

Academic institutions receive lower financial returns from biotechnology licenses than commercial firms

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The financial terms of biotechnology licenses from academic institutions are significantly less favorable than those of comparable licenses

between commercial firms according to a new study from Bentley University's Center for Integration of Science and Industry. The study, published in the journal *PLOS ONE*, shows that the royalties and payments to academic institutions are significantly lower than those to commercial firms for similar licenses and products at the same stages of development.

The article, titled "Comparing the economic terms of biotechnology licenses from academic institutions with those between commercial firms," is the first to make an explicit comparison of academic and commercial licenses. Licenses of biotechnologies from academic institutions provide a mechanism by which [scientific discoveries](#) made with government-funded research grants are transferred to companies to develop commercial products. These licenses provide financial returns to the [public sector](#), which universities can use to support research or education, and enable industry to develop innovative products, create jobs, and generate [economic growth](#).

"Our [previous work](#) has shown that the U.S. government invests more than a billion dollars for the early-stage basic or applied research underlying each innovative, first-in-class drug. Here, we examined how much of the profit from such products is returned to the public," said Fred Ledley, Director of the Center for Integration of Science and Industry, and the senior author on this study. "The results suggest that the public sector is not getting the same returns that a company would expect from similar licenses."

The Bentley University study compared the economic terms of 239 biotechnology licenses from [academic institutions](#) to [biotechnology companies](#) with 916 comparable licenses between commercial firms. Academic licenses had lower royalty rates (3% versus 8%), lower total [payments](#) (deal size) (\$900 thousand versus \$31 million), and lower payments before product launch (precommercial payments) (\$1.1

million versus \$25 million). While academic licenses, on average, involved products at less advanced stages of development than corporate licenses, differences in the stage of development accounted for less than half of the disparity between academic and corporate licenses.

Considering differences in stage of development together with differences in research payments, co-development, co-commercialization, exclusivity, or grants of stock, academic licenses had royalty rates that were 3%–3.6% lower than corporate licenses, deal sizes that were \$11.4–\$12.2 million lower than corporate licenses, and precommercial payments that were \$7.6–\$9.4 million lower than corporate licenses.

More information: Comparing the economic terms of biotechnology licenses from academic institutions with those between commercial firms, *PLOS ONE* (2023). [DOI: 10.1371/journal.pone.0283887](https://doi.org/10.1371/journal.pone.0283887)

Provided by Bentley University

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