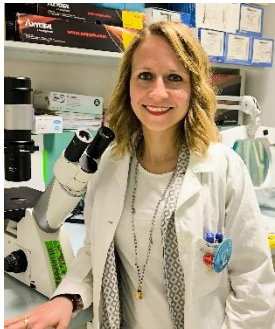


BIOGRAPHICAL SKETCH

	NAME Valentina Audrito, PhD (Feb 24, 1985, Italian)	POSITION TITLE Associate Professor in Biochemistry (BIOS/07A) Dipartimento di Scienze e Innovazione Tecnologica (DISIT) Università del Piemonte Orientale (UPO) viale Teresa Michel 11, 15121 Alessandria (Italy) valentina.audrito@uniupo.it
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EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Torino, Italy	Bachelor's degree	2004-2007	Biotechnology
University of Torino, Italy	Master's degree (110/110 magna cum laude and dignity of print	2007-2009	Medical Biotechnologies
University of Torino, Italy	Ph.D.	2010-2013	Biomedical Sciences and Human Oncology

A. Personal Statement

My research interest is focused on two main aspects of molecular biochemistry of tumors: i) the study of how oncogenic signaling drives cancer metabolic adaptations as drug resistance mechanisms, modifying NAD metabolism homeostasis (biosynthetic/consumption pathways) and ii) the study of metabolic/signaling crosstalk between tumor cells and tumor microenvironment. The final goal is to discover new molecules that can be exploited as therapeutic targets.

Since I was a master's degree student (2007-2009), and then during the **PhD program in Biomedical Sciences and Human Oncology (2010-2013)** my research project was focused on understanding the role of NAD metabolism in cancer progression, evaluating in particular the role of NAD precursors, NAD-biosynthetic enzymes (NBEs) and NAD-consuming enzymes. My first research project was to analyze the effects of nicotinamide, the main NAD precursor, on chronic lymphocytic leukemia (CLL) lymphocytes (**Audrito V et al, Cancer Research 2011**). I continued the training in oncology obtaining a **3-year fellowship (2014-2016) from the Italian Association for Cancer Research (AIRC)**, with a project aimed at analyzing and dissecting whether the network of signals controlled by extracellular nucleotide/nucleoside metabolism may play functional and molecular roles in creating a growth-favorable microenvironment of CLL. Here, I identified the NBE nicotinamide phosphoribosyltransferase (NAMPT), as a main player in creating immunosuppressive and tumor-promoting conditions in the CLL microenvironment (**Audrito V et al, Blood 2015**). During those years, I was visiting scientist (December 2014) at the laboratories of the Weill Cornell Medical College, NY. Moreover, I spent time (June 2015) to learn Seahorse technology for real-time bioenergetics analysis to study cancer metabolism in the lab Prof. Giuseppe Matarese (Lab of Immunology, Istituto di Endocrinologia e Oncologia Sperimentale, Naples, IT). In parallel, in those years I analyzed critical components of tumor microenvironment and immune evasion mechanisms, including secreted molecules and membrane receptors [i.e., HLA-G (**Rizzo R., Audrito V. et al Haematol 2014**), PD-L1 (**Massi et al Ann Oncol 2014**, **Massi et al Ann Oncol 2015**,

Audrito V et al Oncotarget 2017), and a second NAD-biosynthetic enzyme NAPRT (**Managò A., Audrito V et al Nat. Commun 2019, IT patent I0174545 20/02/2018, PCT/IB2019/051314 19/02/2019, Audrito & Deaglio inventors**)], in chronic and acute inflammatory conditions.

More recently, as a senior postdoctoral fellow (assegnista di ricerca), in the Lab directed by Prof. Silvia Deaglio (Dept. Medical Sciences, University of Turin) from 2017 to 2020 and in the group of Prof. Daniela Taverna (2021-march 2022, Dept. of Molecular Biotechnology and Health Sciences and Molecular Biotechnology Center of the University of Turin), thanks to the collaboration with Prof. Mario Mandalà (University of Perugia), I moved to study the oncogenic pathways that lead to the acquisition of BRAF inhibitor resistance in metastatic melanoma. I identified NAMPT as central player of BRAF inhibitor resistance, driving metabolic reprogramming and phenotype plasticity of melanoma, becoming a therapeutic target ("**Cecilia Cioffrese**" award 2016; **Audrito V et al JNCI 2018; Audrito V et al Oncotarget 2018; Audrito V et al Cancers 2020, Audrito V et al JTRM 2022**). Moreover, I was involved in the study on the impact of microRNA in metabolic reprogramming and drug resistance in melanoma.

