

CURRICULUM VITAE



Last updated on
April 2024

Name: Arash Arashkia
Date of Birth: 1973
Marital Status: Married
Nationality: Iranian
Native Languages: Persian, Azari
Second Language: Good level of English
Address: Department of Molecular Virology, Pasteur
Institute of Iran, No.69, Pasteur Ave.,
Tehran 13169, IRAN
E-mail: arash.arashkia@gmail.com and a_arashkia@pasteur.ac.ir
Telefax: +98-21-64112251
Google Scholar Profile: <https://scholar.google.com/citations?user=VMrajREAAAAJ&hl=en>

Educational Qualifications:

2003-2009, **PhD in Medical Biotechnology**, Pasteur Institute of Iran, Tehran, Iran.

Thesis Title: Evaluation of Immunostimulatory Potential of HCV Subdominant Epitopes in Polyepitope Constructs. 2005-2009.
Supervised by: Dr. Farzin Roohvand and Dr. Behazine Combadière.

2000-2003, **MSc in Medical Biotechnology**, Tarbiat Modares University, Tehran, Iran.

Thesis Title: Cloning and studying the possibility of HBeAg expression with an extra His-tag label in *E. coli*. 2002-2003.
Supervised by: Dr. Farzin Roohvand and Dr. Mehdi Forozandeh.

1997-1999, **BSc in Medical Laboratory Sciences**, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

1992-1994, **ASc in Medical Laboratory Sciences**, Guilan University of Medical Sciences, Rasht, Iran.

Professional Experience:

- 2015-Present, Head of Department of Molecular Virology, Pasteur Institute of Iran, Tehran, Iran.
- 2011-Present, Faculty Member, Department of Molecular Virology, Pasteur Institute of Iran, Tehran, Iran.
- 2020-2021, Participating in establishing the Iran's COVID-19 Laboratory Network.
- 2012-2020, Head of Laboratory of Virology, Shemiran Branch, Pasteur Institute of Iran, Tehran, Iran.
- 2010-2011, Postdoctoral Fellow, Department of Molecular Virology, Pasteur Institute of Iran, Tehran, Iran.

Memberships:

- 2020-2023, Technology Committee, Pasteur Institute of Iran, Tehran, Iran.
- 2018-2023, Postgraduate Education Council, Pasteur Institute of Iran, Tehran, Iran.
- 2014-2024, Intellectual Property Valuation Committee, Pasteur Institute of Iran, Tehran, Iran.
- 2017-Present, Research Center for Emerging and Reemerging Infectious Diseases, Pasteur Institute of Iran, Tehran, Iran.
- 2011-Present, Public Health Rapid Response Team, Pasteur Institute of Iran, Tehran, Iran.
- 2013-2020, Biosafety Committee, Pasteur Institute of Iran, Tehran, Iran.

Achievements and Awards:

- Elected as honored faculty member, Pasteur Institute of Iran, 2020 and 2023.
- Second rank in PhD entrance exam, Pasteur Institute of Iran, 2003.
- Full scholarship for PhD studies, Pasteur Institute of Iran, 2003-2008.
- Third rank in MSc entrance exam, Tarbiat Modares University, 2000.
- First rank as BSc graduate, Shahid Beheshti University of Medical Sciences, 1997-1999.

Technical Skills:

- Research Knowledge: Biomedical literature mining and Immunoinformatics for vaccine design against viral diseases.
- Laboratory Techniques: Gene amplification, detection, and manipulation (DNA/RNA extraction methods, PCR, real-time PCR, DNA cloning, blotting techniques); immunological, biochemical and microbiological techniques (vaccine studies, handling small laboratory animals, ELISA, ELISPOT, CTL assay, flow cytometry, electrophoresis, recombinant protein expression and purification, gene transfer to bacterial and mammalian cells, viral vector engineering, virus culture and virus infectivity assays).

Workshops:

- 1- Scientific Lecturer in “Outbreak Investigation and Control of Infectious Diseases”, COMSTECH International Course, Awarded by COMSTECH, Islamabad, Pakistan, 26-28 December 2023.
- 2- Scientific Lecturer in “Human papillomavirus: Vaccination, Diagnostic methods, Treatment and Prevention”, Pasteur Institute of Iran, Tehran, Iran, 11 September 2023.
- 3- Scientific Lecturer in “Detection, Epidemiology and Vaccines of Rotavirus”, Pasteur Institute of Iran, Tehran, Iran, 18-19 February 2020.
- 4- Scientific Lecturer in “New Topics in Human Papillomavirus Vaccination, Detection and Prevention”, Pasteur Institute of Iran, Tehran, Iran, 16-17 September 2018.
- 5- Participant in “GOARN Scenario-Based Training of Outbreak Response”, Awarded by WHO, Dead Sea, Jordan, 25-29 October 2016.
- 6- Participant in “The National Training on Biorisk Management”, WHO, Tehran, Iran. 23-25 May 2016.
- 7- Participant in “MERS-CoV Laboratory Diagnostics in the Eastern Mediterranean Region”, Awarded by WHO, Dubai, UAE, 14-16 December 2015.

