Curriculum Vitae (CV)

Sanaz Dehbashi

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LinkedIn- ORCHID- Google Scholar- Scopus- ResearchGate

Education

1. **Ph.D. in Medical Bacteriology**- Hamadan University of Medical Sciences, 2016-2020
2. **MSc in Medical Microbiology**- Tehran University of Medical Sciences, 2013-2016
3. **BSc in Laboratory Sciences**- Golestan University of Medical Sciences, 2009-2013

Academic Appointments

Faculty Member in Health Information Technology – Varastegan Institute for Medical Sciences (VIMS) – (February 2022)

Teaching Experience

1. Molecular Biology laboratory - MSc students- Tehran University of Medical Sciences, 2014

2. Microbiology laboratory - MSc students- Hamadan University of Medical Sciences, 2020
3. Microbiology laboratory - BSc students- Tehran University of Medical Sciences, 2014
4. Microbiology laboratory - BSc students- Hamadan University of Medical Sciences, 2017-2020
5. Medical Parasitology- BSc students- Varastegan Institute for Medical Sciences (VIMS), Two Semesters, 2021-2022
6. Medical Helminthology- BSc students- Varastegan Institute for Medical Sciences (VIMS), 2022
7. Medical Bacteriology laboratory- BSc students, Varastegan Institute for Medical Sciences (VIMS), 2022
8. Medical Microbiology- BSc students- Varastegan Institute for Medical Sciences (VIMS), Two Semesters, 2021-2022

Professional Presentations

1. Infection Control webinar- Varastegan Institute for Medical Sciences (VIMS), 2022
2. Real-Time PCR workshop- Varastegan Institute for Medical Sciences (VIMS), 2022

Publication

Journal Articles

1. Dehbashi S, Tahmasebi H, Alikhani MY, Keramat F, Arabestani MR. Optimization and development of high-resolution melting curve analysis

(HRMA) assay for detection of New Delhi metallo-β-lactamase (NDM) producing Pseudomonas aeruginosa. AIMS Microbiology. **2022**

2. Tahmasebi H, Dehbashi S, Nasaj M, Arabestani MR. Molecular epidemiology and collaboration of siderophore-based iron acquisition with surface adhesion in hypervirulent Pseudomonas aeruginosa isolates from wound infections. Scientific Reports. **2022**
3. Dehbashi S, Alikhani MY, Tahmasebi H, Arabestani MR. The inhibitory effects of Staphylococcus aureus on the antibiotic susceptibility and virulence factors of Pseudomonas aeruginosa: A549 cell line model. AMB Express. **2021**
4. Dehbashi S, Tahmasebi H, Zeyni B, Arabestani MR. Regulation of virulence and β-lactamase gene expression in Staphylococcus aureus isolates: cooperation of two-component systems in bloodstream superbugs. BMC microbiology. **2021**
5. Tahmasebi H, Dehbashi S, Arabestani MR. Antibiotic resistance alters through iron-regulating Sigma factors during the interaction of Staphylococcus aureus and Pseudomonas aeruginosa. Scientific Reports. **2021**
6. Nasaj M, Hosseini SM, Saeidi Z, Dehbashi S, Tahmasebi H, Arabestani MR. Analysis of phenotypic and genotypic methods for determining the biofilm-forming abilities of CoNS isolates: Association with hemolysin production and the bacterial insertion sequence elements IS256/257. Gene Reports. **2021**
7. Roshani M, Goodarzi A, Dehbashi S, Afrasiabi F, Goudarzi H, Hashemi A, et al. New Delhi metallo-β-lactamase-1 among Escherichia coli strains isolated from leukemia patients in Iran: two case reports. Journal of Medical Case Reports. **2021**

8. Tahmasebi H, Dehbashi S, Arabestani MR. Prevalence and molecular typing of colistin-resistant Pseudomonas aeruginosa (CRPA) among β-lactamase-producing isolates: a study based on high-resolution melting curve analysis method. Infection and Drug Resistance. **2020**

9. Tahmasebi H, Dehbashi S, Arabestani MR. Co-harboring of mcr-1 and β-lactamase genes in Pseudomonas aeruginosa by high-resolution melting curve analysis (HRMA): molecular typing of superbug strains in bloodstream infections (BSI). Infection, Genetics and Evolution. **2020**

10. Tahmasebi H, Dehbashi S, Jahantigh M, Arabestani MR. Relationship between biofilm gene expression with antimicrobial resistance pattern and clinical specimen type based on sequence types (STs) of methicillin-resistant S. aureus. Molecular Biology Reports. **2020**

