

# Curriculum Vitae

## Mohsen Keshavarz. Ph.D

The Persian Gulf Biomedical Sciences Research Institute, Bushehr  
University of Medical Sciences.

[Mohsenkeshavarz1990@gmail.com](mailto:Mohsenkeshavarz1990@gmail.com), [Keshavarz.m@bpums.ac.ir](mailto:Keshavarz.m@bpums.ac.ir)

## Education

**Ph.D.** in *Virology*, Iran University of Medical Sciences, Tehran, Iran (2015 to 2019). **M.Sc.** in *Virology*, Tehran University of Medical Sciences, Tehran, Iran (2012-2015). **B.Sc.** in *medical Lab. Sciences*, Bushehr University of medical science, Bushehr, Iran.

## Research Interests

Oncolytic viruses

Tumor therapy

Respiratory infection

Influenza

Antiviral Research

## Dissertation

**Ph.D. Thesis Title:** Evaluation of antitumor activity of Bone Marrow Mesenchymal Stem Cells-Based Carrier for oncolytic Newcastle disease virus in human papillomavirus associated tumor mice model.

**M.Sc. Thesis Title:** The pattern of expression of cytokine and chemokine involved in influenza virus infection in BALB /c mice following immunization with influenza virus-like particles (VLPs).

## Publications

1. **Keshavarz M**, Ebrahimzadeh MS, Miri SM, Dianat-Moghadam H, Ghorbanhosseini SS, Mohebbi SR, et al. **Oncolytic Newcastle disease virus delivered by Mesenchymal stem cells-engineered system enhances the therapeutic effects altering tumor microenvironment.** *Virology journal.* 2020;17:1-13. [doi.org/10.1186/s12985-020-01326-w](https://doi.org/10.1186/s12985-020-01326-w)
2. **Keshavarz M**, Nejad ASM, Esghaei M, Bokharaei-Salim F, Dianat-Moghadam H, Keyvani H, et al. **Oncolytic Newcastle disease virus reduces growth of cervical cancer cell by inducing apoptosis.** *Saudi journal of biological sciences.* 2020;27(1):47-52. [doi.org/10.1016/j.sjbs.2019.04.015](https://doi.org/10.1016/j.sjbs.2019.04.015)
3. **Keshavarz M**, Sabbaghi A, Miri SM, Rezaeyan A, Arjeini Y, Ghaemi A. **Virotheranostics, a double-barreled viral gun pointed toward cancer; ready to shoot?** *Cancer cell international.* 2020;20(1):1-17. [doi.org/10.1186/s12935-020-01219-6](https://doi.org/10.1186/s12935-020-01219-6)
4. **Keshavarz M**, Solaymani-Mohammadi F, Miri SM, Ghaemi A. **Oncolytic paramyxoviruses-induced autophagy; a prudent weapon for cancer therapy.** *Journal of biomedical science.* 2019;26(1):1-11. [doi.org/10.1186/s12929-019-0542-9](https://doi.org/10.1186/s12929-019-0542-9)
5. Nejad ASM, Fotouhi F, Mehrbod P, **Keshavarz M**, Alikhani MY, Ghaemi A. **Oncolytic effects of Hitchner B1 strain of newcastle disease virus against cervical cancer cell proliferation is mediated by the increased expression of cytochrome C, autophagy and apoptotic pathways.** *Microbial Pathogenesis.* 2020;147:104438. [doi.org/10.1016/j.micpath.2020.104438](https://doi.org/10.1016/j.micpath.2020.104438)
6. Dianat-Moghadam H, Khalili M, **Keshavarz M**, Azizi M, Hamishehkar H, Rahbarghazi R, et al. **Modulation of LXR signaling altered the dynamic activity of human colon adenocarcinoma cancer stem cells in vitro.** *Cancer Cell International.* 2021;21(1):1-13. [doi.org/10.1186/s12935-021-01803-4](https://doi.org/10.1186/s12935-021-01803-4)
7. Dianat-Moghadam H, Heidarifard M, Mahari A, Shahgolzari M, **Keshavarz M**, Nouri M, et al. **TRAIL in oncology: From recombinant TRAIL to nano-and self-targeted TRAIL-based therapies.** *Pharmacological research.* 2020;155:104716. [doi.org/10.1016/j.phrs.2020.104716](https://doi.org/10.1016/j.phrs.2020.104716)
8. **Keshavarz M**, Solaymani-Mohammadi F, Namdari H, Arjeini Y, Mousavi MJ, Rezaei F. **Metabolic host response and therapeutic approaches to influenza infection.** *Cellular & molecular biology letters.* 2020;25(1):1-19. [doi.org/10.1186/s11658-020-00211-2](https://doi.org/10.1186/s11658-020-00211-2)
9. **Keshavarz M**, Sabbaghi A, Koushki K, Miri SM, Sarshari B, Vahdat K, et al. **Epigenetic reprogramming mechanisms of immunity during influenza A virus infection.** *Microbes and Infection.* 2021:104831. [doi.org/10.1016/j.micinf.2021.104831](https://doi.org/10.1016/j.micinf.2021.104831)
10. **Keshavarz M**, Mirzaei H, Salemi M, Momeni F, Mousavi MJ, Sadeghalvad M, et al. **Influenza vaccine: Where are we and where do we go?** *Reviews in medical virology.* 2019;29(1):e2014. [doi.org/10.1002/rmv.2014](https://doi.org/10.1002/rmv.2014)
11. **Keshavarz M**, Namdari H, Arjeini Y, Mirzaei H, Salimi V, Sadeghi A, et al. **Induction of protective immune response to intranasal administration of influenza virus-like particles in a mouse model.** *Journal of cellular physiology.* 2019;234(9):16643-52. [doi.org/10.1002/jcp.28339](https://doi.org/10.1002/jcp.28339)

