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Dr. ing. Mihaiela Cornea-Cipcigan

Specializations: molecular biology (DNA extraction, PCR methods), molecular techniques for taxonomic analysis - marker-assisted selection, bioinformatics

Email: mihaiela.cornea@usamvcluj.ro

WORK EXPERIENCE

Member of international research projects

2019-2022

Project no. **26.526/07.12.2017** –Identification of the botanical origin of different biological samples sent by the CARI asbl laboratory (Belgium), designing an international database and research of the flora from different exotic kingdoms

2021 – 2022

ERANET 2021 COFOUND - **SusCrop 237/2021** –Development of novel breeding technology for improved root system, drought tolerance and sustainable plant productions

EDUCATION AND TRAINING

Doctoral studies:

2017-2023 –DOCTOR degree–SUMMA CUM LAUDAE, Ordin MENCȘ 6444/28.09.2023, USAMV Cluj-Napoca, conducător științific: Academician. dr. Doru Pamfil, PhD thesis: “*Caracterizarea genotipurilor de Cyclamen folosind descriptori morfologici, compuși bioactivi și markeri moleculari ADN/ Characterization of Cyclamen genotypes using morphological descriptors, bioactive compounds and DNA molecular markers*”;
Specializations: Plant genetics; Cumulated Impact Factor (IF): 20.313.

University studies:

2011–2015 USAMV Cluj-Napoca, Faculty of Agriculture, Specialization: Engineering and Environmental Protection;

2015–2017: Forest Ecosystem Management (Master), USAMV Cluj-Napoca, Faculty of Forestry and Cadastre (Land Survey);

October 2018 Seminar HPLC Troubleshooting by Phenomenex, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania

February 2021 Certificate of participation in How to get published: a creative workshop with authors of **Food Chemistry: Molecular Sciences**, at Food Chemistry: Molecular Sciences, Presented by Jennifer Wood, editor, Siân Astley, editor-in-chief; Mélanie Lowie, deputy editor-in-chief

11- 13.05.2023: Invited speaker at the *7th Horticulture and Landscape Design Conference in Transylvania*, Anniversary Symposium of the Horticultural Engineering and Landscape Architecture degree programs, Târgu Mureș, Romania

June 21, 2024: Training modules: *Feasibility study of a targeted automated NGS metagenomics NGS application for rapid detection of bacteria and fungi*, CEO Greg Cruikshank

February-June 2024-Training Session: *For the love of dPCR: Translational research applications*, coordinated by **ThermoFisher, Applied Biosystems™**

Working knowledge of Microsoft Office programs (Word, Excel, PowerPoint, Access) / Paleontological Statistics Software / **R/Rstudio (programming language for statistical computing and graphics)**

Editorial Assignments- Co-guest Editor: *Analysis, Characterization and Antioxidant Activity of Natural Products*, Section "Food Science and Technology" of Applied Sciences Journal.

