Vibe genes? Natural(ish) language comes to protein, genome design software

Protein design tools may be getting increasingly sophisticated, but you still need a sophisticated understanding of protein structure for them to work. This can include knowing enzyme mechanisms down to the positions of specific amino acids, as well as the water molecules that also occupy the area where catalysis takes place. Once you specify these, the tools can build the rest of a protein around this target.

A large collaboration of researchers based in China, however, decided to bring protein design to the masses, making a tool that can take natural language prompts and use them to produce proteins with the function you specify. If your measure for success is a working protein, then the success rate may not be great. But they still manage to get the job done. And, in a separate announcement, Hugging Face shared that it’s now hosting a tool that does similar things on the DNA level.

The equivalent of vibe coding may have come to protein design—at least if you have access to a lab where you can sort the good designs from the dozens of failed ones.

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