Miles Moscara

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Education

Kennesaw State University (Southern Polytechnic State University)
Bachelor of Science in Biology (Cellular/Molecular) 2017
Course Work GPA: 3.03 **GRE Score**(Biology): 670 **Cellular & Molecular Biology**: 57th percentile
Relevant Course Work: Biological Principles I/II, Modern Organic Chemistry I/II, Principles of Chemistry I/II, Principles of Physics I/II, Probability & Statistics, Cell Biology, Toxicology, Developmental Biology, Genetics, Molecular Genetics, Evolutionary Biology, Microbiology, Industrial Microbiology, Case Studies/Forensic Science, Ecology, Biochemistry, Georgia requisite courses
Lab Components: Biological Principles I/II, Modern Organic Chemistry I/II, Principles of Chemistry I/II, Principles of Physics I/II, Developmental Biology, Genetics, Molecular Genetics, Microbiology, Industrial Microbiology, Ecology

Projects

"*E. coli* transformation by *D. melanogaster* gene transplant" study in Molecular Genetics 2017

- Demonstrated the CG2765 region of the fruit fly genome effectively, horizontally integrated into viable, novel bacterial culture.
- Evidence of this supported by beta-galactosidase reporter assay that selectively marked expression of the gene by *E. coli*.
- Amplified CG2765 region for cloning, subsequently utilized DNA gel electrophoresis to verify correct region was excised.
- Utilized specific restriction endonucleases to target for fly and bacterial genome regions to achieve transformation.
- Prepared written scientific report summarizing data analysis and conclusions.

Skills

Laboratory: ~200 real-time hours of in-lab and on-site experimentation involving bacterial cell culturing, PCR technique, NMR spectroscopy, gel electrophoresis, bacterial genome mapping, microbial challenge assays, embryo histology, organic chemical methods (fractional distillation, thin layer chromatography, etc.), Java programming knowledge

Equipment: Familiar with modern lab instruments including centrifuges, incubators, micropipettes, spectrophotometers, microscopes, fume hoods, lab glassware, cell culturing plates, safety equipment, DNA sequencer programs (FinchTV, etc.)

Protocol: Written standard operating procedures detailing microbial monitoring, lab operator safety, and contaminant treatment of lab space. Written ~13 reports for each lab course

Work Experience

Pallet Source, Inc. – **Office Clerk** (Part-time) Contact: 404-767-7868 2012 – 2015

- Invoicing and billing, payroll, accounts receivable

Professional Organizations

Lutheran Disaster Organization: Volunteer tornado relief involving house reconstruction, debris removal.

Prince of Peace Lutheran Church, Fayetteville, GA: Audio/Visual tech for summer events for 5 years.

References:

Dr. Anton Bryantsev | **Professor of Molecular and Cellular Biology** | abryants@kennesaw.edu
Dr. Jerald Hendrix | **Professor of Advanced Microbiology** | jhendrix@kennesaw.edu