- 8- Scientific Lecturer in “Methods of viral gene transfer to mammalian cells by common vectors”, Pasteur Institute of Iran, Tehran, Iran, 12-14 September 2015.
- 9- Scientific Instructor in “Master Trainer Program for Laboratory Biosafety and Risk Management”, University of Veterinary and Animal Sciences, Lahore, Pakistan, 7-11 September 2015.
- 10- Participant in “Ebola Virus Laboratory Diagnosis”, Awarded by WHO, Institute Pasteur, Paris, France, 1-5 June 2015.
- 11- Scientific Instructor in “Primer Design and Introduction to NCBI”, winter school of Pasteur Institute of Iran, Tehran, Iran, 1 February 2015.
- 12- Scientific Instructor in “Immunoinformatics and Vaccine Development”, 12th International Congress of Immunology and Allergy, Tehran, Iran, April 29- 2 May 2014.
- 13- Scientific Instructor in “Vaccination in special cases” Shahid Beheshti University of Medical Sciences, Tehran, Iran, 29-30 October 2014.
- 14- Scientific Instructor in “Flow Cytometry Workshop”, Iranian Molecular Medicine Network, Pasteur Institute of Iran, Tehran, Iran, 15-17 January 2013.
- 15- Scientific Instructor in "Optimization and Purification of Recombinant Protein Workshop", Iranian Molecular Medicine Network, Pasteur Institute of Iran, Tehran, Iran, 28 Feb- 2 Mar 2011.
- 16- Scientific Instructor in "Quantitative Real-Time PCR Workshop", Iranian Molecular Medicine Network, Pasteur Institute of Iran, Tehran, Iran, 12-13 February 2011.
- 17- Assistant in "Workshop of Theoretical and Practical PCR", Pasteur Institute of Iran, Tehran, Iran, 12 May 2009.
- 18- Assistant in "International Workshop on Molecular Techniques in Diagnosis & Typing of Infectious Diseases", Pasteur Institute of Iran, Tehran, Iran, 21-29 November 2006.

PI or Co-PI of Research Projects:

- 1- Construction and evaluation of human papillomavirus genotypes 16 and 18 pseudovirions in 293FT cell line. Pasteur Institute of Iran. 2013-2015.
- 2- Immunoinformatic analyses, expression and purification of a selected-mutant of human papillomavirus (HPV) 16-E7 protein and formulation with human compatible adjuvants (and mucosal immunization capability) as a candidate vaccine for HPV-associated cancers. Pasteur Institute of Iran. 2016-2018.
- 3- Design and development of a prototype human papillomavirus genotyping kit based on suspension array technology. Pasteur Institute of Iran. 2017- 2021.
- 4- Design, construction and evaluation of a vaccine platform based on TLR agonists to induce broadly neutralizing antibodies against conserved (sub/dominant) epitopes of pathogens in the context of an epitopic vaccine. Pasteur Institute of Iran. 2020- 2023.
- 5- Development of a vaccine candidate against SARS-CoV-2 through stabilization of prefusion form of viral S protein. Pasteur Institute of Iran. 2020- 2023.
- 6- Design and construction of therapeutic mRNA vaccine against E6 and E7 antigens of human papilloma virus. Pasteur Institute of Iran. 2022- Onwards.
- 7- Design, construction, and anti-tumor effect analysis of synthetic virus-like particles consisted of amphiphilic peptides and DNA carrying Papillomavirus E7 epitope in mouse model. 2022- Onwards.
- 8- Assessment the efficacy of lactoferin in virus clearance in HPV⁺ patients: randomized double blind clinical trial. 2023- Onwards.
- 9- Comparison of immunological responses and anti-tumor effects of DNA vaccine harboring HPV16 E6/E7 with protein vaccine expressing these antigens using physical and chemical delivery methods, and GM-CSF adjuvant in the mouse model. Pasteur Institute of Iran. 2023- Onwards.

Supervisor or Co-Supervisor of PhD Theses:

- 1- Fatemeh Hajari Taheri: Development and characterization of engineered T cells harboring chimeric antigen receptor against vascular endothelial growth factor receptor-2. Pasteur Institute of Iran. 2014-2019.

- 2- Mohammad Ali Khosravi: Targeted mutation in BCL11A gene by TALEN technology and evaluation of fetal hemoglobin (HbF) induction in K562 cell line. Pasteur Institute of Iran. 2014-2019.
- 3- Fariba Dorostkar: Evaluating the effect of CpG and STING agonist on the immunogenicity of non-oncogenic mutated form of the HPV16 E7 protein in C57BL/5 mouse model. Tehran University of Medical Sciences. 2017-2020.
- 4- Nasser Hashemi Goradel: Assessment of therapeutic efficacy of heterologous prime-boost vaccination against HPV16 E7 antigenic peptide using PeptiCRAd and peptide + CpG. Tehran University of Medical Sciences. 2018-2022.
- 5- Nastaran Sadat Savar: Evaluation of protection rate and immune responses to a Self-amplifying mRNA encoding LmSTI1 and PpSP fusion as a vaccine candidate against leishmaniasis. Pasteur Institute of Iran. 2017-2022.
- 6- Sara Shayan: Designing and production of oncolytic Herpes Virus- 1 expressing high mobility box and study the cell death mechanism induced by oHSV under normoxic and hypoxic condition. Pasteur Institute of Iran. 2019-2022.
- 7- Maryam Kadkhodazadeh: The feasibility evaluation of developing a universal adenoviral vector by SpyTag /SpyCatcher system. Pasteur Institute of Iran. 2019-2022.
- 8- Maryam Mashhadi Abolghasem Shirazi: Construction and evaluation of a candidate vaccine against papillomavirus based on the L2 protein epitope and TLR agonists. Islamic Azad University of Medical Sciences. 2020-2023.
- 9- Vida Mohammadi: Construction and preliminary evaluation of a candidate vaccine against SARS-CoV-2 based on modular platform using isopeptide bond formation between RBD and HBsAg VLP. Pasteur Institute of Iran. 2021-onwards.
- 10- Amirhosein Maali: Design and construction of SpyTag/SpyCatcher-based universal chimeric antigen receptor T cells and retargeting against CD22-expressing leukemia cells. Pasteur Institute of Iran. 2021-onwards.
- 11- Saba Feghhi-Najafabadi: Generation and characterization of anti-PSMA CAR T cells expressing PD-1-CD28 switch receptor. Pasteur Institute of Iran. 2021-onwards.
- 12- Rahim Soliemani: The investigation of human papillomavirus oncoprotein-mediated effect (E6 & E7) and integration status of virus on transcriptional activity of human endogenous retrovirus-K Env in patients with cervical cancer compared to control group. Tehran University of Medical Sciences. 2021-2024.

