

## PUBLICAȚII ȘTIINȚIFICE

### Titlul cercetării postdoctorale

”Un nou produs pe bază de extract gemoterapic de *Secale cereale* îmbogățit cu nanocomplexe de crisină/ciclodextrine destinat sa inducă reversia fibrozei” cod proiect: PN-III-P1-1.1-PD-2021-0327.

Mentor: Prof. dr. Ferenc Fenyvesi

### Titlul tezei de doctorat:

”Studii privind activitatea antifibrotică hepatică a flavonoidului crisină în complexe biodisponibilizate pe bază de ciclodextrine”

Conducător de doctorat: Prof. Univ. Dr. Anca Hermenean

### Articole publicate în reviste cotate ISI în calitate de autor principal:

1. **Ciceu A**, Balta C, Herman H, Gharbia S, Ignat SR, Dinescu S, Váradi J, Fenyvesi F, Gyöngyösi S, Hermenean A, Costache M. *Complexation with random methyl- $\beta$ -cyclodextrin and (2-hydroxypropyl)- $\beta$ -cyclodextrin enhances in vivo anti-fibrotic and anti-inflammatory effects of chrysin via the inhibition of NF- $\kappa$ B and TGF- $\beta$ 1/Smad signaling pathways and modulation of hepatic pro/anti-fibrotic miRNA*. International Journal of Molecular Science, 2021, 22, 1869, doi: 10.3390/ijms22041869.
2. Caruntu S<sup>#</sup>, **Ciceu A**<sup>#</sup>, Olah NK, Don I, Hermenean A, Cotoraci C, *Thuja occidentalis L. (Cupressaceae): ethnobotany, phytochemistry and biological activity*. Molecules, 2020, 25(22), 5416, doi.org/10.3390/molecules25225416. (# contribuție egală).
3. Cotoraci C<sup>#</sup>, **Ciceu A**<sup>#</sup>, Sasu A<sup>#</sup>, Hermenean A. *Natural antioxidants in anemia treatment*. Int J Mol Sci. 2021; 22(4):1883. doi: 10.3390/ijms22041883. (# contribuție egală).
4. Vicas SI<sup>#</sup>, Laslo V<sup>#</sup>, Timar AV<sup>#</sup>, Balta C<sup>#</sup>, Herman H<sup>#</sup>, **Ciceu A**<sup>#</sup>, Gharbia S<sup>#</sup>, Rosu M<sup>#</sup>, Mladin B<sup>#</sup>, Chiana L<sup>#</sup>, Prokisch J<sup>#</sup>, Puschita M<sup>#</sup>, Miutescu E<sup>#</sup>, Cavalu S<sup>#</sup>, Cotoraci C<sup>#</sup>, Hermenean A<sup>#</sup>. *Nano selenium-enriched probiotics as functional food products against cadmium liver toxicity*. Materials, 2021; 14(9):2257. doi: 10.3390/ma14092257. (# contribuție egală).
5. Vicas SI<sup>#</sup>, Laslo V<sup>#</sup>, Timar AV<sup>#</sup>, Balta C<sup>#</sup>, Herman H<sup>#</sup>, **Ciceu A**<sup>#</sup>, Gharbia S<sup>#</sup>, Rosu M<sup>#</sup>, Mladin B<sup>#</sup>, Fritea L<sup>#</sup>, Cavalu S<sup>#</sup>, Cotoraci C<sup>#</sup>, Prokisch J<sup>#</sup>, Puschita M<sup>#</sup>, Pop C<sup>#</sup>, Miutescu E<sup>#</sup>, Hermenean A<sup>#</sup>. *Functional Food Product Based on Nanoselenium-Enriched Lactobacillus casei against Cadmium Kidney Toxicity*. Applied Sciences. 2021; 11(9):4220. https://doi.org/10.3390/app11094220. (# contribuție egală).
6. Cotoraci C<sup>#</sup>, **Ciceu A**<sup>#</sup>, Sasu A<sup>#</sup>, Miutescu E<sup>#</sup>, Hermenean A. *The anti-leukemic activity of natural compounds*. Molecules. 2021; 26(9). DOI: 10.3390/molecules26092709. (# contribuție egală). (# contribuție egală).
7. Cotoraci C<sup>#</sup>, **Ciceu A**<sup>#</sup>, Sasu A<sup>#</sup>, Miutescu E<sup>#</sup>, Hermenean A. *Bioactive compounds from herbal medicine targeting multiple myeloma*. Applied Sciences. 2021; 11(10):4451. https://doi.org/10.3390/app11104451. (# contribuție egală).

