

PERSONAL DETAILS

Name: Mohsen Arzanlou

Date of birth: April 1974

Place of birth: Khoy

Country of birth: Iran

Nationality: Iranian

Gender: Male

Marital status: Married- Two kids

Language: English, Farsi, Azeri

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Educational Records:

Degree	Institution	Field	Date
BSc	Shahid Beheshti University of Medical Science	Medical Laboratory Technology	1999
MSc	Tarbiat Modares University	Medical Bacteriology	2000
PhD	Tarbiat Modares University	Medical Bacteriology	2005

MSc Thesis:

- Investigation of protective effect of *Pseudomonas aeruginosa* flagellar antibodies in burn-induced infection on white mouse.

PhD Thesis:

- Production and evaluations of immune response against recombinant *Saccharomyces cerevisiae* expressing B subunit of *Vibrio cholerae* enterotoxin in animal model.

Research Interests:

- Antimicrobial resistance
- Molecular epidemiology of infectious diseases
- Nosocomial infections
- Microbial pathogenesis
- Anti-infective drug development

Teaching Experience:

- Medical bacteriology, (Medical, Pharmacy, Dentistry, Medical Technology students)
- Host pathogen interaction, (Medical Bacteriology MSc students)
- Physiology of microorganisms, (Medical Bacteriology MSc students)
- Antimicrobial agents and antibiotic resistance, (Medical Bacteriology MSc students)
- Molecular methods in microbiology (Practical) (Medical Bacteriology MSc students)

Employment Experience:

Scientific positions:

- Assistant professor, Department of Microbiology, School of Medicine, Ardabil University of Medical Sciences, Ardabil, Iran, 2005-2012.
- Associate professor, Department of Microbiology, School of Medicine, Ardabil University of Medical Sciences, Ardabil, Iran, 2012-2017.
- Professor, Department of Microbiology, School of Medicine, Ardabil University of Medical Sciences, Ardabil, Iran, 2017-present
- Sabbatical stay at South Australia University. 2017.

Executive positions:

- Vice- Chancellor in Food and Drug Affairs, Ardabil University of Medical Sciences, Ardabil, Iran, 2017-2022.
- Member of Ardabil University of Medical Sciences academic promotion committee, 2019-present.
- Research Affairs Director of Ardabil University of Medical Sciences, 2007-2010.
- Supervisor of the student research committee of Ardabil University of Medical Sciences, 2006-2007.
- Executive editor of Journal of Ardabil University of Medical Sciences, 2008-2011.
- Member of Zoonoses Research Center of Ardabil University of Medical Sciences.
- Secretary of the Scientific Committee, the 13th Iranian & the Second International Congress of Microbiology, Ardabil 14-16 Jul. 2012.
- Member of Iran Technology Analysis Network, Tehran, IRAN, 2002-2003.

Honors:

- Distinguished professor in educational festival, Ardabil University of Medical Sciences-۲۰۱۶.
- Distinguished researcher in research festival, Ardabil University of Medical Sciences-۲۰۱۹.

Membership of Scientific Societies:

- Iranian society of microbiology

Full Articles Published in Refereed Journals:

- 1- Hasani K. Sadeghi H., Vosoughi M. Sardari M. Manouchehrifar **Arzanlou M.** Characterization of β -lactamase producing Enterobacterales isolated from an urban wastewater treatment plant. Iranian Journal of Microbiology. Under Review, (Corresponding Author).

