February 6th, 2026:
Created an outline for what we needed to research. Our outline included topics such as genetic screening, personalized cancer treatment, traditional chemotherapy and radiation, tumour mutations, targeted therapy, and survival rate statistics. We also planned to compare outcomes between personalized treatment and generalized treatment.

February 18th, 2026:
We gathered reliable references and academic sources for our project. We collected over twenty credible sources, including research studies, medical journals, and reports from organizations such as the National Cancer Institute and World Health Organization. We focused on finding sources that included strong statistical data (percentages, survival rates, and response rates).

February 22nd, 2026:

Met up in person at the library and began detailed research using our outline. We created our rough draft, including our hypothesis and theory.

Hypothesis:
Null hypothesis: Applying genetic screening to personalize cancer treatment will show little to no improvement in patient outcomes compared to traditional generalized treatments.

Alternative hypothesis: If cancer treatment is personalized using genetic screening to identify tumour mutations, then patients will experience higher survival rates, better treatment response, and fewer side effects compared to traditional generalized treatments because therapies will directly target the specific genetic mutations driving the cancer.

Theory:
Traditional cancer treatments such as chemotherapy and radiation are designed to treat cancer broadly, meaning they attack rapidly dividing cells but may also damage healthy cells, leading to severe side effects. These treatments do not consider the unique genetic mutations within each patient's tumour.

Personalized medicine uses genetic screening to analyze a tumour's DNA and identify specific mutations. Doctors can then select targeted therapies or immunotherapies that are designed to attack those exact mutations. Research shows that matched targeted therapies significantly improve progression-free survival and overall survival compared to non-personalized treatments.

February 23rd, 2026:
We consulted adults and friends for feedback and started to gather more data about genetic screenings for personalized cancer treatments.

March 2nd, 2026:
We started to add all our information to the CYSF website

March 3rd, 2026:
We put all our information on the CYSF website and made the final details