Kerman University of Medical Sciences

RESUME

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Professor of Molecular Microbiology

1 **Department of Microbiology and Virology, Kerman University of Medical Sciences, Kerman, Iran**

2 **Environmental health engineering reserach Center, Kerman University of Medical Sciences**

EDUCATION

Pune University, India
Ph.D.: 1992 - 1997
[Molecular Genetics of plasmid mediated silver and antibiotic resistance in Acinetobacter baumannii]

Mysore University, India
Postdoctoral fellowship: 2006
[Gene Transfer among lake water and polluted sewage microflora]

WORK EXPERIENCE

Kerman University of Medical Scences
Head of reaseach comittee for infectious diseases and tropical medicine. 2000-2005

Kerman University of Medical Scences
Member of Research Councile of KM University

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

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

Kerman University of Medical Scences
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, 2013-1019 •Kerman University of Medical Sciences, Iran

[Dates From]–[To]
Professor, 2019-Present • Kerman University of Medical Sciences, Iran

EDUCATIONS

Ph.D.

Department of Microbiology, University of Pune, Pune, India. The 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].

AREA OF EXPERTISE BY KEYWORDS

Molecular Biology, Cloning, Sequencing, Real-Time PCR, Gene Mapping Prokaryotes, Unicellular Eukaryotes, Gene transfer in the environment, Conjugation Transformation, Bioremediation, Wastewater effluents, Metals resistance, Biosorption, Bacterial gene expression, Molecular quorum sensing, Microbial Identification by PCR, Biotechnology, Nanotechnology, Bioinformatics