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- 3- Ranjbar Omid M, Jamali H, Kafilzadeh F, Borjian A, **Arzanlou M**. *Staphylococcus* spp. in the wastewater: diversity, antimicrobial resistance and virulence potential. *Journal of Water and Health*, 2023; 21 (2): 178–191. (Corresponding Author).
- 4- Habibzadeh N, Peeri H, Manouchehri Far M, Alimohammadi Asl H, Iranpour S, **Arzanlou M**. Faecal carriage of ESBL and pAmpC producing *Enterobacterales* in an Iranian community: prevalence, risk factors, molecular epidemiology and antibiotic resistance. *Microbial Drug Resistance*, doi: 10.1089/mdr.2021.0029. (Corresponding Author).
- 5- Namaki Kheljan M, Teymorpour R, Peeri Doghaheh H, **Arzanlou M**. Antimicrobial biocides susceptibility and tolerance-associated genes in *Enterococcus faecalis* and *Enterococcus faecium* isolates collected from human and environmental sources. *Current Microbiology*, 2022; 79(6):170 (Corresponding Author).
- 6- Namaki M, Habibzadeh S, Vaez, H, **Arzanlou M**, Safarirad S, Bazghandi SA, Sahebkar A, Khademi, F. Prevalence of resistance genes to biocides in antibiotic-resistant *Pseudomonas aeruginosa* clinical isolates. *Molecular Biology Reports*, 2022; 49(3): 2149-2155.
- 7- Barzegar, S, **Arzanlou, M**, Teimourpour, A, Esmaelizad, M, Yousefipour, M, MohammadShahi, J, Teimourpour, R. Prevalence of the Integrons and ESBL genes in Multidrug-Resistant strains of *Escherichia coli* isolated from urinary tract infections, Ardabil, Iran. *Iranian Journal of Medical Microbiology*, 2022; 16(1): 56-65.
- 8- Babazadeh, F, Teimourpour, R, **Arzanlou, M**, Peeridogaheh, H, Yousefipour, M, Mohammad Shahi, J. Phenotypic and molecular characterization of extended-spectrum β -lactamase/AmpC- and carbapenemase-producing *Klebsiella pneumoniae* in Iran. *Molecular Biology Reports*. 2022; 49(6):4769-4776.
- 9- Ranjbar Omid M, Jamali H, Kafilzadeh F, Borjian A, **Arzanlou M**. Molecular epidemiology, virulence factors, antibiotic resistance and risk factors for nasal carriage of *Staphylococcus aureus* in a teenage student population: High prevalence of oxacillin susceptible MRSA isolates. *Jundishapur Journal of Microbiology*, 2021; 14(9):e118240. (Corresponding Author).
- 10- Maleki D, Manouchehrifar M, Namaki Kheljan M, Mossavi SH, Jannati E, PeeriDoghaheh H, Teimourpour R, Khademi F, **Arzanlou M**. Vancomycin-resistant *Enterococcus* species: Antimicrobial resistance and virulence genes profile. *Gene Reports*, 2022; 25: 101338. (Corresponding Author).
- 11- Hasanpour H, Neyestani Z, **Arzanlou M**, Moradi-Asl E, Sahebkar A, Khademi F. Vancomycin-resistant enterococci in Iran: A systematic review and meta-analysis of non-clinical studies. *Gene reports*, 2021; 24: 101265.
- 12- Bazghandi SA, **Arzanlou M**, Mohammadshahi J, Vaez H, Sahebkar A, Khademi F. Prevalence of virulence genes and drug resistance profiles of *Pseudomonas aeruginosa* isolated from clinical specimens *Jundishapur Journal of Microbiology* 2021; 14(8):e118452.

- 13- Sadigh A, Fataei E, **Arzanlou, M**, Imani A. Bacteria bioaerosol in the indoor air of educational microenvironments: Measuring exposures and assessing health effects. *Journal of Environmental Health Science and Engineering*. 2021; 9(2) 1635-1647.
- 14- Safarirad S, **Arzanlou M**, Peeridogaheh H, Vaez H, Sahebkar A, Khademi F, Prevalence and Characteristics of Metallo-beta-Lactamase-positive and High-risk Clone ST235 *Pseudomonas aeruginosa* at Ardabil Hospitals. *Jundishapur J Microbiol*. 2021; 14(3): e115819.
- 15- Fahim Z, **Arzanlou M**, Rad HI, Hekmatfar S. Comparative assessment of fluoride released and antimicrobial effects of three types of glass ionomer cements on cariogenic dental bacteria: An in-vitro study. 2021; *Journal of Mazandaran University of Medical Sciences*, 31(202), 126-135
- 16- Khademi F, Maarofi K, **Arzanlou M**, Peeri-Dogaheh H, Sahebkar A. Which missense mutations associated with DNA gyrase and topoisomerase IV are involved in *Pseudomonas aeruginosa* clinical isolates resistance to ciprofloxacin in Ardabil? *Gene Reports*, 2021; 101211.
- 17- Khademi F, Vaez H, Ghanbari F, **Arzanlou M**, Mohammadshahi J, Sahebkar A. Prevalence of fluoroquinolone-resistant *Salmonella* serotypes in Iran: a meta-analysis. *Pathogens and Global Health*, 2020; 114(1):16-29.
- 18- Hayati B, Nazari S, Matboo SA, Pasalari H, **Arzanlou M**, Asgari E, Mohseni SM. Improvement on electrochemical inactivation of *Escherichia coli* and *Clostridium perfringens* by assisted alum nanocrystallites approach: Parametric and cost evaluation. *Desalination and Water Treatment*, 2020; 207, 361 – 372.
- 19- Sabour S, **Arzanlou M**, Jeddi F, Azimi T, Hosseini-Asl S, Naghizadeh-Baghi A, Peeri Dogaheh. Evaluating the efficiency of TaqMan real-time PCR and serological methods in the detection of *Brucella* spp. in clinical specimens collected from suspected patients in Ardabil, Iran. *Journal of Microbiological Methods*, 2020; 175, 105982.
- 20- Jannati E, Amirmozaffari N, Saadatmand S. **Arzanlou M**. Fecal carriage of High-Level aminoglycoside and ampicillin-resistant *Enterococcus* species in healthy children: Prevalence, Associated risk factors, clonal relatedness, virulence factors and antimicrobial susceptibilities. *Journal of Global Antimicrobial Resistance*, 2020; 20,135-144 (Corresponding Author)
- 21- Imani Rad H, Peeri H, Amani M, Mohammadnia A, Ogunniyi AD, Khazandi M, Venter H, **Arzanlou M**. Allicin prevents the formation of *Proteus*-induced urinary crystals and the blockage of catheter in a bladder model in vitro. *Microbial Pathogenesis*, 2019; 132: 293-301 (Corresponding Author).
- 22- Mohammadi Gharibani K, Azami A, Masoomeh P, Khademi F, Mousavi SF, **Arzanlou M**. High Frequency Parvizi of Macrolide-Resistant *Streptococcus pneumoniae* colonization in respiratory tract of healthy children in Ardabil, Iran. *Tanaffos*, 2019; (Accepted- In press, Corresponding Author).