At the end of 2021 I was funded by AIRC [**MFAG 2021 grant ID 26004 "NAMPT as a driver of melanoma progression and immune evasion: therapeutic target for novel combination therapies"**] and thank to this grant I started my independent career and established my lab at the Dept. of Science and Technological Innovation (University of Eastern Piedmont, UPO) where I obtained a position of **tenure track Assistant Professor in Biochemistry (2022-2025) and from April 2025 I have been promoted to Associate Professor**. My research unit (**Molecular Biochemistry of Tumor**) is now composed of 3 PhD students in the PhD of Chemistry & Biology (UPO), 2 fellows, 5 Master students in Biology and 8 in Biological Sciences. The focus of the research is to study NAMPT/NAD axis in melanoma and recently also in mesothelioma model, and the molecular mechanisms of resistance to targeted therapies and immunotherapy.

Career breaks

- Chiara (Oct 27, 2016)

B. Positions, Scientific Appointments, and Honors

Positions, Scientific Appointments

-July 2025 Abilitazione scientifica nazionale alle funzioni di professore universitario di I fascia: SSD 05/E2 BIOLOGIA MOLECOLARE, da 01/07/2025 AL 01/07/2037

-April 2025 - present Associate Professor in Biochemistry, Dept. of Science and Technological Innovation (DiSIT), Alessandria (Italy), Eastern Piedmont University (UPO). <https://upobook.uniupo.it/valentina.audrito>

-April 2022 - present Principal Investigator, Molecular Biochemistry of Tumors AIRC-lab funded, <https://disit.uniupo.it/ricerca/gruppi-di-ricerca/biochimica-molecolare-dei-tumori> DiSIT, UPO and Preclinical LAB Department of Integrated Activities Research and Innovation (DAIRI) of the Public Hospital Azienda Ospedaliera "SS. Antonio e Biagio e Cesare Arrigo" of Alessandria (AO AL) and DiSIT-UPO.

-April 2022 - March 2025 Tenure track Assistant Professor (RTD-B) in Biochemistry (Associate Prof starting from April 1, 2025), Dept. of Science and Technological Innovation (DiSIT), Alessandria (Italy), Eastern Piedmont University (UPO).

-March 2021 - March 2022 Senior Post-Doctoral fellow (Assegnista di ricerca), Dept. Molecular Biotechnology and Health Sciences & Molecular Biotechnology Center, University of Turin. Supervisor: Prof. Daniela Taverna Fellowship 1-3-2021 to 31-5-2021 "Role of miR-214 and miR-148b in tumor/stromal cell interactions and as therapeutic targets in cancer progression".

Assegno di ricerca 1-6-2021 to 31-3-2022 "Ruolo di specifici miRNAs e metaboliti nella progressione del melanoma".

-March 2017 - Feb 2020 Senior Post-Doctoral fellow (Assegnista di Ricerca). Department of Medical Sciences, University of Torino, Italy. Supervisor: Prof. Silvia Deaglio

Assegno di ricerca 01-03-2017 to 28-02-2018, co-funded Fondazione Caligara "Defining the role of NAD biosynthetic enzymes as prognostic markers and therapeutic targets in metastatic melanoma".

Assegno di ricerca 1-3-2018 to 28-2-2019. "Cross-talk tra metabolismo del NAD e segnali oncogenici mediati da NOTCH1".

Assegno Di Ricerca Cofinanziato – XXI-XXII Tornata 1-3-2019 a 28-2-2021, "Ruolo di NAMPT e NAPRT quali nuovi marcatori di infiammazione acuta e cronica".