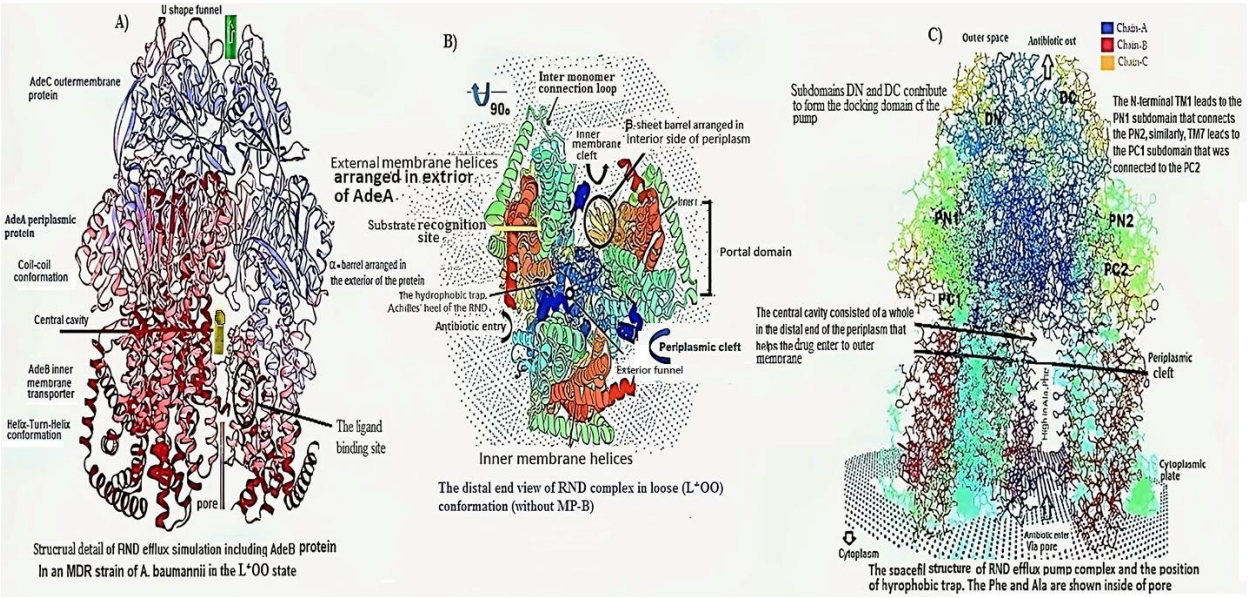
MEMBERSHIP IN SCIENTIFIC SOCIETIES

Member, New York Academy of Science, Science Advisory Board (USA)
Member, Asian-Pacific Research Foundation for Infectious Diseases (ARFFID)
Affiliated member of the European Society for Microbiologists (FEMS)
Member of the Iranian Society of Microbiology
Editorial Board Member – JMC (Journal of Microscopic Creatures)
Editorial board World Academy of Sciences (Waset)
Editorial board American Journal Microbiology and Infectious Diseases
Editorial board Journal of Antimicrobial Agents Open Access
Editor of International Journal Biological and Life Sciences
Editorial team J Biotechnology and Molecular Biology Review
Editor of Current Research Journal of Biological Sciences
Editorial member of ACTA of SCIENTIFIC MICROBIOLOGY
Editor team of African Journal of Bacteriology Research - Academic Journals.
The editorial board of Current Research Journal of Biological Sciences, Maxwell Scientific organization.
Editorial team Journal of Environmental Health Science and Engineering
Editor Journal of Report of Biochemistry and molecular biology
Member Iranian biotechnology society
Reviewer of biomed central journals
Member editorial team antimicrobial agents (Omics group)

SUMMARY OF RESEARCH WORK

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. We are working on biogenic Nanometals for disruption of biofilm and introducing potent Nanodrugs for invivo-biofilm activity. Our goal is to make synthesis of a Nanodrugs with potent antimicrobial and antibiofilm

activity and less toxicity. The important reason for my research group also is cost. Nanotechnology allows us to develop a cost-effective drug. My students are working in the molecular design of Nano drugs such as selenium, silver, and copper nanoparticles and delivery system by bioinformatics. Recently we studied the possibility of the existence of antibiotic-resistant islands (ARI) in bacterial chromosomes like Pathogenicity Island and gene transfer to the other bacterial strains. My team for the first time submitted 8 genes and one integrons class 1 to the GenBank database and integral websites. We also found new variant IMP-55 metallo-β-lactamase. Similarly, for the first time we suggested that iron limitation controls the expression of quorum-sensing genes and biofilm-formation in *A. baumannii*.



TEACHING

1. Undergraduate: Medical bacteriology, English, Molecular genetics, 18 hours both theory and practical.
2. Paramedical: Medical Microbiology, Bacterial systematic, English.
3. Post graduate: Bioinformatics, Genetic engineering, English, protein modeling, Bacterial systematics, Anaerobic pathogens, Wall less bacteria. 24 hours a week both theory and practical.

AWARDS

Best scientist award in research KMU University, Iran 2014
Best Scientist Award in Research KMU University, Iran, 2017
Outstanding Scientist Award: International awards 2021 on Engineering, Science and Medicine; VDGOOD Industry.

BIOGRAPHY

Prof. Shakibaie MR earned his PhD from the University of Pune India from 1992 to 1997. His thesis was entitled "Molecular Genetics of Plasmid Mediated Silver and Antibiotic Resistances in *Acinetobacter baumannii*". Furthermore, He completed one-year postdoctoral research training in the Aquatic Microbial Lab of Mysore University, India in 2006. My research title was "Horizontal Gene Transfer in Gram-Negative Bacteria". Moreover, he has been working for 26 years in the Department of Microbiology and Virology, at Kerman University of Medical Sciences, Iran.

He published more than 104 original research peer-reviewed papers and short communications in different international journals with high impact factors in microbiology and biotechnology. The total impact factor of his research is more than 57, with an h-index of 17 and a hi-index of 27. The research gate score index is 27.18 with a total citation of 1854, Publon H-index-18, and Scopus H-index 14. His research has also been cited in 5 textbooks of microbiology published in the USA and Europe. Similarly, he presented more than 42 papers at International and National Conferences and has made fundamental contributions in the areas of gene transfer, plasmid biology, molecular microbiology, nanotechnology, and bioinformatics. At present, he is a reviewer of Biomed Central and Elsevier journals and supervised 4 Ph.D., and 1 post-doctoral scholar for their research.

TRAINING AND PROFATIONAL ACTIVITIES

Molecular biology, Cloning, DNA sequencing, Molecular typing, qRT-PCR, Gene transfer, Integrons, Plasmid biology, Bioinformatics, Artificial intelligence.

LIST OF PUBLICATIONS

Shakibaie MR. Insights into the Structure and Molecular Dynamics of the Type VI Secretion System in Acinetobacter baumannii Utilizing Artificial Intelligence (AI) and Deep Learning System. 2024; Journal proteins [Submitted].

1. Shakibaie, M. R., Modaresi, F., Azizi, O., Tadjrobehkar, O., & Ghaemi, M. M. 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;023;91:1205**–**1221**.** https://doi.org/10.1002/prot.26539.

