



Curriculum vitae Europass

PERSONAL INFORMATION **Cotarcă Monica-Daniela**

Email mcotarca@umft.ro
Nationality Romanian
Sex Female

WORK EXPERIENCE

Period September 2014 – present

Position Assistant Lecturer (permanent position)

Key Responsibilities Conducting practical classes in Physiology for students enrolled in the study programmes: General Medicine, Dental Medicine, Nutrition and Dietetics, Balneophysiokinetotherapy and Rehabilitation, and General Nursing
Coordination of applied teaching activities and participation in student assessment

Name and address of employer Involvement in the research activity of the discipline
Victor Babeş” University of Medicine and Pharmacy Timișoara
Department III – Functional Sciences, Discipline of Physiology; Splaiul Tudor Vladimirescu No. 14A, 300173

Field Higher education and research

Period February 2011 – July 2014

Position Assistant Lecturer (permanent position)

Key Responsibilities Conducting practical classes in Physiology for students enrolled in the study programmes: General Medicine, Dental Medicine, Nutrition and Dietetics, Balneophysiokinetotherapy and Rehabilitation, and General Nursing
Coordination of applied teaching activities and participation in student assessment

Name and address of employer Involvement in the research activity of the discipline
Victor Babeş” University of Medicine and Pharmacy Timișoara
Department III – Functional Sciences, Discipline of Physiology; Splaiul Tudor Vladimirescu No. 14A, 300173

Field Higher education and research

Periode February 2017 – present

Position Postdoctoral Researcher

Key Responsibilities Project: Innovative strategies for prevention, diagnosis and therapy of respiratory diseases induced by *Ambrosia pollen* (INSPIRED – POC 92/09/09/2016))

Name and address of employer Research in molecular biology and experimental allergology
Recombinant expression of allergens from *Ambrosia artemisiifolia*
Generation of allergen-specific antisera
Protein expression studies in insect cells
Evaluation of allergenic activity using immunological techniques and in vitro functional assays

Identification of clinically relevant allergens

Pius Brînzeu County Emergency Clinical Hospital Timișoara
Center for Gene and Cellular Therapies in Cancer Treatment – OncoGen;
Bulevardul Liviu Rebreanu, No. 156, 300723

Field Allergology and clinical immunology

Period September 2009 – July 2011

Position PhD Researcher

Key Responsibilities Project IDEI ID_865: Identification and valorisation of medicinal and aromatic plants from the Aninei Mountains; Contract no. 1077/2009.
Field research
Laboratory analyses for the determination of bioactive compounds
Name and address of employer King Michael I University of Life Sciences Timișoara; Calea Aradului nr. 119, 300645
Field Plant chorology and botanical systematics

EDUCATION AND TRAINING

Period 2007 – 2011
Position PhD in Agronomy
Main fields Plant physiology
Plant genetics
Name and address of employer Experimental research methods in applied biology
King Michael I University of Life Sciences Timișoara; Calea Aradului No. 119, 300645
Period 1999 – 2003
Title of qualification awarded Master's Degree – Environmental and Natural Resources Management
Main competences acquired Ecotoxicology
Biodiversity and ecosystem assessment
Natural resources management
Name and address of employer Bioinformatics
King Michael I University of Life Sciences Timișoara; Calea Aradului No. 119, 300645
Period 1994 – 1999
Title of qualification awarded Bachelor's Degree in Biology – Agricultural Sciences
Main competences acquired Botany and zoology
Genetics and evolution
Biochemistry
Biological sampling and analysis techniques
Name and address of employer King Michael I University of Life Sciences Timișoara; Calea Aradului No. 119, 300645

PERSONAL SKILLS

Mother tongue Romanian
Foreign languages (CEFR): English – C1 (understanding), B2 (conversation), B1 (speaking), B1 (writing)
French – B1 (reading), A2 (speaking), A2 (writing)
German – A2 (general level)