ISI Publications as first or corresponding author

- Oargă, D. P., **Cornea-Cipcigan, M.***, & Cordea, M. I. (2024). Unveiling the mechanisms for the development of rosehip-based dermatological products: an updated review. *Frontiers in Pharmacology*, 15, 1390419. (IF: 4.4, Q1) (*Corresponding author),
- Urcan, A.C.; Criste, A.D.; Dezmirean, D.S.; Bobiş, O.; Bonta, V.; Burtescu, R.F.; Olah, N.-K.; **Cornea-Cipcigan, M.***; Mărgăoan, R. Enhancing Antioxidant and Antimicrobial Activities in Bee-Collected Pollen through Solid-State Fermentation: A Comparative Analysis of Bioactive Compounds. *Antioxidants* 2024, 13, 292. (IF: 7.0, Q1) (*Corresponding author)
- Cornea-Cipcigan M**, Pamfil D, Sisea CR, Margaoan, Characterization of Cyclamen genotypes using morphological descriptors and DNA molecular markers in a multivariate analysis, *Frontiers in Plant Science*, 2023 (IF: 6.627)
- Cornea-Cipcigan M**, Cordea MI, Mărgăoan R, Pamfil D, Exogenously Applied GA3 Enhances Morphological Parameters of Tolerant and Sensitive *Cyclamen persicum* Genotypes under Ambient Temperature and Heat Stress Conditions, *Plants*, 2022 (IF: 4.658, Q1)
- Cornea-Cipcigan M**, Bunea A, Bouari CM, Pamfil D, Páll E, Urcan AC, Mărgăoan R, Anthocyanins And Carotenoids Characterization In Flowers And Leaves Of Cyclamen Genotypes Linked With Bioactivities Using Multivariate Analysis Techniques, *Antioxidants*, 2022 (IF: 6.313, Q1)
- Cornea-Cipcigan M**, Pamfil D, Sisea CR, and Mărgăoan R, Gibberellic Acid Can Improve Seed Germination and Ornamental Quality of Selected Cyclamen Species Grown Under Short and Long Days, *Agronomy*, 2020 (IF: 2.259, Q1)
- Cornea-Cipcigan M**, Pamfil D, Sisea CR, Gavriş CP, Campos MG and Mărgăoan R, A review on Cyclamen species: Transcription factors vs. Pharmacological effects, *Acta Poloniae Pharmaceutica*, 2019, (IF: 0.456, Q4)
- Margaoan R., Aradavoaicei S., Sisea CR., **Cornea-Cipcigan M*.**, Cordea MI., Methods Of Microscopic Slides Preparation To Identify The Pollen Grains Derived From Different Bee Products, Scientific Papers. Series D. Animal Science, Vol. LXVI, Issue 1, ISSN 2285-5750, 412-421, 2023, (IF: 0.3)
- Sarioğlu-Bozkurt A, Topal E, Güneş N, Üçeş E, **Cornea-Cipcigan M**, Coşkun İ, Cuiş L, Mărgăoan R., Changes in Vitellogenin (Vg) and Stress Protein (HSP 70) in Honey Bee (*Apis mellifera anatoliaca*) Groups under Different Diets Linked with Physico- Chemical, Antioxidant and Fatty and Amino Acid Profiles, *Insects* 2022, (IF: 3.139, Q1), (shared first authorship)
- Barta DG, **Cornea-Cipcigan M**, Mărgăoan R, Vodnar DC. Biotechnological Processes Simulating the Natural Fermentation Process of Bee Bread and Therapeutic Properties—An Overview, *Frontiers in Nutrition*, 2022 (IF: 6.575, Q1) (shared first authorship)
- Mărgăoan R, Topal E, Balkanska R, Yücel B, Oravec T, **Cornea-Cipcigan M***, Vodnar DC. Monofloral Honeys as a Potential Source of Natural Antioxidants, Minerals and Medicine. (*Corresponding author), *Antioxidants*, 2021 (IF: 6.313, Q1)
- Mărgăoan R, Özkök A, Keskin Ş, Mayda N, Urcan AC, **Cornea-Cipcigan M***, Bee collected pollen as a value-added product rich in bioactive compounds and unsaturated fatty acids: A comparative study from Turkey and Romania, *LWT*, 2021 (IF: 4.952, Q1)
- Topal E, Adamchuk L, Negri I, Kösoğlu M, Papa G, Dârjan MS, **Cornea-Cipcigan M***, Mărgăoan R. Traces of Honeybees, Api- Tourism and Beekeeping: From Past to Present, *Sustainability*, 2021 (IF: 3.251, Q2)
- Margaoan R, **Cornea-Cipcigan M***, Topal E*, Kösoğlu M, Impact of Fermentation Processes on the Bioactive Profile and Health-Promoting Properties of Bee Bread, Mead and Honey Vinegar. *Processes*, 2020 (IF: 2.753, Q2)
- Mărgăoan R, Stranţ M, Varadi A, Topal E, Yücel B, **Cornea-Cipcigan M***, Campos MG, Vodnar DC. Bee collected pollen and bee bread: Bioactive constituents and health benefits. *Antioxidants*, 2019 (IF: 4.520, Q1)

