

Ava Hashempour

Work address: Shiraz HIV/AIDS Research Center, Institute of Health, Shiraz University of Medical Sciences (Pahlavi University), Shiraz, Iran

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Education

Post-Doctoral Fellow at Emory University, Division of Microbiology & Immunology, Emory Vaccine Center, Yerkes National Primate Research Center, Atlanta, Georgia, America (early of 2011-end of 2012). Sponsored by Emory University.

Ph.D. in Medical Virology, (10-23-2005- 11-29-2010), Tarbiat Modares University (TMU), Tehran, Iran. Credits: 25, GPA: 3.83 or 18.73/20.00

M.Sc. in Virology, (10-20-2002- 10-21-2005). Tarbiat Modares University (TMU), Tehran, Iran. Credits: 28, GPA: 3.82 or 18.64/20.00

B.Sc. in Veterinary Laboratory, (10-22-2000- 10-9-2002), Urmia University, Urmia, Iran. Credits: 71, GPA: 3.77 or 16.96/20.00, Major: Veterinary Medicine

Associate degree in Technician veterinary, (10-23-1998- 10-21-2000), Ferdowsi University, Mashhad, Iran. Credits: 36, GPA: 3.67 or 16.71/20.00, Major: Veterinary Tech

Positions and Employment

- Faculty member at Shiraz University of Medical Sciences, (2013- present)
- Laboratory Manager in Diagnostic HIV Laboratory in the south of Iran, (2017-2019)
- Azad University, Parand branch, Tehran, Iran. (January.2010- Feb. 2011)
- Researcher at Tehran University of Medical Sciences, Digestive Disease Research Center, Tehran University of Medical Sciences, Tehran, Iran, (Dec. 2005-2014)

Publications

https://scholar.google.com/citations?hl=en&user=G15ZW-QAAAAJ&view_op=list_works&sortby=pubdate

the following articles are parts of the result:

- First report of HHV-8 viral load and seroprevalence of major blood-borne viruses in Iranian patients with systemic sclerosis. Volume 51, June 2021.
- Incidence of hepatotoxicity in Iranian HIV-infected patients on antiretroviral therapies and its correlation with virologic response to HIV treatment. Lab medicine, accepted, 2020.
- Impact of IL28 genotypes and modeling the interactions of HCV core protein on Treatment of Hepatitis C. Interdisciplinary Sciences: Computational Life Sciences, 2020.
- Association of mutations in the NS5A-PKRBD region and interleukin-28B genotypes with hepatitis C interferon responsiveness and its functional and structural analysis. Current Proteomics, 2020
- Evaluating Drug-Resistant Mutations to HCV NS3 Protease Inhibitors in Iranian Naïve Patients. International Journal of Peptide Research and Therapeutics, 2019.

- A decline in anti-core+1 antibody titer occurs in the successful treatment of patients infected with hepatitis C virus. 2018. Jundishapur Journal of Microbiology.
- F protein increases CD4+CD25+ T cell population in patients with chronic hepatitis C. Pathog Dis. 2015 Jun;73(4).
- Antigen-specific IL-10 Producing CD4+, CD25+ Regulatory T Cells in Chronically Infected HCV Patients. Govareh, 2013.
- Expansion of CD4+CD25+FoxP3+ Regulatory T Cells in Chronic Hepatitis C Virus Patients. Iranian J of Immunol, 2010.
- In vitro expansion of antigen-specific natural regulatory T cells in hepatitis C virus infection mediated by Core antigen. Journal of medical science of Tarbiat Modares University. 2010.
- Antibody Development to HCV Alternate Reading Frame Protein in Liver Transplant Candidate and its Computational Analysis. Current Proteomics, 2019.
- Viral etiology of acute respiratory infections in children in Southern Iran (Short communication). Revista da Sociedade Brasileira de Medicina Tropical, 2019.
- Atypical bacterial etiology of acute respiratory infections and clinical characterizations among Iranian children. Cellular and Molecular Biology 63 (8), 115-119. 2017
- Role of serum level and genetic variation of IL-28B in interferon responsiveness and advanced liver disease in chronic hepatitis C patients. 2017. Medical microbiology and immunology
- Bacterial etiology and antibiotic resistance pattern of septicemia in HIV and non-HIV patients admitted to tertiary care hospitals, Shiraz, South of Iran. Cellular and Molecular Biology. 2017
- Assessment of new E2 protein domain interaction with PKR protein to control IFN signaling. Current Proteomics. 2020
- The Predictive Factors for Favorable Outcomes of Peginterferon and Ribavirin Combination Therapy in HCV-Infected Patients, Acta Medica Iranica, 2020 (in print)
- Bioinformatics Analysis of Domain 1 of HCV-Core Protein: Iran. International Journal of Peptide Research and Therapeutics, 2019.
- First Report on Molecular Docking Analysis and Drug Resistance Substitutions to Approved HCV NS5A and NS5B Inhibitors amongst Iranian Patients. BMC Gastroenterology. 2021.
- Interaction of Human Herpesvirus 8 Viral Interleukin-6 with Human Interleukin-6 Receptor Using In silico Approach: The Potential Role in HHV-8 Pathogenesis. Current Proteomics, 2019.
- Investigation of Drug-resistance substitutions in HIV-1 RT Protein in Iranian HIV Infected Patients. Russian Journal of Infection and Immunity. 2021.
- The possible regions to design Human Papilloma Viruses vaccine in Iranian L1 Protein. Biologia, 2019.
- Using immunoinformatics and structural approaches to design a novel HHV8 vaccine. International Journal of Peptide Research and Therapeutics, 2019.

