagnoni

The **Department of Odontostomatologic and Specialized Clinical Sciences** is the scientific and educational organizational structure of the UNIVPM University established in 2008, devoted to the promotion of scientific research, education and the dissemination of scientific research results in the community.

Its main objectives are to plan, organize and regularly evaluate the quality of research activity carried out in the scientific fields and disciplines under its competence; to plan, organize and manage the first-level and master's courses of the Faculty of Medicine; and, finally, to provide cultural and educational activities and contribute to training and orientation activities based on the needs of students in cooperation with the Medical Association.

<https://www.disco.univpm.it/>

AT A GLANCE

DISCO



Last three years
2022-23-24

15 Scientific Areas
MEDS-07/B, MEDS-14/B, MEDS-14/C, MEDS-16/A, MEDS-22/A, MEDS-22/B, MEDS-20/A, MEDS-21/A, MEDS-26/A, MEDS-08/C, MEDS-26/B, BIOS-07/A, BIOS-08/A, BIOS-09/A, BIOS-10/A, PHYS-06/A



617
Publications



45
Staff

Teaching programs for **undergraduates** in Medicine and Surgery, Dentistry, Professional education, Physiotherapy, Dietetics, Dental hygiene, Nursing, Speech Therapy, Obstetrics, Biomedical laboratory techniques, Prevention techniques in the environment and workplace, Medical, Imaging and Radiation Therapy techniques.
Postgraduate Medical Training specialty in Gynecology and Obstetrica, Pediatrics, Radiology, Urology, Nuclear Medicine



>2.700.000 €
Research income



30
PhD, Post-doc,
Research fellows



1 Centre of Artificial Intelligence & Digital Health in Medicine and Biology AIDH
1 Centre of Health Education and promotion (CIESS)

8
Clinical research Units

5
Research
Laboratories



Master's Degree in:

- Nutrition and Dietetics;
- Applied Nutrition and Dietetics;
- Sports Applied Nutrition and Dietetics;
- Vegetarian Nutrition and Dietetics;
- Operative management of the pathology of the lower genital tract of the endometrial cavity
- Expert in diet planning
- Nutrition in Physiological condition
- Nutrition in pathological condition