PROFESSIONAL COMPETENCES

Scientific and technical competences

Immunological techniques: Determination of total and specific IgE; ELISA, FEIA; Immunoblot, Immunoelectrophoresis
Molecular techniques: PCR; Western blot; Recombinant protein expression analysis
Cellular techniques: Cell cultures (insect cells, RBL); Flow cytometry; Assessment of cellular activation
Statistical analysis: SPSS; PAST
Digital competences: Microsoft Office (Word, Excel, PowerPoint); Adobe Illustrator (basic level)

PROFESSIONAL MEMBERSHIP

REPRESENTATIVE SCIENTIFIC PUBLICATIONS

Member of the Romanian Society of Physiology
Learning physiology - between linear and modular curriculum, Tatu, C (Tatu, Carmen); Panaitescu, CB (Panaitescu, Carmen Bunu); Puscasiu, D (Puscasiu, Daniela); Bojin, FM (Bojin, Florina Maria); Tanasie, G (Tanasie, Gabriela); **Cotarca, M (Cotarca, Monica)**, WILEY, ACTA PHYSIOLOGICA, PHYSIOLOGY in SCIE edition; Volume 217 Page 123-123 Supplement 708 Special Issue SI Meeting Abstract PO.221 WOS:000379514000283, **2016**
Ragweed Major Allergen Amb a 11 Recombinant Production and Clinical Implications Tamaș, T.-P.; Buzan, M.-R.; Zbîrcea, L.-E.; **Cotarcă, M.-D.**; Grijincu,

M.; Păunescu, V.; Panaitescu, C.; Chen, K.-W. Ragweed Major Allergen Amb a 11 Recombinant Production and Clinical Implications. *Biomolecules* 2023, 13, 182. <https://doi.org/10.3390/biom13010182>

Mapping of IgE epitopes of AMB A 6, the nonspecific lipid transfer protein from common ragweed (*Ambrosia artemisiifolia*); Grijincu, M (Grijincu, M.); Buzan, MR (Buzan, M. R.); Margineanu, MB (Margineanu, M. B.); Zbircea, L (Zbircea, L.); Hutu, I (Hutu, I.); Tanasie, G (Tanasie, G.); **Cotarca, MD (Cotarca, M. D.);** Paunescu, V (Paunescu, V.); Panaitescu, C (Panaitescu, C.); Chen, KW (Chen, K. W.) *ALLERGY; 2023; Annual Hybrid Congress of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI); ISSN 0105-4538 eISSN 1398-9995*

Insect Cell-Expressed Major Ragweed Allergen Amb a 1.01 Exhibits Similar Allergenic Properties to Its Natural Counterpart from Common Ragweed Pollen; Buzan, M.-R.; Grijincu, M.; Zbircea, L.-E.; Haidar, L.; Tamaş, T.-P.; **Cotarcă, M.-D.**; Tănăsie, G.; Weber, M.; Babaev, E.; Stolz, F.; et al. Insect Cell-Expressed Major Ragweed Allergen Amb a 1.01 Exhibits Similar Allergenic Properties to Its Natural Counterpart from Common Ragweed Pollen. *Int. J. Mol. Sci.* 2024, 25, 5175. <https://doi.org/10.3390/ijms25105175>

Non-Specific Lipid Transfer Protein Amb a 6 Is a Source-Specific Important Allergenic Molecule in Ragweed Pollen; Grijincu, M.; Tănăsie, G.; Zbircea, L.-E.; Buzan, M.-R.; Tamaş, T.-P.; **Cotarcă, M.-D.**; Huţu, I.; Babaev, E.; Stolz, F.; Dorofeeva, Y.; et al. Non-Specific Lipid Transfer Protein Amb a 6 Is a Source-Specific Important Allergenic Molecule in Ragweed Pollen. *Int. J. Mol. Sci.* 2024, 25, 6513. <https://doi.org/10.3390/ijms25126513>

