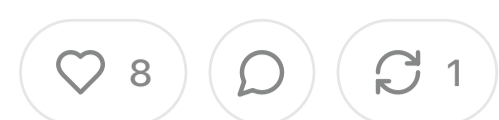


# Weekly Progress Roundup

Chemists are destroying “forever” chemicals, robots are taking over factories, the price of US higher education is falling.

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## Chemists are learning how to cheaply destroy “forever” chemicals

Per- and polyfluoroalkyl substances, or PFAS, are an incredibly useful group of chemicals found in products such as non-stick cookware, firefighting foams, water-repellent clothing, and food packaging. Unfortunately, they are also linked to a variety of health problems and, because they are difficult to break down, tend to accumulate in the environment.

Thankfully, scientists are developing solutions. Two groups of chemists, one in Fort Collins, Colorado and one in Hefei, China, have [discovered methods](#) that break down PFAS compounds at realistic temperatures (as low as 40 °C, or 104 °F). These processes could potentially be used to treat wastewater and soil, preventing the build-up of the toxic compounds.

## Robots are taking over global manufacturing

Global robot density in the manufacturing industry, measured by the number of factory robots per 10,000 manufacturing employees, has [more than doubled](#) over the last seven years, growing from 74 robots to 162. Leading the pack is South Korea, with roughly one factory robot for every ten manufacturing employees. This increased automation can improve productivity while reducing workplace injuries.

## The real price of US higher education is falling

A recent [College Board report](#) on the price of US higher education contains some [hopeful results](#). While the published tuition at American universities is still rising, the price families actually pay—after inflation, scholarships, grants, and financial aid—has fallen significantly over the last decade.

For in-state freshmen at public universities, average annual tuition and fees fell from \$4,140 for the 2014 school year to \$2,480 per year in 2024. At private schools, the average yearly net price fell from \$18,680 to \$16,510 over the same period.

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- [Small Reactors Coming to Virginia, Says Appalachian Power](#)
- [Kenya Moves Forward with Its First Nuclear Power Plant](#)

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- [Chinese Safe Water Access Skyrocketed Since 2000](#)
- [Major Progress Made Against Cervical Cancer in Last Four Years](#)
- [Several African Countries have Significantly Reduced TB-Related Deaths](#)

## ***Science & Technology:***

- [New CRISPR System Pauses Genes Rather than Turning Them Off](#)
- [New AI Audio Model Synthesizes Sounds That Have Never Existed](#)
- [LLMs Surpass Human Experts in Predicting Neuroscience Results](#)
- [“Dark Proteome” Survey Reveals Thousands of New Human Genes](#)
- [China Poised to Turn On Powerful Source of X-Ray Light](#)
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