



Carmen Panaitescu Bunu

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WORK EXPERIENCE



Honorary Member of the Romanian Academy of Medical Sciences

[2023 - Current]

Health Research

"Pius Brînzeu" Emergency County Clinical Hospital – Timisoara, Romania

Primary Physician in Allergology and Clinical Immunology

[2013 - Current]

Healthcare

"Victor Babeș" Clinical Hospital no.4 – Timisoara, Romania

Specialist in Allergology and Clinical Immunology

[2000 - 2013]

Healthcare

"Victor Babeș" Clinical Hospital no.4 – Timisoara, Romania

Primary Physician Functional Explorations

[1994 - 2012]

Healthcare

"Victor Babeș" University of Medicine and Pharmacy, Department III Functional Sciences – Timisoara, Romania

University Professor

[2007 - Current]

- Teaching and research activities in the fields of Physiology, Immunology and Clinical Allergology (1992 - present)
- Head of the Physiology Department (2011 - present)
- Course Coordinator Clinical Allergology (2015 - present)
- PhD coordinator in Medicine (OM 4963/31.07.2008) - Immunology and Clinical Allergology (2008 - present).

"Victor Babeș" University of Medicine and Pharmacy – Timisoara, Romania

Director of the Department of International Relations of the "Victor Babeş" University of Medicine and Pharmacy

[2006 – 2012]

- Coordination of the Department of International Relations UMFVBT

 **"Victor Babeş" University of Medicine and Pharmacy, Department III Functional Sciences** – Timisoara, Romania

Associate Professor

[2004 – 2007]

- Teaching and research activities in the field of Physiology, Immunology and Clinical Allergology

 **"Victor Babeş" University of Medicine and Pharmacy, Department III Functional Sciences** – Timisoara, Romania

Lecturer

[1998 – 2004]

- Teaching and research activities in the field of Physiology, Immunology and Clinical Allergology

 **"Victor Babeş" University of Medicine and Pharmacy, Department III – Functional Sciences** – Timisoara, Romania

University Assistant

[1992 – 1998]

- Teaching and research activities in the field of Physiology, Immunology and Clinical Allergology

EDUCATION AND TRAINING

Doctor in Medical Sciences

"Victor Babeş" University of Medicine and Pharmacy [2001]

City: Timisoara | Country: Romania | Field(s) of study: Physiology

Primary Physician Allergology and Clinical Immunology

"Pius Brînzeu" Emergency County Clinical Hospital [2013]

City: Timisoara | Country: Romania | Field(s) of study: Allergology and Clinical Immunology

Specialist in Allergology and Clinical Immunology

"Victor Babeş" Clinical Hospital no.4 [2000]

City: Timisoara | Country: Romania | Field(s) of study: Allergology and Clinical Immunology

Primary Physician Functional Explorations

"Victor Babeş" Clinical Hospital no.4 [1994]

City: Timisoara | Country: Romania | Field(s) of study: Functional Explorations in Respiratory Diseases

Junior Researcher

Cantacuzino Institute, Timisoara Branch [1988 – 1992]

City: Timisoara | Country: Romania

Resident Physician

Clinical Hospital no.1 [1985 – 1988]

City: Timisoara | Country: Romania

Doctor - General Medicine

"Victor Babeş" University of Medicine and Pharmacy [1979 – 1985]

City: Timisoara | Country: Romania

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

French

LISTENING B2 READING C1 WRITING C1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Microsoft Office

TECHNICAL SKILLS AND ABILITIES

Technical skills and abilities

- Evaluation of allergen sensitization patterns and the implementation of molecular allergology and recombinant allergen expression technologies (a national first).
- Study of immune response modulation induced by immunotherapies and biologic therapies in allergic diseases.
- Skills in laboratory techniques including studies focusing on stem cells plasticity; dendritic cell differentiation and *in vitro* studies to assess their implications in allergic diseases
- Cardiopulmonary function tests
- Assessment and monitoring of diseases of the respiratory system - Assessment and monitoring of allergological conditions
- Project management

SOCIAL SKILLS AND COMPETENCES

Team spirit

I coordinate a team of about 10 people involved in various projects

Communication skills

Following my experience as President of RSACI and RSP, as well as Director of the International Relations Department in the university I have acquired and improved communication skills.