- Comparison of the prevalence of HBV, HCV, HIV, EBV and CMV infections in patients with scleroderma and healthy population. *Tehran University Medical Journal*, 2019.
- Comparison of IL-28B favorable genotype frequency between healthy and patients infected with HCV. *Scientific journal of Ilam University of medical sciences*, 2018.
- Functional and Structural Characterization of ebola Virus Glycoprotein (1976-2015)-An In-silico study. *International Journal of Biomathematics*, 2017.
- Evaluation of the serum level of miR-122 in patients with chronic HCV and HCV-infected liver transplant candidate. *MicroRNA* 10 (1), 58-65. 2021.
- HIV Capsid and Protease, New Targets of Melittin. *International Journal of Peptide Research and Therapeutics*, 2020.
- Subtype Classification by Polymerase and Gag Genes of HIV-1 Iranian Sequences Registered in the NCBI GenBank. *Current Proteomics*. 2020
- Hepatitis C virus alternative reading frame protein (ARFP): production, features, and pathogenesis. *Journal of Medical Virology*, 2020.
- Lenalidomide acts as an adjuvant for HCV DNA vaccine. *International immunopharmacology*, 2017.
- Applying time series Sir model to investigate epidemiology and calculate minimum vaccination coverage against measles in Iran. *Journal of Fundamental and Applied Sciences*, 2017.
- Low Dose of Lenalidomide Enhances NK Cell Activity: Possible Implication as an Adjuvant. *Iranian Journal of Immunology*, 2017.
- Association of Genotype and Haplotype of IL-28B Gene with Hepatitis C Infection Outcome in Iran: Spontaneous Clearance Versus Chronic Infection. *Hepatitis Monthly*. 2017
- Construction of a Plasmid Expressing MDA-7 Gene Modified by an iNGR Sequence and Its Evaluation for Apoptosis Induction in a Hepatocellular Cancer Cell Line. *Pathobiology Research*, Vol. 19 (2016-2017), No. 4
- Design Methods of Cell Adhesion Proteins Based on ELISA Usable in-vitro in Gene Therapy, *Armaghane danesh* 21 (4), 372-381.
- Effect of RGD coupled MDA-7/IL-24 on apoptosis induction in a hepatocellular carcinoma cell line. *Molecular Medicine Reports*.2016
- Molecular Epidemiology of Enteric-Adenovirus Gastroenteritis in under Five-Year-old Children in Iran, *Gastroenterology Research and Practice*, 2016 Oct; 2016: 2045697.
- Studying the Frequency of Favorable Allele of rs12979860 Polymorphism of IL-28B in Healthy and HCV Infected Iranian Individuals *Journal of Fasa University of Medical Sciences/ Summer 2015/ Vol.5/ No.2/ P 269-277*
- Detection of Specific Antibodies to HCV-ARF/CORE+1 Protein in Cirrhotic and Non-Cirrhotic Patients with Hepatitis C: A Possible Association with Progressive Fibrosis. *Arch Iran Med*. 2015; 18(5): 304 – 307.
- Human metapneumovirus frequency in Iranian children with respiratory symptoms. *Future Virology*. 2016 Feb