2. Dorri, K., Modaresi, F., Shakibaie, M.R., Moazamian, E. Effect of gold nanoparticles on the expression of efflux pump *mex*A and *mex*B genes of *Pseudomonas aeruginosa* strains by Quantitative real-time PCR. **Pharmacia:** 69(1):125-133

3. 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.

4. Shakibaie MR. In silico Characterization of Biofilm-Associated Protein (Bap) identified in a multi-drug resistant *Acinetobacter baumannii*. **Med. Microbiol. Infect. Dis.** 2021; 9 (4):1-10.

5. Kandehkar 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 **Iran. Biochem. J.** 2021; 25 (3):193-201.

1. Kandehkar Ghahraman MR, Hosseini-Nave H, Azizi O, Shakibaie MR, Mollaie H, Shakibaie S. Molecular characterization of *lpx*ACD and *pmr*A/B two-component regulatory system in the colistin resistance *Acinetobacter baumannii* clinical isolates. **Gene Reports** 2020;21: 00952.

2. 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.

3. 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, pp.117-126.

4. Sharifi H, Pouladfar GH, Shakibaie MR, Pourabbas B, Mardaneh J, Mansouri SH. 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.

5. Monirzadeh F, Shakibaie MR, Gholamrezazadeh M, Masoumi S. Susceptibility of catheter-related Klebsiella pneumoniae strains to quaternary ammonium compounds under biofilm and planktonic conditions. **Can J Infect Dis.** 2018; 33(4):209-215.

6. Taghadosi R, Shakibaie MR, Alizade H, et al. Serogroups, subtypes and virulence factors of shiga toxin-producing *Escherichia coli*

isolated from human, calves and goats in Kerman, Iran. **Gastroenterology and Hepatology from Bed to Bench** 2018; 11(1):60-67.

7. 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 (rh1R) in drug-resistance *Pseudomonas aeruginosa* burn isolates. **Burns** 2018; 44:700 -708.

8. Masoumi S, Shakibaie MR, Gholamrezazadeh M, Monirzadeh F. Evaluation Synergistic Effect of TiO2, ZnO Nanoparticles and Amphiphilic Peptides (Mastoparan-B, Indolicidin) Against Drug-Resistant Pseudomonas aeruginosa, Klebsiella pneumoniae and *Acinetobacter baumannii*. **Arch. Pediatr. Infect. Dis.** 2018; 6(3): e57920.

9. Taghadosi R, Shakibaie MR, et al. Role of antigen-43 on biofilm formation and horizontal antibiotic resistance gene transfer in non-O157 Shiga toxin producing *Escherichia coli* strains. **Iran. J. Microbiol**. 2017; 9(2): 89-96.

10. 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*. **Infection. Genetics. Evolution.** 2017; 51:118-126.

11. Azizi O, Shakibaie MR, Badmasti F, Modarresi 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.

12. Aryanezhad M, Shakibaie MR, Karmostaji A, Shakibaie S. Prevalence of Class 1, 2 and 3 Integrons and Biofilm-Formation in *Pseudomonas aeruginosa* and *Acinetobacter baumannii* among ICU and non-ICU Patients. **Infect. Epidemiol. Med.** 2016; 2(4): 1-7.

16. 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. **Journal Medical Microbiology** 2016; 65:925-936

17. Azizi O, Shahcheraghi F, Salimizand H, Modarresi F, Shakibaie MR, et al. Molecular Analysis and Expression of bap Gene in Biofilm-Forming Multi-Drug-Resistant *Acinetobacter baumannii*. **Reports of Biochemistry & Molecular Biology** 2016; 5(1):62-71.

18. Ahmadrajabi R, Shakibaie MR, Iranmanesh Z, Mollaei H, & Sobhanipoor MH. Prevalence of *mip* virulence gene and PCR base sequence typing of *Legionella pneumophila* from cooling water systems of two cities in Iran. **Journal Virulence** 2016;7(5):602–609.

19. Modarresi F, Azizi O, Shakibaie MR, Motamedifar M, Mansouri S. Cloning and expression of quorum sensing N-Acyl-homoserine synthase (*lux*I) gene detected in *Acinetobacter baumannii*. **Iran. J. Microbiol.** 2016; 8(2):139-46.

20. Modarresi F, Azizi O, Shakibaie MR, Motamedi M, et al. Effect of iron on expression of efflux pump (*ade*ABC) and quorum sensing (*lux*I, *lux*R) genes in *Acinetobacter baumannii*. **APMIS** 2015; 123:959–968.

