MEGAN WALDEN

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Biotechnology student with proven professional relationship building skills. History of responsibility progression due to adaptability and creative problem solving. Looking to build on strong lab skills and knowledge of lab processes to obtain a challenging research internship. Academic plan to continue on to a doctorate and go into private research.

EDUCATION

Associate Degree – Biotechnology | Grad Dec 2022
Massachusetts Bay Community College, Wellesley, MA

GPA: 3.9,
Honors: Dean's List, Phi Theta Kappa Honors Society
Activities: VP of Biotechnology Innovation Club, Laboratory Technician, Peer Mentor
Relevant Coursework: Molecular and Developmental Biology, Organic Chemistry, Biotechnology, Cell Culture, Immunology, Biomanufacturing, Gene Expression

SKILLS SUMMARY

- Mammalian Cell Culture
- Nucleic Acid Extraction
- Aseptic Technique
- Viability Assay
- DNA/Plasmid Purification
- Buffer Preparation
- PCR
- Spectrophotometry
- Autoclave
- Gel Electrophoresis (SDS-Page, Agarose)
- Southern and Western Blot Analysis
- Bacterial Transformations
- Fluorescence Microscopy

ACADEMIC PROJECTS

Bacterial Transfection of Competent E. Coli with MCF-7 Breast Cancer Cells to Render the MTA1 Protein Inert via the Use of CRISPR – Using the CRISPR gene of competent E. Coli bacteria we altered the MTA1 gene from the DNA of the MCF-7 cells' genome to render its resulting protein inert in function and shape. MTA1 has shown relation to the metastization of breast cancer cells and has a role in the histones binding the DNA sequence.

Rescue of Oxidation Damaged Human Fibroblast Cells via Curcumin Treatment and the Promotion of Exon 7 of the SMN2 Transcript – Using human fibroblast SH-SY5Y cells (healthy, and SMA patient cells) we researched the use of curcumin as an anti-oxidative agent in preventing the splicing of the 7th exon of both the SMN1 and SMN2 genes. The prevention of this splicing would allow the gene to perform its function and allow for the development of healthy spinal neurons. We had also tested curcumin as a treatment against oxidative damage induced by the pesticide/ herbicide, Paraquat. The oxidative damage induced by Paraquat can create benign errors in the SMN2 exon, triggering the body's response to splice the exon rendering the gene inoperable. Our research suggested a positive relation between the use of curcumin and the percent of surviving cells with exon 7 fully expressed as well as its negation of the oxidative stress caused by Paraquat. **Presented at the MassBay STEM Expo in spring 2021.**

WORK EXPERIENCE

Laboratory Assistant | April 2021 - Present
MassBay Community College | Wellesley, MA

- Assist with storage and organizing of STEM lab equipment, chemicals and supplies and other duties as assigned by the Assistant Director of STEM Laboratory.
- Coordinate the delivery and receipt of equipment and lab supplies.
- Responsible for preparation of chemical reagents, buffers, solutions, and biological cultures.
- Managed physical relocation of lab equipment and furniture.

HR and Compliance Manager/Admin Assistant/ Home Health Aide | September 2014 – March 2020
Ensure Healthcare Services, INC. / MetroWest Healthcare Academy | Framingham, MA

- Progressed from receptionist/administrative position to managerial role.
- Performed HR duties including, verifying and processing payroll and billing, reviewing employee personnel files, benefits administration, employee relations and relaying company rules and regulations.
- Communicated successfully with clients, students and management.
- Provided physical care for patient with MSA, maintaining medical equipment.
- Built close trusting relationship with patient and family members.

VOLUNTEER EXPERIENCE

Member of Board of Directors/Treasurer/Volunteer
The Spiritual Center, Natick, MA | 2019 - Present
Various responsibilities for non-denominational, not for profit organization, including voting, fundraising, chairing finance committee, annual budget, planning and organizing community events, networking and building community connections.