

Fariba Dorostkar, Ph.D.

Assistant Professor of Medical Virology

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➤ **Education**

• **Ph.D. in Medical Virology**

Tehran University of Medical Sciences, Tehran, Iran

Thesis: Evaluating the Effect of CpG and STING Agonist Adjuvants on the Immunogenicity of HPV 16 E7 Protein in C57BL/6 Mice

• **Master of Medical Virology**

Tehran University of Medical Sciences, Tehran, Iran

Thesis: Surveillance of Immunity Against Poliovirus in Children Aged 18–22 Months in Chabahar and Zahedan

• **B.Sc. in Medical Laboratory Technology**

Iran University of Medical Sciences, Tehran, Iran

➤ **Teaching:**

- Medical Virology: Master of Science in Food Microbiology, Faculty of Allied Medicine, Iran University of Medical Sciences.
- Medical Virology: Bachelor of Science in Laboratory Sciences, Faculty of Allied Medicine, Iran University of Medical Sciences.
- Medical Virology: Fellowship in Medical Laboratory Sciences, Faculty of Allied Medicine, Iran University of Medical Sciences.

- Parasitology: Bachelor of Science in Laboratory Sciences, Faculty of Allied Medicine, Iran University of Medical Sciences.
- Seminar: Bachelor of Science in Laboratory Sciences, Faculty of Allied Medicine, Iran University of Medical Sciences.
- Internship: Bachelor of Science in Laboratory Sciences, Faculty of Allied Medicine, Iran University of Medical Sciences.

➤ **Research Projects**

- Evaluating the Effect of CpG and STING Agonist Adjuvants on the Immunogenicity of HPV 16 E7 Protein in C57BL/6 Mice .
- Evaluation of the Potential of Oral Polio Vaccine Used in Iran by Determining the Titers of Live Attenuated Polio Virus in the Vaccine.
- Personalized risk assessment of patients with metabolic syndrome for bariatric surgery and investigation of factors affecting its improvement using machine learning
- Evaluation of species diversity and drug resistance pattern of Candida species in HPV-positive and HPV-negative women with vulvovaginitis candida referred to the gynecology clinic of Firoozgar hospital.
- Formulation and Evaluation of Drug Sensitivity of Topical and Combined Tartaric Acid-Terbinafine Ointment in the Treatment of Dermatophytosis: An Experimental and Animal Model.
- The Relationship between Serum Sestrin 2 and Sestrin 3 Levels with Fatty Liver Indices in Patients with Non-Alcoholic Fatty Liver Disease and its Comparison with Healthy Individuals.
- Epidemiological Survey of Mucormycosis Infection during 2010 to 2020 in Tehran Hospitals.
- Evaluation of Radiological Findings in Patients with Mucormycosis from 2009 to 2019 in Tehran Hospitals.
- Simultaneous Detection of Salmonella Serotypes and Shigella Species Using Real-Time Multiplex PCR TaqMan Probe in Food Samples.
- Evaluation of Antifungal Susceptibility Test of Clinical and Environmental Strains of Geotricum Isolated from Iran.

➤ **Publications**

- Dorostkar, F., Arashkia, A., Roohvand, F., Shoja, Z., Navari, M., et al. (2021). 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. *Infectious Agents and Cancer*, 16(1), 1-10.

