Description

Whether it's the car you drive, the computer you're reading this article on, or the vaccine that kept your child from getting measles this year, one thing is clear—science has been our pillar of strength. Scientific research has always been the cornerstone of the modern world and solves real-world problems to make our lives easier. Although, one may not realize its potential, scientific research undoubtedly underlies every modern invention, be it the GPS systems that helps you navigate or the filter that provides you with clean, drinkable water. Science is undeniably important, and is a valuable investment for any society that wants to stay competitive globally.

Unfortunately, not every novel or potential science proposal gets the financial backing it needs. Financial support for groundbreaking science is often a matter of both luck and timing. In this article, we will discuss the financial prospects for science, and the regularly observed conflicting interests and values of the private investors who sponsor a great deal of new advancements. We will also see why it is scientists and not investors who should drive technological progress for the benefit of society as a whole.

Public vs. Private Funding for Science

It is evident that funding heavily drives science (and all types of research)! Owing to the advances and tangible benefits that scientific research produces for society as a whole, investing in research is a top priority for nations. However, the overall shift away from generous public funding for research endeavors in countries like the United States has impacted the state of public funding for science. The Trump administration has attempted to or succeeded in reducing funding, substantially affecting scientific infrastructure and workforce. But while public funding may have decreased, demand for scientific advancement has not. Predictably, and in many cases, private funders such as corporations and investors have stepped in to fill the gap. Private funding for medicine research increased by 12% in the US between 1994 and 2012. This increase in corporate funding has raised concerns among scientists for what it means for the future of science.

However, there is a concern over the direction that scientific research takes when corporations are providing the grants. Of course it can be argued that increased funding for widespread and popular diseases such as, cancer research or diabetes —is a good thing no matter who the source is. Corporate-driven research tends to focus on profitability, and thus funnel resources into addressing

problems like these. However, this focus has a flip side. Lack of potential profitability in project proposals concerning rare diseases or diseases that primarily affect developing countries often face rejection. These treatments involve the use of orphan drugs, which may not be profitable to produce without public or government assistance.

Private Funding and Conflicts of Interest

Another concern for scientists is 'data and research' ownership. When you work in a university or government-funded laboratory, you are duly accredited. However, when your work is funded by a private investor or you work for a company, it is often the company who owns what you produce. This can lead to delays in important discoveries being made public. For young researchers, working in the private sector may make it difficult for them to publish their findings due to non-disclosure agreements or concerns about intellectual property. However, as the ongoing debate over open access science has shown, there are enormous public and scientific benefits in making new discoveries available as quickly and widely as possible. The unprecedented global scientific collaboration over the novel coronavirus is an incredible example of the developments that can be achieved by working together and making data public.

There are several other concerns related to timely publishing of research findings that receive funds by private investors. There have been numerous instances where negative results for a company's products were hidden and never reported. In addition, a great deal of money, effort, and time goes in research which is purely in the interest of certain companies. Examples include studies on how smoking is not harmful or studies minimizing the impacts of climate change.

Should there be complete removal of private and corporate funding from science? Of course not! Private funding has resulted in many important discoveries that have benefited humankind. However, allowing private and corporate interests to drive the direction of technological development is tricky for many reasons as discussed above. In addition, there is not always an immediate and clear link between scientific research and technology. Many scientific discoveries have unknowingly proven to be an important stepping stone further paving a way for technological development.

How Can Scientists Work with Corporate Funders?

So how can you, as a researcher, work together with corporate and private funders to achieve a win-win partnership? One way is to be proactive. Do not wait for decision-makers to find you. Reach out to policymakers and decision-makers, and create opportunities for yourself. As researchers, you know the value of your proposal, pitch it in a way such that it makes a great impact where it is most needed. Stakeholder mapping can be a great exercise for this. Improving your communication and engagement skills. This will ensure that you know how to work with different kinds of people. Finally, look for opportunities to engage with decision-makers.

Public funding plays an essential role in the continued progress of scientific research. It is paramount, that scientists continue to drive technological development rather than corporate investors. Achieving a balance between public and private funding can continue allowing scientists to drive innovation forward.

What are some pros and cons of engaging in publicly-funded vs. privately-funded research? Let us know your thoughts in the comments below.

Category

1. Publishing Research
2. Understanding Ethics

Date Created
2020/08/03
Author
shwetad