

[REDACTED]

### 3. STUDENT PREPARATION AND MOTIVATION

#### A. PREPARATION

I learned about this exciting biomarker research project after [REDACTED] gave a guest lecture in one of my courses in Fall 2016. I later met with [REDACTED] and expressed my interest to join her lab as a MS3 scholar doing Parkinson's research. I was assigned several literature to read to deepen my understanding in the topic of interest, then took the initiative to search for additional publications to draft this MS3 proposal.

I have successfully completed multiple courses over several disciplines that have introduced me to laboratory tasks. These courses include Organic Chemistry for Life Sciences I, Laboratory in Human Physiology, Introduction to Biotechnology, and Field Experience Abroad where I worked with human remains. Throughout these courses, I have gained extensive knowledge in lab safety and common equipment used in laboratory procedures. Furthermore, throughout my phlebotomy training, I extensively learned about the precautionary actions that must be taken when working with bodily fluid samples. I was also educated about the associated risks working with such samples. Therefore, I am well-prepared and comfortable to work with the de-identified serum samples in this proposed research, especially under [REDACTED] supervision.

## **B. MOTIVATION**

Working on this research project will not only enable me to contribute to such an imperative field, it will also allow me to grow and develop as a scientist. I hope to learn new molecular laboratory techniques to use throughout my future academic lab experiences. I would also like to improve on skills that I have previously learned. It is crucial that whilst performing these lab procedures, I understand what is occurring at the cellular level. This will enhance my understanding of the cellular perspective that lies behind human diseases.

Having exposure to research at an early stage of my college education will facilitate my early understanding in the complexity of cell and molecular biology. It will also keep me up to date on research as I pursue my career in medicine upon graduation. This research experience will bridge my understanding between basic and clinical research as a clinician. As a future physician, it is important to understand that patients suffer from a plethora of intolerable illnesses, and only find relief from their suffering by symptom control and disease management.

Having the opportunity to gain knowledge and experience in the lab will augment my passion for helping my patients. The skills and knowledge that I gain from this project will enable me to continue to develop as a scientist and medical professional.

I have always been an individual with a passion for learning new things and making discoveries. My passion for this project was ignited by observing patients whilst volunteering at the Ann Arbor Veteran Affairs Hospital in summer 2016. I witnessed the detrimental impact of diseases on every aspect of the patients' lives. Having this experience allowed me to see how advances in research will impact people. This perspective fuels my determination and will make me an exemplary physician scientist.

## **C. SUPPLEMENTAL SECTION**

### **1. Resume**

### **2. GVSU Human Subject Review Committee Approval Letter**