

# Cresterea capacitatii de cercetare si a performantelor institutionale ale INCDSB / PERFORM

(Nr. contract: 22 PFE/17.10.2018).

## Principalele rezultate obtinute in cadrul proiectului:

### I Stagii de pregatire

Stagiu de cercetare – ACS Drd. Paraschiva Paula Sosoi

Participant: Paraschiva Paula Sosoi

Institutie: Universitatea Martin Luther din Halle, Institutul de Biologie / Prof. Dr. Klaus Humbeck

URL: [https://www.biologie.uni-halle.de/institutsbereich\\_pflanzenphys/](https://www.biologie.uni-halle.de/institutsbereich_pflanzenphys/)

Topicul stagiului de pregatire: Folosirea tehnicilor de imunoprecipitare in studiul factorilor epigenetici influentati de stres abiotic la specii de *Hordeum*

Perioada: 4 – 15 martie 2019

Stagiu de cercetare – CS Dr. Ancuta – Cristina (Raclariu) Manolica

Participant: Ancuta – Cristina (Raclariu) Manolica

Institutie: Universitatea din Regensburg, Institutul de stiinta plantelor

Topicul stagiului de pregatire: Studii de filogenie si taxonomie moleculara a unor specii cu importanta economica

Perioada: 11 – 22 martie 2019

Stagiu de cercetare – CS III Dr. Camelia Stefanache

Participant: Camelia Stefanache

Institutie: Centre for Natural Products Discovery, the School of Pharmacy and Biomolecular Sciences, Liverpool John Moores University

Topicul stagiului de pregatire: aspecte privind analiza fitochimica si testarea activitatii biologice in vitro (linii celulare tumorale)

Perioada: 4-19 noiembrie 2019

### II Articole publicate

"*Phytochemicals in cancer prevention: modulating epigenetic alterations of DNA methylation*" (2019) **Phytochemistry Reviews** 18, pages 1005–1024, <https://doi.org/10.1007/s11101-019-09627-x> ). Autori: Sevinci Pop, Ana Maria Enciu, Isabela Tarcomnicu, Elvira Gille & Cristiana Tanase; IF = 4.25

"*The DNA-Based Authentication of Commercial Herbal Products Reveals Their Globally Widespread Adulteration*" (2019) **Front. Pharmacol.** 24 October 2019, Autor: Mihael Cristin Ichim, <https://doi.org/10.3389/fphar.2019.01227>, IF = 3.84

"*Microscopic Authentication of Commercial Herbal Products in the Globalized Market: Potential and Limitations*", **Front. Pharmacol.** 11:876, Autori: Ichim M.C., Häser A., Nick P, IF = FI 3.84, <https://www.frontiersin.org/articles/10.3389/fphar.2020.00876/abstract>

"*Turning Meadow Weeds Into Valuable Species for the Romanian Ethnomedicine While Complying With the Environmentally Friendly Farming Requirements of the European Union's Common Agricultural Policy*" (2020) **Front. Pharmacol.** 11:529, Autori: Grosu E., Ichim M.C. (2020), IF = 3.84, <https://doi.org/10.3389/fphar.2020.00529>

"*Recent Advances In Tackling Microbial Multidrug Resistance With Plant-Derived Products: Combinatorial And Nano-Based Strategies*" (2020) **Critical Reviews in Microbiology**, Autori: Trifan Adriana, Luca Simon Vlad, Greige-Gerges Hélène, Miron Anca, Gille Elvira, Aprotoasoie Ana Clara (under review la 03.06.2020) IF = 5.69.

