

PERSONAL INFORMATION **Diana Vardanyan**

## WORK EXPERIENCE

2015-2018 **Senior laboratory assistant, Project 15T- 1E232,**

“The role of Armenian cultivated and wild grapevine biodiversity in environmental balance”

Among the main tasks and techniques applied:

- collection of forty aboriginal varieties, interspecific and intraspecific hybrids and wild species of grapevine
- separation seeds and skin
- the Folin–Ciocalteu method for analysis of total polyphenols
- the free radical-scavenging ability of grape skin and seed extracts
- Phenotypic evaluation of thirty Armenian grape genotypes by leaf disc method and molecular characterization by DNA- based molecular markers related to resistance genes of Downy mildew

## EDUCATION AND TRAINING

2010-2014 **Bachelor’s degree of Biology, Yerevan State University, Armenia**

Thesis: Determination of *VvMBA1* gene polymorphism by polymerase chain reaction (PCR)

2014-2016 **Master’s degree of Biology, Yerevan State University, Armenia**

Thesis: Evaluation of the resistance of Armenian grape varieties to Downy Mildew disease

From 2020 **PhD at University of Salento, Lecce, Italy**

Using extracellular vesicles for diagnosis of glioblastoma multiforme by miniaturized nuclear magnetic resonance

Among the main tasks and techniques applied:

- maintenance of cell cultures for four different glioblastoma cell lines
- treatment by Temozolomide and drug-dose dependent cell viability
- Isolation of extracellular vesicles by size exclusion chromatography and differential centrifugation
- preparations of biological samples for transmission electron microscopy and atomic force microscopy
- extraction and evaluation of protein concentration from cells and extracellular vesicles
- SDS-PAGE
- Western Blot
- Shotgun liquid chromatography-tandem mass spectrometry proteomic analysis
- Wound Healing (SCRATCH) assay

Mother tongue(s) Armenian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Russian	C2	C2	C2	C2	C2
English	C1	C1	C1	C1	C1
Italian	A2	A2	A2	A2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

**Job-related skills** *Laboratory skills:* Cell culture techniques 2D and 3D on the scaffold, 2,5-diphenyl-2H-tetrazolium bromide (MTT) assay, Wound healing assay, Western Blot, Polymerase chain reaction (PCR), Real Time PCR, RNA and DNA extraction, single-cell gel electrophoresis (Comet assay), Isolation of extracellular vesicles by Size exclusion chromatography, ultracentrifugation, sample preparation for Transmission electron Microscopy (TEM) and atomic force microscopy (AFM), immunofluorescence techniques and confocal fluorescence microscopy, Confocal microscopy,

*Software Data analysis skills:* ImageLab, ImageJ (Fiji), ZEISS ZEN lite, GraphPad Prism

**Computer skills** Competent with computers and different operating systems (Windows and macOS), Office packages (Word, Excel, PowerPoint), and graphics programs (such as Adobe Photoshop).

**Membership** Junior Membership of the International Society for Extracellular Vesicles (ISEV)  
Junior Membership of Società Italiana per le vescicole Extracellulari

## ADDITIONAL INFORMATION

- Publications**
- Panzarini E, Leporatti S, Tenuzzo BA, Quarta A, Hanafy NAN, Giannelli G, Moliterni C, **Vardanyan D**, Sbarigia C, Fidaleo M, Tacconi S, Dini L. Therapeutic Effect of Polymeric Nanomicelles Formulation of LY2157299-Galunisertib on CCl4-Induced Liver Fibrosis in Rats. *Journal of Personalized Medicine*. 2022; 12 (11):1812. <https://doi.org/10.3390/jpm12111812>
  - Sbarigia C, **Vardanyan D**, Buccini L, Tacconi S and Dini L (2022) SARS-CoV-2 and extracellular vesicles: An intricate interplay in pathogenesis, diagnosis and treatment. *Front. Nanotechnol.* 4:987034. <https://doi.org/10.3389/fnano.2022.987034>
  - Margaryan K., Melyan G., **Vardanyan D.**, Devejyan H., Aroutiounian R. Phenolic content and antioxidant activity of Armenian cultivated and wild grapes. 40th World Congress of Vine and Wine, BIO Web of Conferences 9, 02029 (2017), <https://doi.org/10.1051/bioconf/20170902029>

- Poster**
- Diana Vardanyan**, Stefano Tacconi, Simone Dinarelli, Maria Concetta Cufaro, Elisa Panzarini, Piero Del Boccio, Luciana Dini. "Can Extracellular Vesicles derived from different temozolomide-treated glioblastoma multiforme cell lines be exploited as liquid biopsy?". ISEV2022 (INTERNATIONAL SOCIETY OF EXTRACELLULAR VESICLES), 2022, Lyon.
  - Kristine Margaryan, Gagik Melyan, **Diana Vardanyan**, Hakob Devejyan and Rouben Aroutiounian, Phenolic content and antioxidant activity of Armenian cultivated and wild grapes. 40th World Congress of Vine and Wine, Book of Abstract p. 154, May 29 to June 2, 2017, Sofia – Bulgaria.
  - Margaryan K., **Vardanyan D.**, Devejyan H.H.1, Aroutiounian R.M. Study of Armenian grape cultivars for resistance to downy mildew. The International Young Scientists Conference "NEW TRENDS IN LIFE SCIENCES" Dedicated to the 50th anniversary of the Institute of Molecular Biology NAS RA, 2016,

Yerevan, Armenia

4. Nebish A., **Vardanyan D.**, Devejian H., Aroutiounian R., Cytoembryological profiles of some Armenian grapevine cultivars. The International Young Scientists Conference "NEW TRENDS IN LIFE SCIENCES" Dedicated to the 50th anniversary of the Institute of Molecular Biology NAS RA, 2016, Yerevan, Armenia

#### Oral presentations

1. **D. Vardanyan**, S. Tacconi, S. Dinarelli, F. Mura, M.C. Cufaro, E. Panzarini, P. Del Boccio, L. Dini, Glioblastoma multiforme-derived extracellular vesicles undergo proteomic changes after treatment with chemotherapeutic agent Temozolomide, Workshop "EVIta connect: Fostering collaboration", 29-30 September 2022, Turin, Italy

2. **D. Vardanyan**, S. Tacconi, S. Dinarelli, F. Mura, M.C. Cufaro, E. Panzarini, D. Passeri, M. Girasole, G. Longo, M. Rossi, P. Del Boccio, L. Dini, A step toward precision medicine using extracellular vesicles derived from different temozolomide-treated glioblastoma cells. Conference NanoInnovation 2022, 19-23 September 2022, Rome, Italy

#### Congresses and workshops

1. "NanoInnovation 2021", 21-24 September 2021, Rome, Italy.

2. ISEV2022, 25-29 May 2022, Lyone, France.

3. "NanoInnovation 2022", 19-23 September 2022, Rome, Italy.

4. "EVIta connect: Fostering collaboration" workshop, 29-30 September 2022, Turin, Italy

La sottoscritta dichiara di essere consapevole che il presente *curriculum vitae* sarà pubblicato sul sito istituzionale dell'Ateneo, nella Sezione "Amministrazione trasparente", nelle modalità e per la durata prevista dal d.lgs. n. 33/2013, art. 15.

Data 08/05/2023

f.to Diana Vardanyan