



Kerman University Medical Sciences

CURRICULUM VITAE

Basic Information*

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WEB OF SCIENCE M-8510-2015

Photo



Current Primary Affiliation/Institution*

Department/Division:	Microbiology and Virology
University/Institution:	Kerman University of Medical Sciences
City:	Kerman
Country/Region:	Iran

Highest Degree & Job Title*

Highest Degree*:	FRCP, Ph.D., M.Sc., BS.C.
Job Title*:	Professor

Research Fields*

The focal points of the research in our lab are plasmid mediated antibiotic-resistance, biofilm formation and its genes in hospital isolates of Acinetobacter. Quorum sensing and signal transduction in Acinetobacter baumannii in strong biofilm producers, cloning some genes responsible for biofilm-formation and mechanisms to overcome biofilms. All these steps are subject to elaborate control by many regulatory proteins and small effector. Molecular Biology, Cloning, Sequencing, Real Time PCR, Gene Mapping Prokaryotes, Unicellular Eukaryotes, Gene transfer in the environment, Conjugation Transformation, Bacterial gene expression.

Online Profiles

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SSRN:	https://hq.ssrn.com/Participant.cfm?rectype=edit&partid=12424969&perinf=y
Academia:	Scopus Author ID: 6505967871

Education*

Ph.D.

Department of Microbiology, University of Pune, Pune, India. Thesis was entitled "Molecular genetics of Plasmid Mediated Silver and Antibiotic Resistances in Acinetobacter baumannii" [1992-1997].

Postdoctoral fellowship

Aquatic Microbial Lab of Mysore University, India. The research was entitled "Horizontal Gene Transfer in Gram Negative Bacteria" [2006].

Work Experiences*

Kerman University of Medical Sciences
Head of research committee for infectious diseases and tropical medicine. 2000-2005

Kerman University of Medical Sciences
Member of Research Council of KM University

Kerman University of Medical Sciences
Member of Environmental Health Engineering Research Center 2013-Present

Ministry of Health and Education
Member of Bacteriology committee for future study and courses in Microbiology in Iran 2018-Present

Kerman University of Medical Sciences
Gastroenterology and Hepatology Research Center, Afzalipour Hospital 2016-present

POSITIONS

[Dates From]–[To]

Assistant Professor, 1998-2012 • Kerman University of Medical Sciences, Iran

[Dates From]–[To]

Associate Professor, 2013-2019 • Kerman University of Medical Sciences, Iran

[Dates From]–[To]

Professor, 2019-Present • Kerman University of Medical Sciences, Iran

Publications*

1. Shakibaie, M. R., Ghahraman, M. R. K., Mahdian, F., Kamali, A., & Shakibaie, S. (2026). Molecular analysis of clinical *Acinetobacter baumannii* isolates based on colistin resistance, biofilm formation, clonal relationships, and *pmrA* gene expression. *Future Microbiology*. 2026: 1–14.
<https://doi.org/10.1080/17460913.2026.2704354>.
2. Shakibaie MR, Modaresi F, Azizi O, Tadjrobehkar O, Ghaemi MM. Amphiphilic peptide Mastoparan-B induces conformational changes within the AdeB efflux pump, down-regulates *adeB* gene expression, and restores antibiotic susceptibility in an MDR strain of *Acinetobacter baumannii*. *Proteins*. 2023;91(9):1205–1221. doi:10.1002/prot.26539.
3. Ziasistani M, Shakibaie MR, Kalantar-Neyestanaki D. Genetic characterization of two vancomycin-resistant *Staphylococcus aureus* isolates in Kerman, Iran. *Infect Drug Resist*. 2019; 12:1869–1875. doi:10.2147/IDR.S205596
4. Gholamrezazadeh M, Shakibaie MR, Monirzadeh F, Masoumi S, Hashemizadeh Z. Effect of nano-silver, nano-copper, deconex and benzalkonium chloride on biofilm formation and expression of transcription regulatory quorum sensing gene (*rhIR*) in drug-resistance *Pseudomonas aeruginosa* burn isolates. *Burns*. 2018;44(3):700–708. doi: 10.1016/j.burns.2017.10.021.
5. Shakibaie MR, Azizi O, Shahcheraghi F. Insight into stereochemistry of a new IMP allelic variant (IMP-55)

