Texas A&M University-Corpus Christi

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Texas A&M-Corpus Christi’s College of Science and Engineering
Receives $800,000 from the Gulf of Mexico Research Initiative
The University is one of 12 research institutions to work in new consortium

CORPUS CHRISTI, Texas – Texas A&M University-Corpus Christi has been awarded an $800,000 grant from the Gulf of Mexico Research Initiative (GRI) to support research that will investigate the fate of petroleum in the environment from the BP Deepwater Horizon. The University is one member of a consortium of 12 research institutions across the nation, led by the University of Miami, which will investigate the dispersion of petroleum in sea water.

The GRI Research Board is an independent body established by BP to administer the company’s 10-year, $500 million commitment to independent research into the effects of the Deepwater Horizon incident. The GRI will award a total of $112.5 million over three years to eight research consortia to investigate the impacts of the spill, develop new tools and technology for responding to future spills and to improve mitigation and restoration funding.

The University of Miami will serve as the lead institution on the Consortium for Advanced Research on the Transport of Hydrocarbons in the Environment (CARTHE), which will develop new technologies to accurately predict the fate of hydrocarbons found in crude oil released into the environment. The research will help guide risk management and future response efforts to minimize damage to human health, the economy and the ecosystem.

Texas A&M-Corpus Christi’s participation will allow the Island University to be involved in the most advanced geophysical measurements and numerical simulations available in the world.

“This award will enable us to expand our capacity for research in marine science and technology to a new frontier,” said Dr. Frank Pezold, dean of the College of Science and

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Much remains to be learned about the vast ocean lying off our coast, and the rewards of that enterprise will be great for Corpus Christi and the Coastal Bend as this region continues to grow as a center for marine research and sustainable development.”

Dr. Darek Bogucki, recipient of the grant and an assistant professor in the Department of Physical and Environmental Sciences, says his research will address the surface and near-surface processes that affect oil movement, dispersion, mixing and sinking. Due to the significant turbulence levels, the upper part of the ocean is the most effective in dispersing suspended oil droplets or any dissolved or suspended substances.

“The mixing in the ocean interior has been studied by a number of researchers but neither of these surface and near-surface processes is well understood,” said Bogucki.

Using the University’s remotely-operated vehicle (ROV), Bogucki will study the role of surface waves, currents and wind stresses in the turbulent flow of sea water. This will lead to insights on the dispersion of oil in the ocean. The research project will support one full-time research scientist and one full-time graduate student for three years.

“We will also involve our undergraduate students at various stages of experiments, ranging from class presentations about the physics of fluid dynamics to data analysis, and presentations at national conferences,” Bogucki said.

In addition to Texas A&M-Corpus Christi, other partners will include scientists from the University of Miami, City University of New York — Staten Island, Florida International University, Florida State University, Naval Postgraduate School, Naval Research Laboratory, Nova Southeastern University, Tulane University, University of Arizona, University of Delaware and the University of Texas at Austin.

Through a series of competitive grant programs, the GRI is pursuing a number of objectives including studies of the physical and chemical processes associated with oil dispersion and the development of new geophysical measurement methods. It is also assessing the impacts of dispersed oil on the ecosystems of the Gulf of Mexico and the affected coastal states in the broad context of environmental stresses and public health implications.

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