Heterogenous Induction of Blocking Antibodies against Ragweed Allergen Molecules by Allergen Extract-Based Immunotherapy Vaccines; Zbircea, L.-E.; Buzan, M.-R.; Grijincu, M.; **Cotarcă, M.-D.**; Tamaş, T.-P.; Haidar, L.; Tănăsie, G.; Huţu, I.; Babaev, E.; Stolz, F.; et al. Heterogenous Induction of Blocking Antibodies against Ragweed Allergen Molecules by Allergen Extract-Based Immunotherapy Vaccines. *Vaccines* 2024, 12, 635. <https://doi.org/10.3390/vaccines12060635>

Breaking Barriers: The Detrimental Effects of Combined Ragweed and House Dust Mite Allergen Extract Exposure on the Bronchial Epithelium; Zimbru, R.-I.; Grijincu, M.; Tănăsie, G.; Zimbru, E.-L.; Bojin, F.-M.; Buzan, R.-M.; Tamaş, T.-P.; **Cotarcă, M.-D.**; Harich, O.O.; Pătraşcu, R.; et al. Breaking Barriers: The Detrimental Effects of Combined Ragweed and House Dust Mite Allergen Extract Exposure on the Bronchial Epithelium. *Appl. Sci.* 2025, 15, 4113. <https://doi.org/10.3390/app15084113>

Molecular IgE Reactivity Profiling With Micro-Arrayed Allergens Reveals Distinct Interregional Patterns of Sensitization and a Hypoallergenic Region in Türkiye; Alp Kazancioglu, Huey-Jy Huang, Sengul Aksakal, Ismet Bulut, Maria-Roxana Buzan, Kuan-Wei Chen, **Monica Daniela Cotarcă**, Alexandra Dubovets, Pia Gattinger, Okan Gulbahar, Ali Fuat Kalyoncu, Alexander Karaulov, Evgenii Kozlov, Carmen Panaitescu, Thomas Schlederer, Daria Trifonova, Mikhail Tulaev, Murat Turk, Susanne Vrtala, Milena Weber, Lauriana-Eunice Zbircea, Bulent Enis Sekerel, Rudolf Valenta; © 2025 The Author(s). Allergy published by European Academy of Allergy and Clinical Immunology and John Wiley & Sons Ltd. https://doi.org/10.1111/all.70145open_in_new

Molecular IgE Sensitization Profiling With Micro-Arrayed Allergen Molecules in Adult Patients With Asthma From the LEAD Cohort: A Precision Medicine Approach. *Allergy*, 81: 130-144; Huang, H.-J., Breyer-Kohansal, R., Niespodziana, K., Lim, C.J.M., Breyer, M.-K., Valenta, R., Hartl, S. and the **Allergochip Working Group (2026):** Maria-Roxana Buzan, Kuan-Wei Chen, **Monica Daniela Cotarcă**, Alexandra Dubovets, Pia Gattinger, Alexander Karaulov, EvgeniiKozlov, Carmen Panaitescu, Daria Trifonova, Mikhail Tulaev,Susanne Vrtala, Milena Weber, Lauriana-Eunice Zbircea; © 2025 The

Author(s). Allergy published by European Academy of Allergy and Clinical Immunology and John Wiley & Sons Ltd.
<https://doi.org/10.1111/all.70017> [open in new](#)

Profound Impact of Local Climatic Conditions on IgE Sensitization Profiles: Evidence from Argentine Cities; Sarzsinszky, E.; Smaldini, P.; Chinigo, M.; Ardanaz, M.; Benitez, P.; Ramos, A.; Braviz Lopez, M.E.; Ramón, G.; Ramón, G.; Schleder, T.; . and the **Allergochip Working Group (2026)**: Adebanke Oluwatoyin Akinfenwa, Maria-Roxana Buzan, Kuan-Wei Chen, Raffaella Campana, Monica Daniela Cotarcă, Mirela Curin, Yulia Dorofeeva, Nishelle Dsouza, Alexandra Dubovets, Margarete Focke-Tejkl, Pia Gattinger, Heinrich Grausgruber, Alexander Karaulov, Evgenii Kozlov, Andrea Krisai, Birgit Linhart, Carmen Panaitescu, Daria Trifonova, Milena Weber *Int. J. Mol. Sci.* 2025, 26, 12101. <https://doi.org/10.3390/ijms262412101>