- metallo- β -lactamase identified in a clinical strain of *Acinetobacter baumannii*. *Infect Genet Evol.* 2017;51: 118-126. doi: 10.1016/j.meegid.2017.03.018.
6. Azizi O, Shakibaie MR, Badmasti F, et al. Class 1 integrons in non-clonal multidrug-resistant *Acinetobacter baumannii* from Iran, description of the new blaIMP-55 allele in In1243. *J Med Microbiol.* 2016;65(9):928-936. doi:10.1099/jmm.0.000315.
 7. Ahmadrajab R, Shakibaie MR, Iranmanesh Z, Mollaei HR, Sobhanipoor MH. Prevalence of *mip* virulence gene and PCR-base sequence typing of *Legionella pneumophila* from cooling water systems of two cities in Iran. *Virulence.* 2016;7(5):602-609. doi:10.1080/21505594.2016.1170944.
 8. Modarresi F, Azizi O, Shakibaie MR, Motamedifar M, Valibeigi B, Mansouri S. Effect of iron on expression of efflux pump (*adeABC*) and quorum sensing (*luxI*, *luxR*) genes in clinical isolates of *Acinetobacter baumannii*. *APMIS.* 2015;123(11):959-968. doi:10.1111/apm.12455.
 9. Modarresi F, Azizi O, Shakibaie MR, Motamedifar M, Mosadegh E, Mansouri S. Iron limitation enhances acyl homoserine lactone (AHL) production and biofilm formation in clinical isolates of *Acinetobacter baumannii*. *Virulence.* 2015;6(2):152-161. doi:10.1080/21505594.2014.1003001.
 10. Shakibaie M, Forootanfar H, Golkari Y, Mohammadi-Khorsand T, Shakibaie MR. Anti-biofilm activity of biogenic selenium nanoparticles and selenium dioxide against clinical isolates of *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Proteus mirabilis*. *J Trace Elem Med Biol.* 2015; 29:235-241. doi: 10.1016/j.jtemb.2014.07.020.
 11. Shakibaie MR, Adeli S, Salehi MH. Antibiotic resistance patterns and extended-spectrum β -lactamase production among *Acinetobacter* spp. isolated from an intensive care Unit of a hospital in Kerman, Iran. *Antimicrob Resist Infect Control.* 2012;1(1):1. doi:10.1186/2047-2994-1-1.
 12. Shakibaie MR, Kapadnis BP, Dhakephalkar P, Chopade BA. Removal of silver from photographic wastewater effluent using *Acinetobacter baumannii* BL54. *Can J Microbiol.* 1999;45(12):995-1000.
 13. Dorri K, Modaresi F, Shakibaie MR, Moazamian E. Effect of gold nanoparticles on the expression of efflux pump *mexA* and *mexB* genes of *Pseudomonas aeruginosa* strains by Quantitative real-time PCR. *Pharmacia.* 2022;69(1): 125-133. <https://doi.org/10.3897/pharmacia.69.e77608>.
 14. Ghahraman MR, et al. Molecular characterization of *lpxACD* and *pmrA/B* two-component regulatory system in the colistin resistance *Acinetobacter baumannii* clinical isolates. *Gene Reports.* 2020; 21: 100952. <https://doi.org/10.1016/j.genrep.2020.100952>.
 15. Ganeshan S, Shakibaie MR, Rajagopal B. Insights of the molecular docking analysis of colistin with the *PmrA* protein from *Acinetobacter baumannii*. *J. Bioinformation.* 2022; 18(1): 41-49.
 16. Taghadosi R, Shakibaie MR, Hosseini-Nave H. Antibiotic resistance, ESBL genes, integrons, phylogenetic groups and MLVA profiles of *Escherichia coli* pathotypes isolated from patients with diarrhea and farm animals in south-east of Iran. *Comp Immunol Microbiol Infect Dis.* 2019; 63:117-126. doi: 10.1016/j.cimid.2019.01.004.

17. Monirzadeh F, Shakibaie MR, Gholamrezazadeh M, Masoumia S. Susceptibility of catheter-related *Klebsiella pneumoniae* strains to quaternary ammonium compounds under biofilm and planktonic conditions. *Can J Infect Con*. 2018; 33(4):209-215.
18. Azizi O, Shahcheraghi F, Salimizand H, et al. Molecular Analysis and Expression of *bap* Gene in Biofilm-Forming Multi-Drug-Resistant *Acinetobacter baumannii*. *Rep Biochem Mol Biol*. 2016;5(1):62-72.
19. Mohammad Reza Shakibaie, Samane Shakibaie. "The Impact of Toxic Effector Molecule TagX on the Amino Acid Conformation of the Hcp1 Monohexameric Ring in *Acinetobacter baumannii* Type VI Secretion System Utilizing Bioinformatics Tools and an AI System". *Molecular Modeling Connect*. 2025: 2:0009, <https://doi.org/10.69709/MolModC.2025.102135>.
20. Kandehkar Ghahraman MR, Hosseini-Nave H, Azizi O, Shakibaie MR, et al. Stereochemical Trajectories of a Two-Component Regulatory System PmrA/B in a Colistin-Resistant *Acinetobacter baumannii* Clinical Isolate. *Iran Biomed J*. 2021;25(3):193-201. [doi:10.29252/ibj.25.3.157](https://doi.org/10.29252/ibj.25.3.157).
21. Sharifi H, Pouladfar G, Shakibaie MR, Pourabbas B, Mardaneh J, Mansouri S. Prevalence of β -lactamase genes, class 1 integrons, major virulence factors and clonal relationships of multidrug-resistant *Pseudomonas aeruginosa* isolated from hospitalized patients in southeast of Iran. *Iran J Basic Med Sci*. 2019;22(7):806-812. [doi:10.22038/ijbms.2019.35063.8340](https://doi.org/10.22038/ijbms.2019.35063.8340).
22. Ghahraman MR, Hosseini-Nave H, Azizi O, Shakibaie MR, Mollaie H, Shakibaie S. Stereochemical Trajectories of a Two-Component Regulatory System PmrA/B in a Colistin-Resistant *Acinetobacter baumannii* Clinical Isolate. *Iranian Biochemical J*. 2021; 25 (3):193-201.
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29. Azizi O, Shakibaie MR, Modarresi F, Shahcheraghi F. Molecular detection of class- d (oxA) carbapenemase genes in biofilm and non-biofilm forming clinical isolates of *Acinetobacter baumannii*. *Jundishapur Journal of Microbiology*. 2015; 8(1): e21042.
30. Taghadosi R, Shakibaie MR, Masoumi S. Biochemical detection of N-acyl homoserine lactone (AHL) in biofilm forming uropathogenic *E. coli* isolated from UTI patients. *Rep Biochem Mol Biol*. 2015; 3(2):1-8.
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32. Aryanezhad M, Shakibaie MR, Karmostaji A, Shakibaie S. Prevalence of Class 1, 2 and 3 Integrations and Biofilm-Formation in *Pseudomonas aeruginosa* and *Acinetobacter baumannii* among ICU and non-ICU Patients. *Infect. Epidemiol. Med*. 2016; 2(4): 1-7.
33. Jafari E, Shakibaie MR, Poormasoomi L. Isolation of a novel antibiotic resistance plasmid DNA from hospital isolates of *Pseudomonas aeruginosa*. *Int. J. Clin. Exp. Pathol*. 2013; 3(2):1-5.
34. Norouzi A, Azizi O, Hosseini H, Shakibaie S, Shakibaie MR. Amino acid substitution mutations analysis of *gyrA* and *parC* genes in clonal lineage of *Klebsiella pneumoniae* conferring high-level quinolone resistance. *J. Med. Microbiol. Infect. Dis*. 2014; 2(3): 109-117.
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Iran. *J Microbiol Infect Dis*. 2014;4(04):152-158. doi:10.5799/ahinjs.02.2014.04.0159.

