

# ***CURRICULUM VITAE***

## **NADIA RAFFAELLI**

### **Full Professor of Biochemistry**

**Department of Agricultural, Food and Environmental Sciences, Marche Polytechnic University, Ancona, Italy**

**E-mail: [n.raffaelli@staff.univpm.it](mailto:n.raffaelli@staff.univpm.it); tel. +0712204682**

### **EDUCATION AND TRAINING**

- 1984                      Doctoral Degree in “Biological Sciences” at the University of Camerino, Italy  
01/1987-12/1987      Post-doctoral fellowship at the Department of Biochemistry and Molecular Biology, University of Florida, Gainesville, USA  
1988                      Specialization in “Microbiology” at the University of Camerino, Italy

### **POSITIONS**

- 11/1989-11/1990      Researcher of Biochemistry at the Department of Molecular and Cellular Biology, Faculty of Sciences, University of Camerino, Italy  
12/1990-03/2001      Qualified Laboratory Technician at the Faculty of Medicine, University of Ancona, Italy  
04/2001-10/2001      Researcher of Biochemistry, Faculty of Medicine, University of Ancona, Italy  
11/2001-10/2006      Associate Professor of Biochemistry, Faculty of Agriculture, Polytechnic University of Marche, Italy  
11/2006 - present     Full Professor of Biochemistry, Department of Agricultural, Food and Environmental Sciences, Polytechnic University of Marche, Italy

### **TEACHING ACTIVITY**

- 2010 - present        Professor of “Biochimica”, B.Sc. in “Scienze e Tecnologie Alimentari”, Polytechnic University of Marche  
2016 - present        Professor of “Food Biochemistry”, M.Sc. in “Food and Beverage Innovation and Management”, Polytechnic University of Marche  
2007 -present         Member of the board of the PhD program in “Agricultural, Food and Environmental Sciences”, Polytechnic University of Marche

### **INSTITUTIONAL RESPONSABILITIES**

- 2015 - 2021            Vice Director of the Department of Agricultural, Food and Environmental Sciences, Polytechnic University of Marche  
2017 – 2021            President of the Ethics Committee, Polytechnic University of Marche  
2019 – present         Rector’s Delegate for Research, Polytechnic University of Marche

### **MEMBERSHIPS AND OTHER ACTIVITIES**

- 1992 - present        Member of the Italian Society of Biochemistry  
2015 - 2019            Member of the Scientific Advisory Board of the Institute of Food Sciences, National Research Council of Italy, Avellino, Italy  
2011                    Expert nominated by the Italian Ministry of University and Research as member of the Committee for the selection of research projects “Life Science” financed by the “Fund for investment in basic research, FIRB”  
2020                    Expert nominated by ANVUR for the selection of PhD projects within the “Programma Operativo Nazionale Ricerca e Innovazione 2014-2020”.  
2018-2020             Member of the Commission implementing the jurisdictional measures for the granting of the National Scientific Qualification (ASN) in the sector E05/1-General Biochemistry

2021-2023 Member of the Commission for the National Scientific Qualification (ASN) in the sector E05/1-General Biochemistry

#### **COLLABORATIONS WITH BIOTECH COMPANIES**

2011 – 2022 academic collaborator for TES Pharma (Perugia, Italy), a company focusing on drug discovery against key targets in metabolic diseases and oncology, providing expertise in Biochemistry and Enzymology

#### **SCIENTIFIC ACTIVITY**

Research activity has been mostly focused on the enzymology of nucleotides metabolism, with particular focus on NAD metabolism. Her scientific production is reported in 107 articles with 4,188 citations, h-index 38, excluding self-citations (Scopus, October 2024).

#### **RESEARCH SUPPORT IN THE LAST FIVE YEARS**

08/2019– 02/2022 *Understanding and targeting the extracellular NADome in inflammation*  
PRIN2017CBNCYT (Unit Coordinator)

01/2020-06/2023 *Structure-based insights into the inflammatory functions of extracellular NAD biosynthetic enzymes* “Bando Ricerca Scientifica di Eccellenza 2018”  
Fondazione Cariverona (Principal Investigator)

#### **MOST RELEVANT PUBLICATIONS IN THE LAST TEN YEARS**

Audrito V, Serra S, Brusa D, Mazzola F, Arruga F, Vaisitti T, Coscia M, Maffei R, Rossi D, Wang T, Inghirami G, Rizzi M, Gaidano G, Garcia JG, Wolberger C, **Raffaelli N**, Deaglio S. Extracellular nicotinamide phosphoribosyltransferase (NAMPT) promotes M2 macrophage polarization in chronic lymphocytic leukemia. *Blood* 125 (1), 111-123, DOI: 10.1182/blood-2014-07-589069, 2015

Katsyuba E, Mottis A, Zietak M, De Franco F, van der Velpen V, Gariani K, Ryu D, Cialabrini L, Matilainen O, Liscio P, Giacchè Nicola, Stokar-Regenscheit N, Legouis D, de Seigneux S, Ivanisevic J, **Raffaelli N**, Schoonjans K, Pellicciari R, Auwerx J. De novo NAD synthesis enhances mitochondrial function and improves health. *Nature* 563 (7731) 354- 359, DOI: 10.1038/s41586-018-0645-6, 2018

Buonvicino, D; Mazzola, F; Zamporlini, F; Resta, F; Ranieri, G; Camaioni, E; Muzzi, M; Zecchi, R; Pieraccini, G; Dolle, C; Calamante, M; Bartolucci, G; Ziegler, M; Stecca, B; **Raffaelli, N**; Chiarugi, A. Identification of the Nicotinamide Salvage Pathway as a New Toxication Route for Antimetabolites *Cell Chemical Biology* 25 (4), 471-482, DOI: 10.1016/j.chembiol.2018.01.012, 2018

Managò A, Audrito V, Mazzola F, Sorci L, Gaudino F, Gizzi K, Vitale N, Incarnato D, Minazzato G, Ianniello A, Varriale A, D'Auria S, Mengozzi G, Politano G, Oliviero S, **Raffaelli N**, Deaglio S. Extracellular nicotinate phosphoribosyltransferase binds Toll like receptor 4 and mediates inflammation. *Nature Communications* 10 (4116), DOI: 10.1038/s41467-019-12055-2, 2019

Gasparrini M, Mazzola F, Cuccioloni M, Sorci L, Audrito V, Zamporlini F, Fortunato C, Amici A, Cianci M, Deaglio S, Angeletti M, **Raffaelli N**. Molecular insights into the interaction between human nicotinamide phosphoribosyltransferase and Toll-like receptor 4. *Journal of Biological Chemistry* 298(3), 101669, DOI: 10.1016/j.jbc.2022.101669, 2022

#### **PATENTS**

Roberto Pellicciari Johan Auwerx, **Nadia Raffaelli** (2016)  
Inhibitors of alpha-amino-beta-carboxymuconic acid semialdehyde decarboxylase  
US2016/0060226A1, TES PHARMA S.r.l. Corciano (Italy)