-Jan 2014- Dec 2016 Post-Doctoral fellow (AIRC/FIRC Fellowship #15047) at Immunogenetics Research Unit of the Italian Institute of Genomic Medicine (IIGM), Torino, Italy. Supervisor: Prof. Silvia Deaglio.

Project: "Role of nicotinamide phosphoribosyltransferase (NAMPT) in the microenvironment of chronic lymphocytic leukemia"

-December 2014: Visiting Scientist, Weill Cornell Medical College, NY, USA. Training on xenograft models of lymphoma in mice. Supervisor: Prof. Silvia Deaglio

-June 2015: Visiting Scientist, Lab of Immunology, Istituto di Endocrinologia e Oncologia Sperimentale, Consiglio Nazionale delle Ricerche (IEOS-CNR), University of Naples "Federico II", Naples, Italy. Referent: Prof. Giuseppe Matarese. Training on bioenergetics, use of Seahorse metabolic analyzer.

-Jan 2010- Dec 2013 PhD student (Biomedical Sciences and Human Oncology, specialization Human Genetics, obtained on 01-20-2014), Immunogenetics Research Unit of the IIGM-Torino and Department of Medical Sciences, University of Torino, Italy. Supervisors: Prof. Silvia Deaglio; Dr. Enza Ferrero

Project: "Studio cross-talk metabolico e vie di segnale attivate da nucleotidi extracellulari tra cellule tumorali e microambiente tumorale"

-Jan 2006- Oct 2009 Internal student, bachelor's and master's degree in medical biotechnologies, Laboratory of Immunogenetics, Department of Genetics, Biology and Biochemistry, University of Torino, Italy. Supervisors: Prof. Fabio Malavasi, Dr. Silvia Deaglio

Project: "Valutazione degli effetti di Nicotinamide in leucemia linfatica cronica"

Honors

2024 "PREMIO RECTI EQUES | PALADINI ITALIANI DELLA SALUTE" Rome April 18, 2024

2023 "Fondazione DaRosa" 2023 Award in oncology. "Analisi dell'espressione e della funzione dell'enzima/citochina NAMPT nel mesotelioma maligno.

2021 Prize "NICCOLÒ SARTONI" 2021 in Innovative Research in the treatment of melanoma. Sponsored by Associazione MeLa Gioco and Società Italiana Cancerologia SIC

2019 American Association for Cancer Research AACR Scholar in Training Award sponsored by Società Italiana Cancerologia SIC

2018 Pezcoller-Begnudelli Award for the best presentation at the Pezcoller Symposium "Overcoming the innate resistance of cancer to therapy."

2016 "Cecilia Cioffrese" Prize 2016 (Carlo Erba Foundation) for the research in oncologic diseases

2015 Fondazione Franco e Marilisa Caligara: co-funding of research project grant 2016 "Defining the role of NAD-biosynthetic enzymes as prognostic markers and therapeutic targets in metastatic melanoma."

2013 American Association for Cancer Research AACR Scholar in Training Award sponsored by Pezcoller Foundation.

2013 Pezcoller-Begnudelli Award for the best presentation at the Pezcoller Symposium "Metabolism and tumorigenesis"

2010 "CARLO GENETTA" Prize for the best poster presented at the 7° S.I.Ci.C.S. National Congress (Società

Italiana di Citometria Clinica e Sperimentale)

2009 Degree Prize 2009 “Lorenzetti Lando” for the best degree thesis, FONDAZIONE PER LA RICERCA SUL CANCRO “F. e G. Renzi”, Ancona, Italy.