12. **Keshavarz M**, Namdari H, Farahmand M, Mehrbod P, Mokhtari-Azad T, Rezaei F. *Association of polymorphisms in inflammatory cytokines encoding genes with severe cases of influenza A/H1N1 and B in an Iranian population*. *Virology journal*. 2019;16(1):1-10. [doi.org/10.1186/s12985-019-1187-8](https://doi.org/10.1186/s12985-019-1187-8)
13. Sabbaghi A, Miri SM, **Keshavarz M**, Zargar M, Ghaemi A. *Inactivation methods for whole influenza vaccine production*. *Reviews in medical virology*. 2019;29(6):e2074. [doi.org/10.1002/rmv.2074](https://doi.org/10.1002/rmv.2074)
14. Sabbaghi A, Miri SM, **Keshavarz M**, Mahooti M, Zebardast A, Ghaemi A. *Role of  $\gamma\delta$  T cells in controlling viral infections with a focus on influenza virus: implications for designing novel therapeutic approaches*. *Virology Journal*. 2020;17(1):1-18. [doi.org/10.1186/s12985-020-01449-0](https://doi.org/10.1186/s12985-020-01449-0)
15. **Keshavarz M**, Tavakoli A, Zanganeh S, Mousavi MJ, Vahdat K, Mahmudpour M, et al. *Clinical characteristics of outpatients and inpatients with COVID-19 in Bushehr: a report from the south of Iran*. *Future Virology*. 2021;16(2):99-106. [doi.org/10.2217/fvl-2020-0231](https://doi.org/10.2217/fvl-2020-0231)
16. Omrani M, **Keshavarz M**, Nejad Ebrahimi S, Mehrabi M, McGaw LJ, Ali Abdalla M, et al. *Potential natural products against respiratory viruses: a perspective to develop anti-COVID-19 medicines*. *Frontiers in Pharmacology*. 2020;11:2115. doi: [10.3389/fphar.2020.586993](https://doi.org/10.3389/fphar.2020.586993)
17. Mahmudpour M, Roozbeh J, **Keshavarz M**, Farrokhi S, Nabipour I. *COVID-19 cytokine storm: The anger of inflammation*. *Cytokine*. 2020;133:155151. [doi.org/10.1016/j.cyto.2020.155151](https://doi.org/10.1016/j.cyto.2020.155151)
18. Assadi M, Gholamrezanezhad A, Jokar N, **Keshavarz M**, Picchio M, Seregni E, et al. *Key elements of preparedness for pandemic coronavirus disease 2019 (COVID-19) in nuclear medicine units*. Springer; 2020. [doi.org/10.1007/s00259-020-04780-4](https://doi.org/10.1007/s00259-020-04780-4)
19. Nadmdari H, **Keshavarz M**, Mokhtari-Azad T, Rezaei F. *Evaluation of antibody and cytokines responses in intranasally and intramuscularly administrated BALB/C mice with influenza virus-like particle*. *Acta Medica Iranica*. 2017, Vol 55, No 10, 604-11.