### III Participari la manifestari stiintifice

1. **Conferinta de Fitoterapie Practica, Ed. a II-a**, cu tema „**Compusii bioactivi si extractele vegetale: beneficii pentru sanatate. Metaboliti secundari in practica medicala**”, 29-30 martie 2019, Iasi / Romania, <https://ralcom.eventsair.com/cnfp-2019/>  
Participant: Dr. Elvira Gille (Chairman si membru al Comitetului de organizare)
2. **2<sup>nd</sup> ICGB Workshop „Modern Biotechnological Advances for Human Health” (BAHH)**, 28 – 31 mai, 2019, Bucuresti, Romania  
<http://www.incdsb.ro/p/bahh2019/>  
Participanti: CS I Dr. Elvira Gille, CS III Dr. Camelia Ștefanache, CS III Dr. Ruxandra-Mihaela Cretu, CS III Dr. Mihael Cristin Ichim, CS Dr. Ancuta Cristina Raclariu-Manolica, AC Drd. Oana Madalina Popa, AC Drd. Paula Paraschiva Sosoi
  - 2.1. *Green Synthesis Of Silver Nanoparticles Using Picea Abies Bark Extract; Characterization, Cytogenotoxic Potential And Antioxidant Activity*. Autori: Irina Macovei, Elvira Gille, Camelia Ștefanache, Valeria Harabagiu, Liviu Săcărescu, Petronela Pascariu, Alina Diaconu, Cristina Lungu, Bianca Laura Ivănescu, Anca Miron (Poster presentation – PP18). Book of Abstracts, p. 80, ISBN 978-973-0-29391-3;
  - 2.2. *In vitro screening of cell healing capacity induced by some selected phytopreparations obtained from Sorbus aucuparia L. and Ulmus glabra Huds. Bark*. Autori: Gabriela Vochita, Pincu Rotinberg, Daniela Gherghel, Elena Ionescu, Carmen Elena Țebrencu, Oana Teodora Ciuperca, Ruxandra-Mihaela Cretu, Cosmin-Teodor Mihai (Oral presentation – OP11). Book of Abstracts, p. 52, ISBN 978-973-0-29391-3;
  - 2.3. *DNA metabarcoding authentication ensure the safety and efficacy of marketed herbal products and protect the human health*. Autori: Ancuta Cristina Raclariu-Manolica, Mihael Cristin Ichim, Oana Madalina Popa, Paula Paraschiva Sosoi, Hugo de Boer (Poster presentation – PP28). Book of Abstracts, p. 90, ISBN 978-973-0-29391-3.
3. **4<sup>th</sup> International Conference on Natural Products Utilization: from Plants to Pharmacy Shelf (ICNPU-2019)**, 29 mai – 01 iunie, 2019, Albena, Bulgaria <http://www.icnpu.com/2019/>  
Participanti: CS I Dr. Elvira Gille, CS III Dr. Aurica Valentin Grigoras, CS III Dr. Camelia-Paula Ștefanache, CS III Dr. Ruxandra-Mihaela Cretu, CS Drd. Radu Necula.
  - 3.1. *Preliminary bioactivity assessment of several Scirpoides holoschoenus (L.) Soják and Helichrysum arenarium (L.) Moench extracts and derived food supplement formulas*. Autori: Elvira Gille, Carmen E. Tebrencu, Radu Necula, Aurica V. Grigoras, Camelia P. Ștefanache, Ruxandra M. Cretu (Poster presentation – PP 65). Book of Abstracts, p. 186-187, ISSN: 2682-9487.
