



STUDENTS RESEARCH GROUP
FACULTY OF PHARMACY
Molecular biology and microbiology
ACADEMIC YEAR 2025-2026

Acronym: MBM

Team:

Group coordinators:

Assoc. prof. Manuela Curticapean, PhD;

Lecturer Barabas Eniko, MD, PhD

Technician Darko Bela

Contact:

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Research topics:

- Microbiological control of pharmaceutical products using molecular techniques
- Research regarding establishment protocols for nucleic acids isolating and amplifying for identification and comparison of plants, bacteria and fungi species;
- Research regarding GMO identification;
- Intestinal parasitoses, toxoplasmosis, tissue parasites, microbiological control of pharmaceutical preparations, bacterial infections of the respiratory, urinary, genital pathways, antibiotic resistance of the uropathogenic microorganisms.

Research infrastructure (relevant items):

- PCR IQ⁵ (Bio-Rad) ;
- Gel electrophoresis system (Thermo Scientific).

Relevant techniques:

PCR; qPCR

Gel electrophoresis,

Cryotome sections

Microscopy, cultivation of bacteria, antibiotic sensitivity testing,

Microscopy, concentration of parasites,

Serological reactions: Elisa, immunochromatography,

Dilution methods for the tested substances,

Microscopical photography.

Students involved:

2025-2026

- Ciorna Gavril

- Luca Anamaria





- Oprea Ana-Maria, CMA - Gliga Denisa FV, an II	- Fodor Mariaü Magdolna, F - Matis Adelina, CMA - Alföldi Ingrid, BT
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Relevant *in extenso* ISI articles of the research team (as main authors: first author, corresponding author and last author; *students):

Curticăpean M - *Detection of Escherichia coli from non-sterile herbal pharmaceutical products from the Romanian market*, Farmacia, 2022, 70(2): 295-299, Indexată ISI, IF = 1.433.

Curticăpean M, Curticăpean A - *Detection of the genetically modified organisms from food products*, Revista Romana de Medicina de laborator, 2014, 22 (3): 387-395, ISSN online: 2284-5623, ISSN-L: 1841-6624, Indexată ISI, IF = 0.239.

Enikő Barabás- Hajdu, Sátán Edith, Mihály Ágnes* - *Urogenital myiasis: a human case report*, Acta Microbiologica et Immunologica Hungarica, 2012, 59, p.469-473. DOI: 10.1556/AMicr.59.2012.4.4

Mártha O, Fodor IL*, Szep E., Maier A, Enikő Hajdu Barabás - *Ureaplasma genital infections in an ambulatory urology ward*, European Urology, suppl., 12, e1147, c39, ISI A, FI: 2,162.

BDI articles

Curticăpean M-C, *Quality of Non-Sterile Herbal Pharmaceutical Products – Detection of Fungi*, International Journal of Sciences: Basic and Applied Research (IJSBAR), 2021, 57(2): 57-64, ISSN 2307-4531.

Curticăpean M-C, *Plant aquaporins*, Acta Biologica Marisiensis, 2019, 2(2): 36-48, ISSN 2601 – 6141 (Print), 2668 – 5124 (Online).

Nemes-Nagy E, Uzun CC, Maier A, Man A, Vida ÁO, Demeter R*, Abtessam NA, Pál S, Kudor-Ferice B*, Kovács RZs), Fazakas Z, Balogh-Sămărghișan V, Simon Szabó Zs, Fodor MA, Incze A, Kolcsár M, Szabó M , Mártha O, Barabás Hajdu E - *Study on urinary tract infections in predisposed patients*, Management în sănătate XIX/3/2015; pp. 26-28.

Gorea Diana*, Hancu G, Rusu Aura, Cârje Anca, Barabás Enikő - *Quality assessment indicators of surface waters and soils in the vicinity of the former sulphur mines in the Călimani Mountains*, Forum geografic. Studii și cercetări de geografie și protecția mediului Volume XIII, Issue 2 (December 2014), pp. 212-218 (7) <http://dx.doi.org/10.5775/fg.2067-4635.2014.166.d>

Mártha O, Maier A, Mălău O, Sz. Sándor*, Pricop C, Barabás-Hajdu E - *Ureaplasma male genital infections in an ambulatory urology ward*, Revista română de urologie, 2013, 12, p 29-33, Rev Rom Uro, BDI.