- 23- Nazari S, Gholami M, Farzadkia M, Akbari Dourbash F, **Arzanlou M**, Rezaei Kalantary R. Synthesis and evaluation of the antibacterial effect of silica-coated modified magnetic poly-(amidoamine) G5 nanoparticles on *E. coli* and *S. aureus*. *Journal of Molecular Liquids*. 2019; 276: 93-104.
- 24- Ahmadian M, **Arzanlou M**, Naghizadeh Baghi N, Imani Rad H, Hekmatfar S. Comparative evaluation of antimicrobial activity of three types of materials (reinforced zinc oxide eugenol, MTA and Cem cement) used in deciduous teeth pulpotomy. *Scientific Journal of Kurdistan University of Medical Sciences*, 2018; 98: 37-46.
- 25- Valedeyni Asl F, Hazrati S, **Arzanlou M**, Fazlzadeh M. Assessment of bacterial bio-aerosols types and its concentration in the ambient air of educational hospitals of Ardabil University of Medical Sciences in 2016. *Journal of Health and Safety at Work*. 2018; 8 (1):15-28.
- 26- Khademi F, Yousefi-Avarvand A, Sahebkar A, Mohammadi-Ghalehbin, B, **Arzanlou, M**, Peeridogaheh H. Drug resistance of clinical and environmental isolates of *Brucella* species in Iran. *Reviews in Medical Microbiology*, 2018; 29(4):166–172.
- 27- Mohammadi-Ghalehbin B, Habibzadeh S, **Arzanlou M**, Teimourpour R, Amani Ghayum S. Colonization of *Pneumocystis jirovecii* in patients who received and not received corticosteroids admitted to the intensive care unit: Airborne transmission approach. *Iran Journal of Pathology*. 2018; 13(2):136-143. (Corresponding Author).
- 28- Molecular mechanism and cytotoxicity of allicin and all-trans retinoic acid against CD44⁺ versus CD117⁺ melanoma cells. Jobani BM, Najafzadeh N, Mazani M, **Arzanlou M**, Vardin MM. *Phytomedicine*. 2018; 48:161-169.
- 29- Sabour S, **Arzanlou M**, Vaez H, Rahimi G, Sahebkar A, Khademi F. Prevalence of bacterial vaginosis in pregnant and non-pregnant Iranian women: a systematic review and meta-analysis. *Arch Gynecol Obstet*. 2018 May; 297(5):1101-1113.
- 30- Peeridogaheh H, Meshkat Z, Habibzadeh S, **Arzanlou M**, Shahi JM, Rostami S, Gerayli S, Teimourpour R. Current concepts on immunopathogenesis of hepatitis B virus infection. *Virus Research*. 2018; 245:29-43.
- 31- Teimourpour R, Peeridogaheh H, **Arzanlou M**, Gholoob A, Sankian M, Meshkat Z. Co-Expression of *hbha* and *mtb32C* genes from *Mycobacterium tuberculosis* H37Rv in a prokaryotic system. *Jundishapur Journal of Microbiology*. 2018; 11(2): e14030.
- 32- Sarkhani E, Najafzadeh N, Tata N, Dastanb M, Mazani M, **Arzanlou M**, Molecular mechanisms of methylsulfonylmethane and allicin in the inhibition of CD44[±] breast cancer cells growth. *Journal of Functional Foods*, 2017; 39: 50-57.
- 33- Teimourpour R, Peeridogaheh H, Teimourpour A, **Arzanlou M**, Meshkat Z. A study on the immune response induced by a DNA vaccine encoding Mtb32C-HBHA antigen of *Mycobacterium tuberculosis*. *Iran Journal of Basic Medical Sciences*. 2017; 20(10):1119-1124.

