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Climos is exploring various processes for naturally removing large amounts of CO₂ from the atmosphere. The first technology we are investigating is Ocean Iron Fertilization.

Ocean iron fertilization works by improving the efficiency of natural phytoplankton production in the open ocean. Phytoplankton are responsible for approximately half of the world's annual CO₂ absorption capability. As they continually bloom, mature and die in a 60-day lifecycle, a portion of their biomass sinks to depth, locking away carbon for long periods of time. This process, called the "biologic pump," is one of the oldest ecological mechanisms on Earth. Over the last several hundred million years it has helped concentrate nearly 90% of all mobile carbon in the deep ocean as sediments and dissolved bicarbonates.

Like all plants, Phytoplankton require various nutrients to grow. In the central ocean basins the scarcest of those nutrients is iron-- which is only episodically supplied by large wind-driven dust events. Ocean fertilization involves the use of ships to apply trace amounts of iron to these iron-limited regions of the ocean. This process has been demonstrated in 12 publicly funded experiments since 1993 to effectively trigger large bloom events which accelerate the migration of CO₂ to depth.

While aggressive emission reductions are essential to addressing our currently elevated levels of atmospheric CO₂, ocean fertilization may also be effective at mitigating carbon dioxide.

Climos is led by Dan Whaley, a veteran Silicon Valley entrepreneur, who in 1994 co-founded GetThere, Inc., the first company to conduct travel reservations over the web.

Climos's Chief Science Officer is Dr. Margaret Leinen, most recently Asst. Director of Geosciences at the National Science Foundation. We have announced a scientific advisory board which includes Dr. Rita Colwell, 11th Director of the National Science Foundation, Dr. Tim Killeen, Director of the National Center for Atmospheric Research (NCAR) and current President of the American Geophysical Union, and Dr. Tom Lovejoy, President of the Heinz Center and former Executive Vice President of the World Wildlife Foundation among others. Climos is committed to a collaborative and open relationship with the scientific community.

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