Curticăpean M, Toma F, Șoptorean AM* - *Detection of the sensitivity of some bacteria and fungi to the action of sodium phosphotungstate beta – $Na_6[P_2W_{18}O_{62}] \times 18 H_2O$* , Bacteriol.Virusol.Parazitol.Epidemiol., 2007, 52(3-4): 139-147, Indexată MEDLINE, PubMed, PMID: 19326727

Relevant abstracts with students contributions*:

Barabás- Hajdu E, Turos Greta* - *Controlul purității microbiologice a preparatelor farmaceutice*, Orvostudományi Ertesito, 2020, 93, suppl.1, p.153.





Puia Romulus*, Todoran Emilia Florina*, Silasi Oana Alexandra*, Barabas Eniko, Todoran Nicoleta - *The labelled cosmetic ingredients and the microbiological quality of a "natural & organic" moisturising cream vs. a moisturising cream*, Congresul Științific Marisiensis, 2018, poster, Acta Medica Marisiensis, vol 64, S1, 2018, p. 84.

Kucsera Dániel*, Barabás- Hajdu E - *Dinamica parazitozelor intestinale în spitalul pentru bolnavi handicapați de la Brâncovenești*, Orvostudományi Értesítő, 2018, vol.91, supl.TDK, p.78.

Szigeti Amália-Beáta*, Váncza Lóránd*, Barabás- Hajdu E - *Tetraciklinrezisztencia előfordulása húgyúti fertőzésekben, rezisztencia la tetraciclina a baktériilor izolate din infecții ale tractului urinar*, Orvostudományi Értesítő, 2018, vol.91, TDK, p.177- 178.

Szabó Evelin-Andrea*, Pál Sándor*, Raluca Tilinca*, Barabás- Hajdu E - *Laboratóriumi állapotjelzők és társbetegségek összehasonlítása beutalt, illetve ambuláns cukorbeteg esetében, compararea parametrilor de laborator și a bolilor asociate la pacienți diabetici spitalizați și din ambulatoriu*, Orvostudományi Értesítő, 2018, vol.91, TDK, p.36, premiul 1. in sesiunea de diagnostic de laborator.

Barabás- Hajdu E, Sándor Sz*, Cighir T, Majoros L, Kovács M, Maráz A - *Urinary tract infections caused by Trichosporon*, Acta Microbiologica et Immunologica Hungarica, 62, 2, supplement, 2015, pp. 132-133.

Kudor Ferice B* - *Risk factors in occurrence of urinary tract lithiasis*, Orvostudományi Értesítő, 88, 2015, p.26.

Kenyeres A*, Benkő H*, Koncz Sz* - *Frequency of multiresistant bacterial strains and importance of targeted therapy*, Orvostudományi Értesítő, 88, 2015, p.139.

Demeter R*, Kovács ZSR*, Kudor- Ferice B* - *Frequency of bacteria causing urinary tract infections and their antibiotic resistance*, Orvostudományi Értesítő, 88, 2015, p.147.

Iacob OM*, Curticapean M, Bucur R, Sin AI - *Methods of qualitative assessment regarding the presence or absence of genetically modified organisms in food products*, Acta Medica Marisiensis, 2014, 60 (4) : 38. (Conferința doctoranzilor, 2014).

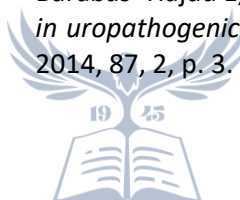
Sándor Sz.*, Barabás-Hajdu E - *Antibiotic resistance evolution among E. coli strains causing urinary tract infections*, Acta Medica Marisiensis, abstracts volume, p.30.

Hajdu-Barabás E, Vida O, Maier A, Sándor Sz*, Mártha O - *Rapid laboratory tests compared with urine culture in the diagnosis of urinary tract infections*, XXX National Congress of Urology, 05.- 07.05. 2014, abstracts supplement 13, p. 120-121.

Sándor Sz*, Ambrus I, Mártha O, Barabás-Hajdu E - *Urine test strips and they usefulness*, Acta Medica Marisiensis, suppl. abstracts, 2014, p. 108.

Tóké EO*, Koncz Sz*, Barabás-Hajdu E - *Phenotype and molecular studies of extended betalactamase producer (ESBL) Escherichia coli strains*, Acta Medica Marisiensis, suppl. abstracts, 2014, p. 123.

