



Fall 2019 Program Advisory Committee Minutes

Program: Biotech

Date: 10/17/19

Members Present: Arlyssa LaPorte, Deb O'Reilly, Brianne Hantzis, Henry Jacques, Jeff Jacques, Young Bae Kim, Jillian Mason, Jacob Alden, Gene Wong

Program Facilitator: Arlyssa LaPorte (should be the instructor)

Committee Chair: Jeff Jacques (should not be an instructor)

Subject: Student Enrollment/Placement

Discussion: We get plenty of interest, but we are considered out of district, so we are only eligible for in districts. Class numbers have increased to Difficult to attract male students. Don't tend to lose students to other CTE area. ET i

Subject: Annual Programmatic Review

Discussion: All members were involved, completed and signed by Jeff Jacques.

Subject: Bias Review Checklist

Discussion: Was completed at meeting.

Subject: Quality Assessment Tool

Discussion: In the interest of time we did not complete this at the meeting.

Subject: New Trends in the Occupational Area



Discussion: All RNA related studies and potential products are a hot new trend in biotech. (RNA interference). RNA IP assays, NGS based, trends in neurodegenerative disease. We may be able to integrate some skills/RNA work by using RNeasy kits, and perform some RT PCR, We can try to reach out to GeneWiz for NGS sequencing ideas. Modifying splicing of RNA is also of interest to Biotech startups. Big trend still for a lot of Automation, use of CRISPR. Environmental impacts - How bacteria can help with environmental issues, mushrooms.

Subject: Employment Outlook

Discussion: Employment outlook continues to have positive growth in Biotech industry. We have continued to develop relationships with Pfizer in Andover, CVS and Harvard, possibly up to 8-10 students going out on coop. Amy Lovasco from Pfizer has 4 positions that may be filled by Senior students that are 18. By Jan. 2020 Mass Life sciences through contact Ryan Mudawar may have some opportunities for students. The Curriculum structure senior year is being changed Jan-May to allow for students to take on research based projects. Tentative projects are being set up with Anne Rankin from Phillips Exeter relating to transposable elements being used to determine gene locations & sequences. A dry run with sequencer & library prep will be set up before the end of the year. Deb completed training at Washington U looking at computer based analysis of Drosophila & wasp for genome mapping. Outreach with other academic classes continues. Grant money from cell signalling was obtained to help with library kits. A field trip to Pfizer and to MiniOne occurred this fall. Pfizer let students participate in manufacturing days so they could see the diversity of jobs in a



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company like Pfizer. At MiniOne students participated in a Biobits lab, which Deb piloted as a new freshman lab to look at students own cheek cell DNA that fluoresces when mixed with gel green dye. Field trips are a good way to develop and foster partnerships.

Subject: New Business

Discussion: We should connect with Lynne from MSMR to learn about opportunities to work together on. Webinars are often planned to offer continuing credits. Reaching younger students to publicize the career pathway is also a goal of MSMR. We plan to reach out to Charles river regarding their career opportunities as well.

Subject: Recommendations

Discussion: Push for accepting a biotech accreditation? It wouldn't be recognized anyway. Recra and DOT certifications for lab operations would be a benefit for job candidates. We are in need of a large standup - 20 freezer, It was mentioned that Immunigen may be offloading equipment

The meeting adjourned at (time): 8:35 pm