Supervisor or Co-supervisor of MSc Theses:

- 1- Hana Barzegar: Evaluation of human papillomavirus genotype 16 pseudovirion production in mammalian cell line. Pharmaceutical Sciences unit of Islamic Azad University, Tehran, Iran. 2012-2013.
- 2- Hengameh Sharifi: Construction and evaluation of human papillomavirus genotype 18 pseudovirion in 293FT cell line. Pharmaceutical Sciences unit of Islamic Azad University, Tehran, Iran. 2012-2013.
- 3- Mahsa Joulai: Evaluating virucidal activity of oxidizing chemical agents on adenovirus using gel chromatography. North Tehran Branch of Islamic Azad University. Tehran, Iran. 2013-2014.
- 4- Hojatollah Javanmard: Construction of a recombinant eukaryotic vector for expression of neural growth factor (NGF) and assessment of its expression in HEK-293 cell line. Tehran University of Medical Sciences. 2014-2019.
- 5- Maryam Mashhadi Abolghasem Shirazi: Cloning and expression of human papillomavirus 16 detoxified-E7 protein as a candidate subunit therapeutic vaccine. Pharmaceutical Sciences unit of Islamic Azad University, Tehran, Iran. 2015-2016.

Teaching Experiences:

- 1- Lecturer in “Vaccine and Antibody Application in Biotechnology” theoretical course for Ph.D. students of Medical Biotechnology, Pasteur Institute of Iran, Tehran, Iran.
- 2- Lecturer in “Medical Virology” theoretical course for Ph.D. students of Medical Biotechnology, Pasteur Institute of Iran, Tehran, Iran.
- 3- Lecturer in “Vaccinology” theoretical course for Ph.D. students of Medical Biotechnology, Tehran University of Medical Sciences, Tehran, Iran.
- 4- Lecturer in “Biosafety” theoretical course for Ph.D. students of Medical Biotechnology, Pasteur Institute of Iran, Tehran, Iran.
- 5- Lecturer in “Biosafety” theoretical course for Ph.D. students of Medical Biotechnology, Tehran University of Medical Sciences, Tehran, Iran.
- 6- Lecturer in “Genetic Engineering” theoretical course for Ph.D. students of Medical Biotechnology, Tehran University of Medical Sciences, Tehran, Iran.

- 7- Lecturer in “New Topics in Biotechnology” theoretical course for Ph.D. students of Medical Biotechnology, Pasteur Institute of Iran, Tehran, Iran.
- 8- Lecturer in “Advanced Virology” theoretical course for Ph.D. students of Bacteriology, Pasteur Institute of Iran, Tehran, Iran.
- 9- Lecturer in “Medical Biotechnology” theoretical course for Ph.D. students of Microbial Biotechnology, Alzahra University, Tehran, Iran.
- 10- Lecturer in “Medical Virology” theoretical course for M.Sc. students of Medical Bacteriology, Pasteur Institute of Iran, Tehran, Iran.
- 11- Lecturer in “Pharmaceutical Biotechnology” theoretical course for M.Sc. students of Microbial Biotechnology, Alzahra University, Tehran, Iran.
- 12- Lecturer in “Medical Biotechnology” theoretical course for B.Sc. students of Biotechnology, Alzahra University, Tehran, Iran.

Knowledge Enterprises:

- 1- Member of board of directors, Hum-Immune Biotech Co., Tehran, Iran. 2015-Present.
- 2- Member of board of directors, Hum-Diagnostics Biotech Co., Tehran, Iran. 2015-Present.

Patents:

1. Rafipour M, Roohvand F, Keramati M, Arashkia A. Production of a chimeric streptokinase with 2.7-fold increase in biological activity compared to standard counterpart in the presence for fibrinogen. 2020. Certified by IRIPO, Application Number: 139850140003010636.
2. Pourmohammad S, Negahdari B, Mohajel N, Arashkia A. The process of simultaneous detection of genomes of infectious agents including Ebola, CCHF, *Plasmodium falciparum*, and *Salmonella typhi* based on suspension array technology. 2017. Certified by IRIPO, Application Number: 139650140003007146.
3. Azadmanesh K, Zebhi B, Arashkia A, Shahrokhi N. Construction of a HPV genotyping system based on reverse hybridization technology. 2011. Certified by IRIPO, Application Number: 13905014000300469.

Journal Articles:

