



LISTA DE PUBLICAȚII

Nume: Kovács Zsolt

Titlul tezei de doctorat: Importanța Arilsulfatazei A și B, corelată cu alți markeri moleculari, în evoluția și prognosticul carcinomului colorectal

Conducător de doctorat: Prof. Dr. Jung Ioan

Eliberat de Universitatea de Medicină, Farmacie, Științe și Tehnologie „George Emil Palade” din Târgu Mureș

Calificativ: Excelent – ”SUMMA CUM LAUDE”

Factor de impact cumulat: **84.925**

Factor de impact cumulat ca prim-autor: **16.169**

Indice Hirsch: **9 (WOS), 11 (Scopus), 14 (Google Scholar)**

Total citări, fără autocitări: 271 (WOS)

Cărți de specialitate

1. Kádár Zoltán, Kövecsi Attila, **Kovács Zsolt**, Jung Ioan. Actualități în terapia cancerului bronhopulmonar, în corelație cu principii ale diagnosticului patologic și molecular. University Press Târgu Mureș, 2019, 100 pagini, ISBN 978-973-169-620-1, CNCIS cod 210
2. Tripon Robert Gabriel, **Kovacs Zsolt**, Kovacs Bela. Lucări practice de biochimie pentru inginerie medicală. University Press Târgu Mureș 2019, 110 pagini, ISBN 978-973-169-621-8, CNCIS cod 210
3. Kovács Zsolt, Kovács Béla, Molnár Gyopár Beáta. Noțiuni de biologie moleculară pentru rezidenți în anatomie patologică. University Press Târgu Mureș 2024, 89 pagini, ISBN 978-973-169-859-5

Articole publicate in extenso în reviste ISI după ultima promovare

1. **Kovacs Z**, Braicu C, Gurzu S. Editorial: Advanced molecular targets in the diagnosis and treatment of gastrointestinal cancers, volume II, *Frontiers in Oncology*. 2024, 14 <https://doi.org/10.3389/fonc.2024.1528137>. FI: **3.5 (2023) (1+4.5)x5=22.5 – Q2 – echivalare cu 6 BDI**
2. Opris CE, Suciu H, Jung I, Flamand S, Harpa MM, Opris CI, Popa C, **Kovacs Z**, Gurzu S. Significance of Fibrillin-1, Filamin A, MMP2 and SOX9 in Mitral Valve Pathology.





