

Tracking the economic impact of federally funded research — and the spinoff businesses that are created as a result of that investment — demonstrates the strong partnership that exists between key federal research agencies and America's research universities. Each of these companies is an American success story — turning federal investment granted to university researchers into organizations that develop life-changing and lifesaving innovations, create jobs, and reinvest back in their communities.

The COVID-19 pandemic has made it more evident than ever that research is an essential federal investment, and the economic footprint of federally funded research is not theoretical. **Outcomes include:**

560K

research-related jobs¹ at colleges and universities

1/3

of U.S. patents² are a result of federal investment

1/2

of the U.S.'s economic growth³ is owed to scientific technology and innovation

ParaTools, Inc.

ParaTools develops software tools to assess the performance of application software that runs on large-scale supercomputers typically owned by the government. These tools have been used by NASA, the Department of Energy, and other agencies working to assess air quality.

"Federal funding is critical for research organizations and companies engaged in high-tech research and development (R&D) activities. The cooperation between companies, universities, and the federal government helps create and support small businesses in the U.S. that have a global impact."

— [ParaTools, Inc.](#)⁴, University of Oregon, Eugene, OR (est. in 2004)



Industry: Technology and web



Federal Agency Funding: Small Business Innovative Research program

Locations: Oregon and Washington, D.C.

Estrigenix Therapeutics, Inc.



Industry: Biomedical



Federal Agency Funding: National Institutes of Health, General Medical Sciences (NIH-GMS), received in 2015

Location: Wisconsin

Estrigenix Therapeutics, Inc. aims to dramatically improve women's health by developing safe, clinically proven treatments for the mental and physical effects of menopause, enabling and empowering women to live happier and healthier lives.

"Initial funding from NIH-GMS was crucial in facilitating the research project objectives. These funds supported synthetic efforts, biochemical analysis, and animal model testing to verify the potential for our lead molecule."

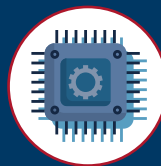
— [Estrigenix Therapeutics, Inc.](#)⁵, Marquette University, Wauwatosa, WI (est. in 2018)

Sunthetics

Sunthetics develops more sustainable chemical manufacturing equipment. The technology uses electrons rather than heat or dangerous chemicals to make chemical reactions happen, which lowers the energy usage, raw material usage, and waste for reactions while offering an opportunity to easily integrate with renewable electricity for an overall cleaner process.

“Federal funding enabled us to give Sunthetics a chance. As two students with limited financial resources, we were both planning on getting a high-paying job in a large company after graduation to secure our finances. Receiving federal funding, especially at an early stage, de-risked the entrepreneurial path for us and gave us a chance to try our hand at developing this startup.”

— [Sunthetics](#) ⁶, New York University, Brooklyn, NY (est. in 2018)



Industry: Manufacturing, research (tools, equipment, services) and industrial



Federal Agency Funding: National Science Foundation i-Corps Node, received in 2018

Location: New York

Rapid Radicals



Industry: Manufacturing, research (tools, equipment, services) and industrial



Federal Agency Funding: National Science Foundation Water and Equipment Policy Industry-University Cooperative Research Center (NSF WEP IUCRC), received in 2015

Location: Wisconsin

Rapid Radicals Technology, LLC is developing and commercializing an innovative high-rate wastewater treatment technology originally developed to address combined sewer overflows for municipal sewerage districts.

“Federal funding, specifically the access to it through meaningful higher education relationships, has provided an essential foundation for the growth of our company, the development of our technology, and our ability to gain and retain valuable partnerships with industry mentors and potential customers.”

— [Rapid Radicals Technology, LLC](#) ⁷, Marquette University, Milwaukee, WI (est. in 2016)

¹ https://iris.isr.umich.edu/wp-content/uploads/2020/04/IRISresearchspendingfactsheet4-20_final.pdf

² <https://www.statnews.com/2019/06/20/federal-finding-research-patents>

³ <https://www.brookings.edu/research/localizing-the-economic-impact-of-research-and-development>

⁴ <http://www.paratools.com>

⁵ <https://www.estrigenix.com>

⁶ <https://sunthetics.org>

⁷ <https://www.rapidradicals.com>

To learn more about the hundreds of companies created from federally funded university research, visit sciencecoalition.org/successstories.