Ability to adapt to multicultural environments

Good skills in adapting to multicultural environments, acquired through courses and visits abroad

ORGANISATIONAL SKILLS AND COMPETENCES

Coordination skills

- I coordinate a team of 10 people involved in various research projects, focused on stem cell plasticity and basic and clinical studies in allergic diseases.
- I have coordinated/led 13 scientific projects (5 international) and participated in 29 others (see- Annex 2) in the field of human stem cell plasticity and utility for regenerative medicine, in the field of diagnosis, therapy and prevention of allergic-respiratory diseases, as well as human resource development (Leonardo, POSDRU).
- As vice-president of INUNIMI I have coordinated the first two courses in advanced molecular allergology: Anaphylactic molecules (2022) and Asthma molecules (2024) with 18 CME credits.

Capacity to organise scientific events

- Since 1998 I have organized more than 50 scientific events most of them with international participation devoted to regenerative medicine, clinical and experimental physiology, molecular biology technics and clinical and molecular allergology.
- I have organized around 30 CME courses and workshops in the field of allergology with online or hybrid participation.
- Since 2022 I have organized the RSACI national events devoted to updates in clinical and experimental allergology among which two national conferences (2022, 2024) and one national congress (2023), all with international participation and under the edges of the Romanian Academy of Medical Sciences.

Capacity to organise post-graduate courses and summer schools in medicine

- I have organised more than 20 post-graduate courses and summer schools in medicine, based on the concept of integrating pre-clinical and clinical sciences. In 2009 I was co-organizer of the first Interdisciplinary Neuroscience course (introduced in the university curriculum among the optional subjects for the second year).
- Since 2018 we have organized the first accredited continuing medical education courses on the diagnosis and treatment of hereditary angioedema for the West of the country
- Since 2020, I have organized the first scientific sessions on precision diagnostics in allergic diseases, dedicated to specialists in Allergy and Clinical Immunology, Pulmonology, Dermatology, and Occupational Medicine

Decision-making capacity

- Past-President of RSACI (2025-present)
- President of RSACI (2021-2025)
- President of Allergology and Clinical Immunology Committee of the Romanian College of Physicians
- Vice-president of Allergology and Clinical Immunology Committee of the Health Ministry of Romania (since 2023)
- Deputy Director of the OncoGen project (852/14676/2010-2015), funded with 12 million euros by the European Union through the Sectoral Operational Programme "Increasing Economic Competitiveness" (POS CCE), with the aim of developing the strategic objectives of the Economic and Social Cohesion policies, to improve the research and development structure in Romania. The OncoGen Centre is the result of the financing through structural funds POS CCE Romania, with the objective of facilitating the translation of research results into advanced therapies, and is the only centre in this field in Western Romania. I coordinate the "Health and Environmental Factors" directorate in the field of molecular diagnostics and immunotherapy of allergic diseases.
- Deputy project director of CAR-NK project (SMIS code 103662/2016-2020) funded by the Competitiveness Operational Programme 2014-2020, Priority Axis 1, Action 1.1.4, ERDF, with 2 million euros. The objectives of the CAR-NK project, carried out in partnership with Prof. Torsten Tonn from the Technical University of Dresden, is to develop advanced cancer immunotherapy technologies based on NK cell antigen chimeric receptors.

- Project manager for Romanian partner MOUNTADAPT (Adaptation solutions to reduce climate change impact on health in the Mountain area) HORIZON-MISS-2023-CLIMA-01-03: Testing And Demonstrating Transformative Solutions To Build Resilience Towards Health Risks Caused By The Effects Of Climate Change.
- Coordinator of the Center for Allergy and Clinical Immunology within the Pius Brînzeu County Emergency Clinical Hospital Timișoara.

VOCATIONAL TRAINING COURSES (SELECTIVE)

[04/2002]

Clinical and Laboratory Allergology

Postgraduate course, University of Szeged, Department of Dermatology, Szeged, Hungary.

[06/2002]

Proposals and Aspects of Project Management

Training, Vienna, Austria.

[04/2004]

How to write a competitive proposal for FP6 and How to negotiate, administer and manage an FP6 contract

EARMA training, Brussels, Belgium.