  - 3.2. *Contributions to the biometric and phytochemical study of some Verbascum species in Eastern Romania*. Autori: Ruxandra M. Cretu, Aurica V. Grigoras, Radu Necula, Camelia P. Ștefanache, Elvira Gille (Poster presentation – PP 66). Book of Abstracts, p. 188, ISSN: 2682-9487.
  - 3.3. *Assessment of bioactive compounds content variability of Rosa canina L. wild populations in Dobrogea region, Romania*. Autori: Valentin Grigoras, Radu Necula, Ruxandra M. Cretu, Camelia P. Ștefanache, Elvira Gille (Poster presentation – PP 72). Book of Abstracts, p. 196, ISSN: 2682-9487.
  - 3.4. *Phenolic profile, in vitro antioxidant activity and in vivo cytotoxicity of Artemisia species from Republic of Moldova*. Autori: Camelia P. Ștefanache, Adriana Trifan, Gabriela Vochita, Radu Necula, Oana C. Bujor, Doina Danila, Nina Ciocarlan, Xavier Simonnet, Christoph Carlen (Oral presentation – SL 24). Book of Abstracts, p. 62-63, ISSN: 2682-9487.
  - 3.5. *In vitro evaluation of cytotoxic and antiproliferative activities of Verbascum nigrum L. on A431 squamous carcinoma cell line*. Autori: Iolanda Alca Iliescu, Anca Miron, Elvira Gille, Ina Albert, Samuel Peter, Evelyn Wolfram (Poster presentation – PP 123). Book of Abstracts, p. 252, ISSN: 2682-9487.
  - 3.6. *Recent Advances in Tackling Antibiotic Resistance with Natural Products: Combinatorial and Nano-Based Strategies*. Autori: Anca Miron, Adriana Trifan, Petruta Aelenei, Elvira Gille, Ana Clara Aprotosoia (Poster presentation – PP 124). Book of Abstracts, p. 253, ISSN: 2682-9487.
  - 3.7. *Chemical And Biological Profile Of Two Ajuga Species Cultivated In Northern Romania*. Autori: Andrei Florin Padurarau, Oana Cioanca, Cornelia Mircea, Razvan Stefan Boiangiu, Cristina Iancu, Elvira Gille, Lucian Hritcu, Monica Hancianu (Poster presentation - PP 33). Book of Abstracts, p. 151, ISSN: 2682-9487.
4. **„Trends and Prospects of Med/Pharma Biotechnologies in Europe: Towards Strengthening Regional Cooperation Including CEE Countries”** (workshop) 2-5 Iunie 2019, Bratislava, Slovacia <https://www.eu-med-pharm-bt2019.eu/>  
Participant: Ancuta – Cristina Manolica
  - 4.1. *Species identification and authentication of complex medicinal plant-based marketed products for safety and efficacy*. Autori: Ancuta Cristina Manolica, Mihael Cristin Ichim, Hugo de Boer. Book of Abstracts, p. 82-83.
5. **„8<sup>th</sup> International Barcode of Life Conference”**, 17-20 Iunie 2019, Trondheim, Norvegia <http://dnabarcodes2019.org/>  
Participant: Ancuta – Cristina Manolica
  - 5.1. *Biodiversity in complex marketed herbal products - species identification and authentication for safety and efficacy*. Autori: Ancuta Cristina Manolica, Mihael Cristin Ichim, Hugo de Boer.

