CURRICULUM VITAE

PERSONAL DETAILS

Family name, First name: **Dragnea,** Elena-Mihaela

Researcher unique identifier(s): Scopus ID: 57488911700; ResearcherID:IWU-5152-2023; https://orcid.org/0000-0003-2739-8760; Google scholar EMD, Brainmap ID.

- **Education and key qualifications**

01/10/2025	PhD in general medicine "Carol Davila" University of Medicine and Pharmacy
2017-2019	Master's Degree University of Bucharest, Faculty of Biology, Applied genetics and biotechnology
2014-2017	Bachelor's Degree University of Bucharest, Faculty of Biology, Biochemistry

- **Current position(s)**

2025 - present	Assistant Researcher in Cell biology, Neurosciences and Experimental Miology Laboratory "Victor Babeș" National Institute of Pathology Bucharest, Romania

- **Previous position(s)**

2020-2024	Assistant Researcher Radiobiology Laboratory, "Victor Babeș" National Institute of Pathology Bucharest, Romania

RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

- **Personal and Academic Profile**

I am a biomedical researcher and biochemist with a strong focus on experimental cell biology, molecular medicine, and translational research. My professional development has been shaped by continuous involvement in both fundamental and applied biomedical research, spanning academic laboratories, clinical diagnostic environments, and European research coordination frameworks. I am currently a PhD candidate in General Medicine at the "Carol Davila" University of Medicine and Pharmacy in Bucharest and work as a Research Assistant at the National Institute for Research and Development "Victor Babeș".

- **Research Interests and Expertise**

My scientific activity is centered on understanding disease mechanisms at the cellular and molecular level, with particular emphasis on cell culture models, immune and inflammatory processes, radiation biology, and molecular diagnostics. I have extensive hands-on experience in maintaining and manipulating cell cultures, performing cell viability and functionality assays, irradiation experiments, and real-time monitoring of cell proliferation and cytotoxicity using the xCELLigence system. I routinely apply molecular biology techniques, including RT-PCR for gene expression analysis and ELISA-based assays for protein quantification.

Through my research, I have contributed to studies in infectious diseases, neuroinflammation, oncology-related cellular responses, and oxidative stress pathways. Working within multidisciplinary teams has strengthened my ability to integrate experimental findings with clinical and translational perspectives, ensuring the relevance of laboratory results to medical research and patient-oriented outcomes.

- **Research Experience and Scientific Contributions**

I have over five years of experience as a Research Assistant at the National Institute for Research and Development "Victor Babeș" in Bucharest, where I have been actively involved in multiple nationally and internationally funded research projects. My work has included experimental design and execution, data acquisition and analysis, and the preparation of scientific articles and project reports for national and international funding bodies. I have also been responsible for laboratory organization, management of consumables, and maintenance of research equipment, contributing to the efficient operation of experimental workflows.

My research activity has resulted in peer-reviewed publications and conference contributions addressing topics such as immune responses in neurodegenerative disease models, radiation-induced cellular effects, antiviral strategies, and inflammatory signaling pathways. I have actively disseminated my work through oral and poster presentations at national and international pathology and biomedical

conferences.

- **Clinical and Diagnostic Laboratory Experience**

In parallel with my academic research, I have gained substantial experience in clinical diagnostic laboratories as a Biochemist. At Clinica Micomi in Bucharest, I performed cytological slide preparation, histopathological, immunohistochemical, and immunocytochemical staining, and applied molecular biology techniques for HPV detection. Previously, within the “Regina Maria” private healthcare network in Cluj-Napoca, I conducted biochemical and genetic analyses, managed biological samples from registration to preliminary processing, and ensured accurate communication between collection centers, analytical laboratories, and hospital departments. These roles enhanced my understanding of diagnostic workflows, quality control, and compliance in clinical laboratory practice.

- **Research Management and European Collaboration**

Between 2024 and 2025, I served as Grant Holder Manager for the COST Action CA20121 (BenBedPhar). In this role, I coordinated the organization of international scientific events, including conferences, training courses, and summer schools, and maintained continuous communication with COST officers in Brussels. I provided guidance to nearly 400 action members regarding COST regulations, validated reimbursement documentation, prepared periodic financial reports, and participated in Management Committee meetings. This experience allowed me to develop strong skills in research administration, financial oversight, and international scientific coordination, complementing my laboratory-based expertise.

- **Education and Training**

I hold a Bachelor’s degree in Biochemistry and a Master’s degree in Applied Genetics and Biotechnology from the University of Bucharest, Faculty of Biology. My master’s thesis focused on the effects of antiviral drugs on hepatitis B virus using HepG2 cell line models, reflecting my early interest in virology and experimental therapeutics. My undergraduate thesis addressed critical patient management based on the dynamics of sepsis biomarkers, providing an early link between laboratory research and clinical application.

