

## **Iowa State University FY24 Non-federal Research Funding Overview**



*Iowa State received an award of nearly \$10.6 million from industry partner Roeslein Alternative Energy LLC as part of a USDA Partnerships for Climate-Smart Commodities research program to develop a renewable natural gas infrastructure that creates opportunities and enhances the sustainability of the nation's corn, soybean, and livestock producers. Photo by the Bioeconomy Institute, Iowa State University.*

Iowa State set a new benchmark for non-federal research funding for the fifth consecutive year. Non-federal research funding has increased from \$67 million in FY20 to \$76.3 million in FY21 to \$86 million in FY22 to \$94.5 million in FY23 and, finally, \$110 million in FY24 – an increase of \$15.5 million or 16.4% compared to the previous year's record.

The key segments contributing the most to the FY24's record-setting non-federal research funding total were:

- Industry/Corporate (U.S. and foreign): up \$12 million or 48.2% from \$24.9 million in FY23 to \$36.9 million in FY24;
- Higher Education (U.S. and foreign): up \$4.1 million or 19.8% from \$20.7 million in FY23 to \$24.8 million in FY24; and
- Non-profit (U.S. and foreign): up \$3.1 million or 24.7% from \$12.4 million in FY23 to \$15.5 million in FY24

Here are just a few notable new projects that received non-federal research funding support in FY24:

- In February 2024, Iowa State received nearly \$10.6 million from industry partner Roeslein Alternative Energy LLC, for support the university will provide in the exploration and development of a renewable natural gas infrastructure among corn, soybean, and livestock producers. Iowa State is one of 14 partners in the project – known as Horizon II – that was first announced in September 2022 as part of USDA’s Partnerships for Climate-Smart Commodities program. The funds Roeslein has allocated to the Iowa State team, led by Lisa Schulte Moore, co-director of the Bioeconomy Institute and a 2021 MacArthur Fellow, will be used to advise the project team on best practices for: anaerobic digestion and renewable natural gas production; profit-zone, nitrogen management, cover crop, and prairie management; the harvest-transport-storage of grassy biomass; and economic, legal, and tax implications of ecosystem service payment schemes, especially carbon programs.
- In a project supported by the United Soybean Board (USB), Michael Castellano, William T. Frankenberger Professorship in Soil Science, Agronomy, will explore options for reducing nitrous oxide emissions in soybean production. Preliminary modeling work, conducted by Iowa State and funded by USB, indicates that earlier planting of longer maturity soybean genetics and a winter cereal rye cover crop following corn prior to soybeans can reduce emissions from the soybean phase of the corn-soybean rotation by one third. This project will field-test these results by measuring nitrous oxide emissions from the corn-soybean rotation managed with two planting dates (early and late); two maturity groups (short and long), and with and without a cover crop. The work will be performed in Illinois, Iowa, Kentucky, and Minnesota. The study received \$480,00 in funding for 2024 with the possibility of two additional years of support.
- Excessive alcohol consumption is the leading cause of preventable death in the United States and is associated with the development of alcohol use disorder (AUD). Elizabeth McNeill, assistant professor in Food Science and Human Nutrition, received an award of \$55,000 from the Research Corporation for Science Advancement, to explore a novel, non-evasive approach that uses nail tissue as a means of predicting an individual’s susceptibility to heavy drinking and alcohol dependence. The same technique offers the

potential to support immune system profiling that could gauge individuals' susceptibility to other disorders including Autism Spectrum Disorder, Parkinson's Disease, and Alzheimer's Disease.

- Shelby Doyle, an associate professor of Architecture and the Stan G. Thurston Professor in Design Build, received an award of \$28,053 from OPN Architects to [support a public-private partnership](#) between Iowa State and the design firm. A December 15, 2021, tornado left the community library of Rudd, Iowa, in ruins. OPN designed the new library which opened in April. The building is roughly 1,500 square feet and features modern touches such as cement boards, metal panels, and commercial glazing while also remaining true to the town's rural character. OPN is teaming up with ISU's 3D Affordable Innovative Technologies Housing Project to use on-campus 3D printers to craft an outdoor seating installation out of concrete. The collaboration offers OPN the chance to work with ISU's equipment and learn the possibilities of a new technology; for ISU, it's an opportunity to create, share and apply knowledge within and beyond the research lab.