1. Soleimani-Jelodar R, Arashkia A, Shoja Z, Akhavan S, Yarandi F, Sharifian K, et al. The expression analysis of human endogenous retrovirus-K Env, Np9, and Rec transcripts in cervical cancer. *Journal of Medical Virology*. 2024;96(3):e29501.
2. Taheri FH, Hassani M, Sharifzadeh Z, Behdani M, Abdoli S, Sayadi M, et al. Tuning spacer length improves the functionality of the nanobody-based VEGFR2 CAR T cell. *BMC Biotechnology*. 2024;24(1):1.
3. Kachooei A, Mirhoseinian M, Jalilvand S, Latifi T, Feizi M, Shahosseini Z, et al. Molecular characterization of human astrovirus infection in children under 5 years of age with acute gastroenteritis in Tehran, Iran, 2021-2022: co-infection with rotavirus. *Virus Genes*. 2024.
4. Taghizadeh Pirposhteh R, Arefian E, Arashkia A, Mohajel N. Nona-Arginine Mediated Anti-E6 ShRNA Delivery Suppresses the Growth of Hela Cells in vitro. *Iranian Biomedical Journal*. 2023;27(6):349-56.
5. Mashhadi Abolghasem Shirazi M, Sadat SM, Haghghat S, Roohvand F, Arashkia A. Alum and a TLR7 agonist combined with built-in TLR4 and 5 agonists synergistically enhance immune responses against HPV RG1 epitope. *Scientific Reports*. 2023;13(1):16801.
6. Shayan S, Bahramali G, Arashkia A, Azadmanesh K. In silico Identification of Hypoxic Signature followed by reverse transcription-quantitative PCR Validation in Cancer Cell Lines. *Iranian Biomedical Journal*. 2023;27(1):23-33.
7. Kachooei A, Tava Koli A, Minaeian S, Hosseini M, Jalilvand S, Latifi T, et al. Molecular characterization of rotavirus infections in children less than 5 years of age with acute gastroenteritis in Tehran, Iran, 2021-2022: Emergence of uncommon G9P[4] and G9P[8] rotavirus strains. *Journal of Medical Virology*. 2023;95(2):e28529.
8. Hashemi Goradel N, Nemati M, Bakhshandeh A, Arashkia A, Negahdari B. Nanovaccines for cancer immunotherapy: Focusing on complex formation between adjuvant and antigen. *International Immunopharmacology*. 2023;117:109887.
9. Shoushtari M, Roohvand F, Salehi-Vaziri M, Arashkia A, Bakhshi H, Azadmanesh K. Adenovirus vector-based vaccines as forefront approaches in fighting the battle against flaviviruses. *Human Vaccines & Immunotherapeutics*. 2022;18(5):2079323.
10. Shoushtari M, Mafakher L, Rahmati S, Salehi-Vaziri M, Arashkia A, Roohvand F, et al. Designing vaccine candidates against dengue virus by in silico studies on structural and nonstructural domains. *Molecular and cellular probes*. 2022;63:101818.
11. Shayan S, Arashkia A, Bahramali G, Abdoli A, Nosrati MSS, Azadmanesh K. Cell type-specific response of colon cancer tumor cell lines to oncolytic HSV-1 virotherapy in hypoxia. *Cancer cell international*. 2022;22(1):164.
12. Shayan S, Arashkia A, Azadmanesh K. Modifying oncolytic virotherapy to overcome the barrier of the hypoxic tumor microenvironment. Where do we stand? *Cancer cell international*. 2022;22(1):370.
13. Savar NS, Vallet T, Arashkia A, Lundstrom K, Vignuzzi M, Mahmoudzadeh Niknam H. Packaging, Purification, and Titration of Replication-Deficient Semliki Forest Virus-Derived Particles as a Self-Amplifying mRNA Vaccine Vector. *Iranian biomedical journal*. 2022;26(4):269-78.
14. Savar NS, Shengjuler D, Doroudian F, Vallet T, Mac Kain A, Arashkia A, et al. An alphavirus-derived self-amplifying mRNA encoding PpSP15-LmST11 fusion protein for the design of a vaccine against leishmaniasis. *Parasitology international*. 2022;89:102577.
15. Kadkhodazadeh M, Mohajel N, Behdani M, Baesi K, Khodaei B, Azadmanesh K, et al. Fiber manipulation and post-assembly nanobody conjugation for adenoviral vector retargeting through SpyTag-SpyCatcher protein ligation. *Frontiers in molecular biosciences*. 2022;9:1039324.

16. Jafari M, Kadkhodazadeh M, Shapourabadi MB, Goradel NH, Shokrgozar MA, Arashkia A, et al. Immunovirotherapy: The role of antibody based therapeutics combination with oncolytic viruses. *Frontiers in immunology*. 2022;13:1012806.
17. Goradel NH, Alizadeh A, Hosseinzadeh S, Taghipour M, Ghesmati Z, Arashkia A, et al. Oncolytic virotherapy as promising immunotherapy against cancer: mechanisms of resistance to oncolytic viruses. *Future oncology*. 2022;18(2):245-59.
18. Fathi Karkan S, Maleki Baladi R, Shahgolzari M, Gholizadeh M, Shayegh F, Arashkia A. The evolving direct and indirect platforms for the detection of SARS-CoV-2. *Journal of virological methods*. 2022;300:114381.
19. Afchangi A, Jalilvand S, Arashkia A, Latifi T, Farahmand M, Abolghasem Shirazi MM, et al. Co-administration of rotavirus nanospheres VP6 and NSP4 proteins enhanced the anti-NSP4 humoral responses in immunized mice. *Microbial pathogenesis*. 2022;163:105405.
20. Shoushtari M, Salehi-Vaziri M, Roohvand F, Arashkia A, Jalali T, Azadmanesh K. Taguchi array optimization of the reverse transcription loop-mediated isothermal amplification (RT-LAMP) assay for sensitive and rapid detection of dengue virus serotype 2. *Biotechnology letters*. 2021;43(11):2149-60.
21. Savar NS, Vallet T, Azizi M, Arashkia A, Lundstrom K, Vignuzzi M, et al. Quantitative evaluation of PpSP15-LmSTI1 fusion gene expression following transfection with an alphavirus-derived self-amplifying mRNA and conventional DNA vaccine platforms. *Molecular and cellular probes*. 2021;59:101749.
22. Salehi-Vaziri M, Arashkia A, Mostafavi E, Jalali T, Hassan Pouriayevali M, Fazlalipour M, et al. How Iran responded to expanding need for laboratory services for COVID-19? *Health policy and technology*. 2021;10(2):100506.
23. Mohajel N, Arashkia A. Ebola as a case study for the patent landscape of medical countermeasures for emerging infectious diseases. *Nature biotechnology*. 2021;39(7):799-807.
24. Hosseini N, Shoja Z, Arashkia A, Khodadadi AH, Jalilvand S. Lineage analysis of human papillomavirus type 39 in cervical samples of Iranian women. *Virol Journal*. 2021;18(1):152.
25. Goradel NH, Negahdari B, Mohajel N, Malekshahi ZV, Shirazi MMA, Arashkia A. Heterologous administration of HPV16 E7 epitope-loaded nanocomplexes inhibits tumor growth in mouse model. *International immunopharmacology*. 2021;101(Pt B):108298.
26. Goradel NH, Baker AT, Arashkia A, Ebrahimi N, Ghorghanlu S, Negahdari B. Oncolytic virotherapy: Challenges and solutions. *Current problems in cancer*. 2021;45(1):100639.
27. Ghanaat M, Goradel NH, Arashkia A, Ebrahimi N, Ghorghanlu S, Malekshahi ZV, et al. Virus against virus: strategies for using adenovirus vectors in the treatment of HPV-induced cervical cancer. *Acta pharmacologica Sinica*. 2021.
28. Farahmand M, Jalilvand S, Arashkia A, Shahmahmoodi S, Afchangi A, Mollaei-Kandelous Y, et al. Association between circulating rotavirus genotypes and histo-blood group antigens in the children hospitalized with acute gastroenteritis in Iran. *Journal of medical virology*. 2021;93(8):4817-23.
29. Farahmand M, Jalilvand S, Arashkia A, Izadi A, Forouzannia SM, Mollaei-Kandelous Y, et al. Estimation of genetic variation in the Secretor and Lewis genes in Iranian hospitalized children. *Transfusion clinique et biologique : journal de la Societe francaise de transfusion sanguine*. 2021;28(1):11-5.
30. Dorostkar F, Arashkia A, Roohvand F, Shoja Z, Navari M, Mashhadi Abolghasem Shirazi M, et al. Co-administration of 2'3'-cGAMP STING activator and CpG-C adjuvants with a mutated form of HPV 16 E7 protein leads to tumor growth inhibition in the mouse model. *Infect Agent Cancer*. 2021;16(1):7.