- Izadi, S., Shahmahmoodi, S., Zahraei, S. M., Dorostkar, F., & Majdzadeh, R. (2015). Seroprevalence of poliovirus antibodies among 7-month-old infants after 4 doses of oral polio vaccine in Sistan-va-Baluchestan, Islamic Republic of Iran. *Eastern Mediterranean Health Journal*, 21(2), 83.
- Izadi, S., Shahmahmoodi, S., Zahraei, S. M., Dorostkar, F., & Majdzadeh, R. (2014). Risk of polio reintroduction to border regions of Islamic Republic of Iran: Seroprevalence study of children with at least 5 doses of oral polio vaccine. World Health Organization.
- Shatizadeh Malekshahi, S., Soleimanjahi, H., Dorostkar, F., Salimi, V., et al. (2021). Survey of BK Virus in Renal Transplant Recipients in Iran: A Systematic Review and Meta-Analysis. *Intervirolgy*, 64(1), 27-35.
- Sirota, S. B., Doxey, M. C., Dominguez, R. M. V., Bender, R. G., Vongpradith, A., et al. (2025). Global, regional, and national burden of upper respiratory infections and otitis media, 1990–2021: A systematic analysis from the Global Burden of Disease Study 2021. *The Lancet Infectious Diseases*, 25(1), 36-51.
- Sharma, R., Abbastabar, H., Abdulah, D. M., Abidi, H., Abolhassani, H., et al. (2024). Temporal patterns of cancer burden in Asia, 1990–2019: A systematic examination for the Global Burden of Disease 2019 study. *The Lancet Regional Health-Southeast Asia*, 21.
- Naghavi, M., Ong, K. L., Aali, A., Ababneh, H. S., Abate, Y. H., et al. (2024). Global burden of 288 causes of death and life expectancy decomposition in 204 countries and territories and 811 subnational locations, 1990–2021: A systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*, 403(10440), 2100-2132.
- Brauer, M., Roth, G. A., Aravkin, A. Y., Zheng, P., Abate, K. H., et al. (2024). Global burden and strength of evidence for 88 risk factors in 204 countries and 811 subnational locations, 1990–2021: A systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*, 403(10440), 2162-2203.
- Avan, A., Feigin, V. L., Bennett, D. A., Steinmetz, J. D., Hachinski, V., et al. (2024). The burden of neurological conditions in north Africa and the Middle East, 1990–2019: A systematic analysis of the Global Burden of Disease Study 2019. *The Lancet Global Health*, 12(6), e960-e982.
- Kyu, H. H., Vongpradith, A., Dominguez, R. M. V., Ma, J., Albertson, S. B., et al. (2024). Global, regional, and national age-sex-specific burden of diarrhoeal diseases, their risk factors, and aetiologies, 1990–2021, for 204 countries and territories: A systematic analysis. *The Lancet Infectious Diseases*.
- Sharma, R., Abbastabar, H., Abdulah, D. M., Abidi, H., Abolhassani, H., et al. (2024). Temporal patterns of cancer burden in Asia, 1990–2019: A systematic examination for the Global Burden of Disease 2019 study. Elsevier.
- Kyu, H. H., Vongpradith, A., Dominguez, R. M. V., Ma, J., Albertson, S. B., et al. (2024). Global, regional, and national age-sex-specific burden of diarrhoeal diseases, their risk factors, and aetiologies, 1990–2021, for 204 countries and territories: A systematic analysis. Elsevier.
- Azzopardi, P. S., Kerr, J. A., Francis, K. L., Sawyer, S. M., Kennedy, E. C., et al. (2023). The unfinished agenda of communicable diseases among children and adolescents before

the COVID-19 pandemic, 1990–2019: A systematic analysis of the Global Burden of Disease Study 2019. *The Lancet*, 402(10398), 313-335.

- Azadnajafabad, S., Saeedi Moghaddam, S., Mohammadi, E., Rezaei, N., et al. (2023). Burden of breast cancer and attributable risk factors in the North Africa and Middle East region, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. *Frontiers in Oncology*, 13, 1132816.
- Haeuser, E., Serfes, A. L., Cork, M. A., Yang, M., Abbastabar, H., et al. (2023). Additional file 4 of Mapping age- and sex-specific HIV prevalence in adults in sub-Saharan Africa, 2000–2018. *BMC Medicine*.
- Kocarnik, J. M., Compton, K., Dean, F. E., Fu, W., Gaw, B. L., et al. (2022). Cancer incidence, mortality, years of life lost, years lived with disability, and disability-adjusted life years for 29 cancer groups from 2010 to 2019: A systematic analysis. *JAMA Oncology*, 8(3), 420-444.
- Ikuta, K. S., Swetschinski, L. R., Aguilar, G. R., Sharara, F., Mestrovic, T., et al. (2022). Global mortality associated with 33 bacterial pathogens in 2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 400(10369), 2221-2248.
- Sheena, B. S., Hiebert, L., Han, H., Ippolito, H., Abbasi-Kangevari, M., et al. (2022). Global, regional, and national burden of hepatitis B, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Gastroenterology & Hepatology*, 7(9), 796-829.
- Bryazka, D., Reitsma, M. B., Griswold, M. G., Abate, K. H., Abbafati, C., et al. (2022). Population-level risks of alcohol consumption by amount, geography, age, sex, and year: A systematic analysis for the Global Burden of Disease Study 2020. *The Lancet*, 400(10347), 185-235.
- Farzadfar, F., Naghavi, M., Sepanlou, S. G., Moghaddam, S. S., Dangel, W. J., et al. (2022). Health system performance in Iran: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 399(10335), 1625-1645.
- Alvarez, E. M., Force, L. M., Xu, R., Compton, K., Lu, D., et al. (2022). The global burden of adolescent and young adult cancer in 2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Oncology*, 23(1), 27-52.
- Kyu, H. H., Vongpradith, A., Sirota, S. B., Novotney, A., Troeger, C. E., et al. (2022). Age–sex differences in the global burden of lower respiratory infections and risk factors, 1990–2019: Results from the Global Burden of Disease Study 2019. *The Lancet Infectious Diseases*, 22(11), 1626-1647.
- Frostad, J. J., Nguyen, Q. A. P., Baumann, M. M., Blacker, B. F., Marczak, L. B., et al. (2022). Mapping development and health effects of cooking with solid fuels in low-income and middle-income countries, 2000–18: A geospatial modelling study. *The Lancet Global Health*, 10(10), e1395-e1411.
- Reiner, R. C., et al. (2022). The overlapping burden of the three leading causes of disability and death in sub-Saharan African children. *Nature Communications*.
- Haeuser, E., Serfes, A. L., Cork, M. A., Yang, M., Abbastabar, H., et al. (2022). Mapping age- and sex-specific HIV prevalence in adults in sub-Saharan Africa, 2000–2018. *BMC Medicine*, 20(1), 488.
- Serfes, A. L., Cork, M. A., Yang, M., Abbastabar, H., Abhilash, E. S., et al. (2022). Mapping age and sex specific HIV prevalence in adults in sub-Saharan Africa, 2000–2018. *BMC Medicine*.