- 34- Khademi F, Sahebkar AH, Vaez H, **Arzanlou M**, Peeridogaheh H. Characterization of clarithromycin-resistant *Helicobacter pylori* strains in Iran: A systematic review and meta-analysis. *J Glob Antimicrob Resist*. 2017; 10:171-178.
- 35- Yousefi-Avarvand A, Vaez H, Tafaghodi M, Sahebkar AH, **Arzanlou M**, Khademi F. Antibiotic resistance of *Helicobacter pylori* in Iranian children: A Systematic Review and Meta-Analysis. *Microb Drug Resist*. 2018; 24(7): 980-986.
- 36- Valedeyni asl F, **Arzanlou M**, Fazlzadeh M, amani S, Hazrati S. Types and concentration of fungal bio-aerosols in hospital indoor air of Imam Khomeini and Alavi hospital in Ardabil city during 2016. *Iran Occupational Health Journal*, 2017; 14 (2):103-113.
- 37- Gholami M, Mohammadi R, **Arzanlou M**, Akbari Dourbash F, Kouhsari E, Majidi G, Mohseni SM, Nazari S. In vitro antibacterial activity of poly (amidoamine)-G7 dendrimer. *BMC Infectious Diseases*. 2017; 17(1):395.
- 38- Peeridogaheh H, Teimourpour R, **Arzanlou M**, Rostami S, Raeisi E. Tuberculin skin test: review article. *Tehran University Medical Journal*. 2017; 75 (8): 555-561.
- 39- **Arzanlou M**, Chai WC, Venter H. Intrinsic, adaptive and acquired antimicrobial resistance in Gram-negative bacteria. *Essays Biochem*. 2017 Mar 3; 61(1):49-59.
- 40- Imani Rad H, **Arzanlou M**, Ranjbar Omid M, Ravaji S, Peeri Doghaheha H. Effect of culture media on chemical stability and antibacterial activity of allicin. *Journal of Functional Foods*, 2017; 28:321-325. (Corresponding Author).
- 41- Mohammadi-Ghalehbin B, Javanpour Heravi H, **Arzanlou M**, Sarvi M. Prevalence and antibiotic resistance pattern of *Candida* spp. isolated from pregnant women referred to health centers in Ardabil, Iran. *Journal of Ardabil University of Medical Sciences*, 2017; 16 (4) :409-421 (Corresponding Author).
- 42- Teimourpour R, Meshkat Z, Arzanlou M, Peeridogaheh H. DNA Vaccine: The Third Generation Vaccine. *Qom University of Medical Sciences Journal*, 2017; 10 (10): 86-99.
- 43- Peeridogaheh H, Teimourpour R, **Arzanlou M**, and Rostami S, Raeisi E. Tuberculin skin test: review article. *Tehran University Medical Journal*, 2017; 75 (8):555-561.
- 44- Teimourpour R, Meshkat Z, **Arzanlou M**, Peeridogaheh H, Gholoobi A. BCG: the only available vaccine against tuberculosis: review article. *Tehran University Medical Journal*, 2017; 74 (10): 675-68.
- 45- **Arzanlou M**. Inhibition of streptococcal pyrogenic exotoxin B using allicin from garlic. *Microbial Pathogenesis*, 2016; 93:166-71.
- 46- Sarkhani E, Najafzadeh N, Mazani M, **Arzanlou M**, Mohammadzadeh A. Methylsulfonylmethane on the Breast Cancer Cell Line (MCF7). *Journal of Zanjan University of Medical Sciences*, 2016; 24 (105):18-30.