- Insights into the Role of HCV Plus-/Minus Strand RNA, IFN- γ , and IL-29 in Relapse Outcome in Patients Infected by HCV, Asian Pac J Allergy Immunol. 2015 Sep;33(3):173-181.
- Target Cell Availability, Rather than Breast Milk Factors, Dictates Mother-to-Infant Transmission of SIV in Sooty Mangabeys and Rhesus Macaques. Plos Pathogen, 2013
- Intact Type I Interferon production and IRF7 function in Sooty Mangabeys. Plos Pathogen, 2013
- Development of a Recombinant Based ELISA using Specific Antibodies to F Protein in HCV Chronically Infected Patients-A Seroprevalence Study. Journal of Iranian virology. 2010.
- Enzyme-linked immunosorbent assay of nucleic acid sequence-based amplification for molecular detection of M. tuberculosis. Biochem Biophys Res Commun, 2007.

Lecture:

- Teaching different subjects related to HIV including “Pathophysiology of HIV”, “Mother to child transmission of HIV”, “HIV treatment failure”, “HIV Latency”, “Advanced Medical Virology”, and “Advanced Laboratory Techniques”
- Holding and teaching at several workshops on "Biosafety in Medical Laboratory" and “Bioinformatic” graduate students and Medical universities staff in Shiraz University of Medical Sciences and etc.

Research Experience

- Human cell culture and transfection
- Nested PCR, RT-PCR, Real-time PCR, Primer designing, Gene cloning, Site-directed mutagenesis by PCR, Restriction fragment length polymorphism (RFLP)
- Protein over-expression, Protein purification, SDS-PAGE, ELISA, Western blot, dot blot, Immunoprecipitation (IP), Immunodiffusion, Luciferase assay, and Flow cytometry
- Bioinformatics methods: In-silico design of a multi-epitope vaccine constructs, Docking, Gene analysis, MD, etc.

Supervisor and Advisor

Ph.D., Master, MPH, and medical student students

Books:

- Laboratory Biosafety Manual, Printed in Shiraz University of Medical Sciences Publications, 2015. (In Persian)
- Advanced Medical Virology, Printed in Noore-Danesh, Tehran, Iran, 2017. (In Persian)

Honors

- Ranked 3rd among examinees in the Ph.D. entrance exam in Medical Virology, held by the Ministry of Science, Research and Technology of Iran. 2005.

- Ranked 5th among examinees in the M.Sc entrance exam in Virology, held by the Ministry of Science, Research and Technology of Iran. 2002.
- Ranked 2nd among examinees in the B.Sc. entrance exam in Veterinary Laboratory, held by the Ministry of Science, Research and Technology of Iran. 2000.

English proficiency score

IELTS: 6.5 (07/11/2019)

Test Report Form (TRF) verification number: 19IR009884HAST120A

Research interests

- Molecular and immunological aspects of viral infection, especially HIV and HCV
- HIV and HCV drug resistance, and chronicity
- Bioinformatic, In silico vaccine designed and related issues
- Cellular and molecular analysis

Hobbies and Interests:

Reading books and listening to music

Traveling & hanging out with my friends

Cooking

Swimming

References

Prof. Guido Silvestri, Full Professor of Pathology and Laboratory Medicine

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Prof. Shahin Merat, Full Professor of Gastroenterology and Hepatology, Address: Department of Internal Medicine, School of Medicine, Tehran University of Medical Sciences, Tel: +98 917 117 3966, Fax: +98 21 2225 3635, E-mail: merat@ams.ac.ir

Dr. Taravat Bamdad, Professor of Medical Virology, Address: Tarbiat Modares University, Jalal Ale Ahmad Highway, Tehran, Iran Phone: +98 21 82884525, Fax: +98 21 82884555, E-mail: bamdad_t@modares.ac.ir

Dr. Siamak Asri-Rezaei, Associated Professor of Clinical Pathology, Address: Urmia University, Internal disease, and clinical pathology department, 11km SeroRoad, Veterinary Medicine Faculty, Urmia, Iran. Phone: +984432752844-6, Fax: +984432771926, E-mail: s.asri@urmia.ac.ir