

# YALE CARBON CONTAINMENT LAB

Launched in January 2020, the Yale University Carbon Containment Lab (CC Lab) designs, tests, and develops novel, low-cost, safe, scalable, and verifiable methods of atmospheric carbon containment. The goal of the CC Lab is to contribute to containing one billion metric tons of CO<sub>2</sub> equivalent (MTCO<sub>2e</sub>) emissions by the end of the century. The CC Lab is led by Executive Director Dean Takahashi, longtime senior director of the Yale Investments Office, along with managing directors Anastasia O'Rourke '09 Ph.D. and Justin Freiberg '10 M.E.Sc.

The CC Lab tackles the challenge of climate change by developing carbon containment methods that are low-cost, safe, and scalable. Anticipating that society will eventually establish policies and markets that compensate verifiable reductions in atmospheric carbon or their equivalent contributing to global climate change, the CC Lab will develop carbon containment solutions that can serve to fulfill those demands.

The CC Lab focuses on designing and testing approaches that are inspired and supported by natural systems to contain carbon. The CC Lab does this by: (1) designing and testing novel systems and methods for gathering, treating, storing, and verifying carbon with bench experiments, pilot site experiments, and larger field experiments; (2) analyzing and measuring methods for carbon containment from a variety of technical, economic, financial, environmental, and social impact perspectives; and (3) engaging markets, paving the way for financing and deploying innovative carbon containment methods at scale, and with sustainable business models.

The CC Lab expects to work on a portfolio of projects, some of which are led by the CC Lab team and some by partners and collaborators. Yale's programmatic strengths in economics, law, architecture, and health policy help guide project development to ensure effective and safe deployment of approaches and resources. Operating as part of the Yale School of the Environment, the CC Lab draws on the exceptional expertise and skills of Yale University faculty as well as the extraordinary talent and commitment of Yale alumni, students, and staff and other external partners and collaborators.