

Interim Report

Team Number: JMS59

School Name: Jackson Middle School

Area of Science: Health

Project Title: Investigation into Cancerous Tumors

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Definition: Our question is can we find a way for cancerous glial cells to signal the immune system that they are there so that the immune system can attack it? Our research is currently focusing on cancerous/tumorous substance's growth, development, and how they travel through the human body. We have also researched different species of tumors, such as the glial cells, and why they are called malignant (uncontrolled growth). We are currently investigating the spread of Malignant glial cells, and the rate of spread.

Solve this problem computationally: Our code will represent how the tumor cells spread in our body, how it functions in its rate of spread and how the immune system fights it. For our code, we will alter a model from the models library (preferential attachment 3D). We are modifying it to represent a cancer cell in the human body. We will start off with one, and have it attach to a "hub" and spread throughout the body, taking out healthy cells while white blood cells attempt to fight the cancer. This applies to our project because cancer invades and takes over, and it does this by attaches to healthy cells and spreads.

Progress: We have researched Glial cells, and how they grow and metastasis in our body. We have found the model we will use represent the glial cell growth. We are presently trying to plan a slider for healthy cells, cancer cells, and white blood cells. We plan to show our data in a graph measuring the dependant variable (rate of change).

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