11. Nasaj M, Saeidi Z, Tahmasebi H, Dehbashi S, Arabestani MR. Prevalence and distribution of resistance and enterotoxins/enterotoxin-like genes in different clinical isolates of coagulase-negative Staphylococcus. European Journal of Medical Research. **2020**

12. Dehbashi S, Pourmand MR, Alikhani MY, Asl Soleimani S, Arabestani MR. Coordination of las regulated virulence factors with Multidrug-Resistant and extensively drug-resistant in superbug strains of P. aeruginosa. Molecular Biology Reports. **2020**

13. Dehbashi S, Pourmand MR, Alikhani MY, Asl SS, Arabestani MR. The effect of Staphylococcus aureus on the antibiotic resistance and pathogenicity of Pseudomonas aeruginosa based on crc gene as a metabolism regulator: An in vitro wound model study. Infection, Genetics and Evolution. **2020**

14. Dehbashi S, Tahmasebi H, Alikhani MY, Keramat F, Arabestani MR. Distribution of Class B and Class A β-lactamases in clinical strains of

Pseudomonas aeruginosa: comparison of phenotypic methods and high-resolution melting analysis (HRMA) assay. Infection and Drug Resistance. **2020**

15. Dehbashi S, Tahmasebi H, Sedighi P, Davarian F, Arabestani MR. Development of high-resolution melting curve analysis in rapid detection of vanA gene, Enterococcus faecalis, and Enterococcus faecium from clinical isolates. Tropical medicine and health. **2020**

16. Tahmasebi H, Dehbashi S, Alikhani MY, Porbaran M, Arabestani MR. Prevalence and molecular typing of Metallo-β-lactamase-producing Pseudomonas aeruginosa with adhesion factors: a descriptive analysis of burn wounds isolates from Iran. Gene Reports. **2020**

17. Tahmasebi H, Dehbashi S, Arabestani M. New approach to identify colistin-resistant Pseudomonas aeruginosa by high-resolution melting curve analysis assay. Letters in applied microbiology. **2020**

18. Tahmasebi H, Dehbashi S, Arabestani MR. Resistance pattern to macrolides and tetracyclines and detection of ermA, ermB, emrC and mphc genes in clinical isolates of Staphylococcus aureus producing toxic shock syndrome toxin-1. Koomesh. **2019**

19. Tahmasebi H, Dehbashi S, Arabestani MR. Association between the accessory gene regulator (agr) locus and the presence of superantigen genes in clinical isolates of methicillin-resistant Staphylococcus aureus. BMC research notes. **2019**

20. Tahmasebi H, Dehbashi S, Arabestani MR. A New Approach to Identify and Determine the Relationship between MecA Gene Mutations Based on HRM with Clinical Species in Staphylococcus aureus Isolates. Journal of Arak University of Medical Sciences. **2019**

21. Dehbashi S, Tahmasebi H, Arabestani M. Evaluation of High-Resolution Melting Curve Analysis (HRM) assay for Detection of Pseudomonas aeruginosa PASGNDM699: A dangerous New Delhi metallo-β-lactamase (NDM) strain. **2019**.

22. Dehbashi S, Tahmasebi H, Arabestani MR. The clinical utility of analysis high resolution melting curve assay for simultaneous identification of methicillin and mupirocin resistant in coagulase-negative Staphylococci. Clinical laboratory. **2019**

23. Tahmasebi H, Maleki F, Dehbashi S, Arabestani M. Role and function of KPC and MBL enzymes in increasing the pathogenicity of pseudomonas aeruginosa isolated from burn wounds. Journal of Babol University of Medical Sciences. **2019**

24. Tahmasebi H, Dehbashi S, Arabestani MR. Identification of gene mutation patterns obtained from resistance to mupirocin in methicillin-resistant staphylococcus aureus clinical strains, using high-resolution melting (HRM) method. Journal of Isfahan Medical School. **2018**

25. Tahmasebi H, Dehbashi S, Arabestani MR. High resolution melting curve analysis method for detecting of carbapenemases producing pseudomonas aeruginosa. J Krishna Inst Med Sci Univ. **2018**

26. Tahmasebi H, Dehbashi S, Arabestani MR. Applying high-quality DNA melting curve analysis in identifying staphylococcus aureus and methicillin-resistant strains. Journal of Mazandaran University of Medical Sciences. **2018**