Barabás- Hajdu E, Kerényi M, Sátán E, Ladó Cs*, Mártha O, Emődy L – *Molecular studies of pathogenicity in uropathogenic and extended betalactamase producer (ESBL) E.coli strains*, Orvostudományi Értesítő, 2014, 87, 2, p. 3.





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Curticăpean M, Boer M*, Rusu A-M* – *Establishment of protocols for isolation of nucleic acids to identify Stachys and Valeriana species from Botanical Garden of the University of Medicine and Pharmacy from Tîrgu Mureș*, Acta Medica Marisiensis, 2013, 59(3): 8.

Barabás- Hajdu E, Mártha O, Nemes- Nagy E, Pakuts N*, Martonos A* - *Ureaplasma urealyticum- a microorganism with increasing frequency In the etiology of male genital infections*, ROMURO, Book of abstracts, 2012, 11, p.102.

Barabás- Hajdu E, Mártha O, Nemes- Nagy E, Fazakas Z, Sátán E, Fodor II*, Martonos A* - *Trends in the antibiotic resistance of Ureaplasma urealyticum strains isolated from male urogenital infections*, Acta Medica Marisiensis, 2012, Book of abstracts, p.96.

Fazakas Z, Tripon R*, Vida AO, Barabás- Hajdu E, Balogh-Samarghitan V, David E, Nemes-Nagy E - *Arylsulphatase activity related to prostate cancer*, Acta Medica Marisiensis, 2012, Book of abstracts, p.3.

Kirizs R*, Maricic M*, Kirizs T*, Barabás- Hajdu E, Mártha O, Nemes-Nagy E, Szabó M - *Comparison of urinary tract infections in diabetes and non- diabetes presenting patients*, Acta Medica Marisiensis, abstracts volume, 2011, p. 16.

Kirizs R*, Maricic M*, Kirizs T*, Barabás- Hajdu E, Mártha O, Nemes-Nagy E, Szabó M - *Orvostudományi Értesítő*, 2011, 84, p. 28. I price, poster session.

Martonos A*, Shakeri S*, Barabás- Hajdu E, Mártha O, Szávuj J - *Mycoplasma and Ureaplasma infections in patients of an ambulatory Urology ward*, Acta Medica Marisiensis, 57, supplement 1, 2011, p. 16. III.price, preclinical sessions, Marisiensis.

Szász T*, Barabás- Hajdu E - *Evaluation of microorganisms involved in vulvovaginitis and purity grade distribution amongst women attending a gynecological ambulatory care clinique in Targu- Mureș*, Acta Medica Marisiensis, 57, supplement 1, 2011, p. 11.

Szász O*, Para Sz*, Barabás- Hajdu E, Butiurca D - *Human echinococcosis/hydatidosis in the Emergency County Hospital Targu- Mureș in 2009- 2010*, Acta Medica Marisiensis, 57, supplement 1, 2011, p. 14.

Szász T*, Barabás- Hajdu E - *Microorganisms causing bacterial vaginosis*, Acta Medica Marisiensis, abstracts volume, 2011, p. 18. II.price, Students Conference.

Mihály (Bálint) R*, Barabás- Hajdu E - *Synthesis of miconazole argentic and copper compounds and their antimicotic effect*, Acta Medica Marisiensis, abstracts volume, 2011, p. 111. III. Price Students Conference TDK.

Barabás- Hajdu E, Mártha O, Nemes- Nagy E, Kirizs R* - *Multiple resistant Enterobacteriaceae implied in urinary tract infections in an ambulatory urological ward*, International Urology, 2011, supplement 3A, p.78.





Barabás- Hajdu E, Mocan S, Mihály Á*, Barabás D - *Human strongyloidosis- a case report*, Acta Microbiologica et immunologica Hungarica, 2011, 58, p. 7.

Barabás- Hajdu E, Kovács Z, Sátán E, Szász O*, Para Sz *, Butiurca D, Cretu M, Muresan M - *Echinococcosis/Hydatidosis treated in county Mures*, Acta Microbiologica et immunologica Hungarica, 2011, 58, p. 121-122.

Carabulea Karina* - *Izolarea, identificarea și determinarea rezistenței unor bacterii la metale grele*, Acta Medica Marisiensis, 2010, Premiul I la Marisiensis.

