

Himmelfarb Health Sciences Library, The George Washington University

Health Sciences Research Commons

URGENT Matters

School of Medicine and Health Sciences

1-23-2024

Academic Accelerators: A Unique Channel for Health Care Innovation

Chase Richard

Christian Hernandez

Follow this and additional works at: https://hsrc.himmelfarb.gwu.edu/smhs_URGENT_Matters

Academic Accelerators: A Unique Channel for Health Care Innovation

Chase Richard, MD, MBA & Christian Hernandez, MD

January 23, 2024

The revolution must be financed. With increasing [competition](#) to design and deploy the novel diagnostics, therapeutics, and healthcare systems, early-stage companies are increasingly dependent on their institutional [backers](#). Simultaneously, academic medical centers, which have traditionally prioritized research, education, grants, and licensure agreements over the formation of start-up companies, are beginning to follow the lead of their Computer Science and Engineering colleagues and create environments that nurture more [entrepreneurial](#) ventures. These institutions are now leveraging their expertise, clinical facilities, and resources to foster innovation through accelerators.

Corporations have been constructing internal “idea labs” to spur innovation for nearly [100 years](#) and the explosion of venture capital funding in the [1970’s](#) enabled the rapid growth of innumerable early-stage companies in the technology sector. However, the development of accelerators was spurred by the limitations of the [standard transaction](#) between private financier and entrepreneur - the exchange of money for equity (ownership) of the company. Although this arrangement established Google, Amazon, and many other industry behemoths, it failed in 90% of ventures, often due to a lack of mentorship, networks, and resources that could not so easily be bought with US dollars.

According to founder [Paul Graham](#), the first stand-alone Accelerator, Y combinator, was founded in [2005](#), “because it seems [like] such a great hack. There are thousands of smart people who could start companies and don't, and with a relatively small amount of force applied at just the right place, we can spring on the world a stream of new startups that might otherwise not have existed.” The structure of Y combinator has become the skeleton of most subsequent accelerators with the number of novel accelerators ballooning into the [thousands](#).

Although no formally agreed-upon definition exists, the [core characteristics](#) of an accelerator include (1) selecting a small cohort of early-stage companies that, during a few month session, (2) receive counsel and mentorship to refine their business proposition before (3) giving their pitches to eager investors during a culmination event, sometimes referred to as the “Demo Day” (world business incubation). As compensation for adding demonstrable value to these businesses and facilitating essential relationships for their growth, these accelerators receive an equity stake in the companies within their cohort.

As accelerators proliferated beyond Silicon Valley, they began to infiltrate the world of healthcare. Although many of these healthcare focused accelerators operated in stand-alone fashion, such as Y Combinator, some began to [sprout](#) from academic medical centers that contained medical schools, research institutions, and teaching hospitals. These centers were already producing cutting edge research and recruiting top talent; they just required new vehicles to identify and support projects with high potential for impact. Historically, “breakthroughs” in healthcare research often faced significant [barriers](#) when transitioning from the laboratory to the clinic. Jennifer McCaney, program co-director of UCLA Techquity Accelerator [highlighted](#) that

“Traditionally, early-stage companies can face steep challenges in developing a value proposition that is attractive to investors. [Our] mission is driven by returns on impact for those communities in the greatest need.”

For example, the UCLA TechQuity Accelerator is one such initiative focused on supporting startups that feature innovative concepts and a mission to improve long-term community health resilience. Recent areas of focus include mental health, youth well-being, environmental justice, and health care access, all of which continue to challenge local communities.

Just as with traditional accelerators, UCLA TechQuity Accelerator’s program provides startups with personalized mentorship, clinical and enterprise expertise, and product-development support, culminating in a final pitch showcase with UCLA Health leaders, investors, and community members.

UCLA’s success with TechQuity Accelerator is one of many. Per SelectUSA, a U.S. government-wide initiative housed in the International Trade Administration at the United States Department of Commerce, there are at least [150 accelerators](#) around the country and that number is quickly growing. Specifically, regarding healthcare, as many as [115 accelerators](#) exist globally. Interestingly, healthcare is one of the [top investment targets](#) of accelerator programs, providing significant funding to hundreds of early-stage companies. In fact, related companies received the second most funding, only behind software/data related startups, and more funding than fintech, energy, transportation, and education.

Healthcare accelerators and subsequent investments are paying off. [For example](#), DreamIt Ventures has helped increase enterprise value at least in the 100s of millions, if not billions, through accelerators like DreamIt Health Philadelphia’s Accelerator, a partnership between Blue Cross (Insurance), Penn Medicine (Academics), and DreamIt Ventures (Venture Capital).

While academic-related accelerators are having success and make up [10-20%](#) of total accelerators, they are typically [funded](#) by a combination of grants, philanthropic donations, and industry partnerships, which can introduce a host of presumed and real conflicts of interest despite clear and adequate disclosures. How would it be perceived if a health system chose to use medical technology that emerged from a company it not only helped launch but also had a significant ownership stake in? Questions surrounding whether these decisions were being made in the best interest of the patient would be inevitable. Whether due to the regulations handed down or a desire to avoid this perceived bias, this has led to a split among accelerators tied to academic research choosing to provide gifts, grants, or seed capital in turn for equity of their companies.

These academic-related accelerators must walk the fine line of navigating conflicts of interest while adequately supporting early-stage companies. However, the opportunity to develop innovative healthcare solutions, and the monetary gains to follow, might be too attractive to pass up.

From the development of groundbreaking [medical devices](#) to the creation of novel pharmaceuticals and the implementation of innovative healthcare delivery models, healthcare accelerators will play an increasingly pivotal role in shaping the future of healthcare.

More recent academic involvement in accelerators makes sense on the highest level as colleges and medical centers are at the core of free-thinking and exploration and often preach high ethical standards. Additionally, they can offer mentorship from motivated faculty, networking, and continued support.

In conclusion, as the landscape of healthcare innovation continues to evolve, accelerators have emerged as crucial catalysts for driving transformative change. With the convergence of academic expertise, industry partnerships, and entrepreneurial spirit, these accelerators are not only shaping the future of healthcare but also fostering a culture of collaboration and ethical advancement.

The authors have no conflicts to report.