### Articole publicate în reviste cotate ISI în calitate de coautor:

8. Balta C, **Ciceu A**, Herman H, Rosu M, Boldura OM, Hermenean A, 2018, *Dose-dependent antifibrotic effect of chrysin on regression of liver fibrosis: the role in extracellular matrix remodeling*, Dose Response, 16(3): 1559325818789835, doi: 10.1177/1559325818789835.
9. Badea MA, Balas M, Hermenean A, **Ciceu A**, Herman H, Ionita D, Dinischiotu A, 2019, *Influence of matrigel on single- and multiple-spheroid cultures in breast cancer research*, SLAS Discovery, 1–16, doi: 10.1177/2472555219834698.
10. Popescu RG, Voicu SN, Gradisteanu Pircalabioru G, **Ciceu A**, Gharbia S, Hermenean A, Georgescu SE, Panaite TD, Dinischiotu A, 2020, *Effects of dietary inclusion of bilberry and walnut leaves powder on the digestive performances and health of Tetra SL laying hens*, Animals, 10, 823; doi:10.3390/ani10050823.

11. Fenyvesi F, Phuong Nguyen TL, Haimhoffer Á, Rusznyák Á, Vasvári G, Bácskay I, Vecsernyés M, Ignat SR, Dinescu S, Costache M, **Ciceu A**, Hermenean A, Váradi J, *Cyclodextrin complexation improves the solubility and Caco-2 permeability of chrysin*. *Materials*, 2020, 13, 3618, doi: 10.3390/ma13163618.
12. Ignat SR, Dinescu S, Váradi J, Fenyvesi F, Phuong Nguyen TL, **Ciceu A**, Hermenean A, *Complexation with random methyl-β-cyclodextrin and (2-hydroxypropyl)-β-cyclodextrin promotes chrysin effect and potential for liver fibrosis therapy*. *Materials*, 2020, 13, 5003, doi.org/10.3390/ma13215003.
13. Taranu I, Hermenean A, Bulgaru C, Pistol GC, **Ciceu A**, Grosu IA, Marin DE. *Diet containing grape seed meal by-product counteracts AFB1 toxicity in liver of pig after weaning*. *Ecotoxicol Environ Saf.* 2020, 203:110899. doi: 10.1016/j.ecoenv.2020.110899.
14. Cotoraci C, Sasu A, Miutescu E, Iovanescu D, Gharbia S, **Ciceu A**, Herman H, Hermenean A. *Immunohistochemical expression patterns of tight junction proteins, pro-apoptotic and anti-apoptotic factors on progression of intestinal mucositis of onco-hematological patients under epirubicin-based chemotherapy*. *Applied Sciences*. 2021, 11(10):4710. <https://doi.org/10.3390/app11104710>.
15. Hermenean A, Oatis D, Herman H, **Ciceu A**, D'Amico G, Trotta MC. *Galectin 1-A Key Player between Tissue Repair and Fibrosis*. *Int J Mol Sci.* 2022 May 16;23(10):5548. doi: 10.3390/ijms23105548.
16. Trotta MC, Herman H, Balta C, Rosu M, **Ciceu A**, Mladin B, Gesualdo C, Lepre CC, Russo M, Petrillo F, Pieretti G, Simonelli F, Rossi S, D'Amico M, Hermenean A. *Oral Administration of Vitamin D3 Prevents Corneal Damage in a Knock-Out Mouse Model of Sjögren's Syndrome*. *Biomedicines*. 2023 Feb 18;11(2):616. doi: 10.3390/biomedicines11020616.
17. Balta C, Herman H, **Ciceu A**, Mladin B, Rosu M, Sasu A, Peteu VE, Voicu SN, Balas M, Gherghiceanu M, Dinischiotu A, Olah NK, Hermenean A. *Phytochemical Profiling and Anti-Fibrotic Activities of the Gemmotherapy Bud Extract of Corylus avellana in a Model of Liver Fibrosis on Diabetic Mice*. *Biomedicines*. 2023 Jun 20;11(6):1771. doi: 10.3390/biomedicines11061771.
18. Trotta MC, Herman H, **Ciceu A**, Mladin B, Rosu M, Lepre CC, Russo M, Bácskay I, Fenyvesi F, Marfella R, Hermenean A, Balta C, D'Amico M. *Chrysin-based supramolecular cyclodextrin-calixarene drug delivery system: a novel approach for attenuating cardiac fibrosis in chronic diabetes*. *Front Pharmacol.* 2023 Dec 18;14:1332212. doi: 10.3389/fphar.2023.1332212.

