



Pasteur Institute of Iran
Department of Mycobacteriology and
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Farzam Vaziri, Ph.D., Assistant Professor, Medical Bacteriology

Farzam Vaziri is currently assistant professor of medical bacteriology and research directorate of Microbiology Research Center (MRC) at Pasteur Institute of Iran. He earned his Master and Ph.D. in Medical Bacteriology at Tarbiat Modares University, Iran.

His interest is tuberculosis, host pathogen interactions, *Helicobacter pylori*, cell signaling and microbiota. Farzam has several refereed publications in international journals.

Skills & Activities

Skills Molecular Biological Techniques, Immunofluorescence Microscopy, Molecular Cloning, Cell Culture, Cloning, Genotyping, PCR, Protein Expression, Western Blot, Electrophoresis, Immunoassay, Transfection, Gene Expression, Real-Time PCR, Host Pathogen interaction, Cell Signaling Pathways, Microbiology, Sequencing, Immunology Protocols, Invert microscopy

Languages English, Persian

Interests: Mycobacteriology, Host- Pathogen interactions, *Helicobacter pylori*, Molecular Epidemiology, Microbiota

Awards & Grants

1-Evaluation of Gut Microbiota Pattern and Related Metabolites in Type 1 & 2 Diabetic Patients : National Institute for Medical Research Development, IR-IRAN.

2- Comparative Study of Cell Signaling Induced by Commensal and Pathogenic Bacteria Outer Membrane Vesicles: Pasteur Institute of Iran

3-Introduction of Addictobiotic: Comparative Study of Gut Microbiota Pattern between Addicted People to Morphine and Non-addicted People and the Choice of Suitable Probiotic in the Treatment of Related Neurological Disorders: Microbiology Reseach Center, Pasteur Institute of Iran.

4-The Effect of Probiotic in Microbial Colonization of Laryngotracheal Tube in COPD. Microbiology Reseach Center, Pasteur Institute of Iran.

5-The Comparative Study of Gut Microbiota Pattern in Lung Cancer: Microbiology Reseach Center, Pasteur Institute of Iran.

Publication Highlights

Kargarpour Kamakoli M, Sadegh HR, Farmanfarmaei G, Masoumi M, Fateh A, Javadi G, Rahimi Jamnani F, **Vaziri F**, Siadat SD. Evaluation of the impact of polyclonal infection and heteroresistance on treatment of tuberculosis patients. *Sci Rep.*2017;7:41410. doi: 10.1038/srep41410. PubMed PMID: 28120910 (Corresponding Author).

Farmanfarmaei G, Kamakoli MK, Sadegh HR, Masoumi M, Abdolrahimi F, Fateh A, Ebrahimzadeh N, Javadi G, Jamnani FR, **Vaziri F**, Siadat SD, Bias in detection of *Mycobacterium tuberculosis* polyclonal infection: Use clinical samples or cultures? *Molecular and Cellular Probes* (2017), doi: 10.1016/j.mcp.2017.01.002(Corresponding Author).

Sadegh H, Kargarpour Kamakoli M, Farmanfarmaei G, Masoumi M, Abdolrahimi F, Fateh A, Ebrahimzadeh N, Rahimi Jamnani F, **Vaziri F**, Siadat SD. Pros and cons of direct genotyping on tuberculosis clinical samples. *Microb Pathog.* 2017;103:135-138. doi: 10.1016/j.micpath.2016.12.025. PubMed PMID: 28034830 (Corresponding Author).

Khanipour S, Ebrahimzadeh N, Masoumi M, Sakhaei F, Alinezhad F, Safarpour E, Fateh A, Nour Nematollahi A, Hadizadeh Tasbiti A, Zolfaghari MR, Bahrmand AR, Mirsaeidi M, Rahimi Jamnani F, **Vaziri F**, Siadat SD. Haarlem 3 is the predominant genotype family in multidrug-resistant and extensively drug-resistant *Mycobacterium tuberculosis* in the capital of Iran: A 5-year survey. *J Glob Antimicrob Resist.* 2016;5:7-10. doi: 10.1016/j.jgar.2016.01.007. PubMed PMID:27436458 (Corresponding Author).