- 47- Meshkat Z, Teimourpour A, Rashidian S, **Arzanlou M**, Teimourpour R. Immunogenicity of a DNA vaccine encoding Ag85a-Tb10.4 antigens from Mycobacterium tuberculosis. Iranian Journal of Immunology, 2016; 13(4): 289-295.
- 48- Ranjbar M, **Arzanlou M**, Amani M, Allicin inhibits the growth, biofilm formation and urease activity of *Proteus mirabilis* in vitro. FEMS microbiology letters, 2015; 362(9). (Corresponding Author).
- 49- **Arzanlou M**, Bohlooli SH, Ranjbar M. Purification of Allicin using semi-preparative HPLC from garlic extract. Jundishapur Journal of Natural Pharmaceutical Products, 2015; 10 (2): e17424. (Corresponding Author).
- 50- Dibah S, **Arzanlou, M**, Jannati E, Shapouri R. Prevalence and antimicrobial resistance pattern of methicillin resistant *Staphylococcus aureus* (MRSA) strains isolated from clinical specimens in Iran. Iranian Journal of Microbiology, 2014; 6(3):163–168. (Corresponding Author).
- 51- Jannati E, **Arzanlou M**, Habibzadeh S, Mohammadi S, Ahadi P, Mohammadi-Ghalehbin B, Dogaheh HP, Dibah S, Kazemi E. Nasal colonization of mecA-positive, oxacillin-susceptible, methicillin-resistant *Staphylococcus aureus* isolates among nursing staff in an Iranian teaching hospital. American Journal of Infection Control, 2013; 41 (11), 1122-1124, (Corresponding Author).
- 52- Jannati J, Roshani M, **Arzanlou M**, Habibzadeh S, Rahimi G, Shapouri R. Capsular serotype and antibiotic resistance of group B streptococci isolated from pregnant women in Ardabil, Iran. Iranian Journal of Microbiology, 2012; 4(3): 130-135. (Corresponding Author)
- 53- Peeri Dogaheh H, **Arzanlou M**, Hosseini S, Habibi N. Determination of sensitivity and specificity of PCR in diagnosis of human brucellosis. Arak Medical University Journal (AMUJ), 2012; 15(64): 10-17. (Full text in Farsi)
- 54- **Arzanlou M**, Bohlooli S, Jannati E, Mirzanejad-Asl H. Allicin from garlic neutralizes the hemolytic activity of intra- and extra-cellular pneumolysin O in vitro. Toxicon, 2011; 57(4): 540–545. (Corresponding Author).
- 55- **Arzanlou M**. Bohlooli Sh. Introducing of green garlic plant as a new source of allicin. Food Chemistry, 2010: 120(1): 179-183. (Corresponding Author).
- 56- **Arzanlou M**, Bohlooli S. Inhibition of Streptolysin O by allicin, an active component of garlic. Journal of Medical Microbiology, 2010; 59(9): 1044-1049. (Corresponding Author).
- 57- **Arzanlou M**, Sattari M, Zavarani Hoseini A, Faezi S. Investigation of protective effects of *Pseudomonas aeruginosa* anti-flagellar antibodies in burned-induced infection on BALB/c mice. Journal of Medical Sciences: Pathobiology 2010: 12: 1-10. (Full text in Farsi)
- 58- Habibzadeh SH, **Arzanlou M**, Jannati E, Asmar M, Azari M. Fardiazar Z. Maternal carriage of group B streptococcus in Ardabil, prevalence and antimicrobial resistance. Journal of Ardabil University of Medical Sciences, 2010: 10(1): 14-20. (Full text in Farsi)