ISI Publications as co-author

- Nicolescu, A., Babotă, M., Cañada, E. A., Dias, M. I., Añibarro-Ortega, M., **Cornea-Cipcigan, M.**, ... & Crişan, G. (2024). Association of enzymatic and optimized ultrasound-assisted aqueous extraction of flavonoid glycosides from dried *Hippophae rhamnoides* L. (Sea Buckthorn) berries. *Ultrasonics Sonochemistry*, 108, 106955. (IF: 15.8, Q1)

- Urcan, A. C., Criste, A. D., Dezmirean, D. S., Bobiş, O., Bonta, V., Burtescu, R. F., ... **Cornea-Cipcigan, M.,** & Mărgăoan, R. (2024). Enhancing Antioxidant and Antimicrobial Activities in Bee-Collected Pollen through Solid-State Fermentation: A Comparative Analysis of Bioactive Compounds. *Antioxidants*, 13(3), 292. (IF: 7.0, Q1)
- Margaoan, R., Papa, G., Nicolescu, A., **Cornea-Cipcigan, M.**, Kösoğlu, M., Topal, E., & Negri, I. (2024). Environmental pollution effect on honey bees and their derived products: a comprehensive analysis. *Environmental Science and Pollution Research*, 1-22.
- Urcan, A. C., Criste, A. D., Bobiş, O., **Cornea-Cipcigan, M.**, Giurgiu, A. I., & Dezmirean, D. S. (2024). Evaluation of Functional Properties of Some Lactic Acid Bacteria Strains for Probiotic Applications in Apiculture. *Microorganisms*, 12(6), 1249.
- Cucu, A. A., Bobiş, O., Bonta, V., Moise, A. R., Paşca, C., **Cornea-Cipcigan, M.**, ... & Dezmirean, D. S. (2024). Unraveling the Physicochemical, Nutritional and Antioxidant Properties of the Honey Produced from the Fallopia japonica Plant. *Foods*, 13(13), 1959.
- Cucu, A. A., Urcan, A. C., Bobiş, O., Bonta, V., **Cornea-Cipcigan, M.**, Moise, A. R., ... & Dezmirean, D. S. (2024). Preliminary Identification and Quantification of Individual Polyphenols in Fallopia japonica Plants and Honey and Their Influence on Antimicrobial and Antibiofilm Activities. *Plants*, 13(13), 1883.
- Tamas-Krumpe, O. M., Mărgăoan, R., **Cornea-Cipcigan, M.**, Bobiş, O., Bonta, V., Moise, A., ... & Ognean, L. (2024). Compositional Characterization and Bioactive Potential of Two Bee Formulas with the Addition of Natural Oils., *Bulletin Of University Of Agricultural Sciences And Veterinary Medicine Cluj-Napoca. Food Science and Technology*, Vol. 81 No. 1 (2024).
- Hârta, M., **Cornea-Cipcigan, M.**, Pui, D. A., Roman, G., & Cordea, M. I. (2023). Characterization And Identification Of Genetic Diversity Among Rose Genotypes Using Morphological And Molecular Markers. *Scientific Papers. Series B. Horticulture*, 67(2). (IF: 0.4)