I am currently pursuing a PhD in General Medicine, where my research builds on my background in molecular and cellular biology and aims to generate clinically relevant insights into disease mechanisms and therapeutic responses.

- **Projects, Publications, and Scientific Engagement**

Throughout my career, I have participated in numerous competitive research projects, including national projects and European collaborative initiatives such as COST CA20121. I have authored and co-authored multiple scientific publications in peer-reviewed journals and conference proceedings, contributing to the fields of neuroscience, immunology, radiation biology, and infectious diseases. I regularly participate in scientific conferences and seminars, both as an attendee and as a presenting author.

- **Publications that sustain the narrative achievements:**
  - Elena-Mihaela Dragnea, The dynamics of platelet volume in sepsis. Journal of Contemporary Clinical Practice, 2016, vol 2. (ISSN 2457-7200, ISSN-L 2457-7200).
  - Elena-Mihaela Dragnea, Ovidiu Vlaicu, Dan Oțelea, Dănuț Cimponeriu, Adrian Streinu-Cercel, Fenotiparea rezistenței la tratament a virusului hepatitei B cu ajutorul culturilor celulare., Sesiunea de comunicări științifice a studenților facultății de biologie, 31 mai 2019 (ISSN 2559-396x, ISSN-L 2559-396).
  - Elena-Mihaela Dragnea, Mihaela Laura Vică, Silvia Ștefana Bâlici, Horea-Vladi Matei, Silver nanoparticles and their antiviral action on hepatitis B virus., International Conference on Legal Medicine from Cluj, 3rd edition, 1-4 October 2020 (ISBN 978-88-85813-93-9).
  - Corina Cioban, Elena-Mihaela Dragnea, Irina Radu, Dănuț Cimponeriu, Factori modulatori ai raportului 2D:4D la pacienții cu diabet zaharat de tip II., Sesiunea de comunicări științifice a studenților facultății de biologie, 31 mai 2019 (ISSN 2559-396x, ISSN-L2559-396).
  - Cătălina Anca Cucoș, Maria Dobre, Elena-Mihaela Dragnea, Gina Manda, Elena Milanesi, Increased MYD88 blood transcript in a mouse model of Alzheimer’s disease. BMC Neurosci 23, 13, 2022, (https://doi.org/10.1186/s12868-022-00699-8).
  - Elena-Mihaela Dragnea, Gina Manda, Ionela Victoria Neagoe, Maria Dobre, Crina Stăvaru, Cătălin Țucureanu, Cristian Postolache, How is tritiated water affecting human monocytes?, Conferința Internațională "Victor Babeș", 4-6 November 2021.
  - Elena-Mihaela Dragnea, Ana-Maria Enciu, Ionela Victoria Neagoe, Maria Dobre, Tumor cells under irradiation, Conferința Internațională "Victor Babeș", 17-19 November 2022.
  - Gina Manda, Elena Milanesi, Sermin Genc, Cristina Mariana Niculite, Ionela Victoria Neagoe, Bora Tastan, Elena-Mihaela Dragnea, Antonio Cuadrado, Pros and cons of NRF2 activation as adjunctive therapy in rheumatoid arthritis, Free Radic Biol Med. 2022;190:179-201. doi:10.1016/j.freeradbiomed.2022.08.012.
  - Angeliki Gkikoudi, Gina Manda, Christina Beinke, Ulrich Giesen, Amer Al-Qaaod, Elena-Mihaela

Dragnea, Maria Dobre, Ionela Victoria Neagoe, Traimate Sangsuwan, Siamak Haghdoost, Spyridon N Vasilopoulos, Sotiria Triantopoulou, Anna Georgakopoulou, Ioanna Tremi, Paraskevi N Koutsoudaki, Sophia Havaki, Vassilis G Gorgoulis, Michael Kokkoris, Faton Krasniqi, Georgia I Terzoudi, Alexandros G Georgakilas, Synergistic Effects of UVB and Ionizing Radiation on Human Non-Malignant Cells: Implications for Ozone Depletion and Secondary Cosmic Radiation Exposure, Biomolecules, 2025 Apr 6;15(4):536. doi: 10.3390/biom15040536.

- **Additional Skills and Professional Development**

My early professional development was supported by extensive laboratory volunteering in genetics and biochemistry laboratories at the National Institute of Infectious Diseases “Prof. Dr. Matei Balș”, as well as in private diagnostic laboratories. I am a native Romanian speaker and fluent in English (C1 level across all competencies). I hold an ECDL certificate, reflecting strong digital literacy.

I am a motivated and adaptable researcher, combining solid experimental expertise with experience in research coordination and scientific communication. My long-term goal is to contribute to high-quality biomedical research that bridges fundamental science with clinical relevance and international collaboration.

ADDITIONAL INFORMATION

Total number of publications: 4 (Web of Science);
Total number of citations (excluding self-citations): 31 (Web of Science);
h-index: 3 (Web of science).