- 59- Mohammadi Ghalebini B, Fallah E, Asgharzadh M, Kazemi AH, **Arzanlou M**. Detection and identification of *Cryptosporidium* species in water samples from a river in Ardabil city, northwestern Iran. *Research Journal of Biological Sciences*, 2007; 2: 498-502.
- 60- **Arzanlou M**, Arab R, Alaei R. Therapeutic efficacy of garlic against burn wound infection by *Pseudomonas aeruginosa*. *Research Journal of Biological Sciences*, 2007; 2(6): 634-638. (Corresponding Author).
- 61- Mohammadi Ghalebini B, **Arzanlou M**, Fallah E, Kazemi AH, Asgharzadeh M. Molecular identification of *Cryptosporidium* sp. in the cattle stool samples in Ardabil city, Northwestern Iran. *Journal of Animal and Veterinary Advances* 2008: 7 (3): 246-250.
- 62- **Arzanlou, M**, Rezaee A, Shahrokhi, S, Zavarani Hossini A, Yasuda Y, Tochikubo K, Ahangarzadeh Rezaee M. Expression of cholera toxin B subunit in *Saccharomyces*. *Annals of Microbiology*, 2005; 55(2): 61-66.
- 63- Ahangarzadeh Rezaee M, Rezaee A, Mozzeni SM, Salmanian A, Yasuda Y, Tochikubo K, Najari Peerayeh S, **Arzanlou M**. Expression of *Escherichia coli* heat labile enterotoxin B subunit (LTB) in *Saccharomyces*. *The Journal of Microbiology*. 2005: 43(4): 25- 31.

Abstracts Presented in Conferences:

- 1- Dibah S, Jannati E, **Arzanlou M**, Shapouri R. Comparison of three phenotypic and genotypic methods for detection of methicillin resistant *Staphylococcus aureus* (MRSA) The 13th Iranian & The Second International Congress of Microbiology. Ardabil 14-16 Jul. 2012.
- 2- **Arzanlou M**, Bohlooli S, Inhibition of hemolytic activity of streptococcal cytolysin, "Streptolysin O" by Allicin, an active principle of garlic. 11th Iranian congress of microbiology, Rasht 2010.
- 3- **Arzanlou M**, Rezaee A, Zavarani A Rezaee MA. PCR amplification of *ctxB* from genomic DNA of *Vibrio cholera* 569B and cloning it in yeast shuttle vector, The 7th Iranian congress of microbiology, Semnan, Iran, 1-3 Feb. 2005.
- 4- Rezaee MA, Rezaee A, Salmanian AH, Moazeni M, Najari Pirayeh S, **Arzanlou M**. PCR amplification of *eltB* from human isolate enterotoxigenic *Escherichia coli* and cloning it in *Saccharomyces cerevisiae* shuttle vector, The 7th Iranian congress of microbiology, Semnan, Iran, 1-3 Feb. 2005.
- 5- -Ahangarzadeh Rezaee M, Rezaee A, Salmanian A, Moazeni M, Najari Peerayeh S, **Arzanlou M**. Intracellular expression of B subunit of heat-labile enterotoxin of ETEC in *Saccharomyces cerevisiae*. 15th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), April 2005.

- 6- **Arzanlou M**, Rezaee A, Shahrokhi N, Zavarani Hosseini A, Ahangarzadeh Rezaee M. Expression of B subunit of cholera toxin in *Saccharomyces cerevisiae*. 15th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), April 2005.
- 7- **Arzanlou M**, Sattari M, and Zavarani A, Protective effect of *Pseudomonas aeruginosa* flagellar antibodies on burn induced infection in animal model. 11th.European Congress of Clinical Microbiology and Infectious Diseases. Istanbul, TURKEY. 2001.
- 8- **Arzanlou M**, Sattari M, and Zavarani A. Isolation of flagellar antigens from *Pseudomonas aeruginosa* and preparation of antiserum against them. The 4th Iranian congress of microbiology, Tehran, Iran, 2001.
- 9- Sattari M, **Arzanlou M**, Ahangarzadeh Rezaee M. Isolation of verotoxigenic *Escherichia coli* from infant stool samples, The 6th Iranian Congress of Toxicology, Ahvaz University of Medical Sciences, 1999.
- 10- Sattari M, Radjabi A, Ahangarzadeh Rezaee M, Seyadat SD, **Arzanlou M**. Evaluation of drug resistance pattern of *Escherichia coli* strains isolated from infections, 14th Iranian congress of physiology and pharmacology, Tehran, 1999.
- 11- Sattari M., Radjabi A, Ahangarzadeh Rezaee M, Seyadat SD, **Arzanlou M**. Antibiotic resistance pattern of isolated Acinetobacter strains from hospitalized patients in Tehran, 14th Iranian congress of physiology and pharmacology, Tehran, 1999.
- 12- Sattari M, Radjabi A, Ahangarzadeh Rezaee M, Seyadat SD. and **Arzanlou M**, Antibiotic resistance and distribution pattern of bacterial agents isolated from infected urinary cases, 14th Iranian congress of physiology and pharmacology, Tehran, 1999.

