

Curriculum Vitae

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Publications:

➤ Books:

1. Principles of protein engineering (2021). ISBBN: 978-622-7595-36-9
2. Electrochemical aptamer-based biosensors for diagnosis of cancers (2025). Elsevier (ISBN: 978-0-443-13633-7).

➤ **Papers:**

1. Mohammadi R, **Ghani S**, Arezumand R, Farhadi S, Khazaei-Poul Y, Kazemi B, Yarian F, Noruzi S, Alibakhshi A, Jalili M, Aghamiri S. Physicochemical Stimulus-Responsive Systems Targeted with Antibody Derivatives. *Current Molecular Medicine*. 2024 Oct 1;24(10):1250-68.
2. **Ghani S**, Bandehpour M, Yarian F, Baghaei K, Kazemi B. Production of a ribosome-displayed mouse scFv antibody against CD133, analysis of its molecular docking, and molecular dynamic simulations of their interactions. *Applied Biochemistry and Biotechnology*. 2024 Mar;196(3):1399-418.
3. **Ghani S**, Eyvazi S, Ebrahimi Z, Bandehpour M. In Silico Evaluation of the Interactions Among Novel Phage Display-Selected Single Chain Variable Fragment (scFv) with CD24 Marker. *International Journal of Cancer Management*. 2023 Dec 1;16(1).
4. Sameni M, Mirmotalebisohi SA, Dadashkhan S, **Ghani S**, Abbasi M, Noori E, Zali H. COVID-19: a novel holistic systems biology approach to predict its molecular mechanisms (in vitro) and repurpose drugs. *DARU Journal of Pharmaceutical Sciences*. 2023 Dec;31(2):155-71.
5. Dadashkhan S, Mirmotalebisohi SA, Poursheykhi H, Sameni M, **Ghani S**, Abbasi M, Kalantari S, Zali H. Deciphering crucial genes in multiple sclerosis pathogenesis and drug repurposing: A systems biology approach. *Journal of Proteomics*. 2023 May 30; 280:104890.
6. **Ghani S**, Rafiee B, Bahrami S, Mokhtari A, Aghamiri S, Yarian F. Green synthesis of silver nanoparticles using the plant extracts of vitex agnus castus L: An ecofriendly approach to overcome antibiotic resistance. *International Journal of Preventive Medicine*. 2022 Oct 11; 13:133.
7. **Ghani S**, Deravi N, Pirzadeh M, Rafiee B, Gatabi ZR, Bandehpour M, Yarian F. Antibody fragment and targeted colorectal cancer therapy: A global systematic review. *Current Pharmaceutical Biotechnology*. 2022 Jul 1;23(8):1061-71.
8. **Ghani S**, Kalantari S, Mirmotalebisohi SA, Sameni M, Poursheykhi H, Dadashkhan S, Abbasi M, Zali H. Specific regulatory motifs network in SARS-CoV-2-infected Caco-2 cell line, as a model of gastrointestinal infections. *Cellular Reprogramming*. 2022 Feb 1;24(1):26-37.