21. Nezarieh R, Shakibaie MR, Hosseini Nave H , Norouzi A, Salajegheh G, Hayatbakhsh M. Distribution of virulence genes, enterotoxin and biofilm formation among enteroaggregative *Escherichia coli* (EAEC) strains isolated from stools of children with diarrhea in south east Iran. **Arch. Pediatr. Infect. Dis.** 2015; 3(3): e29745.

22. Modarresi F, Shakibaie MR, Azizi O, Motamedifar M, et al. Iron limitation enhances biofilm formation in *Acinetobacter baumannii*. **Journal of Virulence** 2015; 6(2):152-168.

23. 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.

24. Taghadosi R, Shakibaie MR, Masoumi S. Biochemical detection of N-acyl homoserine lactone (AHL) in biofilm forming uropathogenic E. coli isolated from UTI patients. **Reports in Biochemistry and Molecular Biology** 2015; 3(2):1-8.

25. Shakibaie M, Forootanfar H, Golkari Y, Mohammadi-Khorsand T, Shakibaie MR. Anti-biofilm activity of biogenic selenium nanoparticle and selenium dioxide against clinical isolates of *Staphylococcus aureus, Pseudomonas aeruginosa*, and *Proteus mirabilis*. **Journal of Trace Elements in Medicine and Biology** 2015; 29:235–241.

26. Shakibaie MR, Golkari Y, Salajegheh G. Antimicrobial susceptibility, virulence factors and biofilm formation among *Staphylococcus aureus* strains from hospital infections in Kerman, Iran. **J. Microbiol. Infect. Dis.** 2014; 4(4): 152-158.

27. Shakibaie M, Adeli S, & Salehi MH. Antimicrobial susceptibility pattern and esbl production among uropathogenic *Escherichia coli* isolated from UTI children in pediatric unit of a hospital in Kerman, Iran. **Microbiology Research Journal International** 2013; 4(3):262-271.

28. 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.

29. Jafari E, Shakibaie MR, Poormasoomi L. Isolation of a novel antibiotic resistance plasmid DNA from hospital isolates of *Pseudomonas aeruginosa*. **Journal Clinical and Experimental Pathology** 2013; 3(2):1-5.

30. Shikh-Bardsiri H, Shakibaie MR. Antibiotic resistance pattern among biofilm producing and nonproducing Proteus strains isolated from hospitalized patients; matter of hospital hygiene and antimicrobial stewardship. **Pakistan Journal of Biological Sciences** 2013; 16 (22):1496-1502.

31. Shakibaie MR. Genomics and emergence of pan drug resistance bacteria. **Journal Microb Biochem Technol** 2013; 5:4. http://dx.doi.org/10.4172/1948-5948.S1.011

32. Sheikh-Bardsiri H, Shakibaie MR, AminiKafiabad S. Plasmid pattern of biofilm producing *Proteus mirabilis* and *Proteus vulgaris* among clinical isolates in Kerman university hospitals during 2011-2012. **Journal Kerman University of Medical Sciences** 2013; 20(2):146-156.

33. Dokhani A, Shakibaie MR, Khosravan A, Asgarani Z, Moghbeli M. Molecular genetics identification and metal biosorption by a *Geobacillus* genospecies IRKM1 isolated from Deeymand hot spring, Kerman, Iran. **International Journal Environmental Health Engineering** 2012; 1(5):1-7.

34. Mirkamandar E, Shakibaie MR, Adeli S, Mehrabani M, Hayatbakhsh M. In vitro antimicrobial activity of *Salvadora persica* extract on *Helicobacter pylori* strains isolated from duodenal ulcer biopsies. **Journal Microbiology Research** 2012; 3:e9:38-41.

35. Shakibaie MR, et al. Antibiotic resistant pattern and ESBL production among Acinetobacter spp. isolated from ICU of a hospital in Kerman, Iran. **Journal Antibiotic Resistance Infection Control** 2012; 1(1):1-8.

36. K, Mozafari Nia, G Sepehri, H Khatmi, Shakibaie MR. Isolation and antimicrobial susceptibility of bacteria from chronic supportive otitis media patients in Kerman, Iran. **Iranian Red Crescent Medical Journal** 2011; 13(12):891-894.

