Literature Review

# 200 points total

Throughout the term we will discuss a number of different metabolic pathways, how they intersect with each other and how they are regulated. Your task is to select a disease, disorder, or illness and describe how it impacts the human body via disruption of various metabolic pathways and discuss existing or possible treatment options. For instance, patients with cystic fibrosis suffer from a genetic mutation that causes the Na+/K+ protein pumps found in various tissues to be dysfunctional. As a result, patients suffer from poor digestion and absorption of dietary triglycerides (the salt pumps are linked to the release of lipases into the small intestines), high risk of bacterial infections in the lungs (improper pumping of salts causes mucus build up and abnormal pH levels on the lining of the lung in which bacteria thrive), and male patients are unable to reproduce (the malfunctioning salt pumps prevent the release of semen). As you can see, one mutation in one protein can cause a myriad of disturbances through a variety of metabolic processes which can greatly impact patients’ quality of life. Your review should be original, should answer the following questions, should include references in a work cited page at the end and should tie in as much RELEVANT course material that we covered as possible in your essay.

**Here is the tricky part: No two students can have the same topic. If you are planning to complete this assignment in lieu of the final exam, be ready to propose your topic and review the outline of your paper with me on 10/05 (during our exam II review)**

**Your paper is not limited to, but must include the following:**

1. Lay the groundwork:
   1. Describe the illness/disease/disorder, how is it contracted (genetic, bacterial, viral, etc)
   2. Discuss, in detail, at least 2 different metabolic pathways that are impacted as a result of the disease.
2. Discuss the current treatment options, or current research:
   1. Are there current treatment options, how do they work metabolically?
   2. If there are no current treatment options on the market, discuss at least 2 different treatment studies from literature.
3. Summarize, conclude and suggest future work:
   1. Do the authors of the literature you read discuss limitations of current treatment? Do you, yourself, see possible limitations? How could you improve the current treatment options?
4. Other Points Breakdown
   1. References (no less than 20)
   2. Originality (no other student has your same disorder/disease/illness)
   3. Grammar/Organization/Mechanics

**Suggested Timeline:**

**10/05/2022** – Topic and draft outline review

**11/01/2022-** Rough Draft 1

**11/04/2022** – Peer review of rough draft 1 and/or visit writing center

**11/15/2022** - Rough draft 2

**11/20/2022** – Peer review of rough draft 2 and/or visit the writing center with rough draft 2

**11/28/2022 ­–** Rough draft 3 andpolish/final round of feedback

**12/05/2022 @1pm Final draft is due** This should be packaged along with your original outline, both drafts and your peer review comments.