Thesis Supervised PhD Students:

- 1- Ranjbar M. **Arzanlou M**. Study of the colonal diversity, distribution of virulence genes and antimicrobial resistance pattern (vancomycin and oxacillin) among *Staphylococcus aureus* isolates collected from environmental samples and healthy carriers in Ardabil- Iran. (Supervisor)
- 2- E.Jannati, N.Amirmozafari. Saadatmand S. **Arzanlou M**. Study of the colonal diversity, distribution of virulence genes and antimicrobial resistance pattern (vancomycin, High level aminoglycoside and ampicillin resistance) among *Enterococcus faecalis* and *Enterococcus faecium* isolates collected from environmental samples and healthy carriers in Ardabil- Iran. (Supervisor).
- 3- Nazari S. **Arzanlou M**. Performance evaluation of modified G5 Nano Magnetic polyamidoamine Dendrimer in removal of heavy metals and bacteria from aqueous solution. (Advisor).
- 4- Babapour A. Arzanlou M. Razavilar V. A study on prevalence of human toxigenic types (A, B, E) of *Clostridium botulinum* by nested PCR method and comparison of physico-chemical states of domestic and commercial honey produced in Ardebil region. (Advisor).

MSc Students:

- 1- Ghoreyshizadeh, E. Ramazanzadeh R. Peeri H. Arzanlou M. Detection of antibiotic resistance pattern and molecular analyzing of virulence factors in *Staphylococcus aureus* strains isolated from food samples in Ardabil province at 2019-2021. (Supervisor).
- 2- Namaki M. Temourpour R. Peeri H. **Arzanlou M.** The frequency of Tolerance to Antimicrobial biocides in *Enterococcus faecalis* and *Enterococcus faecium* isolates collected from human and environmental samples in Ardabil-2019, 2021 (Supervisor).
- 3- Babazadeh F. Arzanlou M. MohammadShahi J. Peeri H. Temourpour R. Frequency of bla kpc gene in clinical isolates of *Klebsiella pneumonia* collected from patients admitted to Ardabil University of Medical Sciences teaching hospitals. 2021 (Advisor).
- 4- Bazghandi A. Peeri H. **Arzanlou M.** Khademi F. Evaluation of the antibiotic resistance patterns and virulence genes profile of *Pseudomonas aeruginosa* isolated from different wards of Ardabil teaching hospitals, 2021(Advisor).
- 5- Hassani K. Vosoghi M. Peeri H. Sadeghi H. Arzanlou M. Distribution of Enterobacteriaceae producing extended-spectrum beta-lactamase enzymes in Ardabil wastewater treatment plant. 2020 (Supervisor).
- 6- Hoseinali Z. Jeddi F. Arzanlou M. Jafari A. Peeri H. The effect of Silicon dioxide nanoparticle and Zinc oxide/Zeolite nanocomposite on *ftf*, *gtfB*, *vicR*, *gbpB* genes and biofilms formation by *Streptococcus mutans*. 2020, (Advisor)
- 7- Sardari M. Peeri H. Arzanlou M. Study of the frequency of extended spectrum beta-lactamases-producing Enterobacteriaceae isolates collected from hospital and livestock and poultry slaughterhouse swages in Ardabil, 2018-2019. 2020 (Supervisor).
- 8- Hushyar S. Mohammadshahi J. **Arzanlou M.** The frequency of resistance to aminoglycoside resistance in *Staphylococcus aureus* isolates collected from clinical specimens in teaching hospitals affiliated to Ardabil University Medical Science 2017. (Supervisor)
- 9- Manochehri M. Peeri H. Habibzadeh S. **Arzanlou M.** Frequency of macrolide to and clindamycin inducible resistance among *Staphylococcus aureus* isolates collected from clinical specimens in teaching hospitals affiliated to Ardabil University medical science 2017. (Supervisor).
- 10- Sabour S. Jeddi F. Naghizadeh A. **Arzanlou M.** Peeri H. The efficiency of BrucellaCapt method in diagnosis of human brucellosis. 2020 (Supervisor).
- 11- Valdeyni F. Fazlzadeh M. **Arzanlou M.** Hazrati S. Types and concentration of fungal and bacterial bio-aerosols in hospital indoor air of Imam Khomeini and Alavi hospital in Ardabil city during 2016 (Advisor).

