Curriculum vitae

Masoud Alebouyeh, PhD

- Research Associated Professor of Medical Bacteriology,
- Research Center for Pediatric Infections, Research Institute for Children's Health
- Shahid Beheshti University of Medical Sciences, Tehran, Iran
- Age: 47; Birth date: 7 August 1978,
- Married,
- Nationality: British, Iranian
- H index- Scopus: 25
- ORCID: http://orcid.org/0000-0001-7474-2515

WORK EXPERIENCE:

1. Scientific committee member, Researcher, Pediatric Infections Research Center, Research Institute for Children's Health, SBMU, Iran (Since 07/2020, 5- years, ongoing)
2. Director, Research Center for Foodborne and Waterborne Diseases, Research Institute for Gastroenterology and Liver Diseases (RIGLD), SBMU, Iran (06/2010-06/2020, 10-years)

Education:

Dates From	Dates To	Name of School/College/University	Qualifications
2023	2023	IPC program, Infection control, Charite University, Germany, WHO	
2023	2023	GIARP project- Germany, Robert Koch Institute	
2018	2018	Field Epidemiology, training course (Iran-Germany)	TUMS- Bernhard Nocht Institute for Tropic Medicine, Germany
2005	2010	Medical School No.2/Tarbiat Modares University	PhD, Medical Bacteriology, Iran
2006	2006	Molecular Microbiology, training course (IAESTE)	University of Greifswald, Germany
2001	2004	Medical School/Iran University of Medical Sciences	MSc, Medical Microbiology, Iran
1996	2000	Gorgan Branch	BSc, Microbiology, Iran

Technical experiences:
Conventional microbiology (traditional methods) and automated systems (BACTEC), molecular microbiology (Different PCR methods, real time PCR, cloning, expression, mutagenesis, and typing methods), different antimicrobial susceptibility testing methods, enzymology and proteomics methods of microbial enzymes, point of care testing, anaerobic microbiology, probiotics, cellular microbiology, SOP and scientific writing, statistical analysis, bioinformatics and micrbiome/resistome analysis, sequencing and mutation analysis, ELISA, Serotyping and serogrouping (Traditional and molecular methods), and general methods for validation and verification of diagnostic tests.

Main Research interests

1. Molecular epidemiology of hospital and community acquired infections and antimicrobial resistance
2. Molecular biology of chronic infections

Main experiences:
1. Direction of Research Center for Foodborne and Waterborne Diseases, Research Institute for Gastroenterology and Liver Diseases (RIGLD), SBMU, Iran (10-years)
2. Supervision of Clinical Laboratory for Infectious Diseases, Pediatric Infections Research Center, Research institute for Children's Health, SBMU, Iran (5- years, ongoing)
3. Supervision of more than 75 MSc and PhD thesis in Biology and Clinical Microbiology majors.
4. Design and implementation of national and international research projects on cellular and molecular microbiology (Host-pathogen interaction), epidemiology of infectious diseases, antimicrobial resistance, and hospital/community acquired infections
5. Cooperation with Global Foodborne Network (GFN) for proficiency tests of intestinal pathogens
6. Collaboration with Denmark Technical University (DTU) for doing "Global monitoring of antimicrobial resistance based on metagenomics analyses of urban sewage"
7. Collaboration and joint supervision of research projects with Robert Koch Institute (RKI, Germany) and Acibadem University, Turkey
8. Holding three national and regional workshops on "Integrated surveillance of antimicrobial resistance and foodborne diseases" in collaboration with WHO
9. Design and implementation of microbiome and resistome studies among different populations of patients with HAIs (BSIs), common bile duct stone, IBD, IBS, and gastritis
10. Study on recurrence and relapse (*Clostridioides difficile*, *H. pylori*, SARS-CoV-2)
11. Source tracking and molecular epidemiology of human pathogens
12. Microbiome analysis in IBD patients, role of their crude metabolites in induction of proinflammatory cytokines
13. Microbiome analysis in IBS patients, role of CDT-encoding bacteria in induction of TLRs, IL-8, serotonin, and apoptosis

