## **Original Work Proposal**

My original work for the 2017-2018 ISM school year will ultimately result in a descriptive paper detailing the weight loss patterns of patients with various forms of cancer who have undergone various procedures. I will analyze actual patient data and compile graphs comparing both the various procedures and gastric cancer in hopes of determining risk factors for accelerated weight loss. My goal is to further understand the side effects of these complicated procedures and to gain knowledge about how actual patients are affected for up to 15 months. Throughout this project I am not only analyzing actual data, but dealing with an issue that plagues the majority of patients undergoing curative resection for both gastric and pancreatic cancer.

I will begin my project by completing research in regards to various pancreatic surgeries, including pancreaticoduodenectomies and partial and total pancreatectomies, various pancreatic cancers, and weight-loss trends for patients undergoing these procedures. This will give me the necessary background knowledge going into the project. While I am completing research, Dr. Mansour will be putting additional data into the patient database that already contains information about weight loss trends following curative resection for gastric cancer. The next step is to meet and discuss research and the database findings so that way we can analyze them effectively. My plan is that by the beginning of November, both Dr. Mansour and myself will have completed our first set of analyses and will meet again to discuss. By the third week in December, I hope to finalize the graphs and figures. The last step is to put the final touches on various figures and charts.

Throughout the creation of this original work I will have to evaluate articles and then analyze them for relevant information. From there, I will analyze patient records looking for patterns or recurrences. I will have to then synthesize all of this information and compile it into various graphs and charts detailing my findings in regards to weight loss patterns following various surgeries. The conclusions I draw from my research will be a synthesis of all of the analysis and background research I have completed throughout the course of developing this product. This original work will also be a synthesis of my research and analysis from my final product last year and will ultimately combine both sets of research and data to draft a descriptive paper detailing my findings and any patterns I have noticed. Through this original work, I am hoping to gain a better understanding of one of the most severe risks in gastrointestinal operations so that I can apply the knowledge I gain in the future when I have patients of my own. This will also take my information and knowledge to a deeper level because I will able to compare the weight loss trends of pancreatic cancer patients and gastric cancer patients. The analysis of actual patient data as well as a descriptive paper that Dr. Mansour hopes to get published in a medical journal would be incredibly beneficial experience not only for my future career, but also more immediately, such as college applications and eventually medical school applications. This paper, however, will most likely be completed as my final product for the

2017-2018 ISM year. This final product would be useful to doctors who commonly perform gastrointestinal and pancreatic surgeries, as well as patients undergoing these surgeries. If there is a correlation between a certain procedure or a certain type of cancer, preventative measures can be taken to reduce drastic weight loss in patients presenting with the various risk factors. Although it will require research, this product is not too far past my level so the analysis and data will be comprehensible and will make sense.