37. Shakibaie MR, Moradie M. Detection of Carbenicillin hydrolyzing (CARB) type of ESBL in hospital isolates of *Acinetobacter baumannii*. **International Journal Biological and Biomedical Sciences** 2011; 1(1):1-6.

38. Shakibaie MR, Shams K, Khalili M. Detection of *Legionella pneumophila* in cooling water systems of hospitals and nursing homes of Kerman City, Iran by Semi-Nested PCR. **World Academy of Science, Engineering and Technology** 2011; 52:20-23.

39. Shakibaie MR. and Moradie M. Detection of carbenicillin hydrolyzing (CARB) type of ESBL in hospital isolates of Acinetobacter baumannii. International Journal Biological and Biomedical Sciences. 2011; 1(1):1-6.

40. Shahcheraghi F, Shakibaie MR, Noveiri H. Molecular Identification of ESBL Genesbla GES-1,blaVEB-1,blaCTX-M,blaOXA-1,blaOXA-4,blaOXA-10 and blaPER-1 in *Pseudomonas aeruginosa* Strains Isolated from Burn Patients by PCR, RFLP and Sequencing techniques. **International Journal of Bioengineering and Life Sciences** 2010; 4(1):114-118.

41. 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.

42. Shakibaie MR, et al. Antibiotic resistance genes among Gram-negative bacteria in sewage and lake water and influence of some physico-chemical parameters of water on conjugation process. **Journal of Environmental Biology** 2009; 30(1):45-49.

43. Shakibaie MR, Dhakephalker P, Kapadnis P, Chopade BA. Conjugational transfer and survival of plasmid encoding silver and antibiotic resistance genes of *Acinetobacter baumannii* BL54, *E. coli* K12 J53.2 transconjugants and *pseudomonas* transformants in different soil microcosms. **African Journal of Bacteriology Research** 2009; 1(7): 79-84. https://academicjournals.org/journal/JBR/article-full-text-pdf/838568D8984

44. JabbariNezhad A, Faezi Ghasemi M, Khosravan A, Farahmand A, Shakibaie MR. Cadmium bioremediation by metal-resistant mutated bacteria isolated from active sludge of industrial effluent. Iran. **J. Environment. Health. Sci. Engineer.** 2010; 7(4):279-286

45. Shakibaie MR, Shahcheraghi F, Hashemi ALI, Saeid Adeli N.A. Detection of TEM, SHV and PER type extended-spectrum β-lactamase genes among clinical strains of *pseudomonas aeruginosa* isolated from burnt patients at shafa-hospital, Kerman, Iran. **Iranian Journal of Basic Medical Sciences** 2008; 11(38):104-111.

46. 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.

47. 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. **American Journal of Biochemistry and Biotechnology** 2008; 4(1):1-6.

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. **Medical Journal of Tabriz University of Medical Sciences** 2008; 30(3):13-19.

49. 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.

50. 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.

51. Shakibaie MR, Harati A. Metal accumulation in *Pseudomonas aeruginosa* occurs in the form of nanoparticle on the cell surface. **Iran J. Biotechnol**. 2004; 2(1):55-60.

52. Shakibaie MR, Dhakephalker BA, Kapadnis BP, Chopade BA. Silver resistance in *Acinetobacter baumannii* BL54 occurs through binding to a Ag-Binding Protein. **Iran J. Biotechnol.** 2003; 1 (1): 41-46.

53. Shakibaie MR, Ehsan ZH. Conjugative plasmids among antibiotic resistance *Escherichia coli* isolates from hospitals in Kerman, Iran. **Modarres Journal of Medical Sciences** 2003; 6(2): 75-83.

54. Shakibaie MR. Plasmid mediated metal and antibiotic resistance in Pseudomonas aeruginosa Strains isolated from burn patients. **Medical Journal of the Islamic Republic of Iran** 2002; 16(3):159-163.

55. Kiani MA, Shakibaie MR, Kariminejad MH. A 22; 22 Robertsonian translocation in patient with repeated abortions. **Archive Iranian Medicine** 2000; 3(3):151-153.

56. Shakibaie MR, Adeli S, Nikian Y. Emergence of Ciprofloxacin resistance among Pseudomonas aeruginosa isolated from burn patients. **Iranian Journal of Medical Sciences** 2001;26 (3&4):155-159.

57. Shakibaie MR, Mansouri S, Hakak S. Plasmid Pattern of antibiotic resistance in β-lactamase producing *Staphylococcus aureus* isolated from hospitals in Kerman, Iran. **Archive of Iranian Medicine** 1999;2(2):93-97.