- Moldovan, I., Pop, V. C., Borsai, O., Lukacs, L., Ranga, F., Culea, E., **Cornea-Cipcigan M** & Margaoan, R. (2023). Dynamics of Bioactive Compounds under the Influence of Yellow, Blue, and Violet Light Filters on *Hippophae rhamnoides* L.(Sea Buckthorn) Fruits. *Horticulturae*, 9(12), 1312. (IF: 2.923, Q1)
- Margaoan, R., Arădăvoaicei, Ş., Sisea, C. R., **Cornea-Cipcigan, M.**, & Cordea, M. I. (2023). Methods Of Microscopic Slides Preparation To Identify The Pollen Grains Derived From Different Bee Products. *Scientific Papers. Series D. Animal Science*, 66(1). (IF: 0.3)
- Hârta M, Clapa D, **Cornea-Cipcigan M**, Borsai O, Pop R, & Cordea MI. Multivariate Assessment of Genetic Relationships between Two Streptocarpus Cultivars and Their F1 Progenies Using Morphological Characteristics and SCoT Molecular Markers. *Horticulturae*, 9(4), 497, 2023 (IF: 2.923, Q1)
- Topal E, Çakici N, Margaoan R, Takma Ç, Güney F, Kösoğlu M, **Cornea-Cipcigan M** & Atmaca H. Annual Development Performance of Fixed Honeybee Colonies linked with Chemical and Mineral Profile of Bee Collected Pollen, *Chemistry & Biodiversity*, 2022 (IF: 2.745, Q3)
- Koşum N, Yücel B, Kandemir Ç, Taşkin T, Duru ME, Küçükaydin S, Margaoan R, & **Cornea-Cipcigan M.** Chemical composition and androgenic effect of bee drone larvae (Apilarnil) for goat male kids. *Chemistry & Biodiversity*, 2022 (IF: 2.745, Q3)
- Kentelky E, Szekely-Varga Z, Morar IM, & **Cornea-Cipcigan M**, Morphological Responses of Viola Accessions to Nutrient Solution Application and Electrical Conductivity, *Plants*, 2022 (IF: 3.935, Q1)
- Mureşan CI, **Cornea-Cipcigan M**, Suharoschi R, Erler S, & Mărgăoan R. Honey botanical origin and honey-specific protein pattern: Characterization of some European honeys, *LWT*, 2022 (IF: 4.952, Q1)
- Urcan AC, Criste AD, Dezmirean DS, BobişO, Bonta V, Dulf F.V, Mărgăoan R, **Cornea-Cipcigan M**, & Campos MG. Botanical origin approach for a better understanding of chemical and nutritional composition of beebread as an important value-added food supplement. *LWT*, 2021 (IF: 4.006, Q1)
- Bobiş O, Bonta V, **Cornea-Cipcigan M**, Nayik G.A, And Dezmirean D.S. Bioactive Molecules for Discriminating Robinia and Helianthus Honey: High-Performance Liquid Chromatography–Electron Spray Ionization–Mass Spectrometry Polyphenolic Profile and Physicochemical Determinations, *Molecules*, 2021 (IF: 4.411, Q2).
- Mărgăoan R, ChirilăF, and **Cornea-Cipcigan M**. Bee pollen methanolic extracts: total polyphenols content and antibacterial activity. *Scientific Papers. Series D. Animal Science*, 2021 (ISI journal)