- International Journal of Molecular Sciences*. 2024, 25(17):9410. <https://doi.org/10.3390/ijms25179410>. FI: 4.9 (2023) $(15 \times (1 + 4.9)) / 9 = 9.83$
3. Kolcsár M, Zeces I, Kövecsi A, Kovacs Z, Gall Z. Iodothyronine Deiodinase 3 Gene Expression in Gastrointestinal Stromal Tumors: A Pilot Study to Contribute to Risk Assessment. *Cureus*. 2023, 16(8): e67426. <https://doi.org/10.7759/cureus.67426>. FI: 1 (2023) $(15 \times (1 + 1)) / 5 = 6$ – Q3 – echivalare cu 3 BDI
4. Kovacs Z, Baniás L, Osvath E, Gurzu S. Synergistic Impact of ARSB, TP53, and Maspin Gene Expressions on Survival Outcomes in Colorectal Cancer: A Comprehensive Clinicopathological Analysis. *Applied Sciences*. 2024, 14(13):5721. <https://doi.org/10.3390/app14135721>. FI: 2.5 (2023) $(1 + 2.5) \times 25 = 87.5$
5. Kovács Z, Sugimura H, György TA, Osvath E, Manirakiza F, Gurzu S. Bioinformatic Identification of TP53 Gene Mutation Hotspots in Colorectal Cancer. *International Journal of Molecular Sciences*. 2024, 25(12):6612. <https://doi.org/10.3390/ijms25126612>. FI: 4.9 (2023) $(1 + 4.9) \times 25 = 147.5$
6. Szodorai R, Baniás L, Kovalszky I, Dezső K, Kovács Z, Gurzu S. Gastric-Type Expression Signature in Hepatocellular Carcinoma. *International Journal of Molecular Sciences*. 2024, 25(12):6588. <https://doi.org/10.3390/ijms25126588>. FI: 4.9 (2023) $(15 \times (1 + 4.9)) / 6 = 14.75$ – Q1 – echivalare cu 7 BDI
7. Voidăzan S, Budianu AM, Francisc RF, Kovacs Z, Uzun CC, Apostol BE, Bodea R. Assessing the Level of Knowledge and Experience Regarding Cervical Cancer Prevention and Screening among Roma Women in Romania. *Medicina*. 2023, 59(10):1885. <https://doi.org/10.3390/medicina59101885>. FI: 2.4 (2023) $(15 \times (1 + 2.4)) / 7 = 7.28$
8. Bereczki-Temistocle D, Jung I, Gurzu S, Kovacs Z, Chiciudean R, Ormenisan A, Baniás L. HPV disrupt the cytoskeleton in oral squamous cell carcinomas from non-oropharyngeal sites via the E-cadherin/Mena/SMA pathway. *Path Res and Prac*. 2023, 249. <https://doi.org/10.1016/j.prp.2023.154723>. FI: 2.9 (2023) $(15 \times (1 + 2.9)) / 7 = 8.35$
9. Manirakiza F, Yamada H, Iwashita Y, Ishino K, Ishikawa R, Kovacs Z, Osvath E, Nzitakera A, Gurzu S, Sugimura H. TP53 mutations in Romanian patients with colorectal cancer. *Genes and Environ*. 2023, 45 (20). <https://doi.org/10.1186/s41021-023-00277-2>. FI: 2.7 (2023) $(15 \times (1 + 2.7)) / 10 = 5.55$
10. Satala CB, Kovacs Z, Bara T Jr., Jung I, Gurzu S. Signet-Ring Cell Squamous Cell Carcinoma: A Biphenotypic Neoplasm of the Gastro-Esophageal Junction with Uncertain Biological Potential: Case Report and Literature Review. *International Journal of Molecular Sciences*. 2023, 24(11):9535. <https://doi.org/10.3390/ijms24119535>. FI: 4.9 (2023) $(15 \times (1 + 4.9)) / 5 = 17.7$
11. Satala, CB, Jung, I, Kovacs Z, Stefan-van Staden RI, Molnar C, Bara T, Patrichi AI, Gurzu S. V-set and immunoglobulin domain containing 1 (VSIG1) as an emerging target for epithelial–mesenchymal transition of gastric cancer. *Sci Rep*, 2022, 12(16241). <https://doi.org/10.1038/s41598-022-19883-1>. FI: 4.6 (2022) $(15 \times (1 + 4.6)) / 8 = 10.5$



