

DNA origami may lead to more complex biological structures

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Ten years after its introduction, DNA origami, a fast and simple way to assemble DNA into potentially useful structures, is finally coming into its own.

A team of researchers has recently used the technique to program DNA to form large, two-dimensional honeycombs and tubes. Because those structures are assembled biologically, they have very precise and repeatable structures. The researchers programmed those structures to hold gold nanoparticles in arrangements that gave them unusual optical properties.

“DNA origami could allow us to arrange proteins in ways that give us access to the language of the immune system. This might make very sophisticated medicines possible,” said Paul Rothemund, who sees potential for DNA origami semiconductors. For a long time, he says, scientists have treated nature’s designs as sacred and believed that we could never fruitfully modify them.

“Today, there is a new spirit about engineering these systems, and we have tools that make these modifications easier than ever,” Rothemund said. “So instead of merely studying a system, 20-year-olds are saying, ‘Let’s do something to make it more useful.’”

Read full, original post: [‘Origami’ is reshaping DNA’s future](#)