

Student's Name

Professor's Name

Course

Date

### Unique Polymer Finds Widespread Use in Heart Devices

As the government continues to invest billions of money into space programs such as NASA, every American taxpayer hopes that the result would help them, not only here on earth, but now when they are still alive. With the innovations at NASA over the last recent years, it has become clear that taxpayer's money may have been used properly after all. Innovations such as a unique polymer, LARC-SI, have changed the lives of many Americans with heart conditions. This success has changed the wrong perception about NASA and its projects, enhanced medical research and development, and also improved the accountability of the taxpayer's money invested in the NASA programs.

First, NASA's innovation of LaRC-SI has significantly changed the perception of the public towards the government's investment in the programs undertaken by this institution. For many years, NASA has been receiving billions of money from the government and the public have been concerned whether it was a good idea to increase the organization's funding if there is nothing that touches the lives of Americans who contribute the money. However, this perception has changed with the innovation of LaRC-S, a unique polymer invented by one of NASA's employees and his team, Robert Bryant (Spinoff 1). This device is said to have been discovered by accident in the process of advancing composites for high-speed aircraft (Spinoff 1). NASA and its programs have been known to be about space exploration and nothing would impact the people directly, at least not according to many who feel that their money is used on programs

that may not help them. Perhaps with this innovation, people may start to see the impact of investing in NASA and its programs after all.

Secondly, this innovation has further enhanced research and development in the medical area. Even though NASA is all about space, it has proven that it is a critical component in maintaining and supporting life on earth. As more health complications continue to arise, people are becoming more concerned about the availability of resources and cost-effectiveness of the health-supportive tools like pacemakers for people with heart conditions. According to Dietrich, NASA's pacemaker is not only cost-effective but also one of the greatest innovations in the health sector (2). The project that started more than 20 years ago came to an end as NASA scientists launched the experimental composite material, where they came up with durable polymer with special qualities (Dietrich 5). The polymer has a wide range of benefits for the health care sector including the potential to reduce the cost of health care services and also it is biologically nonreactive (Dietrich 5).

Lastly, NASA's innovation has further helped to answer the question of accountability for billions of dollars invested in the company. Over the past years, the expenditure in NASA had sparked one of the greatest discussions in America, especially on whether the government was getting a return on its investment in the NASA projects. However, as Dietrich explains, this question has since been answered with the launch of LaRC-SI as NASA officials came out to explain how its projects like LaRC-SI could improve the country's socio-economic status (2). Based on NASA's report in 2013, Dietrich asserts that NASA has tried to justify how its expenditure is true to its course of enhancing the socio-economic impact in the country. NASA has been quick to justify how it spends more than \$18 billion annual investment in its space

programs, but LaRC-SI may have been the most significant result that millions of Americans have seen in years.

In conclusion, space programs undertaken by NASA are long-term projects that may not be easy to realize their benefits immediately. However, this has been a concern to many taxpayers who believe that the programs are not benefiting them directly. With innovations such as LaRC-SI, pacemaker which will potentially help thousands of Americans with heart conditions, NASA may have proven so much than what critics have been raising.

Works Cited

Dietrich, Tamara. "NASA Space tech has Sky-High Potential on Earth." *Chicago Tribune*, June 28, 2016. Accessed. <https://www.chicagotribune.com/dp-nws-space-tech-nasa-20160628-story.html>

Spinoff. "NASA Technology: Unique Polymer finds Widespread use in heart Devices." *Health and Medicine, NASA Spinoff*, 2019. Accessed. [https://spinoff.nasa.gov/Spinoff2019/hm\\_1.html](https://spinoff.nasa.gov/Spinoff2019/hm_1.html)