6. **„Natural Products in Drug Discovery and Human Health (NatProdDDH)”**, PSE Meeting, 28-31 iulie 2019, Lisabona, Portugalia  
<http://www2.ff.ul.pt/pselisbonmeeting2019/>  
 Participanti: CS I Dr. Elvira Gille si CS III Dr. Camelia-Paula Stefanache.  
 6.1. *Biology, phytochemistry, medicinal potential of Viola sp.: A review.* Autori: E. Gille, A. Stratu, N. Costica, C.P. Stefanache, R.M. Cretu, I. Boz (Poster presentation).  
 6.2. *Assessment of the antioxidants in Crataegus monogyna and Crataegus pentagyna from wild populations in Romania and Republic of Moldova.* Autori: C.P. Stefanache, A.V. Grigoras, R. Necula, R.M. Cretu, A. Miron, I. Macovei, E. Gille (Oral presentation).  
 6.3. *The effect of omega-3 fatty acids on carcinogenesis through epigenetic mechanism modulation.* Autori: S. Pop, V.S. Ionescu, E. Manole, I. Tarcomnicu, E. Gille, C. Tanase (Oral presentation)
7. **„International Conference of Food Safety and Health 2019 (FSAH2019)”**, 26–28 noiembrie 2019, Taichung, Taiwan,  
<https://www.fsah2019.org/> (adresa web-site functionala in ianuarie 2020)  
 Participant: CS I Dr. Elvira Gille  
 7.1 *Romanian traditional herbs and spices: nutraceutical potential on human health.* Autori: Elvira Gille, Radu Necula, Sevinci Pop, Camelia P. Stefanache, Manuela E. Sidoroff, Anca Miron (comunicare orala);  
 7.2. *Revisiting medicinal plants for the development of novel herbal supplements.* Autori: Anca Miron, Alexandra Bujor, Simon Vlad Luca, Adriana Trifan, Ana Clara Aprotosoai, Elvira Gille (comunicare orala);
8. **PSE-NPS 2020 Summit on “Natural Products for Healthy Living”**, 16-18 Ianuarie 2020, Khulna, Bangladesh  
 Participant: CS I Dr. Elvira Gille  
 8.1. *Romanian herbal medicine - from traditional therapeutic systems to modern applications.* Autori: Elvira Gille, Radu Necula, Sevinci Pop, Ruxandra M. Cretu, Manuela E. Sidoroff, Valentin Grigoras, Anca Miron
9. **„T20 PSE Conference Liverpool 2020”**, organized by the Phytochemical Society of Europe (PSE), 6 martie 2020, Liverpool, UK,  
<https://ysm2018.wixsite.com/t20liverpool>  
 Participanti: Dr. CS I Elvira Gille, Dr. CS III Camelia Stefanache, Dr. CS III Ruxandra Cretu si Dr. CS III Valentin Grigoras  
 9.1. *The role of ethnopharmacy in the development of modern drugs,* Autori: Elvira Gille, Ruxandra M. Cretu, Radu Necula, Valentin Grigoras, Camelia P. Stefanache (comunicare orala)
10. **„Plantele medicinale – sursa de noi genotipuri cu utilizari in fitoterapie”** – Partea I (workshop), 17-18 septembrie 2019, Piatra Neamt, Romania.  
 Participanti: cercetatori din cadrul INCDSB/CCB Stejarul Piatra Neamt, a Gradinii Botanice Nationale (Institut) „Alexandru Ciubotaru”, Chisinau, Republica Moldova si din cadrul Institutului de Genetica al Academiei Republicii Moldova.
11. **„Plantele medicinale – sursa de noi genotipuri cu utilizari in fitoterapie”** – Partea a II-a (workshop), 14-18 octombrie 2019, Chisinau, Rep Moldova,  
 Au participat din partea INCDSB/CCB Stejarul Piatra Neamt: Dr. CS I Elvira Gille, Dr. CS III Camelia Stefanache, Dr. CS III Ruxandra Cretu si Dr. CS III Valentin Grigoras
- Cele doua workshop-uri au vizat colaborarea dintre institutiile sub aspectul evaluarii capacitatilor bioproductive ale unor specii de plante medicinale (soiuri, varietati, biomasa) corelate cu potentialul biosintetic al metabolitilor secundari (principii bioactive), precum si fundamentarea unor viitoare colaborari in proiecte stiintifice intre institutiile implicate.
12. Workshop de elaborare a foii de parcurs asociate specializarii inteligente in domeniul agroalimentar – SIPOCA 27, Bucuresti, 12 martie 2019, organizat de UEFISCDI.  
 Participant: CSI Dr. Elvira Gille – moderator grup Alimente functionale  
 Workshop-ul a reunit actori cu activitate de cercetare si/sau inovare, din mediul public si privat, din domeniul agroalimentar. Participantii au elaborat si argumentat in favoarea unor nise care ar putea stimula competitivitatea domeniului agroalimentar - pornind de la oportunitati de piata si/sau generate de tehnologii emergente si de capabilitati actuale in domeniu, in Romania.