

## Summary

- Significant technical expertise in laboratory procedures and scientific methods, due to working in a leading medical equipment manufacturing company, with the result of 4 years as the head of laboratory quality control for the leading brands KODEX NACH in Iran.
- Keen interest and ability to teach scientific subjects, due to my mastery of chemistry and mathematics, and my ability to analyze students and communicate the material, resulting in an 80% A grade for all of my students.
- Passionate about advancing cancer treatment and understanding, demonstrated by writing three articles on cancer after reading hundreds of articles and completing several courses, despite not having access to laboratory facilities.

## Education

B.Sc. Biomedical Engineering-with Emphasis on Biomaterials

2012 - 2016

*Maziar Higher Education Institute, Royan, Iran*

GPA: 3.34 out of 4 / 16.51 out of 20

## Research Interests

- **Cell Biology and Cancer Biology:** I am interested in understanding the molecular mechanisms of cancer development and progression. My specific research interests include the role of cell signaling pathways in cancer, as well as the development of new therapeutic strategies that target cancer cells.
- **Cancer Diagnostics and Drug Development:** I am interested in developing new cancer diagnostic tools that are more sensitive and specific, as well as more efficient and effective methods for cancer drug development. My specific research interests include the development of liquid biopsies for early cancer detection and the development of targeted therapies for specific types of cancer.

## Skills

- ☑ Python, MATLAB, and BioRender
- ☑ Laboratory Research, Project Management, Critical Thinking, Problem-solving, Communication, Attention to detail, and Teamwork
- ☑ English (TOEFL iBT: 101) Listening: 25 ; Writing: 26 ; Speaking: 25 ; Reading: 25

## Research Experience

Cell Culture, Medical Internship, *Materials and Energy Research Center*, Karaj, Iran

- Maintained and cultured a variety of normal cell lines, including primary cells and immortalized cell lines, ensuring optimal growth and viability.
- Performed a variety of cell culture experiments, such as proliferation assays, differentiation assays, and cell-cell interaction assays, to investigate the fundamental biology of normal cells and their role in cancer development and progression.
- Analyzed data from cell culture experiments using statistical software to identify significant trends and interpret the results.

Produce Bioplastics From Starch, Special Assistant to Rahmatollah Tavakoli, Professor of Organic Chemistry, *Maziar Higher Education Institute*, Royan, Iran

- Carefully grew and maintained a variety of starch-producing microbes, including bacteria, yeast, and algae, to ensure that they were healthy and able to produce bioplastics.
- Conducted a variety of experiments to produce bioplastics, such as fermentation, extraction, and purification, to study the basic principles of bioplastic production and improve the process.
- Used statistical software to analyze data from bioplastic production experiments to identify important trends and interpret the results.

## Work Experience

Private Chemistry and Mathematics Tutor, Rasht Iran

2019 - Present

- Taught chemistry and mathematics to students at all levels, from high school to college, throughout the Gilan Province.

- Developed and delivered lesson plans tailored to individual student needs, ensuring that all students met learning objectives.
- Provided feedback on student work, helping them to improve their understanding of chemistry and mathematics concepts and problem-solving skills.
- Tracked student progress, ensuring that they were meeting learning objectives.

Laboratory Quality Control Head, *Anjir Talae Co.*, Karaj, Iran

2016 - 2019

- Managed and supervised a team of 75 workers in a laboratory setting.
- Collaborated with a professional team to improve laboratory processes and operations.
- Ensured the quality of scientific reports and products by analyzing, reviewing, drafting, evaluating, proving, and confirming them.
- Conducted experiments and tested products to identify and resolve problems.
- Broadened research areas and communicated effectively with stakeholders.

Technical Trainer, *Anjir Talae Co.*, Karaj, Iran

2016 - 2019

- Developed and implemented informative hygiene and 5S programs for 180 employees on a monthly basis.
- Provided training to colleagues on a variety of topics, including basic and fundamental concepts, practical solutions, and research findings.
- Motivated and guided colleagues through the training process.
- Evaluated the effectiveness of training programs and made adjustments as needed.
- Communicated effectively with trainees to ensure that they understood the material and were able to apply it to their jobs.

