

## Climate change fighting plants: Genetically modified crops could trap half of human CO2 emissions in soil

The [Salk Institute](#) has enlisted a new ally in the effort to address the anticipated dangers of climate change — plants.

Scientists at the institute propose to breed plants to more efficiently remove carbon dioxide from the atmosphere, sequestering it in the ground for many decades.

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By using plants as biological carbon scrubbers, as much as half the human contribution to atmospheric carbon dioxide could be trapped semi-permanently in the soil, said Joanne Chory, one of the plant scientists leading the program.

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About six percent of the world's cultivated land would be needed, and much of that could be in areas of marginal productivity, Chory said. These crops wouldn't be grown for human consumption, but could include animal feed.

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The goal is to make these plants produce more of a carbon-rich substance called suberin, the major component of cork. Suberin is produced in their roots, protecting them from water loss. Suberin resists biodegradation, potentially lasting for many decades.

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This can be done either through genetic engineering, or by using knowledge of genetics to find naturally occurring varieties of plants with useful genes, and then cross them with traditional breeding, Chory said.

Genetic engineering to directly insert the desired genes would be quicker, but it faces opposition from some activists, she said.

**Read full, original post:** [Salk Institute unleashes plants on climate issues](#)