BOOK CHAPTERS

Cornea-Cipcigan M. and Pamfil D. *Cyclamen Breeding in Advances in Plant Breeding Strategies* Vol 14 Ornamental Landscaping Plants **Part II Ornamental potted plants, 2025**, (Forthcoming Issue)

Margaoan R. and **Cornea-Cipcigan M.** *Neuroprotection induced by honey compounds in Natural Molecules in Neuroprotection and Neurotoxicity* Part II. Neuroprotection mediated by natural molecules, (pp. 1563-1586). Academic Press, **2024**.

Margaoan R. and **Cornea-Cipcigan M.** *Carotenoids and vitamins of bee collected pollen in Pollen Chemistry and Biotechnology*, In *Pollen Chemistry & Biotechnology* (pp. 147-177). Cham: Springer International Publishing, **2024**.

BDI Publications

Cornea-Cipcigan M & Pamfil D. Expression Effects of CHI and CHS Genes and Colchicine Treatment in Yellow Flowered Cyclamen: a Review. *BUASVM Cluj-Napoca. Horticulture*, **2019**, 76(1), 1-10.

Topal E, **Cornea-Cipcigan M**, Tunca RI, Kösoğlu M, Mărgăoan R. The Use of Medicinal Aromatic Plants Against Bee Diseases and Pests, *Bee Studies*, **2020**, 12(1), 5-11.

Topal E, Ceylan Ö, Kösoğlu M, Mărgăoan R. & **Cornea-Cipcigan M**. Structure, Usage Areas and Main Problems of Bees Wax (Bal mumunun yapisi, kullanim alanlari ve bazı temel sorunlari), *Uludağ Arıcılık Dergisi*, **2020**, 20(2), 209-220.

Mărgăoan R, Aradăvoaicei Ş, **Cornea-Cipcigan M***, & Sisea C.R. The Role of Pollinators in Maintaining the Biodiversity of Some Exotic Cultures. *International Journal of Environmental Research and Technology*, **2019**, 2(1), 17-23.

CONFERENCES AND SEMINARS

Conferences participation as first author

Cornea-Cipcigan M, Pamfil D, Margaoan R, *Thermography-Based Assessment to Confirm Genotypic Variation for Abiotic Stress Response in Cyclamen*, International Congress On Biological And Health Sciences, February 24-27, 2022, Turkey, POSTER

Cornea-Cipcigan M., Sisea CR, Pop R., Dhooghe E, De Keyser E, Aurori A., *Recent developments regarding drought-tolerant sunflower using transformation with Rhizobium rhizogenes* The 20th International Conference "Life Sciences For Sustainable Development", 23rd– 24th September 2021, Cluj-Napoca, Romania, ORAL PRES.

Cornea-Cipcigan M., Pamfil D, Sisea CR, Mărgăoan R, *Changes In Growth And Physiological Parameters Of Cyclamen Accessions Following An Exogenous Application Of Gibberellic Acid*, The 19th International Conference "Life Sciences For Sustainable Development", 24th– 25th September 2020, Cluj-Napoca, Romania; POSTER

Cornea-Cipcigan M., Sisea CR, Pop R, Pamfil D, Szekely-Varga Z, Mărgăoan R, *Effects Of Gibberellic Acid And Photoperiod On Seed Germination Of Cyclamen Species*, The 18th International Conference "LIFE SCIENCES FOR SUSTAINABLE DEVELOPMENT", 26th– 28th September 2019, Cluj-Napoca, Romania; POSTER

Cornea-Cipcigan M, Pamfil D, *Chalcone compounds painting yellow Cyclamen persicum*, 2018, The 17th International Symposium "Prospects for the 3rd Millennium Agriculture, University of Agricultural Sciences & Veterinary Medicine Cluj-Napoca, Horticulture, Romania; POSTER

Conferences participation as co-author

Harta M., Clapa D., **Cornea-Cipcigan M.**, Borsai O., Pop R., Cordea M.I., Evaluation of genetic relationships between two Streptocarpus cultivars and their F1 progenies by morphological traits and SCoT molecular markers, The 22nd International Conference "Life Sciences For Sustainable Development", 28-30 September 2023, Cluj-Napoca, Romania, ORAL PRES.

Oarga (Porumb) D.P., **Cornea-Cipcigan M.**, Cordea M.I., Skin anti-aging properties of Rosa spp., The 22nd International Conference "Life Sciences For Sustainable Development", 28-30 September 2023, Cluj-Napoca, Romania, ORAL PRES.

