

Summary

- Significant technical expertise in laboratory procedures and scientific methods, due to working in a leading medical equipment manufacturing company, with the result of 3 years as the senior laboratory quality control specialist 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 aim to elucidate the molecular mechanisms of cancer development and progression, specifically focusing on the role of cell signaling pathways and the development of new therapeutic strategies.
- **Cancer Diagnostics and Drug Development:** I seek to develop more sensitive and specific cancer diagnostic tools, as well as more efficient and effective approaches to cancer drug development, particularly through the development of liquid biopsies for early cancer detection and 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)

Research Experience

Cell Culture and Investigation of Fundamental Biology of Normal Cells: Medical Internship, *Materials and Energy Research Center, Karaj, Iran*

- Cultured and maintained a variety of normal cell lines, such as primary fibroblasts and immortalized HEK293 cells, ensuring optimal growth and viability by carefully monitoring cell density, pH, and CO₂ levels.
- Investigated the fundamental biology of normal cells by performing a variety of cell culture experiments, including proliferation assays, differentiation assays, and cell-cell interaction assays..
- Used statistical software to analyze data from cell culture experiments 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*

- Produced bioplastics using a variety of techniques, such as fermentation, extraction, and purification, to investigate the underlying principles of bioplastic production and develop strategies to improve the process.
- Cultivated and maintained a variety of starch-producing microbes, including bacteria, yeast, and algae, to ensure their viability and bioplastic production capabilities.
- Analyzed data from bioplastic production experiments using statistical software to elucidate key trends and interpret the findings.

Work Experience

Private Chemistry and Mathematics Tutor, Rostamabad, Iran

2019 - Present

- Tutored chemistry and mathematics students at all levels, from high school to college.
- Developed and implemented individualized lesson plans tailored to each student's needs.
- Gave constructive feedback on student work, helping students to identify and address their weaknesses.
- Tracked student progress through regular assessments and observations.

Senior Laboratory Quality Control Specialist, *Anjir Talae Co.*, Karaj, Iran

2016 - 2019

- Managed and supervised a team of 75 laboratory workers responsible for the manufacturing, testing, and packaging of medical equipment, ensuring that they were properly trained and equipped to perform their duties safely and efficiently.
- Worked with an interdisciplinary team to improve the efficiency of laboratory sample preparation procedures.
- Maintained the quality of scientific reports and products by analyzing, reviewing, drafting, evaluating, validating, and confirming them.
- Identified and resolved problems by conducting experiments and tests on products.
- Broadened research areas by developing and pursuing new research projects in related fields.
- Communicated effectively with key stakeholders by meeting regularly with them, providing updates on research progress, and seeking their input.

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

2016 - 2019

- Developed and implemented informative hygiene and 5S programs for 180 employees monthly.
- Trained colleagues on a variety of topics, such as basic and fundamental concepts, practical solutions, and research findings.
- Motivated and guided colleagues to successfully complete the training process by developing and delivering engaging and informative training materials and leading hands-on learning activities.
- Assessed the effectiveness of training programs and implemented necessary adjustments to improve the effectiveness of the training.

- Established clear and effective communication channels with trainees to ensure their understanding of the material and facilitate their application of the material to their jobs.

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

2016 - 2016

- Planned and conducted experiments to investigate scientific questions and generate reliable and reproducible data.
- Oversaw the progress of experiments and tests to ensure compliance with protocols.
- Ensured the integrity and timely delivery of samples to the laboratory for analysis.
- Supervised a team of laboratory workers to ensure the efficient and accurate execution of tasks.
- Liaised with laboratory personnel and established rapport to foster communication and collaboration.

Publication

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" (*Under Review*), Journal of Cellular Biochemistry. 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

- Mendeleev Advisor Certification, *Mendeleev*, 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*
- **5S Methodology**, *Industrial Engineering House, Tehran, Iran, 2018*
- **Quality Control Master Program**, *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.