[09/2004]

Asthma - from research to bedside

Postgraduate course, Glasgow, UK.

[05/2005]

Certified LSH-ACC-Mentor Multiplier

FP6 training, Sofia, Bulgaria.

[07/2005]

The therapeutic potential of stem cells

Postgraduate Course, University of Bristol, UK.

[05/2006 – 06/2006]

Management of research projects

Postgraduate Training, INSERM Transfert, Paris, France.

[07/06/2008 – 11/06/2008]

Pulmonary functional tests. News in ENT Exploration, Challenge Tests for Physical Urticaria

Practical Course, XXVII EAACI Congress, Barcelona, Spain.

[28/09/2008 – 30/09/2008]

GCP Course

Szeged, Ungaria.

[06/06/2009]

Treatment of allergic skin diseases

Postgraduate Course, XXVIII EAACI Congress, Warsaw, Poland.

[06/06/2009 – 10/06/2009]

Diagnostic tests for allergic diseases. Allergy to antibiotics. Aspirin desensitization. Allergic emergencies: anaphylaxis management.

Practical course, XXVIII EAACI Congress, Warsaw, Poland.

[06/07/2009 – 08/07/2009]

GA²LEN Course on clinical trials

Italian National Drug Agency, Rome, Italy.

[24/07/2009 – 26/07/2009]

State-of-the-art in drug hypersensitivity

EAACI/GA2LEN/ENDA/DGAKI Allergy School, Munchen - Fischbachau, Germany.

[12/08/2009 – 16/09/2009]

Asthma: monitoring airway disease

Postgraduate Course, ERS Annual Congress, Vienna, Austria.

[05/02/2010 – 06/02/2010]

Current and future trends in the management of histamine-mediated diseases

Postgraduate Summit, Vienna, Austria.

[06/06/2010 – 09/06/2010]

Practical issues in drug hypersensitivity

Postgraduate Course, XXVIII EAACI Congress, London, UK.

[05/2010 – 06/2010]

Project Management Course

Postgraduate course for national accreditation, Timisoara, Romania.

[02/2011]

Modern Medical Education Course

Vienna, Austria.

[20/06/2013 – 26/06/2013]

Allergen-specific immunotherapy

Postgraduate course, EAACI-WAO Congress, Milan, Italy.

[01/07/2013 – 03/07/2013]

Innovative therapies based on immunology

3rd EFIS-EJI Summer school in Clinical Immunology, Paris, France.

[10/07/2013]

Omalizumab Masterclass

Novartis postgraduate course, Milan, Italy.

[03/12/2013 – 05/12/2013]

Training of trainers for allergology and molecular immunology

Vienna, Austria.

[15/11/2019]

European course on hereditary angioedema

HAE Forum Berlin, Germany.

INTERNATIONAL RECOGNITION OF ORGANISATIONAL SKILLS AND COMPETENCES

International recognition of organisational competences and skills

- **Expert for the national representative of ANCS** in the **Programme Committee for the FP7 priority "Health", European Commission, Research Directorate-F1, Brussels** (since 2006), contributing to the formulation of Romania's position in the working meetings in view of the integration in the ERA
- **Independent expert evaluator** for research project proposals under the **European Ambient Assisted Living Joint Programme** (since 2008), in which capacity I evaluated projects submitted to the AAL calls since 2008, and was nominated as scientific rapporteur for the AAL-2008 and AAL-2013 calls.
- **Independent expert evaluator** (since 2009), for project proposals under the **RESEARCH POTENTIAL 2010 programme - Call FP7-REGPOT-2010 and 2011**
- **COST expert** (since 2010)
- **Expert in the body of experts** of the National Register of Experts for the certification of research activity, 7. Health - prevention, diagnosis and advanced treatment under the Ministerial Order No 20242/13.02.2023 (since 2023)
- **Member of the Executive Committee of the European Academy of Allergy and Clinical Immunology** (since 2024).