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40. Shahcheraghi F, Shakibaie MR, Noveiri h. molecular identification of *esbl* genes *blages-1*, *blaveb-1*, *blactx-m* *bla_{oxa}-1*, *bla_{oxa}-4*, *bla_{oxa}-10* and *blaper-1* in *pseudomonas aeruginosa* strains isolated from burn patients by PCR, RFLP and sequencing techniques. *International Scholarly and Scientific Research AND Innovation [Internet]*. 2010;4(1):138-142. Available from: <https://sid.ir/paper/694226/en>.
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42. Shakibaie MR, Jalilzadeh KA, Yamakanamardi SM. Horizontal transfer of antibiotic resistance genes among gram negative bacteria in sewage and lake water and influence of some physico-chemical parameters of water on conjugation process. *J Environ Biol*. 2009;30(1):45-49.
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44. Mohammadi A, Gohar AV, Shakibaie MR. Mutations in Tumor suppressor TP53 Gene in Formalin-Fixed, Paraffin Embedded Tissues of Squamous Cell Carcinoma (SCC) of Lung Cancer. *Am. J. Biochem. Biotechnol*. 2008; 4(1):1-6.
45. Mansouri S, Shakibaie MR, Mahbob S. Isolation species distribution, antibacterial resistance pattern and Beta - lactamase production of enterococci isolated from human samples in southeast of Iran. *Iranian Journal Medical Sciences*. 2005;30(2):68 - 72.
46. Nezhad J, Faezi M, Khosravan A, Farahmand A, Shakibaie MR. Bioremediation of cadmium (Cd) using Cd resistant bacteria isolated from activate sludge industrial waste effluent in batch bed reactor. *Iran J. Environ. Health. Sci. Eng* 2010; 7(4):279 - 286.
47. Shakibaie MR, Khosravan A, Frahmand A, Zare S. Application of metal resistant bacteria by mutational enhancement technique for bioremediation of copper and zinc from industrial Wastes. *Iran J. Environment. Health. Sci. Eng*. 2008; 5(4): 251 - 256.
48. Shakibaie MR, Ardebili A, Alii SH, Ketabchi AA, Shahabinejad N. Antibiotic resistance, β - Lactamase production and plasmid profile of *Neisseria gonorrhea* strains Isolated from urethritis and cervicitis Patients in Kerman, Iran. *Med. J. Tabriz Univ. Med. Sci. Health Serv*. 2008; 30(3):13-19.

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50. Shakibaie MR, Adeli S, Nikian Y. Emergence of Ciprofloxacin resistance among *Pseudomonas aeruginosa* isolated from burn patients. *Iran J of Med Sci.* 2001;26 (3&4):155 - 159.
51. Shakibaie MR, Dhakephalker P, Salajaghe G.A, Chopade BA. Plasmid mediated silver& antibiotic resistance in *Acinetobacter baumannii* BL54. *Iran J of Med Sci.* 1988; 23 (1&2):30 - 36.
52. Gholamhoseinian A, Shakibaie MR, Z Jamali. The mechanism of antibacterial effect of methanolic extract of green *Myrtus communis* on *E. coli* K12 HB101. *Journal Rafsanjan University of Medical Sciences* 2005;4: 220-227.