



WILLIAM T. PECORA AWARD

Frank Muller-Karger

In recognition of his extraordinary contributions and leadership in furthering our understanding of the Earth, and in particular the ocean, through the use of remote sensing.

Dr. Frank Muller-Karger has made outstanding contributions to the field of Earth science and to the study of the ocean through a career of significant and sustained achievements that have laid the groundwork for the use of multi- and hyperspectral space- and airborne sensors for the observation of ocean biology, biogeochemistry, and biodiversity.

Dr. Muller-Karger has dedicated his professional career to studying how ocean biogeochemistry and marine ecosystems change in time and space using remote sensing. His work has greatly advanced our knowledge of the role of continental margins, including areas of upwelling and river discharge, in the global carbon budget. Some of his most salient contributions include using satellite ocean color to better understand the impact of large rivers on the ocean's biogeochemistry, and the use of in situ and remote sensing data time series to observe climate-driven shifts of marine ecosystems. The legacy of Dr. Muller-Karger's research has improved our ability to employ satellite observations from multiple sensors to study ocean color, sea surface temperature, winds, salinity, as well as sea surface elevation to better constrain the drivers of primary productivity, carbon sequestration, and biodiversity throughout the global oceans. His invaluable contributions have advanced the use of satellite remote sensing to understand and conserve life in the ocean. Dr. Muller-Karger's leadership has led to breakthroughs and accelerated the adoption of remote sensing for biodiversity applications across marine habitats and trophic levels.

Dr. Muller-Karger has strongly promoted science and technology as an integral element of society through his visionary leadership style, empowering members across the applied and research communities to utilize Earth observing data to create societal benefit and promote environmental conservation in areas of the world, even where remote sensing has not been traditionally used. Dr. Muller-Karger has also impacted the management and policy arenas through his work with the U.S. Commission on Ocean Policy and the Ocean Studies Board of the National Research Council/National Academies, where he championed high-level ocean policy frameworks.

In recognition of his significant accomplishments that have increased humanity's understanding of the Earth's ocean through remote sensing, the Department of the Interior and the National Aeronautics and Space Administration are honored to present the 2021 William T. Pecora Award to Dr. Frank Muller-Karger.

Secretary
Department of the Interior

Administrator
National Aeronautics and
Space Administration