

Management & Technology Intern Fellowship Report

Name: Ananya Sureshkumar

Company: Symbiotic Health, Inc.

Dates of Internship: June 07, 2015 – August 07, 2015.

Symbiotic Health, Inc. is a start-up biotechnology company based in New York that creates a capsule therapeutic for recurrent *Clostridium difficile* infection (rCDI), a hospital acquired disease that results in serious and chronic diarrhea. Current treatment for rCDI includes antibiotic therapy, which often results in further relapse. Symbiotic uses a novel encapsulated form of fecal microbiota transplantation to treat recurrent CDI (BactoCaps).

My primary role at Symbiotic Health, Inc. for the summer of 2015 was as a Business Operations Associate. I had been fortunate to work as a business development intern for Symbiotic during the summer of 2014, while I was a Biospace associate at Harlem Biospace. I had asked to join Symbiotic for an additional summer and was given the opportunity to do business operations work. During my time, I was involved in different areas of work and given a variety of responsibilities:

➤ **Clinical Operations:**

Within clinical operations, I contributed to the completion and submission of the IRB Application which was necessary in order to move forward with an anticipated clinical study partnership. I suggested edits to the IRB Protocol document, as well as revised the attached patient surveys and questionnaires. I also completed portions of the IRB Application for New Study document.

Additionally, I helped in the creation of a Recommended Clinical Outpatient Protocol, a reference document that included the BactoCaps treatment of rCDI in the outpatient setting. Finally, I helped in the creation of a Chart Review Protocol to review medical records in order to gain better insight of incidence and cost of rCDI. The proposal outlined our objectives, data collection methods, and other relevant information.

➤ **Financial Analysis**

My primary project in terms of financial analysis was to conduct comparative cost analysis of BactoCaps inpatient treatment and standard antibiotic inpatient treatment. I created a spreadsheet calculating per-incidence inpatient cost and expected inpatient cost, accounting for relapse and readmission rates for both treatments.

Additionally, I quantified opportunity cost by gathering recent account statements of various New York based hospital systems for net inpatient revenues and calculating the revenue per-bed-per-night based on average operational capacity, in order to quantify the opportunity cost of a 7-day inpatient CDI treatment.

Finally, I helped in creating a one-page Financial Value Proposition with a patient journey flowchart outlining the costs of rCDI treatment through BactoCaps as compared to standard antibiotic therapy.

➤ **Sales/Marketing**

Within sales and marketing, I was given the opportunity to create presentation slides for the company's various slide decks. I was responsible for translating the financial value proposition into an easily comprehensible presentation slide. Additionally, I helped in the

creation of clinical overview flowcharts, outlining the process of our therapy as well as the process of our clinical work-flow.

➤ **Partnerships/Expansion**

I was given the opportunity to explore new partnerships that could bring potential benefits to the company. I oversaw negotiations between Symbiotic Health, Inc. and local organizations for potential synergies. Within this process, I created high-level summary documents on potential collaborations and participated in conference discussions. Additionally, I helped with the completion of the company's application for the GREAT Tech Awards, a competition for growing tech companies to expand their technologies to the United Kingdom.

➤ **Research**

I completed research on health-care based venture capital firms in order to gain a better understanding of the types of companies they invest in, as well as potential opportunities for the company.

This internship was highly helpful in providing insights on potential future career paths. After evaluation of my work this past summer, strengths, and my weaknesses, I concluded that I enjoyed the business operations aspect of my internship very much. Additionally, after discussion with Dr. Honig, who was my mentor throughout the internship, I was given helpful guidance into potential areas I would excel in. I would consider management or consulting within the life sciences sector as a possible future career path. However, I thoroughly enjoy the startup culture, and may seek a position within the biotech start-up arena in the future as well.