Unit 3

**REPORT TITLE**

**The Cure for Cancer**horizontal line

# Placeholder image

# Introduction

Many people have died of cancer, but there is still hope of a cure to keep people from dying. Many people have been working on THE CURE but next to none have even found a possible answer. Still, there are ways to help people who have cancer.

## Possible cures

I wrote to flibe-energy about their possible cure for cancer. I quickly got a response answering my question. They claim to be working on a reactor that will run on the thorium fuel cycle and produce several natural decay products that are integral to cancer research and treatment. The first is Technetium-99m which is currently used in the medical industry for mapping out the body and identifying abnormal functions or cancerous growths. Unfortunately, this substance is in much greater demand than there is availability, causing global shortages.

Although early diagnosis is critical to the treatment of cancer, we still need a treatment plan with a high degree of success. This is where we turn to targeted alpha therapy. This treatment allows the targeted delivery of radionuclides directly to the cancerous growths, only irradiating the targeted cells. This allows healthy cells to be minimally affected by the treatment. The reactor generates Actinium-225 which is the perfect radionuclide for this treatment. Unfortunately, this substance faces even greater supply shortages and only a small handful of facilities can make it at great expense. This prevents targeted alpha therapy from currently being a viable cancer treatment option. To bring this to market, we need a nuclear reactor that will generate it in large quantities and allow for global supplies for millions of people every year. The liquid fluoride thorium reactor generates this substance in large quantities and since the fuel is in liquid form, allows for the extraction and use of the treatment while the reactor is in operation.

They are doing everything we can to bring this to market,

### In conclusion

I can say that one cure for cancer is possible, but it may take time.