31. Beig Parikhani A, Bazaz M, Bamehr H, Fereshteh S, Amiri S, Salehi-Vaziri M, et al. The Inclusive Review on SARS-CoV-2 Biology, Epidemiology, Diagnosis, and Potential Management Options. *Current microbiology*. 2021;78(4):1099-114.
32. Bahrololoumi Shapourabadi M, Momburg F, Roohvand F, Jarahian M, Mohajel N, Arashkia A, et al. Bi/tri-specific antibodies (HN-Fc-CD16 and HN-Fc-IL-15-CD16) cross-linking natural killer (NK)-CD16 and Newcastle Disease Virus (NDV)-HN, enhanced NK activation for cancer immunotherapy. *International immunopharmacology*. 2021;96:107762.
33. Arashkia A, Jalilvand S, Mohajel N, Afchangi A, Azadmanesh K, Salehi-Vaziri M, et al. Severe acute respiratory syndrome-coronavirus-2 spike (S) protein based vaccine candidates: State of the art and future prospects. *Reviews in Medical Virology*. 2021;31(3):e2183.
34. Rafipour M, Keramati M, Aslani MM, Arashkia A, Roohvand F. Contribution of Streptokinase-Domains from Groups G and A (SK2a) Streptococci in Amidolytic/Proteolytic Activities and Fibrin-Dependent Plasminogen Activation: A Domain-Exchange Study. *Iranian biomedical journal*. 2020;24(1):15.
35. Motamedi-Rad M, Farahmand M, Arashkia A, Jalilvand S, Shoja Z. VP7 and VP4 genotypes of rotaviruses cocirculating in Iran, 2015 to 2017: Comparison with cogent sequences of Rotarix and RotaTeq vaccine strains before their use for universal mass vaccination. *Journal of medical virology*. 2020;92(8):1110-23.
36. Khosravi MA, Abbasalipour M, Concordet JP, Berg JV, Zeinali S, Arashkia A, et al. Expression analysis data of BCL11A and γ -globin genes in KU812 and KG-1 cell lines after CRISPR/Cas9-mediated BCL11A enhancer deletion. *Data in brief*. 2020;28:104974.
37. Hassani M, Taheri FH, Sharifzadeh Z, Arashkia A, Hadjati J, van Weerden WM, et al. Engineered Jurkat cells for targeting prostate-specific membrane antigen on prostate cancer cells by nanobody-based chimeric antigen receptor. *Iranian biomedical journal*. 2020;24(2):81.
38. Goradel NH, Negahdari B, Ghorghanlu S, Jahangiri S, Arashkia A. Strategies for enhancing intratumoral spread of oncolytic adenoviruses. *Pharmacology & therapeutics*. 2020:107586.
39. Bahrololoumi Shapourabadi M, Roohvand F, Arashkia A, Mohajel N, Abdoli S, Shahosseini Z, et al. Expression and Purification of a Bispecific Antibody against CD16 and Hemagglutinin Neuraminidase (HN) in E. Coli for Cancer Immunotherapy. *Reports of Biochemistry and Molecular Biology*. 2020;9(1):51-6.
40. Bahrololoumi Shapourabadi M, Arashkia A, Mohajel N, Roohvand F. Cloning and Expression of IL-15 in Rosetta (DE3) strain of E. coli. *Pathobiology Research*. 2020;23(1):0-.
41. Arashkia A, Nejati B, Mahsa F, Jalilvand S, Nateghian A, Rahbarimanesh A, et al. Epidemiology and Clinical Characteristics of Rotavirus and Norovirus Infections in Hospitalized Children Less Than 5 Yaers of Age With Acute Gastroenteritis in Tehran, Iran. *Acta Medica Iranica*. 2020;57(11):640-4.
42. Yahyazadeh Mashhadi SM, Kazemimanesh M, Arashkia A, Azadmanesh K, Meshkat Z, Golichenari B, et al. Shedding light on the EpCAM: an overview. *Journal of cellular physiology*. 2019;234(8):12569-80.
43. Rafipour M, Keramati M, Aslani MM, Arashkia A, Roohvand F. The β -domain of streptokinase affects several functionalities, including specific/proteolytic activity kinetics. *FEBS open bio*. 2019;9(7):1259-69.
44. Rafipour M, Keramati M, Aslani M, Arashkia A, Roohvand F. Evaluation of the α 2-Antiplasmin-Resistance of a Domain Exchanged-Chimeric Streptokinase from Two Streptococci Groups. *Pathobiology Research*. 2019;22(2):77-84.
45. Motamedi-Rad M, Farahmand M, Arashkia A, Jalilvand S, Shoja Z. VP7 and VP4 genotypes of rotaviruses cocirculating in Iran, 2015 to 2017: Comparison with cogent sequences of Rotarix and RotaTeq vaccine strains before their use for universal mass vaccination. *Journal of medical virology*. 2019;n/a(n/a):1-14.