12. Voidăzan ST, Dianzani C, Husariu MA, Geréd B, Turdean SG, Uzun CC, **Kovacs Z**, Rozsnyai FF, Neagu N. The Role of p16/Ki-67 Immunostaining, hTERT Amplification and Fibronectin in Predicting Cervical Cancer Progression: A Systematic Review. *Biology*. 2022, 11(7):956. <https://doi.org/10.3390/biology11070956>. FI: 4.2 (2022) $(15 \times (1 + 4.2)) / 9 = 8.66$
13. Voidăzan TS, Budianu MA, Rozsnyai FF, **Kovacs Z**, Uzun CC, Neagu N. Assessing the Level of Knowledge, Beliefs and Acceptance of HPV Vaccine: A Cross-Sectional Study in Romania. *International Journal of Environmental Research and Public Health*. 2022, 19(11):6939. <https://doi.org/10.3390/ijerph19116939>. FI: 4.614 (2021) $(15 \times (1 + 4.614)) / 6 = 14.035$
14. Froelich M F, Capoluongo E, **Kovacs Z**, P S J, Lianidou E S, Haselmann V. The value proposition of integrative diagnostics for (early) detection of cancer. On behalf of the EFLM interdisciplinary Task and Finish Group “CNAPS/CTC for early detection of cancer”. *Clinical Chemistry and Laboratory Medicine (CCLM)*. 2022, 60(6): 821-829. <https://doi.org/10.1515/cclm-2022-0129>. FI: 6.8 (2022) $(15 \times (1 + 6.8)) / 6 = 19.5$
15. Marincas L, Turdean GL, Toşa M, **Kovács Z**, Kovács B, Barabás R, Farkas N-I, Bizo L. Hydroxyapatite and Silicon-Modified Hydroxyapatite as Drug Carriers for 4-Aminopyridine. *Crystals*. 2021, 11(9):1124. <https://doi.org/10.3390/cryst11091124>. FI: 2.670 (2021) $(15 \times (1 + 2.670)) / 8 = 6.88$
16. Simu P, Jung I, Baniás L, **Kovacs Z**, Fulop ZZ, Bara T, Simu I, Gurzu S. Synchronous Colorectal Cancer: Improving Accuracy of Detection and Analyzing Molecular Heterogeneity—The Main Keys for Optimal Approach. *Diagnostics*. 2021, 11(2):314. <https://doi.org/10.3390/diagnostics11020314>. FI: 3.992 (2021) $(15 \times (1 + 3.992)) / 8 = 9.36$
17. Satala C B, Jung I, Stefan-van Staden R I, **Kovacs Z**, Molnar C, Bara T, Fulop Z Z, Gurzu S. HER2 Heterogeneity in Gastric Cancer: A Comparative Study, Using Two Commercial Antibodies. *Journal of Oncology*. 2020. <https://doi.org/10.1155/2020/8860174>. FI: 4.375 (2020) $(15 \times (1 + 4.375)) / 8 = 10.07$
18. Satala, C.B., Jung, I., Kobori, L. **Kovacs Z**, Fodor D, Szodorai R, Gurzu S. Benefits of the 8th American Joint Committee on Cancer System for Hepatocellular Carcinoma Staging. *J Gastrointest Canc*. 2021, 52, 243–248. <https://doi.org/10.1007/s12029-020-00394-z>. FI: fără FI (2021)

Articole publicate in extenso în reviste ISI înainte de ultima promovare

1. **Kovacs Z**, Jung I, Szalman K, Baniás L, Bara TJ, Gurzu S. Interaction of arylsulfatases A and B with maspin: A possible explanation for dysregulation of tumor cell metabolism and invasive potential of colorectal cancer. *World J Clin Cases*. 2020, 7(23): 3990-4003, <https://doi.org/10.12998/wjcc.v7.i23.3990>. FI: 1.013 (2019) $(1 + 1.013) \times 25 = 50.325$