Laboratory Quality Control Head, *Saramad Teb Parayeh*, Karaj, Iran

2016 - 2016

- Planned and conducted experiments to investigate scientific questions and generate data.
- Oversaw the progress of experiments and tests to ensure that they were completed according to protocol.
- Transferred and delivered samples to the laboratory for analysis.
- Supervised a team of laboratory workers to ensure the efficient and accurate completion of tasks.
- Liaised with laboratory personnel and established rapport to facilitate communication and collaboration.

## Publication (Review Articles)

1. M. Yousefinia, "The Enigma of Telomere: How Length Affects Stem Cell Behaviour" (*Under Review*), International Journal of Pediatrics. This review article examines the role of telomere length in stem cell function and differentiation.
2. M. Yousefinia, "Cancer Stem Cells: the Key Players in Tumor Progression and Therapy Resistance" (*In Preparation*). This review article discusses the biology of cancer stem cells and their role in tumor progression and resistance to therapy.
3. M. Yousefinia, "Empowering Women: Global Perspectives on Breast Cancer Awareness and Treatment" (*In Preparation*). This review article examines the current state of breast cancer awareness and treatment in different parts of the world, with a focus on the unique challenges faced by women in developing countries.

## Awards and Honors

Ranked 1st in the state of Gilan in the Chemistry Olympiad, a prestigious competition for high school students interested in chemistry, 2008

## Licenses and Certificates

- Mendeley Advisor Certification, *Mendeley*, 2023
- Cancer Biology, *Johns Hopkins University on Coursera*, 2023
- Advanced Reproducibility in Cancer Informatics, *Johns Hopkins University on Coursera*, 2023
- Documentation and Usability for Cancer Informatics, *Johns Hopkins University on Coursera*, 2023
- Leadership for Cancer Informatics Research, *Johns Hopkins University on Coursera*, 2023
- Computing for Cancer Informatics, *Johns Hopkins University on Coursera*, 2023
- Artificial Intelligence for Breast Cancer Detection, *Johns Hopkins University on Coursera*, 2023
- Introduction to Breast Cancer, *Yale University on Coursera*, 2023
- The Science of Stem Cells, *American Museum of Natural History on Coursera*, 2023
- Health After Cancer: Cancer Survivorship for Primary Care, *Stanford University on Coursera*, 2023
- Cervical Cancer Risk Prediction Using Machine Learning, *Coursera Project Network*, 2023
- TOEFL Preparation, *University of California, Irvine on Coursera*, 2023
- ISO 9001, *Industrial Engineering House*, Tehran, Iran, 2019
- ISO 14001, *Industrial Engineering House*, Tehran, Iran, 2019
- Quality Control Master Program, *Industrial Engineering House*, Tehran, Iran, 2018
- 5S Methodology, *Industrial Engineering House*, Tehran, Iran, 2018

## Volunteer Experience

Taught chemistry and mathematics to students from low-income families, free of charge, in my home or their home (2019 - *Present*)

## Hobbies

**Poetry:** Writing poetry helps me to develop my creativity and communication skills. It also helps me to think critically about language and to express myself in a unique way. For example, I have written poems about the beauty and complexity of the natural world.

**Photography:** Photography teaches me to be observant and to capture the beauty of the world around me. It also helps me to develop my technical skills and to learn about composition and lighting.

**Watercolor painting:** Watercolor painting is a relaxing and meditative hobby that helps me to de-stress and to focus on the present moment. It also helps me to develop my creativity and problem-solving skills.

**Digital painting:** Digital painting is a more recent hobby that I have come to enjoy. It allows me to explore my creativity in a new way and to create unique and detailed works of art. I am particularly interested in using digital painting to create illustrations of scientific concepts and phenomena.