- Paulson, K. R., Kamath, A. M., Alam, T., Bienhoff, K., Abady, G. G., et al. (2021). Global, regional, and national progress towards Sustainable Development Goal 3.2 for neonatal and child health: All-cause and cause-specific mortality findings from the Global Burden of Disease Study 2019. *The Lancet*, 398(10303), 870-905.
- Ward, J. L., Azzopardi, P. S., Francis, K. L., Santelli, J. S., Skirbekk, V., et al. (2021). Global, regional, and national mortality among young people aged 10–24 years, 1950–2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 398(10311), 1593-1618.
- Galles, N. C., Liu, P. Y., Updike, R. L., Fullman, N., Nguyen, J., et al. (2021). Measuring routine childhood vaccination coverage in 204 countries and territories, 1980–2019: A systematic analysis for the Global Burden of Disease Study 2020, Release 1. *The Lancet*, 398(10299), 503-521.
- Jahagirdar, D., Walters, M. K., Novotney, A., Brewer, E. D., Frank, T. D., et al. (2021). Global, regional, and national sex-specific burden and control of the HIV epidemic, 1990–2019, for 204 countries and territories: The Global Burden of Diseases Study 2019. *The Lancet HIV*, 8(10), e633-e651.
- Nature. (2021). Mapping routine measles vaccination in low- and middle-income countries. *Nature*, 589(7842), 415-419.
- Nature Medicine. (2021). Anemia prevalence in women of reproductive age in low- and middle-income countries between 2000 and 2018. *Nature Medicine*, 27(10), 1761-1782.
- Vos, T., Lim, S. S., Abbafati, C., Abbas, K. M., Abbasi, M., et al. (2020). Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1204-1222.
- Wang, H., Abbas, K. M., Abbasifard, M., Abbasi-Kangevari, M., Abbastabar, H., et al. (2020). Global age-sex-specific fertility, mortality, healthy life expectancy (HALE), and population estimates in 204 countries and territories, 1950–2019: A comprehensive demographic analysis. *The Lancet*, 396(10258), 1160-1203.
- Sepanlou, S. G., Safiri, S., Bisignano, C., Ikuta, K. S., Merat, S., et al. (2020). The global, regional, and national burden of cirrhosis by cause in 195 countries and territories, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017. *The Lancet Gastroenterology & Hepatology*, 5(3), 245-266.
- Lozano, R., Fullman, N., Mumford, J. E., Knight, M., Barthelemy, C. M., et al. (2020). Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1250-1284.
- Hamadeh, R. R., Soyiri, I. N., Sreeramareddy, C. T., Srinivasan, V., Sripathi, K., et al. (2020). Five insights from the Global Burden of Disease Study 2019. *The Lancet*.
- Kinyoki, D. K., Ross, J. M., Lazzar-Atwood, A., Munro, S. B., Schaeffer, L. E., et al. (2020). Author Correction: Mapping local patterns of childhood overweight and wasting in low- and middle-income countries between 2000 and 2017. *Nature Medicine*, 26(8), 1308-1308.
- LBDDBM Collaborators. (2020). Mapping local patterns of childhood overweight and wasting in low- and middle-income countries between 2000 and 2017. *Nature Medicine*, 26(5), 750-759.