Hajimiri ES, Masoomi M, Ebrahimzadeh N, Fateh A, Hadizadeh Tasbiti A, Rahimi Jamnani F, Bahrmand AR, Mirsaeidi M, **Vaziri F**, Siadat SD. High prevalence of *Mycobacterium tuberculosis* mixed infection in the capital of moderate tuberculosis incidence country. *Microb Pathog.* 2016;93:213-8. doi:10.1016/j.micpath.2016.02.015. PubMed PMID: 26944666(Corresponding Author).

Mostafa M, Siadat SD, Shahcheraghi F, **Vaziri F**, Japoni-Nejad A, Vand Yousefi J, Rajaei B, Harifi Mood E, Ebrahimzadeh N, Moshiri A, Seyed Siamdoust SA, Rahbar M. Variability in gene cassette patterns of class 1 and 2 integrons associated with multi drug resistance patterns in *Staphylococcus aureus* clinical isolates in Tehran-Iran. BMC Microbiol. 2015;15:152. doi:10.1186/s12866-015-0488-3. PubMed PMID: 26228695; PubMed Central PMCID:PMC4521504.

Vaziri F, Peerayeh SN, Alebouyeh M, Maghsoudi N, Azimzadeh P, Siadat SD, Zali MR. Novel effects of *Helicobacter pylori* CagA on key genes of gastric cancer signal transduction: a comparative transfection study. Pathog Dis. 2015;73(3). pii: ftu021. doi: 10.1093/femspd/ftu021. PubMed PMID:25743471(Corresponding Author).

Vaziri F, Najar Peerayeh S, Alebouyeh M, Molaei M, Maghsoudi N, Zali MR. Determination of *Helicobacter pylori* CagA EPIYA types in Iranian isolates with different gastroduodenal disorders. Infect Genet Evol. 2013;17:101-5. doi:10.1016/j.meegid.2013.03.048. PubMed PMID: 23567822.

Vaziri F, Najar Peerayeh S, Alebouyeh M, Mirzaei T, Yamaoka Y, Molaei M, Maghsoudi N, Zali MR. Diversity of *Helicobacter pylori* genotypes in Iranian patients with different gastroduodenal disorders. World J Gastroenterol. 2013;19(34):5685-92. doi: 10.3748/wjg.v19.i34.5685. PubMed PMID: 24039362; PubMedCentral PMCID: PMC3769906.

Research projects

1. Determination of trend of *Mycobacterium tuberculosis* genetic diversity in Iranian population with tuberculosis by IS6110 RFLP, Spoligotyping and MIRU-VNTR from 2008 to 2013
2. Determination the prevalence of polymicrobial infections (Mixed infection) in Tuberculosis and evaluation of its impact on treatment of patients
3. Evaluation of induced cellular cytokine profile in response to Rifampin resistant *Mycobacterium tuberculosis* strains

Master thesis supervision

- 1-Determination of Trend of *Mycobacterium tuberculosis* Genetic Diversity in Iranian Population with Tuberculosis by MIRU-VNTR from 2011 to 2013
- 2- Determination of trend of multi drugs resistant (MDR) *Mycobacterium tuberculosis* genetic diversity in Iranian population with tuberculosis by Spoligotyping from 2010 to 2014
- 3- Genotyping of *Mycobacterium tuberculosis* strains on tuberculosis clinical samples by 24 locus MIRU-VNTR method
- 4- Comparative evaluation of *Mycobacterium tuberculosis* genotypes isolated from pulmonary and extra pulmonary tuberculosis
- 5- A comparison of the MIRU-VNTR genotyping method of *Mycobacterium tuberculosis* strains in clinical samples with cultured samples

Ph.D. thesis supervision

1. Study of signaling pathways in response to different genotypes of *Mycobacterium tuberculosis* in infected alveolar epithelial cells
2. Evaluation of induced cellular cytokine profile in response to Rifampin resistant *Mycobacterium tuberculosis* strains
3. Prevalence of drug-resistance in *Mycobacterium tuberculosis* isolates from new case patients with pulmonary tuberculosis against first-line drugs, using the proportional method, and evaluation of genetic patterns with MIRU-VNTR typing and Spoligotyping