2. Butiurca V-O, Molnar C, Constantin C, Botoncea M, Bud TI, **Kovacs Z**, Satala C, Gurzu S. Long Term Results of Modified Intersphincteric Resections for Low Rectal Cancer: A Single Center Experience. *Medicina*. 2019, 55(12):764. <https://doi.org/10.3390/medicina55120764>. FI: **1.205 (2019)** $(15 \times (1 + 1.205)) / 8 = 4.134$
3. **Kovacs Z**, Gurzu S, Molnar C, Sincu M, Baniias L, Satala C, Jung I. Gastrointestinal carcinoma with plasmocytoid morphology: positivity for c-MET, arylsulfatase, and markers of epithelial-mesenchymal transition, as indicators of aggressivity. *J Oncol*. 2019, 2019:5836821. <https://doi.org/10.1155/2019/5836821>. FI: **2.206 (2019)**. *Lucrare invitată pentru numărul special "Cancer Cell Plasticity"*. $(1 + 2.206) \times 25 = 80.15$
4. **Kovacs Z**, Jung I, Gurzu S. Arylsulfatases A and B: From normal tissue to malignant tumors. *Pathol Res Pract*. 2019, 215(9):152516. <https://doi.org/10.1016/j.prp.2019.152516>. FI: **2.050 (2019)**. $(1 + 2.050) \times 25 = 76.25$
5. **Kovacs Z**, Jung I, Csernak E, Szentirmay Z, Baniias L, Rigmányi G, Gurzu S. DNA extraction from paraffin embedded colorectal samples: A comparison study of manual versus automated methods, using four commercial kits. *World J Clin Oncol*. 2019, 10(9): 307-31, <https://doi.org/10.5306/wjco.v10.i9.307>, *Indexată în web of science, fără factor de impact. Lucrare invitată*
6. Gurzu S, Baniias L, **Kovacs Z**, Jung I. Epithelial-mesenchymal transition of tumor budding in colorectal cancer: the mystery of CD44-positive stromal cells. *Hum Pathol*. 2018, 71:168-169. <https://doi.org/10.1016/j.humpath.2017.07.019>. FI: **2.735 (2019)** $(1 + 2.735) / 4 = 0.843$
7. Kövecsi A, Gurzu S, Szentirmay Z, Kovacs Z, Bara TJ, Jung I. Paradoxical expression pattern of the epithelial mesenchymal transition-related biomarkers CD44, SLUG, N-cadherin and VSIG1/Glycoprotein A34 in gastrointestinal stromal tumors. *World J Gastrointest Oncol*. 2017, 9(11): 436-443. <https://doi.org/10.4251/wjgo.v9.i11.436>. FI: **2.898 (2019)** $(15 \times (1 + 2.898)) / 6 = 9.745$
8. Baniias L, Gurzu S, **Kovacs Z**, Bara T, Bara T Jr, Jung I. Nuclear Maspin expression: A biomarker for budding assesment in colorectal cancer specimens. *Pathol Res Pract*. 2017, 213(9): 1227-1230. <https://doi.org/10.1016/j.prp.2017.07.025>. FI: **2.050 (2019)**. $(15 \times (1 + 2.050)) / 6 = 7.625$
9. Gurzu S, Silveanu C, Fetyko A, Butiurca V, **Kovacs Z**, Jung I. Systematic review of the old and new concepts in the epithelial-mesenchymal transition of colorectal cancer. *World J Gastroenterol*. 2016. 22(30):6764-75. <https://doi.org/10.3748/wjg.v22.i30.6764>. FI: **3.365 (2016)**. $(15 \times (1 + 3.365)) / 6 = 10.91$
10. Kovecsi A, Jung I, Bara T, Bara T Jr., Azamfirei L, **Kovacs Z**, Gurzu S. First case report of a sporadic adrenocortical carcinoma with gastric metastasis and a synchronous gastrointestinal stromal tumor of the stomach. *Medicine (Baltimore)*. 2015, <https://doi.org/10.1097/MD.0000000000001549>. FI: **1.552 (2019)**. $(15 \times (1 + 1.552)) / 7 = 5.46$



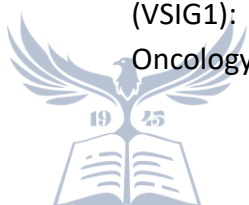


Articole publicate in extenso in reviste indexate BDI/B+

1. Gyorgy TA, Gurzu S, **Kovacs Z**. Exploring arylsulfatase B role in colorectal and prostate cancer pathogenesis through AI-driven protein interaction prediction. In Silico Research in Biomedicine. 2025, <https://doi.org/10.1016/j.insr.2025.100011>
2. Voidazan ST, Rozsnyai FF, Uzun CC, Kovacs Z, Turdean SG, Budianu MA. Detection of serum telomerase and fibronectin as precursors markers of cervix cancer in patients with positive Pap test. Acta Marisiensis – Seria Medica. 2023, 69(2):121-127, <https://doi.org/10.2478/amma-2023-0021>
3. Gyorgy T, Kovacs Z. The role of bioinformatic analysis in the early diagnosis of hereditary fructose intolerance. Orvtudert. 2021, 94 (1): 45-50. <https://doi.org/10.2478/orvtudert-0006>.
4. Fazakas Z, Tilinca M, Nemes-Nagy E, Tripon R, **Kovacs Z**, Sus I, Kocsis K K, Balogh Samarghitan V. Arylsulfatase A – A possible important determinant in the pathophysiology of metabolic and neuropsychiatric diseases, Annals of the romanian society for cell biology, 2013, 13 (1): 80-84. ISSN 2067-8282
5. **Kovacs Z**, Tripon R, Nemes-Nagy E, Balogh Samarghitan V, Tilinca M, Martha O, Fazakas Z. Arylsulfatase A – an important metabolic factor in pathophysiology of different diseases, Acta Medica Marisiensis, 2015: 61 (3): 233-235, ISSN 2068-3324

