

Federal investment in basic research yields outsized dividends

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The report, "Sparking Economic Growth: How Federally Funded University Research Creates Innovation, New Companies and Jobs," identifies 100 companies founded as the result of research supported by federal investment.

Those 100 businesses employ more than 100,000 and bring in revenue of nearly \$100 billion a year while filling critical needs in medicine, technology, energy, environment and national security.

Madison-based [TomoTherapy](#) Inc. manufactures an advanced radiation therapy system that targets cancerous tumors while minimizing exposure and damage to surrounding tissue.

"The core technology of TomoTherapy was developed by National Cancer Institute funding, and each year it is responsible for the treatment of tens of thousands of difficult-to-treat patients," says Rock Mackie, TomoTherapy co-founder and chairman and a medical physics professor

at the University of Wisconsin-Madison.

Mackie and Paul Reckwerdt developed the science behind TomoTherapy's technology in a UW-Madison lab with \$250,000 from the National Institutes of Health.

"That original investment generates many times its value in salaries and taxes returned to both the U.S. and Wisconsin governments," says Mackie, whose company employs 665 people.

TomoTherapy's success is echoed in global industry leaders like [Google](#), Genentech, [Cisco Systems](#), SAS and iRobot, each of which brought to market products based directly on the fruits of government-funded scientific research.

The 100 success stories in the report are a small sample of the many companies created from federally funded university research, highlighting the exponential value of the investment and integral role research universities play in the economic vitality of their home states.

More than 180 companies have been formed around research conducted at UW-Madison alone, from large operations like TomoTherapy to equally innovative (but slightly smaller) shops like the eight-employee FluGen Inc. FluGen is developing quicker, more nimble vaccine production based on the NIH-funded research of founders and UW-Madison professors Yoshihiro Kawaoka and Gabriele Neumann.

The Sparking Economic Growth report is accompanied by a continuously updated database of companies created from federally funded university research sortable by federal funding agency, university affiliation, type of innovation, number of employees and a variety of other parameters.

More information: www.sciencecoalition.org/successstories

Provided by University of Wisconsin-Madison

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