C. Research Support

1. Scientist involved in several projects in the lab of Prof. Deaglio: AIRC 2009. IG8590; Italian Institute for Genomic Medicine-IIGM institutional funds 2010-2019; Ministero Salute-Progetto Giovani Ricercatori 2008 GR-2008-1138053; PRIN2009LMEEH_002; AIRC 2012. IG12754; FIRB-Futuro in Ricerca 2012 RBFR12D1CB_002; AIRC 2019. IG23095.
2. FIRC/AIRC triennial fellowship #15047 “Role of nicotinamide phosphoribosyltransferase (NAMPT) in the microenvironment of chronic lymphocytic leukemia” (2014-2016 completed, role: PI, 25.000€/year, three-years project)
3. “Carlo Chianello” Foundation fellowship/award 2014 (Università degli Studi di Palermo), “Intracellular/Extracellular NAMPT/visfatin in metastatic melanoma: predictive role in response to treatment and prognosis” (2015 completed, role: PI, 6.000€)
4. Co-funding assegno di ricerca 2015/2016 “Franco e Marilisa Caligara” Foundation fellowships (Turin) “Defining the role of NAD biosynthetic enzymes as prognostic markers and therapeutic targets in metastatic melanoma” (completed at the end of February 2017, role: PI, 12.500€).
5. Gilead Fellowship 2018 “Circulating NAD biosynthetic enzymes (NBEs) as novel prognostic markers in chronic lymphocytic leukemia and Richter's syndrome” (2019 completed, role: Co-PI with Prof. Silvia Deaglio, 25.000€)
6. Assegno Di Ricerca Cofinanziato – XXI Tornata (01-03-2019 to 29-02-2020), Dept. of Medical Sciences, University of Turin. Title: Ruolo di NAMPT ed NAPRT quali nuovi marcatori in condizioni di infiammazione cronica e acuta.
7. Assegno Di Ricerca Cofinanziato – XXII Tornata renewal (01-03-2020 to 28-02-2021), Dept. of Medical Sciences, University of Turin. Title: Ruolo di NAMPT ed NAPRT quali nuovi marcatori in condizioni di infiammazione cronica e acuta.
8. Recipient of post-doctoral fellowship 2022 Fondazione Umberto Veronesi “Investigating the impact of miR-214/miR-148b axis in BRAF/MEK targeted therapy-resistance mechanisms in metastatic melanoma” (Funded, role: PI, 30,000€/year 1-year project. NOT USED TO START MFAG grant).
9. **My First AIRC Grant (MFAG)-AIRC 2021 grant ID 26004 “NAMPT as a driver of melanoma progression and immune evasion: therapeutic target for novel combination therapies” (Funded, role: PI, 100,000€/year, five-years project).**
10. **CRT project ““NAMPTTEST - NAMPT e autoanticorpi: una possibile associazione per la diagnostica autoimmune?” (co-PI; partner AOU-AL, 35,000€/year, 1-year project, funded).**
11. **Fondo di Beneficenza Intesa SanPaolo ““NAMPT: nuovo biomarcatore e bersaglio terapeutico nel mesotelioma pleurico maligno?” (Funded, role PI, 90,000€/year, 1-year project).**

Clinical Studies

- In collaboration with the University of Perugia, coordinating center (Prof. Mandalà) and the Italian Melanoma Intergroup (IMI), multicenter observational study “Nicotinamide fosforibosiltransferasi (NAMPT) potenziale driver di progressione di malattia e immuno-evasione nei pazienti con melanoma: un target terapeutico per nuove terapie di combinazione”. Approved in may 2023.
- In collaboration with DAIRI e SSD Mesotelioma (AOU-AL, Dr.ssa Federica Grosso, Mesothelioma Unit) Observational study “NAMPT-MESO: Il ruolo prognostico e predittivo dell'enzima nicotinamide fosforibosiltransferasi (NAMPT) nei pazienti con mesotelioma avanzato”. Approved june 2023.
- In collaboration with Prof. Laura Conti (Molecular Biotechnology Center, University of Turin, IT) protocol for in vivo experiments Authorized by the Ministry of Health n° 426/2023-PR (Risp. a prot. CC652.199) “Valutazione del ruolo dell'enzima-citochina NAMPT sulla crescita tumorale, sulla polarizzazione del sistema immunitario e la risposta a immunoterapia nel modello del melanoma metastatico”.
- ClinicalTrials.gov Identifier: NCT06487286 “Levels of Visfatin/NAMPT in Human Milk”, Paolo Manzoni, Audrito Valentina, Maria Cavaletto