9. Najafi S, Tan SC, Raei P, Rahmati Y, Asemani Y, Lee EH, Hushmandi K, Zarrabi A, Aref AR, Ashrafizadeh M, Kumar AP. **S, Ghani**, Sh Aghamiri. Gene regulation by antisense transcription: A focus on neurological and cancer diseases. *Biomedicine & Pharmacotherapy*. 2022 Jan 1; 145:112265.
10. **Ghani S**, Bahrami S, Rafiee B, Eyvazi S, Yarian F, Ahangarzadeh S, Khalili S, Shahzamani K, Jafarizadeh M, Bandehpour M, Kazemi B. Recent developments in antibody derivatives against colorectal cancer; A review. *Life Sciences*. 2021 Jan 15; 265:118791.
11. **Ghani S**, Yarian F, Bandehpour M, Kazemi B. An in-silico approach and experimental analysis combination: two strategies for selecting the third Extracellular Domain (D-EC3) of human CD133 marker as a target for detection of Cancer Stem cells. *Iranian Journal of Pharmaceutical Research: IJPR*. 2021;20(4):80.
12. Khazaei-Poul Y, Farhadi S, **Ghani S**, Ahmadizad SA, Ranjbari J. Monocyclic peptides: types, synthesis and applications. *Current Pharmaceutical Biotechnology*. 2021 Jan 1;22(1):123-35.
13. Rafiee B, **Ghani S**, Sadeghi D, Ahsani M. Green synthesis of zinc oxide nanoparticles using eucalyptus mellidora leaf extract and evaluation of its antimicrobial effects. *Journal of Babol University of Medical Sciences*. 2018 Oct 10;20(10):28-35.
14. **Ghani S**, Rafiee B, Sadeghi D, Ahsani M. Biosynthesis of iron nano-particles by *Bacillus megaterium* and its anti-bacterial properties. *Journal of Babol University of Medical Sciences*. 2017 Jul 10;19(7):13-9.
15. Rafiee B, **Ghani S**, Sadeghi D, Rezaei A, Farazi AA. Evaluation of the Genetic Similarity of *Mycobacterium Tuberculosis* Strains Isolated from Iranian and Afghan Tb Patients Using Rflp-Based Methods. *Iranian Journal of Public Health*. 2014;43(2):269.
16. Rafiee B, Sadeghi D, **Ghani S**, Rezaei A. the study of the antibiotic resistance pattern of *pseudomonas aeruginosa* strains isolated of clinical laboratory from markazi province -Iran. *Iranian Journal of Public Health*. 2014;43(2):100.
17. Rafiee B, **Ghani S**, Sadeghi D, Sofian S, Rezaei A. Prevalence of coagulase positive pathogenic *Staphylococcus aureus* in mayonnaise sauce. *Iranian Journal of Public Health*. 2014;43(2):172.

18. Rafiee B, **Ghani S**, Sadeghi D, Keshavarz R, Molecular characterization of Mycobacterium bovis isolates with high copy number of IS6110 by restriction fragment length polymorphism. Zahedan J. Res. Med. Sci. 2014 Jan 1; 16:70-2.
19. Rafiee B, Farazi A, Sadeghi D, **Ghani S**, Nazari R. Comparison of PCR-RFLP and biochemical methods for detection of human pulmonary tuberculosis agents.

➤ **Congress presentation:**

1. Specific Regulatory Motifs Network in SARS-CoV-2 Gastrointestinal Infections. *The 13th International & 19th National Congress on Quality Improvement in Clinical Laboratories*.2022.
2. Assessment of non-glycosylated domain of CD133 marker for detection of cancer stem cells. 5th international cancer congress.2021.
3. Considering the Antimicrobial Effects of Aquatic-Alcoholic Calendula Officinalis Extract Against Salmonella Typhimurium, Staphylococcus Aureus and Klebsiella Pneumoniae Invitro. *The 13th Iranian and 2th international congress of Microbiology, 2012.*
4. Isolation and Molecular Identification of Mycobacterium Tuberculosis and Mycobacterium Bovis Isolates of Pulmonary Patients in Markazi Province by PCR-RFLP. *The 13th Iranian and 2th international congress of Microbiology, 2012.*
5. The Antibacterial Effects of Plantago Minor, Calendula Officinalis and Eucalyptus Polycarpa Extracts Againsts Mycobacterium Tuberculosis Invitro. *The 13th Iranian and 2th international congress of Microbiology, 2012.*

Patents:

1. Synthesis of Chitosan Nanoparticles Using Eucalyptus Extract and Its Application in Increased post-harvest life mushroom (2016).
2. Synthesis of scFv using ribosome display method against human CD133 marker for detection of cancer stem cells (2022).

Teaching Experiences

- 1) Medical virology
- 2) Cellular and molecular biology and laboratory