14. One year follow up for study of changes in Microbiome of infants (breast feeding *vs* infant formula feeding neonates)
15. Cell culture analysis on fecal microbiota of IBD patients for study of their roles in induction of inflammatory response
16. Study of culture filtrates of anaerobic bacteria from patients with CRC and analysis of their influence on gene expression profiles of HT-29 cell line.
17. The prevalence of CMV infection and its contribution in the occurrence or exacerbation of IBD (using real time PCR, ELISA, and conventional methods on colon biopsy samples)
18. *H. pylori* infection (its interaction with host tissue, pathological changes, virulence diversity, diversity of pathogenicity islands, function of their genes in the gastric tissue, carcinogenesis, antimicrobial resistance, microevolution during chronic infection, recurrence and reinfection)
19. *C. difficile* (prevalence, genetic diversity, clonality, antimicrobial resistance, recurrence/relapse, toxin profiles, recurrence and reinfection)
20. Bacteroidetes (epidemiology and antimicrobial resistance)
21. Fecal microbial transplantation and its effect on dysbiosis
22. Interaction of bacterial genotoxins (e.g. cytolethal distending toxin-encoding) with TLRs and their effects on inflammation
23. Interaction of bacteria with the biliary tract, formation of gall stone, and chronic inflammatory diseases in this tissue.
24. Microbiome analysis of the biliary tract in patients subjected to ERCP.
25. Virulence entity of bacterial isolates from the biliary tract, resistance to bile components, and pathogenesis
26. Spore surface display for study of the interaction of *B. subtilis* spores with intestinal epithelial cells.

Recent publications (2023-2025)

Antimicrobial resistance and epidemiological patterns of *Streptococcus pyogenes* in Türkiye
N Ünübol, N Caglayan, S Cebeci, Y Beşli, B Sancak, NY Uyar, SS Ahrabi, ... M Alebouyeh. Journal of Infection and Public Health 18 (2), 102633

Frequency of Bacteria Causing Exudative Diarrhea in Children Less Than Five Years Old in a Tertiary Hospital, Iran. MS Montazeri, H Khodaei, L Azimi, M Alebouyeh, RM Ghanaiee, ... Arch Pediatr 13 (1), e150600.

The impact of the COVID-19 pandemic on pediatric bloodstream infections and alteration in antimicrobial resistance phenotypes in Gram-positive bacteria, 2020–2022. F Fallah, A Karimi, L Azimi, G Ghandchi, Z Gholinejad, N Abdollahi, ... M Alebouyeh. BMC pediatrics 24 (1), 671.

Negative feedback loop in the activation of non-homologous end joining DNA repair pathway in *Helicobacter pylori* infected patients with gastritis. M Amirnorouzi, A Karimi, NE Daryani, A Rajaei, M Hashemi, M Alebouyeh. Scientific Reports 14 (1), 23363.

The Frequency of Rotavirus Gastroenteritis in Children from West of Iran and Genotyping of Rotavirus Isolates: A Suggestion for Further Changes in Childhood Immunization Program
P Sedighi, M Karami, M Razzaghi, M Emamjamaat, A Karimi, ... M Alebouyeh. Journal of Research in Health Sciences 24 (3), e00621

Comparative analysis of the RVA VP7 and VP4 antigenic epitopes circulating in Iran and the Rotarix and RotaTeq vaccines. T Fallah, RM Ghanaiee, A Karimi, SM Zahraei, S Mahmoudi, M Alebouyeh. Heliyon 10 (13).

Protective effects of different lyoprotectants on survival of clinical bacterial isolates in a hospital biobank. M Alebouyeh, NA Tehrani, F Fallah, L Azimi, M Sadredinamin, N Yousefi, ... Cryobiology 115, 104891.

Seroprevalence of measles and rubella IgG antibodies in children and pregnant women in Iran. SR Tabatabaei, A Karimi, M Alebouyeh, G Zahed, E Faghihian, Y Jefrideh, ... M Alebouyeh. Arch Pediatr Infect Dis 12 (2), e140365.