NATIONAL RECOGNITION OF ORGANISATIONAL COMPETENCES AND SKILLS

National recognition of organisational competences and skills

- **Member of the National Council for Scientific Research in Higher Education** - by OMEdC 5771/29.11.2006; expert evaluator CNCSIS No. 638/2003 and member of Commission 6 - Health (2006-2012)
- **Scientific monitor** for CEEEX projects (VIASAN - 2005-2008, BIOTECH - 2006-2008) and for PNII- projects Partnerships, Directorate 4/Health (2008-2011)
- **Member of the Body of Experts** of the National Register of Experts for the certification of Health - prevention, diagnosis and advanced treatment under the Order of the Minister of Research, Innovation and Digitization, no. 20242/13.02.2023 (from 2023)
- At university level: **Director of the Department of International Relations and member of the Scientific Council** (2006-2012)
- **President** of the Romanian Society of Physiology (2012-2021)
- **Past-President** of the Romanian Society of Allergology and Clinical Immunology (from 2025-present), **President** of the Romanian Society of Allergology and Clinical Immunology (from 2021-2025), previously **Vice-President** Romanian Society of Allergology and Clinical Immunology (from 2019-2021)
- **Vice President** of the Consultative Commission of Allergology and Clinical Immunology (48) of the Ministry of Health, according to Order No 398/2013 (from 2013-2022)

Research in allergology

I coordinated the national project, in partnership with other regional institutions: **Optimization of Prevention Methods for the Efficient Management of the Allergic Patient – PREVALERG (No. 41-011/2007–2009)**, with the following priority objectives: the development of a monitoring algorithm for allergic patients with respiratory conditions and the implementation of new prophylaxis and treatment guidelines for these patients.

I subsequently continued with the project **Innovative Strategies for the Prevention, Diagnosis and Therapy of Respiratory Diseases Induced by Ragweed Pollen – INSPIRED**, implemented within the OncoGen Center (2016–2020), through which we identified allergen sensitization profiles in Western Romania and, for the first time nationally, implemented techniques for the production of recombinant allergens, focusing on allergenic molecules from ragweed pollen, with applicability in component-resolved diagnostics (CRD) and in the treatment of ragweed pollen allergy.

Based on the experience gained through this project, I established the first research group in Romania specialized in molecular allergology, with international collaborations with Imperial College London and Medical University of Vienna. The group is included in the competence list of European Food Safety Authority (EFSA), as well as in the European Academy of Allergy and Clinical Immunology Research Network.

Ongoing Allergology Research Projects

I am currently coordinating the **VALRO project**, the first RSACI research project dedicated to determining the allergic sensitization profile of the Romanian population and identifying the sources of predominant allergens. The project will be carried out in 7 research centers in the field of allergology in Romania in collaboration with the University of Medicine Vienna and Imperial College London and will be completed with the preparation of a report to the Ministry of Health regarding the allergy awareness profile of the Romanian population in order to establish the national allergy monitoring strategy.

I am also currently coordinating the team of allergists within the first national pilot project for monitoring and warning the population about the presence of outdoor aeroallergens, in association with the implementation of an **online monitoring module for patients with allergic conditions** in the western area of Romania, in collaboration with the University of Medicine and Pharmacy Victor Babeş Timișoara, University of Life Sciences Timișoara and Timis County Council.

Assessment of the allergenic potential of food extracts and matrices

As a research expert within the **METROFOOD-EVOLVE project** (Smart Growth, Digitalization and Financial Instruments Programme – PoCIDIF 2021–2027), I am involved in evaluating food allergenicity using complementary in silico and in vitro methods. These include bioinformatic analysis of protein sequences to identify IgE epitopes and potential cross-reactivities, IgE reactivity testing, assessment of degranulation capacity in human basophils or humanized cell lines, as well as testing food extracts and matrices to identify molecules with allergenic potential.

Assessment of biological and allergenic risks associated with food

As the **ONCOGEN-SCJUT representative for the domains of Biological Hazards and Nutrition, Dietetic Products, Novel Food** in relation to EFSA (European Food Safety Authority), I focus on identifying potential allergenic effects and cross-reactivities of novel foods (e.g., edible insects), and on testing food extracts and matrices to detect food allergens.

RESEARCH IN ENVIRONMENTAL IMPACT ON HEALTH

Research in environmental impact on health

Based on the results of the studies of the respiratory allergic diseases, I have established collaboration with the Medical University Vienna aiming to study the mechanisms of the allergic response to ragweed pollen, one of the most potent airborne allergens in Eastern Europe as well as in USA.

