Air steaks? This California startup believes it can make meat out of thin air with some help from tweaked bacteria

The company is taking carbon dioxide—the pernicious greenhouse gas warming our planet—and transforming it into a juicy steak or a delicate salmon fillet.

The process is similar to how yoghurt is made, relying on live cultures. Air Protein cultivates hydrogenotrophic microbes inside fermentation tanks and feeds them a mix of carbon dioxide, oxygen, minerals, water, and nitrogen.

The end result is a protein-rich flour, which has a similar amino acid profile as meat protein.

But how does the company turn that into a tender chicken breast? “

We just add culinary techniques that give you the different textures that you’re looking for,” says [cofounder Lisa] Dyson—using a combination of pressure, temperature, and cooking techniques.

The technology’s climate-saving potential is twofold. First, the process itself is carbon-negative, as it uses carbon dioxide to make the protein, and Air Protein aims to eventually pull carbon dioxide from the atmosphere through direct-air capture plants. Second, the process uses 1.5 million times less land than beef and reduces water usage 15,000 times compared to beef.

The most crucial part is making the process cost-competitive with the meat industry, as well as with other meat alternatives, like soy and mycoprotein.

This is an excerpt. Read the original post here.