

7 breakthrough technological innovations that may have flown under your radar this year

You may have missed some of the less celebrated, but still remarkable science and tech achievements of the past year.

Here are seven such stories to help you get caught up before we ring in 2023.

Superior solar cells

Solar cells absorb light and convert it into electricity — but not very efficiently. Silicon-based cells, the kind most commonly sold, are only about 22% efficient, and their theoretical limit has long been just 29%.

In 2022, a team of Swiss scientists broke that limit with two different [solar cells](#), both combining silicon and the mineral [perovskite](#) — with one cell, they reached an efficiency of 30.93%, and with the other, they managed to achieve 31.25% efficiency.

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New heart cells

Unlike our skin or [livers](#), our hearts have no regenerative abilities — the heart cells we’re born with are the only ones we’ll ever have. During a heart attack, many of these cells die, leading to the formation of scar tissue that hinders heart function and increases the risk of heart failure.

In 2022, researchers at King’s College London revealed that they are developing a treatment to *reverse* this damage, by prompting [new heart cells](#) to grow after a heart attack.

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A CRISPR cholesterol cure

While researchers work to undo the damage caused by heart attacks, Boston-based biotech company Verve Therapeutics is trying to *prevent* them with a treatment that went into human trials in 2022.

[This is an excerpt. Read the full article here](#)