- Asghari, B. (2020). Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1204-1222.
- Using the mechanism of immune responses in the diagnosis of giardiasis (Journal of Laboratory Diagnosis).
- Giardia vaccination (Journal of Laboratory Diagnosis).
- Pulmonary failure due to odiasporomycosis (Journal of Laboratory Diagnosis)
- Avian influenza and its pathogenicity in humans (Journal of Laboratory Diagnosis).
- Microsporidia (Journal of Laboratory Diagnosis)
- Giardiasis and Giardia vaccine (Journal of Laboratory Sciences Research and Education Center).
- Investigation of the antibacterial effect of pecan smoke in vitro (Journal of Laboratory Sciences Research and Education Center).

➤ **Book:**

- Molecular genetics with a look at epigenetics and microRNA in eukaryotic (human and fungal) and prokaryotic (bacterial) cells. 2015.

➤ **Reviewer :**

- In a Iranian journal of microbiology

➤ **Lecturer**

- Laboratory diagnosis of acute viral respiratory diseases: In the Department of Medicine, Iran University of Medical Sciences.
- HPV and ways to prevent and treat it: Executive Committee for Education and Empowerment of the University.
- Cancer prevention: Executive Committee for Education and Empowerment of the University.
- Introduction to hepatitis and its types: Executive Committee for Education and Empowerment of the University.
- In the seminar on urine culture, challenges and solutions for undergraduates and postgraduates of laboratory sciences, Iran University of Medical Sciences: Continuing education.
- Giardia information and the Giardia vaccine: Monthly Journal Club meeting of the Laboratory Sciences Research and Education Center.

➤ **Articles in national congresses:**

- Determination of capsular serotype in *Klebsiella pneumoniae* and its relationship with the type of infection (8th Annual Iranian Pathology Conference and 2nd Annual Iranian Cancer Society Conference, Imam Khomeini Hospital)
- Sample staining method in the diagnosis of pulmonary infection adiaspiromycosis.
- Method for diagnosing otomycosis in patients with external ear infection.
- Investigation of the prevalence of biotype and antibiotic resistance in the genus *Enterobacter* using API20E in comparison with conventional methods.
- Comparison of antibiotic resistance between *Salmonella* isolated from humans and *Salmonella* isolated from cattle.

➤ **Posters in national congresses:**

- Prevalence of Intestinal Parasites Among Patients Referred to the Research and Educational Center for Laboratory Sciences at Iran University of Medical Sciences Over a Seven-Year Period (1998-2004) – Presented at the 14th International Congress of Infectious and Tropical Diseases of Iran.
- Antibacterial Effects of Esfand (*Peganum harmala*) Smoke Under Laboratory Conditions – Presented at the Annual Pathology Congress (2002) at Imam Khomeini Hospital.

➤ **Setting up educational activities:**

- Continuous Education Coordinator (for in-person programs and webinars) at Iran University regarding program acquisition, licensing, and conducting 22 specialized workshops from 2022 to present.
- Organizer of 22 skill-building workshops at the Independent – Free Committee at the Faculty of Paramedical Sciences from 2022 to present.
- Collaborator in the Educational Development Office at the Faculty of Paramedical Sciences since 2019.
- Internship Expert in the Department of Laboratory Sciences for enhancing the quality of internship programs since 2019.
- Member of the Internship Supervision Committee for Students since 2007.
- Collaboration in organizing a quality control workshop in Parasitology in 2001.
- Collaboration in organizing a quality control workshop in Parasitology in 2002.
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- Collaboration in organizing a quality control workshop in Parasitology in 2005.
- Collaboration in organizing a quality control workshop in Mycology in 2005.
- Collaboration in organizing a quality control workshop in Microbiology in 2002.

- Collaboration in organizing a quality control workshop in Microbiology in 2005.
- Supervisor of the Urinary Biochemistry Section (Research and Educational Laboratory Sciences Center).