58. Shakibaie MR, Dhakephalker PA, Kapadnis BP, and Chopade BA. Removal of silver from Waste water effluents using *Acinetobacter baumannii* BL54. **Canadian Journal Microbiology** 1999; 45:995-1000.

59. Shakibaie MR, Dhakephalker P, Salajaghe G.A, Chopade BA. Plasmid mediated silver& antibiotic resistance in *Acinetobacter baumannii* BL54. **Iranian Journal of Medical Sciences** 1988; 23 (1&2):30-36.

60. Jabbari Nezhad Kermani A, Shakibaie MR, et al. The isolation of cadmium resistant bacteria from soil and activated sludge and determining of absorption synthetic. **Biotechnological Journal of Environmental Microorganisms** 2012; 6(1):11-20.

ABSTRACTS IN SEMINARS

1- Shakibaie MR. Antibiotic resistance among Pseudomonas aeruginosa exhibit different RFLP with regards to gyrA gene. Proceeding of the second national biotechnology Congress Islamic Republic of Iran. Agricultural Biotechnology Research Institute of Iran. Oct.9-11, (2001), Karaj. (Invited speaker)

2- Shakibaie MR: Gene therapy of monogenic diseases, new approach to genetics. 10th Iranian Genetics Congress. 21-23 May, (2008) Tehran, Iran. Pp-401. (Invited speaker)

3- Shakibaie M R, Shams K, Khalili M: 16S RDNA PCR amplification and semi-nested PCR for detection of Legionella pneumophila in cooling water systems of different hospitals and nursing homes of Kerman, Iran. 10th Iranian Genetics Congress.21-23 May, (2008) Tehran, Iran. Pp-403.

4- Shakibaie MR, et al: Detection of ESBL genes and their heterogeneity in Pseudomonas aeruginosa isolates. 3rd Conference of European Microbiologist **(FEMS 2009) Gothenburg, Sweden** June 28-July 2, 2009. Pp 1396.

5- Shakibaie MR et al: Horizontal transfer of antibiotic resistance genes among Gram negative bacteria in sewage and lake water and effect of some physicochemical of water in conjugation. 3rd Conference of European Microbiologist **(FEMS2009) Gothenburg, Sweden** June 28-July 2, 2009. Pp 139.

6- Shakibaie MR. plasmid-encoded resistance to penicillin's in Acinetobacter baumannii mediated by carbenicillin-hydrolysing (CARB) type of β-lactamase, **8th International Symposium on the Biology of Acinetobacter 1 – 3 September 2010** Università di Roma Tre, **Rome, Italy**.

7- Shakibaie MR: Molecular identification of ESBL genes blaGES-1, blaVEB-1, blaCTX-M, blaOXA-1, blaOXA-4, blaOXA-10 and blaPER-1 in Pseudomonas aeruginosa isolated from burn patients by PCR-RFLP and sequencing techniques. **4th Conference of European Microbiologist (FEMS 2011). Geneva, SWISS**

8- Shakibaie MR: Bioremediation of cadmium (Cd) using Cd resistant bacteria isolated from activate sludge industrial waste effluent in batch bed reactor. **4th Conference of European Microbiologist (FEMS 2011) Geneva, SWISS.**

9- Mohammad Reza Shakibaie. Genomics and emergence of pan-drug resistance bacteria. 2nd international conference of clinical microbiology and **microbial genomics. September 16- 18, 2013. LasVegas, USA.**

10- Shakibaie MR; Molecular Detection of Class-D OXA Carbapenemase Genes in Biofilm and Non-Biofilm Forming Clin. Isolates of Acinetobacter Baumannii. The **8th ASM Conference on Biofilms**. Ambassador Ballroom – Omni Shoreham Washington, DC, 7-10 Oct, 2018

BOOKS PUBLISHED

PRINCIPLE OF BASIC MOLECULAR BACTERIOLOGY (Introduction to molecular biology Book 1) Kindle Edition

by Dr. MR Shakibaie (Author) | Format: Kindle Edition

this book briefly describes the basic molecular bacteriology including bacterial chromosome, molecular techniques used in bacteriology, quorum sensing, Bacterial signal transduction, gene transfer among bacteria in the natural environment, mitochondrial DNA, Index and References.....

Print length	Language	Publication date	Grade level	File size
117 pages	English	April 18, 2016	12 and up	5218 KB