#### **Articole publicate în reviste cotate BDI:**

1. Cotoraci C, Sasu A, Onel AFM, Iovănescu D, Miutescu E, Gharbia S, **Ciceu A**, Herman H, Hermenean A. *The morphological changes of the colonic goblet cells and mucin profile in oncohematological patients under Epirubicin-based chemotherapy*. *Rom J Morphol Embryol* 2020, 61(4):in press ISSN (print) 1220–0522, ISSN (online) 2066–8279 doi: 10.47162/RJME.61.4.y

#### **Brevete de invenție**

1. Patent national OSIM, Romania – aplicația nr. A/00327, 14.06.2022  
“Nanosistem supramolecular "drug delivery" de livrare a flavonoidelor pe bază de derivat de calix[4]arene (OTX008) și sulfobutylether-β-cyclodextrin (SBECD) și procedeu de obținere” Publicat RO-BOPI 10/2022 din 28.10.2022
2. Patent national OSIM, Romania – aplicația nr. A/00328, 14.06.2022  
“Compoziție fitoterapeutică pe bază de extract gemoterapic de *Corylus avellana* îmbogățit cu nanocomplexe de crisină/ciclodextrine destinat fibrozei hepatice în diabetul zaharat și metoda de obținere a acesteia” Publicat RO-BOPI 10/2022 din 28.10.2022

3. Depunere cerere brevet de invenție din 5.12.2018:

“System drug delivery chrysin-random methyl-beta cyclodextrin (RAMEB) with anti-fibrosis potential to heal hepatic fibrosis lesions” (A/01052, 05.12.2018), OSIM, România

#### **Comunicări la manifestări științifice naționale și internaționale:**

1. **Ciceu A**, Hermenean A, *Role of hepatic stellate cells in hepatic fibrogenesis*, Arad Academic Days, 28th Edition, May 23-25, 2018.
2. **Ciceu A**, *Patogeneza și reversia fibrozei hepatice*, Arad Academic Days, 29th Edition, May 9-11, 2019.
3. **Ciceu A**, Costache M, Hermenean A, *Liver damage due to toxic substances*, 20th DKMT Euroregional Conference on Environment and Health, Arad, Romania, 7-8 september 2018, ISBN: 979-606-8875-39-2.
4. **Ciceu A**, Costache M, Hermenean A, *Mechanisms involved in hepatic fibrogenesis*, 20th DKMT Euroregional Conference on Environment and Health, Arad, Romania, 7-8 september 2018, ISBN: 979-606-8875-39-2.
5. Olah NK, Pripon-Furtuna, Burtescu RF, Kelemen I, Chișe E, Turcuș V, Herman H, **Ciceu A**, Hermenean A, *Morpho-anatomical and phytochemical study of the Corylus avellana L. species (buds)*, 42nd Anniversary Symposium Of The Institute Of Cellular Biology And Pathology “Nicolae Simionescu” and 38th Annual Scientific Session Of The Romanian Society For Cell Biology. Virtual. Book of abstracts, p. 37
6. **Ciceu A**, Fenyvesi F, Olah N, Hermenean A, *Cellular and molecular pathways involved in liver fibrosis and the potential anti-fibrotic role of Secale cereale extract reinforced with chrysin/cyclodextrin nanocomplexes*, Arad Academic Days, XXXII-nd Edition, May 25-29, 2022, ISBN 978-973-664-920-2.
7. **Ciceu A**, Fenyvesi F, Olah N, Hermenean A, *Patogeneza fibrozei hepatice și potențialul efectelor antifibrotice al extractului de Secale cereale îmbogățit cu nanocomplexe de crisină/ciclodextrine*, Școala de Primăvară de Gemmaeterapie, Arad, 3-5 iunie 2022.
8. **Ciceu A.**, Olah N-K, Hermenean A, *Rolul extractului gemoterapic de Secale cereale îmbogățit cu nanocomplexe de crisină/ciclodextrine în remodelarea matricei extracelulare de la nivel hepatic*, Zilele Fitoterapiei Moderne, Arad, 23-25 mai 2023.

#### **Prezentare de poster:**

1. Balta C, Hermenean A, **Ciceu A**. *Chrysin reduces liver fibrosis in mice by modulating MMPs and inhibition of collagen production*, Scientific conference SGEM Vienna GREEN, 27-30 November 2017.
2. **Ciceu A**, Olah N-K, Fenyvesi F, Hermenean A, *Phytochemical and antioxidant analysis of the gemmotherapy-based Secale cereale extract reinforced with chrysin/cyclodextrin nanocomplexes*, 44th Annual Symposium of the Institute of Cellular Biology and Pathology “Nicolae Simionescu” and 40th Annual Scientific Session of the Romanian Society for Cell Biology, Bucharest, November 16-18, 2023, Bulletin of Romanian Society for Cell Biology, No. 44, Poster abstracts, p. 105-106, ISBN 978-973-664-946-2.