



MINISTERUL EDUCAȚIEI ȘI CERCETĂRII
ROMÂNIA
UNIVERSITATEA DE MEDICINĂ,
FARMACIE, ȘTIINȚE ȘI TEHNOLOGIE
„GEORGE EMIL PALADE”
DIN TÂRGU MUREȘ

Facultatea de Farmacie
Departamentul de Științe
Farmaceutice Fundamentale (F1)
Disciplina de Botanică farmaceutică



STUDENT RESEARCH GROUP ON PHARMACEUTICAL BOTANY

Academic year 2019-2020

Acronym: **FARMAPLANT**

Research team:

Associate prof. Corneliu Tanase PhD - Group coordinator

PhD Senior lecturer Domokos Erzsebet

PhD Teaching assistant Sanda Coșarcă, PhD student

Technicians Darko Bela

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Students currently involved:

5th Year of study, pharmacy program: Andreescu Clara-Orania, Ene Călin, Gîrbacea Horia, Nișca Adrian

4th Year of study, pharmacy program: Halmagyi Eniko Csilla

2th Year of study, pharmacy program: Pantea Lorena, Predeleanu Alexandra, Radu Izabela, Deliu Iulia,
Covrig Laura

Research topics:

- Identification and valorisation of spontaneous medicinal plants from flora of Romania
- Contributions to the biological activity of natural extracts with high content in polyphenols
- The study of symbiotic mushroom groups with implications in the growth and development of medicinal plants
- The influence of ecological factors on the growth and development of some medicinal plants



Relevant in extenso ISI articles of the research team with student's contribution:

1. Tanase C., Lavinia Berta, Năstaca Alina Coman, Ioana Roșca , Adrian Man, Felicia Toma, Andrei Mocan, László Jakab-Farkas, Domokos Biró and Anca Mare, Investigation of In-Vitro antioxidant and antibacterial potential of silver nanoparticles obtained by biosynthesis using beech bark extract, 2019, *Antioxidants*, FI: 4,520.
2. Tanase C., Mocan A, Coșarcă S, Gavan A, Nicolescu A, Gheldiu AM, Vodnar DC, Muntean DL, Crișan O. Biological and Chemical Insights of Beech (*Fagus sylvatica* L.) Bark: A Source of Bioactive Compounds with Functional Properties. *Antioxidants (Basel)*. FI: 4,520, 2019 Sep 19;8(9). 417, doi: 10.3390/antiox8090417.
3. Tanase, C.; Nișca, A.; Mirica, A.; Milan, A.; Boz, I. Wood Bark as Valuable Raw Material for Compounds with a Bioregulator Effect in Lemon Balm (*Melissa officinalis* L.) *Plants. Appl. Sci.* 2019, 9, 3148, FI: 2,217, doi.org/10.3390/app9153148.
4. Tanase, C.; Coșarcă, S.; Muntean, D.-L. A Critical Review of Phenolic Compounds Extracted from the Bark of Woody Vascular Plants and Their Potential Biological Activity. *Molecules* 2019, 24, 1182, FI: 3,06 doi: 10.3390/molecules24061182.
5. Coșarcă, S, Moacă, EA, Tanase, C, Muntean, DL, Pavel, IZ, Dehelean CA, Spruce and beech bark aqueous extracts: source of polyphenols, tannins and antioxidants correlated to in vitro antitumor potential on two diferent cell lines, *Wood Science and Technology*, 2019, (2019) 53: 313–333, FI:1,912, doi:10.1007/s00226-018-1071-5.
6. Tanase C., Domokos E., Coșarcă S., Miklos A., Imre S., Domokos J., Dehelean C. A., Study of the ultrasound-assisted extraction of polyphenols from beech (*Fagus sylvatica* L.) bark, *BioResources*, 2018, 13(2), FI:1,202
7. Coșarcă S., Roșca I., Coman A., Nagy Bota MC., Tanase C., Effect of treatment with saline solution (NaCl) on rape plants in presence of the hemp shives. *Revista de Chimie*, 2017, 68(8): 1843-1846, FI: 1,412

Relevant abstracts with student's contribution:

1. Roșca Ioana, Berța Lavinia, Corneliu Tanase, BIOSYNTHESIS OF SILVER NANOPARTICLES USING AQUEOUS EXTRACTS OBTAINED FROM PICEA ABIES L. AND FAGUS SYLVATICA L. BARK, National Congress for Students, Young Doctors and Pharmacists “Marisiensis”, 27-31 martie, 2018, Târgu Mureș, Romania.
2. Adrian Nișca, Andreea Milan, Mirica Anca, Corneliu Tanase, WOOD BARK AS VALUABLE RAW MATHERIAL FOR COMPOUNDS WITH BIOREGULATOR EFFECT IN LEMON BALM (MELISSA OFFICINALIS L.) PLANTS, National Congress for Students, Young Doctors and Pharmacists “Marisiensis”, 28 martie - 1 Aprilie 2018, Tîrgu Mureș, Romania.
3. Sanda-Liliana Coșarcă, Elena-Alina Moacă, Corneliu Tanase, Daniela Lucia Muntean, Ioana Zinuca Pavel, Silvia Oroian, Cristina Adriana Dehelean, BARK AQUEOUS EXTRACTS CORRELATED TO IN VITRO ANTITUMOR POTENTIAL ON TWO DIFFERENT CELL LINES, Scientific Aniversary Symposium - 70 Years from Fondation of University Botanical Garden, Tîrgu-Mureș: 1948 — 2018, Tîrgu Mureș, Romania, 30 May - 01 June 2018