46. Khosravi MA, Abbasalipour M, Concordet J-P, Vom Berg J, Zeinali S, Arashkia A, et al. Targeted deletion of BCL11A gene by CRISPR-Cas9 system for fetal hemoglobin reactivation: a promising approach for gene therapy of beta thalassemia disease. *European journal of pharmacology*. 2019;854:398-405.
47. Hassani M, Hajari Taheri F, Sharifzadeh Z, Arashkia A, Hadjati J, van Weerden WM, et al. Construction of a chimeric antigen receptor bearing a nanobody against prostate a specific membrane antigen in prostate cancer. *Journal of cellular biochemistry*. 2019;120(6):10787-95.
48. Hajari Taheri F, Hassani M, Sharifzadeh Z, Behdani M, Arashkia A, Abolhassani M. T cell engineered with a novel nanobody-based chimeric antigen receptor against VEGFR2 as a candidate for tumor immunotherapy. *IUBMB Life*. 2019;71(9):1259-67.
49. Goradel NH, Mohajel N, Malekshahi ZV, Jahangiri S, Najafi M, Farhood B, et al. Oncolytic adenovirus: A tool for cancer therapy in combination with other therapeutic approaches. *Journal of cellular physiology*. 2019;234(6):8636-46.
50. Farahmand M, Shoja Z, Arashkia A, Salavatiha Z, Jalilvand S. Systematic review and meta-analysis of human papillomavirus prevalence and types among women with normal cervical cytology in the Eastern Mediterranean Region. *Future Virology*. 2019;14(11):761-77.
51. Arashkia A, Bahrami F, Farsi M, Nejati B, Jalilvand S, Nateghian A, et al. Molecular analysis of human adenoviruses in hospitalized children < 5 years old with acute gastroenteritis in Tehran, Iran. *Journal of medical virology*. 2019;91(11):1930-6.
52. Alizadeh R, Ghanei M, Arashkia A, Dorostkar R, Azadmanesh K. Generation of recombinant measles virus containing the wild-type P gene to improve its oncolytic efficiency. *Microbial pathogenesis*. 2019;135:103631.
53. Talebi S, Bolhassani A, Mokhtari Azad T, Arashkia A, Modarressi MH. The roles of HMGB1 nuclear protein and its major domains in different biological fields. *New Cellular and Molecular Biotechnology Journal*. 2018;8(29):9-22.
54. Shahbazi S, Bolhassani A, Arashkia A, Sadroddiny E. Generation of the Fluorescent HPV16 E7 Protein for Detection of Delivery in vitro. *Protein and peptide letters*. 2018;25(3):244-52.
55. Motavalli Khiavi F, Arashkia A, Golkar M, Nasimi M, Roohvand F, Azadmanesh K. A dual-type L2 11-88 peptide from HPV types 16/18 formulated in Montanide ISA 720 induced strong and balanced Th1/Th2 immune responses, associated with high titers of broad spectrum cross-reactive antibodies in vaccinated mice. *Journal of immunology research*. 2018;2018.
56. Khateri M, Abdoli A, Motevalli F, Fotouhi F, Bolhassani A, Arashkia A, et al. Evaluation of autophagy induction on HEV 239 vaccine immune response in a mouse model. *IUBMB Life*. 2018.
57. Jalilvand S, Roohvand F, Arashkia A, Shoja Z. Update on epidemiology and circulating genotypes of rotavirus in Iranian children with severe diarrhea: 1986-2015. *International Journal of Travel Medicine and Global Health*. 2018;6(1):7-10.
58. Farsi M, Roodbari F, Nejati B, Arashkia A, Jalilvand S, Nateghian A, et al. Prevalence and genetic diversity of norovirus genogroup II in children less than 5 years of age with acute gastroenteritis in Tehran, Iran. *Medical microbiology and immunology*. 2018;207(3-4):201-10.
59. Afchangi A, Arashkia A, Shahosseini Z, Jalilvand S, Marashi SM, Roohvand F, et al. Immunization of Mice by Rotavirus NSP4-VP6 Fusion Protein Elicited Stronger Responses Compared to VP6 Alone. *Viral immunology*. 2018;31(3):233-41.
60. Talebi S, Bolhassani A, Azad TM, Arashkia A, Modaresi MH. Immuno-Stimulating Peptide Derived from HMGB1 is More Effective Than the N-Terminal Domain of Gp96 as an Endogenous Adjuvant for Improvement of Protein Vaccines. *Protein and peptide letters*. 2017;24(3):190-6.
61. Navari M, Ibrahimi M, Mohammadoo-khorasani M, Arashkia A. Evaluating the Effects of Deregulated miRNAs by Human Papilloma Virus on Gene Expression Profiles of Squamous Cell Carcinomas of the Head and Neck. *Journal of Torbat Heydariyeh University of Medical Sciences*. 2017;5(3):26-38.

