



25 Breakthroughs in Georgia



NO. 4:

Promise of a painless vaccination you can give yourself

More than half of Americans fail to get a flu shot every year. Some are afraid of needles. Most just never get around to it.

But an invention at Georgia Tech could someday increase flu vaccination rates by as much as 41 percent, according to a study.

Dr. Mark Prausnitz and his team developed a vaccine delivery patch, currently in clinical trials, that can be applied to the skin as easily as a bandage. The patches are convenient to transport and store, and they're safe to throw away after use.

Best of all, they're pain-free.

The secret is "microneedles," 50 minuscule spikes no taller than a few grains of salt. Engineered at Georgia Tech out of water-soluble polymers, the microneedles dissolve harmlessly after use.

A clinical trial at Emory University, is now testing how well the patch administers doses of flu vaccine. Next year, a similar trial is planned for the polio vaccine. The technology is being licensed to a Georgia-based startup, Micron Biomedical, which was founded by Prausnitz and his colleagues.

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