COP31 TÜRKİYE ANTALYA

MONDAY

NOVEMBER

9

2026

12:45 PM – 1:35 PM

at

OCEAN PAVILION AT COP31
ANTALYA, TÜRKİYE

MISSION NEPTUNE

THE FUTURE OF THE OCEAN CARBON SINK

The ocean currently absorbs nearly 30% of human-generated CO_2 emissions, making it one of the Earth's most important regulators of climate. From polar waters to the deep ocean, and from microscopic plankton and diatoms to viruses and microbial communities, physical and biological processes determine how carbon is absorbed, transported and stored. Yet the future of this natural carbon sink remains uncertain, shaped by complex interactions between ocean and atmosphere and human-induced climate change.

Rather than predicting a weakening or "failing" ocean carbon sink, this session addresses a more fundamental question: **Do we have the scientific knowledge, technologies and sustained observing systems needed to understand and anticipate its future?**

Convened by Mission Neptune, the discussion brings together leading ocean scientists and a new generation of researchers to examine the frontiers of ocean carbon science, the gaps in our knowledge and the opportunities offered by exploration, emerging technologies, sustained observations, data and artificial intelligence.

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OCEAN PAVILION AT COP31

THE FUTURE OF THE OCEAN CARBON SINK

A panel discussion convened by Mission Neptune



Peter de Menocal
President
Woods Hole Oceanographic Institution (WHOI)



Vladimir Ryabinin
Co-Chair
Mission Neptune Scientific Council



Shawnee Traylor
Mission Neptune Fellow
Monterey Bay Aquarium Research Institute



Margaret Leinen
Co-Chair
Mission Neptune Scientific Council

Moderator



Ashok Adicéam
Chief Executive
Mission Neptune