D. Contribution to Science

<https://orcid.org/0000-0002-5660-4175>

<https://pubmed.ncbi.nlm.nih.gov/?term=audrito+v&sort=date>

<https://www.scopus.com/authid/detail.uri?authorId=36550032100>

<https://scholar.google.com/citations?user=teJ-lc4AAAAJ&hl=it&oi=ao>

Total number: 51; 49 in Q1; 3 without IF; Total IF (2024-25): 514,9 media: 10.72

N° paper first/ last/corresponding author: 22; 2 without IF; Total IF: 153.3

H-index=26 (Scopus, Last update sept 2025); H-index=30 (Google Scholar, Last update sept 2025)

Citations: 2,050 (Scopus, Last update sept 2025; Citations: 2,779 (Google Scholar, Last update sept 2025).

Selected relevant peer-reviewed publications (research articles, co-first*, co-last or co-corresponding#):

1. **Audrito V**, Vaisitti T, Rossi D, *et al.* Nicotinamide blocks proliferation and induces apoptosis of chronic lymphocytic leukemia cells through activation of the p53/miR-34a/SIRT1 tumor suppressor network. *Cancer Res* **2011**;71:4473-83 **IF: 16.6 Q1**
2. **Audrito V**, Serra S, Brusa D, *et al.* Extracellular nicotinamide phosphoribosyltransferase (NAMPT) promotes M2 macrophage polarization in chronic lymphocytic leukemia. *Blood* **2015**;125:111-23 **IF: 23.1 Q1**
3. **Audrito V***, Serra S*, Stingi A, *et al.* PD-L1 up-regulation in melanoma increases disease aggressiveness and is mediated through miR-17-5p. *Oncotarget* **2017**;8:15894-911 **Q1**
4. **Audrito V**, Manago A, La Vecchia S, *et al.* Nicotinamide Phosphoribosyltransferase (NAMPT) as a Therapeutic Target in BRAF-Mutated Metastatic Melanoma. *J Natl Cancer Inst* **2018**;110 **IF: 7.2 Q1**
5. **Audrito V**, Manago A, Zamporlini F, *et al.* Extracellular nicotinamide phosphoribosyltransferase (eNAMPT) is a novel marker for patients with BRAF-mutated metastatic melanoma. *Oncotarget* **2018**;9:18997-9005 **Q1**
6. Manago A*, **Audrito V***, Mazzola F, *et al.* Extracellular nicotinate phosphoribosyltransferase binds Toll like receptor 4 and mediates inflammation. *Nat Commun* **2019**;10:4116 **IF: 15.7 Q1**
7. **Audrito V#**, Messana VG, Moiso E, *et al.* NAMPT Over-Expression Recapitulates the BRAF Inhibitor Resistant Phenotype Plasticity in Melanoma. *Cancers* **2020**;12 **IF: 4.4 Q1**
8. **Audrito V**, Moiso E, Ugolini F, *et al.* Tumors carrying BRAF-mutations over-express NAMPT that is genetically amplified and possesses oncogenic properties. *J Transl Med.* **2022**;20(1):118. **IF: 7.5 Q1**
9. Ponzzone L, **Audrito V**, Landi C, *et al.* RICTOR/mTORC2 downregulation in BRAFV600E melanoma cells promotes resistance to BRAF/MEK inhibition. *Mol Cancer.* **2024** May 16;23(1):105 **IF: 33.9 Q1**
10. Givonetti A, Galatin C., Fiorilla I.,.....**Audrito V.#**, and Cavaletto M.#. Impact of Holder Pasteurization on Protein and eNAMPT/Visfatin Content in Human Breast Milk. *Sci Rep.* **2024** Nov 25;14(1):29246. **IF: 3.9 Q1**
11. Ghezzi B*, Fiorilla I*, Carreira Á*..... **Audrito V.#**, NAMPT and NNMT released via extracellular vesicles and as soluble mediators are distinguished traits of BRAF inhibitor resistance of melanoma cells impacting on the tumor microenvironment. *Cell Commun Signal.* **2025** Jul 21;23(1):348. **IF: 8.9 Q1**

Alessandria, September 8, 2025

