Synthetic biology launches into new frontier

Researchers have built something pretty weird—an artificial stingray. The tiny creation, made of silicon, gold, and human muscle cells, was actually built as precursor to a true artificial heart…[This] feat of bioengineering has connections with the emerging field of synthetic biology.

Synthetic biology is a new field, only around a decade old. The field really took off in 2010 when researchers stitched together commercially-made strands of DNA into a completely novel bacteria genome…[N]ow the race is on to make organisms fitted for specific purposes…Using principles of electrical engineering, researchers have connected coding regions and control regions of DNA to create genetic "circuits."

Of course, not everyone is thrilled with the rise of synthetic biology. Ethicists and legal experts warn that regulatory frameworks are not equipped to deal with synthetic organisms. What happens if a synthetic organism escapes into a natural ecosystem, for example? How can bad [people]…be prevented from misusing the technology?

…

Then again…this technology could be key in curing diseases or mitigating environmental damage [and] the potential benefits may just outweigh the risks.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: The Next Frontier in Synthetic Biology