Multicenter study of rotavirus infection, diversity of circulating genotypes and clinical outcomes in children≤ 5 Years old in Iran. RM Ghanaiee, T Fallah, A Karimi, I Sedighi, M Tariverdi, T Nazari, ... M Alebouyeh. The Pediatric Infectious Disease Journal 43 (4), 320-327.

Investigation of the phylogenetic groups, pathotypes, and clonality of extended spectrum β-lactamase encoding Escherichia coli strains in the intestine of broilers during … . F Doregiraee, BN Fasaei, M Alebouyeh, S Charkhkar, E Tajeddin, ... Veterinarski arhiv 94 (2), 129-140

Molecular Study on Virulence and Resistance Genes of ST131 Clone (Uropathogenic/Enteropathogenic *Escherichia Coli*) Hybrids in Children. R Shahbazi, M Alebouyeh, S Shahkolahi, S Shahbazi, H Hossainpour, ... Future Microbiology 18 (18), 1353-1361.

Transcriptional alteration of NF-κB-associated long noncoding RNAs in the stomach of Helicobacter pylori-infected and non-infected patients. M Ghanbarian, R Bakhtiari, SZ Mirbagheri, F Rezaei, AR Foroushani, ... M Alebouyeh. The Journal of Infection in Developing Countries 17 (11), 1556-1565.

Microbiome analysis of bile samples in patients with choledocholithiasis and hepatobiliary disorders. M Azimirad, A Sadeghi, N Hosseinkhan, SZ Mirbagheri, M Alebouyeh, Germs 13 (3), 238.

Examining the effect of *Helicobacter pylori* cagPAI variety on gene expression pattern related to gastric cancer. A Ahmadzadeh, M Rashidi, Z Mohsenifar, F Faeghi, M Rezaei-Tavirani, ... Hormone Molecular Biology and Clinical Investigation 44 (3), 251-258.

Evaluation of Covid-19 anti-spike IgG antibody five months after the second Covid-19 vaccination. RA Rafie, L Azimi, S Armin, A Aghamohammadi, A Karimi, F Fallah, … GMS Hygiene and Infection Control 18, Doc20.

Activation of the DNA damage response pathway in the infected gastric tissue with Helicobacter pylori: a case-control study. A Rajaei, A Ghameshlou, R Shirkoohi, AS Farahani, SZ Mirbagheri, The Journal of Infection in Developing Countries 17 (08), 1125-1129.

The intestinal carrier status of *Enterococcus* spp. in children: clonal diversity and alterations in resistance phenotypes before and after admission to a pediatric …. F Shirvani, R Hassanzadeh, B Attaran, G Ghandchi, N Abdollahi, ... BMC pediatrics 23 (1), 434.

Endogenous Bacteremia Caused by Intestinal Colonization of Carbapenem-Resistant *Enterobacteriaceae* (CR*E*) in Immunocompromised Children. N Almasian Tehrani, L Azimi, S Armin, N Soleimani, F Fallah, A Karimi, ... Tropical Medicine and Infectious Disease 8 (8), 402.

Shigella flexneri Serotypes: O-antigen Structure, Serotype Conversion, and Serotyping Methods. M Sadredinamin, S Yazdansetad, M Alebouyeh, MMK Yazdi, ... Oman Medical Journal 38 (4), e522.

Investigation of frequency and antimicrobial resistance patterns of Shiga toxigenic Escherichia coli in vegetable samples from Tehran, Iran. F Ahmadi, A Sadeghi, S Besharati, P Saffarian, E Tajedini, P Owlia. Iranian Journal of Nutrition Sciences and Food Technology 18 (2), 89-96.

Effectiveness of mouthwashes on reducing SARS-CoV-2 viral load in oral cavity: a systematic review and meta-analysis. T Ebrahimi, AR Shamshiri, M Alebouyeh, SZ Mohebbi. BMC Oral Health 23 (1), 443.