27. Dehbashi S, Tahmasebi H, Arabestani MR. Association between Beta-lactam Antibiotic resistance and virulence factors in AmpC producing clinical strains of P. aeruginosa. Osong public health and research perspectives**. 2018**

28. Dehbashi S, Tahmasebi H, Zeyni B, Arabestani MR. The relationship between promoter-dependent quorum sensing induced genes and methicillin resistance in clinical strains of Staphylococcus aureus. Journal of Advances in Medical and Biomedical Research. **2018**

29. Heydari N, Tahmasebi H, Zeini B, Dehbashi S, Arabestani MR. Expression of aap and icaR genes involved in biofilm production in clinical strains of Staphylococcus aureus resistant to methicillin and gentamicin. Scientific Journal of Kurdistan University of Medical Sciences. **2018**

30. Tahmasebi H, Alikhani MY, Dehbashi S, Arabestani M. Investigation of the relationship between the presence of chromosomal and plasmid-encoded ampc genes and type of clinical specimen in pseudomonas aeruginosa. Journal of Babol University of Medical Sciences. **2018**

31. Tahmasebi H, Alikhani MY, Dehbashi S, Reza M. Determination of Minimum Inhibitory Concentration of Different Antibiotic Groups in Clinical Isolates of Pseudomonas aeruginosa Containing p-AmpC and Their Relationship with Antibiotic Resistance Pattern. Avicenna Journal of Clinical Medicine. **2018**

32. Ghaderkhani J, Tahmasebi H, Zeyni B, Dehbashi S, Arabestani MR. Evaluation of the Phenotypic and Molecular Pattern of Efflux Pumps in Clinical Isolates of Methicillin-resistant Staphylococcus aureus. Avicenna Journal of Clinical Medicine. **2017**

33. Tahmasebi H, Zeiyni B, Dehbashi S, Motamedi H, Vafaeifar M, Keramat F, et al. The study of blaZ and mecA gene expression in methicillin-resistant Staphylococcus aureus strains and the relationship between the gene expression patterns. Journal of Isfahan Medical School. **2017**

34. Masoomikarimi M, Mirzaei M, Norouzi P, Fazli M, Dehbashi S, Afshar D, et al. LAMP method in *Streptococcus Pyogenes* diagnosis, **2017**

35. Hassanzadeh S, Pourmand MR, Afshar D, Dehbashi S, Mashhadi R. TENT: a rapid DNA extraction method of Staphylococcus aureus. Iranian Journal of Public Health. **2016**

36. Salimi E, Pakbaz Z, Pourmand MR, AVAKH MP, Dehbashi S. Nasal Carriage of Uncommon Coagulase-Negative Staphylococci in Nurses and Physicians of Tehran University Hospitals. **2016**.

37. Jasemi SS, Alipour F, Dehbashi S, Mardaneh J. Isolation pseudomonas and acinetobacter from blood specimens in patients hospitalized in emam khomeini Hospital (Kermanshah). ISMJ. **2015**

38. Dehbashi S, Pourmand M, Mahmoudi M, Mashhadi R. Molecular identification of Streptococcus agalactiae using gbs1805 gene and determination of the antibiotic susceptibility pattern of isolates. Journal of Babol University of Medical Sciences. **2015**

39. Hasanzadeh S, Pourmand M, Mashhade R, Dehbashi S. COMPARISON OF FOUR DIAGNOSTIC METHODS FOR DETECTION OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS. Iranian Journal of Public Health. **2014**

40. Jasemi SS, Alipoor F, Dehbashi S, Mardaneh J. Isolation of Citrobacter spp. from blood specimens in patients hospitalized in Kermanshah Imam Khomeini hospital and determination of the of isolates sensitivity to antibiotics. Journal of Birjand University of Medical Sciences. **2014**

41. Abbas Poor S, Mardaneh J, Dehbashi S, Jasemi SS. Profile of antimicrobial susceptibility isolated microorganisms from hospitalized patients in PICU ward and detection of methicillin-resistant Staphylococcus aureus and ESBL-producing bacteria by phenotypic methods. ISMJ. **2014**