62. Mashhadi Abolghasem Shirazi M, Roohvand F, Arashkia A. Preparation and in vivo anti-tumor evaluation of human papillomavirus E7 adjuvanted with Montanide ISA 266 as a vaccine candidate. *Vaccine Research*. 2017;4(1):29-33.
63. Khiavi FM, Arashkia A, Nasimi M, Mahdavi M, Golkar M, Roohvand F, et al. Immunization of mice by a multimeric L2-based linear epitope (17-36) from HPV type 16/18 induced cross reactive neutralizing antibodies. *Research in pharmaceutical sciences*. 2017;12(4):265.
64. Barzegar H, Sharifi H, Langroudi L, Azadmanesh K, Arashkia A. Human papillomavirus genotype 16 pseudovirus production and purification in HEK-293FT cells. *Vaccine Research*. 2017;4(3):46-50.
65. Abasi M, Kohram F, Fallah P, Arashkia A, Soleimani M, Zarghami N, et al. Differential maturation of miR-17~92 cluster members in human cancer cell lines. *Applied biochemistry and biotechnology*. 2017;182(4):1540-7.
66. Talebi S, Bolhassani A, Azad TM, Arashkia A, Modaresi MH. In vitro expression of HPV16 E7 linked to HMGB1 immunoadjuvant in mammalian cells. *Bratislavske lekarske listy*. 2016;117(10):609-13.
67. Shakouri M, Moazzeni SM, Ghanei M, Arashkia A, Etemadzadeh MH, Azadmanesh K. A novel dendritic cell-targeted lentiviral vector, encoding Ag85A-ESAT6 fusion gene of Mycobacterium tuberculosis, could elicit potent cell-mediated immune responses in mice. *Molecular immunology*. 2016;75:101-11.
68. Sharifi H, Barzegar H, Langroudi L, Azadmanesh K, Arashkia A. Construction and evaluation of human papillomavirus genotype 18 pseudovirions. *Vaccine Research*. 2015;2(3):59-62.
69. Rahimi A, Arashkia A, Mirzaie A, Noorbazargan H, Sadat Shandiz SA, Rahimi R, et al. Optimization the expression of human papilloma virus E6 and E7 polytopic construct in E. coli expression system. *Tehran University Medical Journal TUMS Publications*. 2015;73(9):624-31.
70. Etemadzadeh MH, Arashkia A, Roohvand F, Norouzian D, Azadmanesh K. Isolation, cloning, and expression of E. coli BirA gene for biotinylation applications. *Advanced biomedical research*. 2015;4.
71. Etemadzadeh MH, Arashkia A, Roohvand F, Ahani R, Mohajel N, Baniasadi V, et al. Expression of a biotin acceptor peptide-containing protein with potential incorporation on the lentiviral envelope as a viral surface engineering platform. *Research in pharmaceutical sciences*. 2015;10(4):268.
72. Hartoonian C, Sepehrizadeh Z, Mahdavi M, Arashkia A, Jang YS, Ebtekar M, et al. Modulation of hepatitis C virus core DNA vaccine immune responses by co-immunization with CC-chemokine ligand 20 (CCL20) gene as immunoadjuvant. *Molecular biology reports*. 2014;41(9):5943-52.
73. Fadavi P, Rostamian M, Arashkia A, Shafaghi B, Niknam HM. Epstein-barr virus may not be associated with breast cancer in Iranian patients. *Oncol Discov*. 2013;1(3).
74. Yazdani-Neyshabouri S, Aghasadeghi MR, Jahaniandash A, Bouzari S, Arashkia A, Sadat SM, et al. Expression of recombinant hepatitis C virus (HCV) Core, E1 and E2 proteins by the baculovirus expression vector system. *African Journal of Microbiology Research*. 2012;6(19):4152-7.
75. Azadmanesh K, Norouzfard ZS, Sohrabi A, Safaie-Naraghi Z, Moradi A, Yaghmaei P, et al. Characterization of human herpes virus 8 genotypes in Kaposi's sarcoma patients in Tehran, Iran. *International journal of molecular epidemiology and genetics*. 2012;3(2):144.
76. Amini S, Alavian SM, Mostafavi E, Vahabpour R, G. B, Aghasadeghi MR, et al. Presence of plus-strand HCV RNA in serum and PBMCs as an indicator for relapse and resistance to IFN therapy in patients infected by HCV. *Future Virology*. 2012;7(3):323-30.

77. Sohrabi A, Norouzfard ZS, Eslamifard A, Arashkia A, Azadmanesh K. Isolation of *Cupriavidus metallidurans* from razor blade during paraffin embedded tissue sectioning. *Clinical laboratory*. 2011;57(7-8):641.
78. Hartoonian C, Rasekhian M, Edalat R, Arashkia A, Azadmanesh K. IFN- α 2b reduces released particles of Human T-lymphotropic Virus-I from HTLV-I transformed cell line. *Retrovirology*. 2011;8(2):1-2.
79. Arashkia A, Rouhvand F, Memarnejadian A, Alizadeh S, Motevalli F, Ebrahimi M. Immunoinformatics modeling, construction of DNA plasmids Carrying CTL epitopes of hepatitis C virus and their preliminary immunological analysis. *Iranian Journal of Medical Microbiology*. 2011;4(4):30-40.
80. Arashkia A, Roohvand F, Memarnejadian A, Aghasadeghi MR, Rafati S. Construction of HCV-polytope vaccine candidates harbouring immune-enhancer sequences and primary evaluation of their immunogenicity in BALB/c mice. *Virus genes*. 2010;40(1):44-52.
81. Memarnejadian A, Roohvand F, Arashkia A, Rafati S, Shokrgozar MA. Polytope DNA vaccine development against hepatitis C virus: a streamlined approach from in silico design to in vitro and primary in vivo analyses in BALB/c mice. *Protein and peptide letters*. 2009;16(7):842-50.
82. Memarnejadian A, Roohvand F, Arashkia A, Berjisian F, Aghasadeghi MR. Designing, Constructing and Immunogenic Evaluation of Polytope DNA Constructs by the Application of Hepatitis C Virus Immunodominant Epitopes in BALB/c Mice. *Cell Journal* 2009;11(2):122-33.
83. Azadmanesh K, Roohvand F, Amini S, Arashkia A, Kazanjy M. Evaluation of stimulatory effects of HTLV-1 Tax protein on CREB and NF- κ B related signaling pathways using two B-Galactosidase based reporter plasmids. *Cell Journal*. 2005;6(24):218-25.
84. Arashkia A, Roohvand F, Sadat S, Forouzandeh M, Amini S, Andalibi S. Purification and characterization of a His-tagged recombinant HBeAg. *Physiology and Pharmacology*. 2004;8(2):125-35.

