PATRICK BOHSE

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Education

University of Pittsburgh – *Pittsburgh, PA* *Graduated: April 2020*

Magna Cum Laude, Outstanding Biomechanics Student of the Year 2020
Bachelor of Science in Engineering - Bioengineering
Minors: Chemistry, Computer Science

Highlighted Experience

Skinap Therapeutics - Research Associate – *Cambridge, MA* *2020 – Present*

- Developing a clinical grade primary human cell culturing system for use in novel wound healing and regenerative cell therapies
- Designed and implemented cell culture training for new employees
- Gained experience in aseptic technique, culturing and cryopreserving adherent primary cells, immunofluorescence and staining assays, image processing, cell migration and senescence assays, SOP development, and FDA document preparation

Regeneron Pharmaceuticals - Protein Expression Sciences Intern – *Tarrytown, NY* *2019*

- Evaluated and optimized BD™ Brilliant Family dyes for use in Fluorescence Activated Cell Sorting (FACS) resulting in the adoption of new dyes and a savings of $50k+/year on buffer solutions for proprietary technology platforms
- Gained experience in mouse surgical techniques, flow cytometry, and antibody staining and titration

Human Movement and Balance Laboratory - Research Assistant – *Pittsburgh, PA* *2018 – 2020*

- Researched the role of attention in balance and mobility in Autism Spectrum Disorder using reaction timing and infrared motion capture
- Developed custom MATLAB scripts to process and analyze complex 3D motion data sets

Regeneron Pharmaceuticals - Cell Culture Co-Op – *Tarrytown, NY* *2017*

- Process development for production of therapeutic antibodies via suspension CHO cell culture in benchtop bioreactors and shake flasks
- Tech development of small-scale perfusion bioreactor models working toward a goal of continuous processing
- Gained experience in aseptic technique, Design of Experiments (DOE), cell cycle assays, fed-batch and perfusion bioreactors, and automated cell counting and metabolite analysis

Relevant Coursework – Cell Biology, Organic Chemistry, Biochemistry, Statistics, LabView, Biomedical Applications of Control, Signals and Systems, Biotransport Phenomenon, Biomechanics, Thermodynamics, Neural Engineering, Medical Imaging and Image Analysis, Electronics, Intermediate Programming in Java, Data Structures, Algorithm Implementation, Engineering a Craft Brewery

Programming Languages/Computer Skills – LIMS, MATLAB, JMP, Java, Labview, Image J, FlowJo WinList, HTML/CSS, Solidworks, Fusion 360, EndNote

Related Experience

IMED Lab Publication Reviewer *2018 – 2019*

- Reviewing research papers and textbooks to be sent out for publication, creating presentations on papers published by the lab

SteelHacks 2018 *2018*

- Awarded 3rd place for designing and building *Autoponics*, a fully autonomous aquaponics system, using Solidworks and a Raspberry Pi

Presentations

Bailes, A.H., Bohse, P., Iverson, J.M., Trout, J., Sparto, P.J., Cham, R. (2019, January) Impact of an Information Processing Task on Balance in Young Adults With Autism Spectrum Disorder, A Preliminary Study. Poster presentation at the American Physical Therapy Association Combined Sections Meeting, Washington, DC.