- 12- Babapour B, Peeri H, **Arzanlou M**. The pattern of antibiotic resistance and determining of global QRDR area mutations on Fluoroquinolones resistance in *Shigella* species isolated from patients referred to Bou-Ali hospital of Ardabil 2017 (Advisor).
- 13- Mossavi H, Peeri H, **Arzanlou M**. Study of the frequency of high-level gentamicin resistance (HLGR) among enterococcus isolates collected from patients admitted to Ardabil Imam Hospital (2012-2016 (Supervisor).
- 14- Parvizi M, **Arzanlou M**, Mussavi F. Distribution of *pspC*, *pthD*, *pthE*, *rrgA* and *lytA* genes in pediatric isolates of *Streptococcus pneumoniae*. 2014 (Supervisor).
- 15- Ranjbar M, **Arzanlou M**, Amir Mozaffar N, Amani M. Study of the effect of Sub-MIC concentration levels of allicin on urease activity and biofilm formation by *Proteus mirabilis*. 2012 (Supervisor)
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- 19- Barzgar A, Amani M, **Arzanlou M**, Zeynadini M. Purification of amine oxidase from pea seedlings and study on the effect of sucrose on its stability. 2011 (Advisor)

MD Students:

- 1- Marofi K, Peeri H, **Arzanlou M**. Molecular analysis of fluoroquinolones resistance in clinical isolates of *Pseudomonas aeruginosa* in Ardabil (2021) (Advisor).
- 2- Jila F, **Arzanlou M**, Hekmatfar S. Comparative assessment of Fluoride released and antimicrobial effects of three types of glass ionomer cements on *Streptococcus mutans* and *Lactobacillus acidophilus*. 2020 (Advisor).
- 3- Basiri S, Valizadeh H, **Arzanlou M**, Molaei S. Evaluation of the Aerobic Bacterial Contamination of Students Gowns in Restorative and Endodontic Departments of Dental School of Ardabil University of Medical Sciences in 2019. 2020, (Advisor).
- 4- Ahmadi M, Naghizadeh A, **Arzanlou M**, Hekmatfar S. Comparative evaluation of antimicrobial activity of three types of reinforced zinc oxide eugenol used for pulpotomy in primary teeth, 2018. (Advisor)
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- 6- Rahimi F, Peeri H, **Arzanlou M**. Evaluation of Broth Microdilution Method for detection of Extended-Spectrum Beta-Lactamases (ESBLs) producing bacteria isolated from urine samples. 2012 (Advisor)
- 7- Asadallahi M, **Arzanlou M**, Peeri H. Study of the in vitro activity of Allicin, active principle of garlic extract, against Group B streptococcus isolated from pregnant women in Ardabil. 2012 (Supervisor)
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- 9- Ahadi P, **Arzanlou M**, Habibzadeh Sh. Screening of nasal carriage of Methicillin and Vancomycin resistant *Staphylococcus aureus* among nursery staff of EMAM hospital, Ardabil. 2011 (Supervisor)
- 10- Habibi N, Peeri H, **Arzanlou M**. Determination of sensitivity and specificity of PCR in diagnosis of human brucellosis. 2010 (Advisor)
- 11- Farzi A, **Arzanlou M**, Bohlooli Sh. In vitro study of the inhibitory effect of allicin -the active component of garlic extract- on *H. pylori* urease. 2010 (Supervisor).
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Papers Published on Web:

- 1- **Arzanlou M**. Medical biotechnology and its role in elaborating developing countries problems in health issues. www.itanetwork.org. (Full text in Farsi)
- 2- **Arzanlou M**. Top priorities for developing medical biotechnology in developing countries. www.itanetwork.org. (Full text in Farsi)
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- 4- **Arzanlou M**. Some approaches for developing countries to enter biotechnology market. www.itanetwork.org. (Full text in Farsi)

Research projects:

- 1- Study of the inhibitory effect of allicin on Streptococcal cytolytins: Streptolysin O and Pneumolysin O (Director, 2008; financial support: Ardabil University of Medical Sciences).

- 2- Study on inhibitory effect of allicin on protease enzymes of *Streptococcus pyogenes*. (Director, 2008; financial support: Ardabil University of Medical Sciences).
- 3- Determination of allicin in different parts of green garlic plant. (Director, 2009; financial support: Ardabil University of Medical Sciences).
- 4- Evaluation of production of allicin using semi preparative HPLC (Director, 2010 financial support: Ardabil University of Medical Sciences).
- 5- Identification of pneumocystis by Nested-PCR and genetic polymorphism in patient with pneumonia and hospitalized in ICU and Neurosurgery parts of Fatemi hospital (Colleague 2006, financial support: Ardabil University of Medical Sciences)