

## From Bats to Battling Vision Loss

Caltech electrical engineer [Yu-Chong Tai](#) invented the “microbat”—seen on the cover—back in 1998 as part of a project focused on building the best wing. Since then, the materials and technologies designed to create that tiny flying creature have been incorporated into a wide range of inventions, including

retinal implants (center) aimed at restoring sight to the blind.

The clear material used to make the wings has proven particularly useful for biomedical applications. It’s called parylene, and although it was commercialized in the 1950s, Tai

and his lab have now exploited it for a number of new uses. Parylene is extremely lightweight and flexible, Tai says, and it doesn’t require glue since it is self-adhesive. It’s also

biocompatible—meaning that the human body does not reject it when it’s placed inside the eye.

“NASA’s space exploration research resulted in a lot of technology that has since

been commercialized—for instance, the material in memory-foam beds,” says Tai. “Our efforts were similar. We worked on this little flyer, and only later did we realize that the technology we’d developed was useful for biomedical implants.” —*KN*

