

Interior Department Deputy Secretary Scarlett Announces Biotech Study

Research Analyzes Marine Organisms on Southern California Offshore Platforms

CAMARILLO, Calif. □ The U.S. Department of the Interior's Minerals Management Service (MMS) today released a report that identifies three marine organisms that may be useful for biomedical research □ potentially leading to new treatments for human diseases.

Under a research agreement sponsored by MMS, University of California at Santa Barbara (UCSB) researchers studied marine organisms collected from offshore oil and gas platforms in California's Santa Barbara Channel and found that two invertebrate species contain compounds that inhibit the division of cancer cells grown in the laboratory. Additionally, a compound isolated from algae collected from oil platforms in the Gulf of Mexico has been shown to block cell division and enhance the activity of the cancer drug Taxol.

"This research is an exciting advancement in our understanding of how marine life may hold a key to unlocking treatments to improve our health," said Deputy Secretary of the Interior Lynn Scarlett. "Like the rainforest, our oceans may contain untold biological components that may one day help us in the fight against some of society's most challenging diseases. This first step in understanding the marine environment's potential for biomedical application is a testament to the vision of MMS's premier ocean science program and to the talented research team at UCSB."

The report is the result of a multi-year research initiative between the MMS and UCSB that examined pharmaceutical applications of marine organisms growing on offshore oil and gas structures along California's coast.

The compound produced by the algae may have similar activities that would make it a candidate for use as a cancer chemotherapeutic. UCSB researchers state that while these results are highly promising, years of additional research are needed to isolate and purify the compounds and to assess their application for the treatment of cancer or other diseases. Regardless of the final outcome of the research, the discovery validates their approach of continuing to identify potentially useful organisms that have established a habitat on offshore oil platforms.

The final report, titled "Advancing Marine Biotechnology: Use of OCS Platforms as Sustainable Sources of Marine Natural Products," follows worldwide studies of the potential use of pharmaceutically-important products contained in various marine species. Interest in marine natural products for use in medical applications continues to grow worldwide but the need to conserve ocean resources suggests that organisms found on structures such as offshore oil and gas platforms may provide a sustainable source of future pharmaceutical products.

The research findings will be submitted for publication in peer review journals.

The study, which began in 2001, cost approximately \$1 million and was co-funded equally by the MMS and UCSB. Lead university researchers conducting the study were Dr. Jenny Dugan, Dr. Mark Page, Dr. Leslie Wilson, Dr. Scott Hodges, Dr. Steven Gaines, Dr. Russell Schmitt, Dr. Doug Thrower and Dr. Robert Jacobs. MMS senior scientist Dr. Fred Piltz managed the overall study.

The final report is available from the Minerals Management Service website at:
<http://www.mms.gov/omm/pacific/>.

Contact:

John Romero 805-389-7533

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