Abstracte publicate în reviste ISI

1. Baniias L, Chiciudean R, Jung I, Petrovan C, **Kovacs Z**, Gurzu S. Prognostic impact of HPV status evaluation in head and neck squamous cell carcinoma. Annals of Oncology. 2022, 33(S8):59P, **FI: 50.5**
2. Gurzu S, **Kovacs Z**, Patrichi A, Jung I. V-set and immunoglobulin domain containing 1 (VSIG1): gene vs protein expression in colorectal cancer tissue samples. Annals of Oncology. 2022, 33(S9):57P, **FI: 50.5**





3. Jung I, Banias L, Bara T, **Kovacs Z**, Fulop Z, Simu P, Simu I, Gurzu S. Epithelial-mesenchymal transition of tumour buds: a histopathological parameter with potential implication in oncological therapy of colorectal carcinoma. *Annals of Oncology*. 2019, 30(S7):88P, **FI: 18.274**
4. **Kovacs Z**, Banias L, Jung I, Gurzu S. Arylsulfatase B as prognostic marker in colorectal cancer. *Virchows Arch*, 2019, 475 (1), ISSN: 1432-2307, FI: 2.848
5. **Kovacs Z**, Banias L, Jung I, Gurzu S. The microsatellite instability and budding intensity in colorectal cancer. *Virchows Arch*, 2018, 473 (1): S239, ISSN: 1432-2307, **FI: 2.848**
6. **Kovacs Z**, Bara T, Bara T Jr, Jung I, Gurzu S. Loss of E-cadherin and B-catenin nuclear translocation in the invasion front is the central phenomenon of epithelial mesenchymal transition in colorectal cancer. *Virchows Arch*, 2017, 471 (1): S177, ISSN: 1432-2307, **FI: 2.848**
7. **Kovacs Z**, Kocsis K K, Bedo B, Fazakas Z, Ivacson Z. Following the level of calcium and phosphate at patients under treatment of haemodialysis, 15th Hellenic Symposium on Medicinal Chemistry, Final Program and Abstract Book, 2012, pg 147, Part of the MedChemComm **FI: 2,495**
8. Fazakas Z, Nemes-Nagy E, Balogh Samarghitan V, David E, Simon-Szabo Z, Uzun C, Szekely M, Tripon R, **Kovacs Z**. Developing the methodology for measuring the arylsulfatase enzyme activity – *Revista Romana de medicina de laborator*, 2015, pg. S22, ISSN 1841-6624, impact factor 0,239 (2015)

Abstracte publicate în reviste indexate BDI/B+

1. Gurzu S, Jung I, **Kovacs Z**, Fulop A, Simu P, Bara T, Toganel A, Molnar C. Colorectal cancer: an update upon the diagnostics and therapeutic transdisciplinary approach. *Arta Medica*, 2023, 3(88).
2. **Kovacs Z**, Fazakas Z, Ivacson Z. Chronic renal failure associated disease: Anaemia, *AMM*, 2012, 58 (1): 3, ISSN 2068-3324
3. Fazakas Z, **Kovacs Z**, Tripon R, Ivacson Z, Kocsis K K, Tilinca M. Calcium and phosphate changes in haemodialysed patients, *Buletin of Romanian Society for Cell Biology*, 2013, 41: 134, ISSN 1584-5532
4. **Kovacs Z**, Fazakas Z, Tripon R, Ivacson Z, Kocsis K K, Tilinca M. Examination of partial deficit of ASA in chronic renal disease, disease progression, possible perspectives, *Buletin of Romanian Society for Cell Biology*, 2014, 42: 117, ISSN 1584-5532