Tamas-Krumpe O.M., Margaoan R., **Cornea-Cipcigan M.**, ... Ognean L., Assessment of the bioactive potential of two bee products with the addition of natural oils, The 22nd International Conference "Life Sciences For Sustainable Development", 28-30 September 2023, Cluj-Napoca, Romania, POSTER

Mărgăoan R, Özkök A, Keskin Ş, Mayda N, Urcan AC, **Cornea-Cipcigan M.***, Bee Collected Pollen From Romania and Turkey as a Value-Added Product, *International Congress On Biological And Health Sciences*, February 24-27, 2022, Turkey, POSTER

Mărgăoan R., **Cornea-Cipcigan M.**, Bonta, V., Zacharia, I., Study Regarding the Minerals Content, Amino Acids and Energetical Value in Three Monofloral Bee Collected Pollen, *International Congress on Biological and Health Sciences*, Turkey, Online meeting, February 26-28, 2021-POSTER

Mărgăoan R., **Cornea-Cipcigan M.**, Bee pollen methanolic extracts: total polyphenols content and antibacterial activity, 10th Anniversary Edition of the International Conference "Agriculture for Life, Life for Agriculture", University of Agronomic Sciences and Veterinary Medicine of Bucharest, 3rd and 5th June 2021 – ORAL PRES.

Mărgăoan R, Topal E, Balkanska R, Yücel B, Oravec T, **Cornea-Cipcigan M**, Vodnar DC. Monofloral honeys as a potential source of natural antioxidants, minerals and medicine, The 20th International Conference "Life Sciences For Sustainable Development", 23th– 24th September, 2021, Cluj-Napoca, Romania, ORAL PRES.

Mărgăoan R, **Cornea-Cipcigan M**, Topal E, Kösoğlu M, Relationship Between The Volatile Profile And Yeast Strains Used In The Fermentation Process And Health Benefits Of Bee Bread, Mead And Honey Vinegar, The 19th International Conference "Life Sciences For Sustainable Development", 24th– 25th September, 2020, Cluj-Napoca, Romania POSTER

Mărgăoan R., Arădăvoaicei S, **Cornea-Cipcigan M**, Sisea CR, Review: Methods Used In Palynology, The 18th International Conference "Life Sciences For Sustainable Development", 26th– 28th September, 2019, Cluj-Napoca, Romania; POSTER

Mărgăoan R, Arădăvoaicei S, **Cornea-Cipcigan M**, Sisea CR, 2019, The Role of Pollinators In Maintaining The Biodiversity of Some Exotic Cultures, ICERAT, Sarajevo, Bosnia si Herzegovina; ORAL PRES

Mărgăoan R, **Cornea-Cipcigan M**, Campos MG, 2019, Proposal for terminology of plants with pollen shape similarity-review, The 5th International Symposium on Bee Products, Malta 7th-10th May - *International Honey Commision*; ORAL PRES.

Aurori A, Mărgăoan R, Căpraru AC, Pop A, **Cornea-Cipcigan M**, Arădăvoaicei S, Pop R, Dezmirean D, Sisea CR, DNA extraction from pollen in honey for molecular analysis The 18th International Conference "Life Sciences For Sustainable Development", 26th– 28th September, 2019 Cluj-Napoca, Romania. POSTER

Other contributions and soft skills

Guest Editor Assistant: Special Issue "Analysis, Characterization and Antioxidant Activity of Natural Products", A special issue of *Applied Sciences* (ISSN 2076-3417).

Diploma „*PhD of the year—overall score*" for outstanding activity in 2022.

Good communication skills acquired through participation in workshops, symposiums, conferences, projects and as a volunteer

Good organizational skills acquired during the practical and research activities carried out within the faculty where I learned skills such as meticulousness, perseverance in performing tasks, adaptability.

HIRSCH INDEX

PhD thesis cumulated Impact Factor: **20.313**

HI (WOS): 10, Scopus: 10, Google Scholar: 12; **Citations:** 273 (WoS), 569 (Google Scholar).

LANGUAGE SKILLS

Mother tongue(s): **Romanian**

Other Language(s):

English

LISTENING C1 READING B2 WRITING B2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION B2

French

LISTENING A2 READING A2 WRITING A1

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