20. **Keshavarz M**, Dianat-Moghadam H, Sofiani VH, Karimzadeh M, Zargar M, Moghoofei M, et al. *miRNA-based strategy for modulation of influenza A virus infection*. *Epigenomics*. 2018;10(6):829-44. DOI: [10.2217/epi-2017-0170](https://doi.org/10.2217/epi-2017-0170)
21. Tavakoli A, Karbalaie Niya MH, **Keshavarz M**, Ghaffari H, Asoodeh A, Monavari SH, et al. *Current diagnostic methods for HIV*. *Future Virology*. 2017;12(3):141-55. [doi.org/10.2217/fvl-2016-0096](https://doi.org/10.2217/fvl-2016-0096)
22. Monavari SHR, Hadifar S, Mostafaei S, Miri A, **Keshavarz M**, Babaei F, et al. *Epidemiology of rotavirus in the Iranian children: A systematic review and meta-analysis*. *Journal of global infectious diseases*. 2017;9(2):66. doi: [10.4103/0974-777X.205173](https://doi.org/10.4103/0974-777X.205173)
23. Esghaei M, Moghoofei M, **Keshavarz M**, Keyvani H, Bokharaei-Salim F, Farahmand M, et al. *Trends in surveillance data of influenza virus in Tehran before decreasing dispatch of Iranian Hajj pilgrims to Mecca*. *Medical journal of the Islamic Republic of Iran*. 2018;32:41. doi: [10.14196/mjiri.32.41](https://doi.org/10.14196/mjiri.32.41)
24. **Keshavarz M**, Tavakoli A, MOZAFFARI NEJAD AS, Mokhtari-Azad T, Rezaei F. *A Review of Influenza Vaccination among Different Population Groups in Iran*. *Journal of Clinical & Diagnostic Research*. 2018;12(6), p9-13.
25. NIYA MHK, **Keshavarz M**, TAMESHKEL FS, Taherizadeh M, Esghaei M, Panahi M, et al. *Investigation of JC polyomavirus (JCV) genome in colorectal cancer patients from Iran*. *Iranian Journal of Public Health*. 2020, Vol. 49, No.3, pp.557-562. DOI: <https://doi.org/10.18502/ijph.v49i3.3153>

26. Moghoofei M, **Keshavarz M**, Ghorbani S, Babaei F, Nahand JS, Tavakoli A, et al. **Association between human papillomavirus infection and prostate cancer: A global systematic review and meta-analysis.** Asia-Pacific Journal of Clinical Oncology. 2019;15(5):e59-e67. [doi.org/10.1111/ajco.13124](https://doi.org/10.1111/ajco.13124)

## Books

1- Clinical Virology. Feb, 2017. Baresh Danesh. (110 pages)

## Technical Skills

- Flow cytometry
- Basic molecular biology (DNA/RNA extraction, RFLP, PCR, RT-PCR, Real-Time PCR and DNA Sequencing, Western blot).
- Mammalian cell culture (Subculture & Infection).
- Basic virology techniques (Virus cultivation, Virus titration by TCID 50 and Plaque Assay).
- Molecular epidemiology and phylogenetic tree analysis.
- Medical Lab. diagnosis tests (Biochemistry, Hematology, Serology, and Microbiology).
- Molecular Docking.
- Working with laboratory animals