

What is 'superblood analysis



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The article "What is 'Superblood' and Why Do I Want It?", written by Kyree Leary, explains a great potential medical advancement. A biotech startup company, Rubius Therapeutics, wants to use red blood cells to replace missing enzymes in patients with rare diseases or conditions along with patients with autoimmune disorders in order to treat them.

These diseases include Type 1 diabetes and even cancer. The technique Rubius Therapeutics plans on using is equipping red blood cells with a protein that can be tailored to treat the condition of the patient it is being infused into. Then, the company plans on putting these blood cells into the body, but overall, it will account for less than 1 percent of the patient's total blood volume. This idea is similar to the idea of using modified T-cells to fight cancer; however, red blood cell therapies do not need to be personalized.

For T-cell therapy, the cells must be taken from the patient and put back into the same patient to avoid rejection by the immune system, whereas for the red blood cell treatment, only the use of any person's O negative blood can be effective, for it is a universal donor. In fact, one donor could generate enough therapeutic doses to treat hundreds of thousands of different patients. The company has not released any products yet, but they have raised \$220 million in funding which is going to go towards the development of products along with clinical trials necessary for ensuring their safety.

This article certainly grabbed my attention when I saw it while scrolling through articles. I have done a lot of work with blood and enzymes in PBS and Biology, so I was intrigued to see what this new "Superblood" was. Having learned about blood and the topic of the article already, I understood

the methods the company plans on using, which made the article and story even more interesting.

I found it fascinating that something as simple as placing missing enzymes back into someone's body can possibly have the ability to treat a condition as serious as cancer. In addition, it astonishes me how individuals and companies can think of innovative things like this that could have such an impact on people and the field of medicine.

The health of millions is compromised by cancer and autoimmune disease, which this procedure targets. If Rubius Therapeutics can successfully use this red blood cell therapy as a treatment for cancer or even Type 1 diabetes, our world will be a better place, and the healthcare field would be drastically altered. This could diminish the need for insulin injections or pumps if done properly along with other standard treatments.

Although this idea may not be able to actually cure cancer, it definitely could and probably will lead to other scientists and/or physicians getting inspired and developing innovations that could bring humanity closer to a cure for the deadly disease. Overall, this " Superblood" can certainly lead to advancements in the medical field which would make our population a healthier group of people.