Congress Abstracts:

1. Bahrololoumi M, **Arashkia A**, Jarahian M, et al. Construction of a trispecific antibody (tsAb) encoding IL-15 for cancer immunotherapy via retargeting NK cells to Newcastle disease virus (NDV)-infected tumor cells. *13th International Congress Immunology and Allergy of Iran*. April 2016, Tabriz, Iran.
2. Nejati B, Roodbari F, **Arashkia A**, et al. Detection of circulating human norovirus in children less than 5 years with acute gastroenteritis by genogroup specific real-time PCR. *The 17th International and Iranian Congress of Microbiology*. August 2016, Tehran, Iran.
3. Baniasadi V, Kazemimanesh M, **Arashkia A**, Azadmanesh K. Necessity of laboratory testing facility in Ebola virus isolation unit. *7th International Congress of Laboratory and Clinic*. February 2015, Tehran, Iran.
4. Kazemimanesh M, Baniasadi V, **Arashkia A**, Azadmanesh K. Laboratory-associated biosafety for blood borne viruses. *7th International Congress of Laboratory and Clinic*. February 2015, Tehran, Iran.

5. Rahimi A, Mahdavi M, **Arashkia A**, Ranjbar M.M, Firuzyar S. Epitope Prediction for Different Protein of Human Papillomavirus (HPV) as Initial Step for Production of Universal Vaccine. *14th International and Iranian Congress of Microbiology*. August 2013, Tehran, Iran.
6. Babae Z, **Arashkia A**, Forouhesh H, Amirmozafari N. Frequency of Broad-Spectrum Beta-Lactamase Genes Among Escherichia coli Strains isolated from Urinary Tract- Infected Outpatients in Tehran. *The 13th Iranian & The Second International Congress of Microbiology*. July 2012, Ardabil, Iran.
7. Hartoonian C, Rasekhian M, Edalat R, **Arashkia A**, Azadmanesh K. IFN-a2b reduces released particles of Human T-lymphotropic Virus-I from HTLV-I transformed cell line. *Frontiers of Retrovirology 2011*, October 2011, Amsterdam, The Netherlands.
8. Agasadeqi MR, Yazdani S, Jahanian A, Bouzari S, **Arashkia A**, Sadat SM, Siadat SD, Amini S, Sadigh ZA, Hekmat S, Rahimi P. Expression of recombinant Core, E1, E2-HCV proteins in Sf9 insect cells. *Microbiotec 11*. December 2011, Braga, Portugal.
9. Sadat SM, Javadi F, Vahabpour R, Zabiholahi R, Siadat SD, Azadmanesh K, Parivar K, **Arashkia A**, Amini S, Talebzade A, Julai M, Agasadeqi MR. Cloning, expression optimization and purification of hepatitis C virus NS3 protein in *E. coli*. *11th National Congress of Microbiology and 1st Eastern Mediterranean Congress of Microbiology*, August 2010, Rasht, Iran.
10. **Arashkia A**, Roohvand F, Memarnejadian A, Combadiere B. Evaluation of two HCV subdominant epitope immunogenicity in transgenic mice and the effect of helper factors. *5th Virology and 1st Vaccine Congress of Iran*, May 2009, Karaj, Iran.
11. Roohvand F, Memarnejadian A, **Arashkia A**, Aghasadeghi MR, Sadat M, Budkowska A, Combadière B. French-Iranian collaborative studies on HCV vaccines (CD8-polytopic DNA constructs and protein based immunogens as therapeutic and prophylactic vaccine candidates). *Research on Infectious Diseases: A Global Challenge*, June 2008, Institut Pasteur, Paris, France.
12. Roohvand F, Memarnejadian A, **Arashkia A**. Construction and evaluation of CD8-polytope DNA constructs based on immunodominant and sub-

dominant HCV epitopes. *1st Vaccine Congress*, Dec. 2007, Amsterdam, the Netherlands.

13. **Arashkia A**, Memarnejadian A, Rafati S, Roohvand F. A study on the effect of ER signals sequence and a Pan-DR epitope (PADRE) on the immunogenicity of a CTL-based HCV epitope. *5th National Biotechnology Congress of Iran*, Nov. 2007, Tehran, Iran.
14. Memarnejadian A, **Arashkia A**, Rafati S, Shokrgozar MA, Roohvand F. Engineering, construction and primary evaluation of multi-epitope DNA construct based on immunodominant HCV epitopes. *5th National Biotechnology Congress of Iran*, Nov. 2007, Tehran, Iran.
15. **Arashkia A**, Memarnejadian A, Roohvand F. Construction and Evaluation of CD8-polytope DNA constructs based on immunodominant and sub-dominant HCV epitopes. *14th International Symposium on Hepatitis C Virus and Related Viruses*, Sept. 2007, Glasgow, Scotland.
16. Azadmanesh K, Roohvand F, Amini S, **Arashkia A**. R222 K mutation in HTLV-1 Tax protein abrogates stimulatory effect on NF- κ B pathway. *3rd Iranian Congress of Virology*, Jan 2006, Tehran, Iran.
17. **Arashkia A**, Forouzandeh M, Amini S, and Roohvand F. Cloning and evaluation of diagnostic value of HBeAg produced with extra 6xHis-tag epitopes in an optimized expression condition in *E.coli*. *1st National Congress of Molecular Cell Biology*, Feb 2003, Ahwaz, Iran.
18. Roohvand F, Memarnejadian A, **Arashkia A**, Aghasadeghi M, Amini S, Andalibi Mahmoudabadi S, Budkowska A. Exploiting the His-tag based, one-step purification systems for expression of interested genes, A comparative study on productivity / yield for genes of HCV-core, HBeAg and streptokinase (SK). *8th Iranian Genetics Congress*, May 2003, Tehran, Iran.
19. **Arashkia A**, Foruzandeh M, Amini S, Roohvand F. Cloning, optimization of expression condition, purification and characterization of HBeAg produced in *E.coli* with extra His-tag epitopes. *Proceedings of the 3rd National congress of Biotechnology*, pp 127-130, September 2003, Mashad, Iran.