I'm the coordinator of the OncoGen team in the Horizon Europe project **Adaptation solutions to reduce climate change impact on health in the Mountain area- MOUNTADAPT** (2024 - 2027) (HORIZON-MISS-2023-CLIMA-01-03) that aims to boost the community-driven resilient transformation of the health system in order to limit the impact on health and wellbeing of direct or indirect effects of climate change. The project is focused on covering the whole chain of **response to a climate induced health emergency** with **monitoring tools** that will be directly linked to short term forecasts, including airborne allergen exposure, to communicate **warnings** to the relevant stakeholders.

Adaptation solutions to reduce climate change impact on health in the Mountain area, acronym **MOUNTADAPT** is a project (2024 - 2027) funded under the Horizon Europe Programme of the European Union that aims to boost the community-driven resilient transformation of the health system in mountain areas to limit the impact on health and wellbeing of direct or indirect effects of climate change.

The project will develop and test **eleven state of the art climate adaptation solutions** across the mountain biogeographical region, in Austria, Slovenia, France and Romania, while healthcare organizations will be involved in demonstrating the replicability of the solutions in a diversity of settings in Romania, Andorra and Germany. The project will cover the whole chain of **response to a climate induced health emergency** with **monitoring tools** that will be directly linked to short term forecasts to communicate **warnings** to the relevant stakeholders.

Advancements in climate science increasingly allow for greater accuracy and certainty in attribution of floods, droughts, storms, and temperature anomalies to climate change. Such events impact health systems, which in turn harms human and public health, producing significant shifts in the underlying social and environmental determinant of health, at the global level. In fact, 67% of global cities expect climate change to seriously compromise their public health assets and infrastructure. The project was awarded by UEFISCDI in 2024-2025, being considered one of the projects of national interest.

RESEARCH IN STEM CELLS

Research in stem cells

One of the research directions is the development of advanced therapies with adult human stem cells. I work in a research team with experience in the analysis of human stem cell potential, cellular immune functions, as well as quality control, both in vivo and in vitro. At the EU level, we were involved in the research project **GENOSTEM** (LSHB 1.1./503161/2003-2007), an integrated FP6 project, which aimed to study stem cells for cell therapy of soft tissue defects.

We continued with a large-scale applied research project, in which clinical trials were carried out with human mesenchymal stem cells as advanced therapies in connective tissue diseases - **CASCADE** (FP7-223236/2009-2012) and for bone defects - **REBORNE** (FP7-241879/2010-2014), with EU funding.

ADDITIONAL INFORMATION

Research Papers:

- Hirsch index 16 and a total of 1492 citations
- Books: 34 in the field of physiology, allergology, immunology and pathology, first author – 8 and co-author – 26 (29 in Romanian and 5 in English)
- Works published in extenso: 112, of which 58 in ISI rated journals
- Abstracts: 108 published in Romania and 47 published at international meetings.

Peer reviewer for ISI journals

- Allergy, IF 13.146
- Clinical and Translational Medicine, IF 11.492
- Frontiers in Immunology, IF 8.786
- Cells, IF 7,666
- Biomedicines, IF 6.081
- International Journal of Molecular Sciences, IF 5.923
- Pharmaceuticals, IF 5,215
- Journal of Clinical Medicine, IF 4,964
- Molecular Immunology, IF 4.407
- Journal of Asthma and Allergy, IF 4.258
- International Journal of Immunopathology and Pharmacology, IF 3,219
- Journal of Asthma, IF 2,515
- Medicine, IF 2,430

Link: <https://publons.com/researcher/3771934/carmen-bunu-panaitescu>

Member of the editorial team for BDI magazines:

- Physiology/Physiology – chief editor
- Allergology – chief editor (2021-2026)

Member of professional organizations:

- European Academy of Allergology and Clinical Immunology;
- European Society of Physiology;
- European Respiratory Society;
- Romanian National Society of Physiology;
- Romanian National Society of Immunology;
- Romanian National Society of Pneumology;
- National Expert Committee for Health Programs, European Commission, Research Directorate, Brussels.

ANNEXES

Annexes

- Annex 1. List of main published works
- Annex 2. List of research projects
- Annex 3. List of organized EMC programs