5. Fazakas Z, **Kovacs Z**, Uzun C, David E, Tilinca M, Szekely M, Tripon R. ARSA deficiency in different diseases: chronic kidney disease and diabetes mellitus type 2, AMM, Scientific Session of University Educational Stuff, 2014, 60 (4): 53, ISSN 2068-3324
6. **Kovacs Z**, Kovacs N, Bartha C K, Fazakas Z, Ivacson Z. The methodology of biochemical determination of ARSA, AMM, 2015, 61 (2) 103, ISSN 2068-3324
7. Fanfaret I S, **Kovacs Z**, Anciu M, Buta F N, Chirales C-I, Fazakas Z. Is HbA1c a strong prognostic factor in the evaluation of patients diagnosed with type 2 diabetes?, AMM, 2015, 61 (2): 107, ISSN 2068-3324
8. Bara T, Bartha C K, **Kovacs Z**, Bara T. The role of Sentinel lymph node in gastric cancer lymphadenectomy, AMM, 2015, 61 (2): 55, ISSN 2068-3324
9. **Kovacs Z**, Tilinca M, Nemes-Nagy E, Tripon R, Fazakas Z. Determination of Arylsulfatase B in endocrinological pathology, Buletin of Romanian Society for Cell Biology, 2015, 43: 125, ISSN 1584-5532

Lucrări în abstracte coordonate

1. Gyorgy TA, Kovacs Z. Using AI-driven protein interaction prediction to investigate the connection between arylsulfatase B and the canonical Wnt/B-catenin pathway. 20th Warsaw International Medical Congress 2025 -Locul 2.
2. Gyorgy TA, Kovacs Z. Investigarea rolului arilsulfatazei B în patogeneza cancerului de prostate prin predicția interacțiunilor proteină-proteină folosind inteligența artificială. Orvtudert, 2024, 97(2), p 123. Locul 1, Premiu Special
3. Gyorgy TA, Kovacs Z. Investigation of protein-protein interactions in the pathogenesis of colorectal and prostate cancer using artificial intelligence. 31st International Student Congress of (bio)Medical Sciences, Groningen, Olanda, 2024.
4. Gyorgy TA, Kovacs Z. The role of artificial intelligence in predicting protein-protein interactions for investigating arylsulfatase B in the development of colorectal cancer. Marisiensis 2024.
5. Gyorgy TA, Kovacs Z. Validation of a bioinformatic procedure with the analysis of TP53 gene mutations. Interational Student Congress Graz, Austria, 2023
6. Gyorgy TA, Kovacs Z. Scăderea expresiei genei ARSB și creșterea VSIG1 ca indicatori de agresivitate a cancerului colorectal. Orvtudert, 2023, 96(2), p10-11
7. Gyorgy TA, Kovacs Z. A TP53 colorectalis carcinoma mutacios hotspotjainak bioinformatikai beazonositasa. Orvoskepzes 2023, 2:345-700.
8. Gyorgy TA, Kovacs Z. Idenntificarea bioinformatică a hotspoturilor de mutație a TP53 în carcinomul colorectal. Orvtudert 2022, 95(2), p23. Premiul 1
9. Gyorgy TA, Kovacs Z. The way bioinformatic analysis would change the diagnosis of Maroteaux-Lamy syndrome. BMC Proceedings 2022, 16(Suppl 6) P47.





10. Gyorgy TA, Kovacs Z. Rolul analizei bioinformatică în depistare precoce a intoleranței ereditare la fructoză. Orvtudert 2021, 94(1), p 17.

Lucrări de licență/disertație coordonate

1. Rolul prognostic al biomarkerilor tumorală în cancerul gastrointestinal. Elaborat de Hanga M. Mihaela Petronela. Coodronare în cotutelă cu Prof. dr. Gurzu Simona. 2022
2. Optimizarea tehnicii de izolare a ADN-lui din țesut prin corelarea sistemului manual cu automat. Elaborat de Vajda I. Genoveva (Rigmanyi). Coordonare în cotutelă cu Prof. dr. Gurzu Simona. 2022
3. Optimizarea izolării de acizi nucleici prin metoda "salting out" din sânge periferic. Elaborat de David Sz. Adrienn-Dorisz. 2022
4. Secvențierea genei TP53 în cancer de colon folosind tehnologia nanopore. Elaborat de David Sz. Adrienn-Dorisz. Coordonare în cotutelă cu Șef lucr. Dr. Jakab Endre. 2024
5. Rolul ARSB în cancerul colorectal: o perspectivă moleculară. Elaborat de Nagy D. Bertold-Daniel. 2024
6. Cancerul colorectal: particularitățile imunohistochimice ale tranziției epitelialo-mezenchimale. Elaborat de Pop M. Mihai Ioan. Coordonare în cotutelă cu Prof. dr. Gurzu Simona. 2024.

