

Resolving mechanisms of the ocean's biological pump

How do the community composition and activity of primary producers and heterotrophs in the upper ocean affect carbon sequestration in the deep ocean?

Potential projects will employ organic and stable isotope techniques to distinguish the impacts of microbial and zooplankton respiration and/or particle dynamics on vertical carbon flux in the ocean (the biological pump). Research will begin with existing samples, and future seagoing field work is likely. Potential projects will involve broader data integration with large oceanographic programs such as NASA EXPORTS (oceanexports.org).