Conference Proceedings Articles

1. Dehbashi, S., Arabestani M.R., *Staphylococcus aureus* effect on β-lactamase enzymes and virulence factors *of Pseudomonas aeruginosa* in lung disease: A Co-culture method by Human Cell lines (A-549), 13th Professor Alborzi International Congress of Clinical Microbiology, **2020**
2. Dehbashi S., Jasemi S.S., Pourmand M.R., Isolation of *Pseudomonas aeruginosa* and *Acinetobacter baumanii* collected from blood culture in Kermanshah, Iraninan Congress of bacteriology, **2013**
3. Dehbashi S., Pourmand M.R., Prevalence of *gbs1805* gene in *Streptococcus agalactiae* isolates. 15th Iran`s International Congress of Microbiology, **2014**

Thesis

1. Dehbashi, S., **Investigating the inductive-inhibitory effects of *Staphylococcus aureus* on the expression of genes affecting the pathogenicity of *Pseudomonas aeruginosa* isolated from clinical specimens and strain grouping based on the MLST (Multilocus sequence typing)**, Unpublished Ph.D. Thesis, 2020
2. Dehbashi, S., **Determination of *Streptococcus agalactiae* incidence in patients and Molecular investigation and epidemiology of gbs1805 gene in clinical isolates,** Unpublished MSc Thesis, 2016

Projects

1- Study of changes in antibiotic resistance and gene expression in co-culture conditions and the interaction of *Pseudomonas aeruginosa* and *Staphylococcus aureus* in planktonic and biofilm states and comparison with antibiotic-sensitive strains- Hamadan University of Medical Sciences- **2020**

2- Identification of Class D Ambler Betalactamases using HRMA and investigation the association of *OXA* genes to colistin resistance among *Pseudomonas aeruginosa* clinical isolates- Hamadan University of Medical Sciences- **2020**

3- A design on HRMA method for characterization of resistance to betalactams, polymyxin, and glycopeptides in standards and clinical isolates of *Staphylococcus* spp., *Enterococcus* spp., *Streptococcus* spp., and *Pseudomonas aeruginosa*- Hamadan University of Medical Sciences- **2020**

4- The investigation of siderophore encoding genes and Heme transport systems in *Pseudomonas aeruginosa*- Hamadan University of Medical Sciences- **2020**

5- The effect of exoproducts of *Staphylococcus aureus* and *Pseudomonas aeruginosa* on apoptosis in L-929 cell line- Hamadan University of Medical Sciences- **2019**

6- The investigation of *Pseudomonas aeruginosa* activity on metabolism of persister cells derived from Methicillin-susceptible and -Resistant *Staphylococcus aureus*- an *in vitro* and cell culture model- Hamadan University of Medical Sciences- **2019**

7- Characterization of virulence factors and constitutive operons of coagulase negative *Staphylococci* and betalactm and fluoroquinolones resistance gene expression level through Real-Time PCR method- Hamadan University of Medical Sciences- **2018**

8- High Resolution Melting analysis to characterize the causing agents of hospital acquired infection- Hamadan University of Medical Sciences- 2018

9- Investigating the inductive-inhibitory effects of *Staphylococcus aureus* on the expression of genes affecting the pathogenicity of *Pseudomonas aeruginosa* isolated from clinical specimens and strain grouping based on the MLST (Multilocus sequence typing)- Hamadan University of Medical Sciences- **2017**

10- The investigation of resistance genes influenced by suppressive promoters in ESBL-, KPC-, MBL-, NDM-, and AMP-producing *Pseudomonas aeruginosa* clinical isolates- Hamadan University of Medical Sciences- **2017**

11- The investigation of gene expression levels of *mecA*, *mecI*, *mecC*, and *mecRI* and determination of RNAIII-agr among clinical isolates of *Staphylococcus aureus* and typing of MRSA isolates using MLST- Hamadan University of Medical Sciences- **2017**

12- Investigation of Quorum sensing gene expression levels in clinical isolates of *Staphylococcus aureus*- Hamadan University of Medical Sciences- **2016**

13- The comparative study of fructosamine and glycosylated hemoglobin among pregnant women with abnormal GCT levels and control group- Golestan University of Medical Sciences- **2012**

Professional Service

Refereeing

1. Reviewer of Ethiopian Journal of Health Sciences, 2021
2. Reviewer of Scientific Reports, 2021-2022
3. Reviewer of Gene Reports, 2021

Awards & Honors

1. Top student researcher of Hamadan University of Medical Sciences, **2020** and **2021**

Skills & Techniques

1. Real-Time PCR
2. MLST (Multi-Locus Sequence Typing)
3. Cloning
4. Recombinant Gene Expression
5. Western Blotting
6. SDS-PAGE
7. Zymography
8. Cell Culture