

Monika Janíková, MSc.

Personal information

Date of birth: 17.09.1993
Place of birth: Ilava
Nationality: Slovak
Foreign languages: English

Contact information

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Professional Curriculum Vitae:

Education

- 2020 - Faculty of Medicine, Comenius University, Bratislava, Slovakia
PhD: Normal and Pathological physiology, Institute of Molecular Biomedicine
Thesis: New aspects of pathogenesis of sepsis and its complications
Supervisor: Assoc. Prof. Peter Celec MD, Dipl Ing., Dr. Rer. Nat., DSc., MPH
- 2016 - 2018 Faculty of Natural Sciences, Comenius University, Bratislava, Slovakia
MSc: Department of Microbiology and Virology, Division: Virology
Thesis: New knowledge about ecology and epidemiology of mouse virus MHV-68
Supervisor: Prof. RNDr. Jela Mistríková, DrSc.
- 2013 - 2016 Faculty of Natural Sciences, Comenius University, Bratislava, Slovakia
Bc: Biology
Thesis: Bats as a potential source of virus infections dangerous for humans
Supervisor: Prof. RNDr. Jela Mistríková, DrSc.

Additional information on education

- 2019 - 2020 British Council Slovakia, Bratislava
English language courses
IELTS Academic certificate, Score: 6.5
- 2017, 2018 Student's Scientific Conference
Faculty of Natural Sciences, Comenius University, Bratislava, Slovakia
Active participation – presentation of research results
- April - July 2015 Biomedical Research Centre, Slovak Academy of Sciences, Slovakia
Institute of Virology
Department of Cancer Biology
Internship, Supervisor: RNDr. Adriana Gibadulinová, CSc.

Research stays

- Nov 2020 – Aug 2022 Wegiel Lab – research group of associate professor Barbara Wegiel, PhD, DSc.
Department of Surgery
Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, USA
(supported by the National Scholarship Program of the Slovak Republic)

Grants

- 2022 Comenius University grant: Saliva and SARS-CoV-2 diagnostics
2021 Comenius University grant: Dynamics of ecdDNA in animal model of anemia

Awards

- 2022 winner of the Falling Walls Lab Slovakia 2022

Conferences

4/2023 – XVIII. Scientific Conference of Doctoral Students of the Faculty of Medicine, Comenius University
6/2023 – Covid-19 Looking back
9/2023 – 12th annual Drobnica memorial
11/2022 – Falling Walls Science Summit

Publications (summary to 16th January 2024)

WoS records: 9
SCI citations: 45
Hirsch index: 3

Janíková M, Hodosy J, Boor P, Klempa B, Celec P. Loop-mediated isothermal amplification for the detection of SARS-CoV-2 in saliva. *Microb Biotechnol*. 2021 Jan;14(1):307-316. doi: 10.1111/1751-7915.13737. Epub 2021 Jan 26. PMID: 33497538; PMCID: PMC7888461.

Seika P, **Janikova M**, Asokan S, Janovicova L, Csizmadia E, O'Connell M, Robson SC, Glickman J, Wegiel B. Free heme exacerbates colonic injury induced by anti-cancer therapy. *Front Immunol*. 2023 Jun 5;14:1184105. doi: 10.3389/fimmu.2023.1184105. PMID: 37342339; PMCID: PMC10277564.

Hecht JL, **Janikova M**, Choudhury R, Liu F, Canesin G, Janovicova L, Csizmadia E, Jorgensen EM, Esselen KM, Celec P, Swanson KD, Wegiel B. Labile Heme and Heme Oxygenase-1 Maintain Tumor-Permissive Niche for Endometriosis-Associated Ovarian Cancer. *Cancers (Basel)*. 2022 Apr 29;14(9):2242. doi: 10.3390/cancers14092242. PMID: 35565370; PMCID: PMC9105072.

Canesin G, Feldbrügge L, Wei G, Janovicova L, **Janikova M**, Csizmadia E, Ariffin J, Hedblom A, Herbert ZT, Robson SC, Celec P, Swanson KD, Nasser I, Popov YV, Wegiel B. Heme oxygenase-1 mitigates liver injury and fibrosis via modulation of LNX1/Notch1 pathway in myeloid cells. *iScience*. 2022 Aug 20;25(9):104983. doi: 10.1016/j.isci.2022.104983. PMID: 36093061; PMCID: PMC9450142.

Briestenská K., **Janíková M.**, Kabát P., Csepányiová D., Zukal J., Pikula J., Kováčová V., Linhart P., Band'ouchová H., Mistříková J. (2018). Bats as another potential source of murine gammaherpesvirus 68 (MHV-68) in nature. *Acta virologica* 62: 337 – 339, doi:10.4149/av_2018_229.

Research interests

Extracellular DNA, pathogenesis of sepsis, anemia, neutrophil extracellular traps, pathogenesis of human viruses, herpesviruses, hypoxia in tumors.

Technical skills

DNA/RNA isolation, PCR methods (qPCR, RT-qPCR, endpoint PCR, nested PCR), LAMP, ELFO, capillary electrophoresis, flow cytometry, Western blot, ELISA, DNase activity, EMSA – G-quadruplexes, bacterial cultures, cell culture methods, virus multiplication, plaque assay technique, virus neutralization test, animal models - work with animals, blood sampling (retro-orbital sinus, cardiac puncture), administration of substances - intranasal, intraperitoneal, intravenous, subcutaneous, intragastric, bone marrow transplantation, CLP surgery, FSI sepsis, dissection