Seroepidemiological and Molecular Survey for the detection of SARS-CoV-2 infection among children in Iran, September 2020 to June 2021: 1-Year cross-sectional study. R Mansour Ghanaie, I Boone, AR Shamshiri, A Karimi, A Amirali, ... Microorganisms 11 (7), 1672.

Antibiotic resistance assessment and multi-drug efflux pumps of Enterococcus faecium isolated from clinical specimens. M Mirzaii, M Alebouyeh, MB Sohrabi, P Eslami, M Fazli, M Ebrahimi, ... The Journal of Infection in Developing Countries 17 (05), 649-655.

Intestinal colonization of vancomycin-resistant *Enterococcus* in children admitted to Mofid children's hospital intensive care unit at admission and at discharge. M Alebouyeh, F Shirvani, R Hassanzadeh, T Azimi, G Ghandchi, ... Molecular Biology Reports 50 (4), 3271-3281

Author response to: Letter to Editor in Response to Assessment of early and post COVID-19 vaccination antibody response in healthcare workers: a multicentre cross-sectional … . RM Ghanaie, M Alebouyeh. Epidemiology & Infection, 1-5

The genotypic and phenotypic characteristics contributing to high virulence and antibiotics resistance in *Escherichia coli* O25-B2-ST131 in comparison to non- O25 … . R Shahbazi, S Salmanzadeh-Ahrabi, MM Aslani, M Alebouyeh, J Falahi, ...BMC pediatrics 23 (1), 59.

Primary Carrier Status and Alteration in the Colonization of the Extended-Spectrum β-Lactamase Producing Enterobacteriaceae Among Children in Pediatric Intensive Care Unit … . SS Ahmadipour, AS Salmanzadeh, A Khosroabadi, GR Mansour, ...Archives of Pediatric Infectious Diseases 11 (3), 1-11.

Bacteremia with multi-drug resistant gram-negative bacteria in pediatrics and its correlation with COVID-19. NA Tehrani, M Alebouyeh, L Azimi, S Jabbari, RM Bayekolaei, T Azimi, ... Archives of Clinical Infectious Diseases 18 (4).

Synthesis and biological evaluation of new nitroimidazole derivatives as anti-Helicobacter pylori agents against metronidazole-resistant strains. Z Bayati, S Amidi, M Shahabimehr, M Alebouyeh, A Mahboubi, ... Iran. J. Pharm. Res 22, e137969.

Primary Carrier Status and Alteration in the Colonization of the Extended-Spectrum β-Lactamase Producing Enterobacteriaceae Among Children in Pediatric Intensive Care Unit … . SA Sereshkeh, SS Ahrabi, A Khosroabadi, RM Ghanaiee, A Karimi, ... Archives of Pediatric Infectious Diseases 11 (3).

Antibiotic Susceptibility Patterns for Carbapenem-Resistant Enterobacteriaceae

S Armin, F Fallah, A Karimi, F Karbasiyan, M Alebouyeh, ... International Journal of Microbiology 2023 (1), 8920977.

Assessment of rotavirus infection in hospitalized children with diarrhea. T Nazari, A Karimi, M Alebouyeh, RM Ghanaiee. Arch Pediatr Infect Dis 11 (1), e129829

Assessment of early and post COVID-19 vaccination antibody response in healthcare workers: a multicentre cross-sectional study on inactivated, mRNA and vector-based vaccines. RM Ghanaie, M Jamee, H Khodaei, A Shirvani, A Amirali, A Karimi, ... Epidemiology & Infection 151, e12.

Intestinal Carriage of Carbapenemase-Producing Enterobacteriaceae Members in Immunocompromised Children During COVID-19 Pandemic. NA Tehrani, M Alebouyeh, S Armin, N Soleimani, A Karimi, B Shamsian, ... Archives of Pediatric Infectious Diseases 11 (1).

Effects of COVID-19 Pandemic on the Frequency of Complicated Appendicitis in Pediatric Populations. L Mohajerzadeh, M Ebrahimian, M Sarafi, G Ebrahimisaraj, ... Arch Pediatr Infect Dis 11 (1), e129026.