

September 11, 2020

Amy Vierra, CSU COAST, avierra@csumb.edu, 415-806-2666

Padma Nagappan, San Diego State University, pnagappan@sdsu.edu, 619-594-0389

Brian Hiro, CSU San Marcos, bhiro@csusm.edu, 760-759-0564

CSU Researchers Awarded Microplastic Research Funding to Assist State of California

Researchers at San Diego State University and CSU San Marcos have been awarded funding that will help the state of California manage microplastics, the small pieces of plastic found ubiquitously in the environment that are of increasing concern due to their potential impacts on wildlife and human health. Funding is provided through a new COAST initiative, the State Science Information Needs Program (SSINP), which funds projects that are designed to directly support the state of California's needs for scientific information to support decision-making.

The SDSU research team includes [Dr. Eunha Hoh](#) and [Dr. Kari Sant](#) (School of Public Health) and [Dr. Natalie Mladenov](#) (Department of Civil, Construction, and Environmental Engineering) for their project entitled "Assessing Fate and Toxicity of Microplastics under Coastal Environmental Conditions." They will receive \$399,406 to investigate the role of microplastics, including car tire particles, as transfer mechanisms for contaminants to marine and estuarine organisms.

[Dr. Gerardo Dominguez](#), Professor of Physics, CSU San Marcos has been awarded \$395,490 for his project entitled "Micro and NanoPlastic Identification in Aqueous Samples Using Nano-IR". The goal of the project is to advance analytical techniques for identifying the smallest types of microplastics called nanoplastics in order to expand the understanding of overall plastic prevalence in the environment and regulators' ability to adequately address risk to both humans and wildlife.

Both teams of researchers will consult with state of California agencies as they begin their projects so that the results are as useful to the state as possible. "The potential impacts of microplastics to wildlife, agriculture and a population that depends on surface waters for drinking supply are concerning," said Jonathan Bishop, Chief Deputy Director for the State Water Boards. "We rely on this caliber of research to make informed decisions. This research will not only improve fundamental understandings of plastic pollution's impacts on coastal ecosystems through the transfer of plastic-associated chemicals, it will also significantly advance the development of methods to monitor sub-micron plastics in drinking water."

"We commend COAST for their research leadership on a global marine pollution issue: microplastics," said Mark Gold, Executive Director of the California Ocean Protection Council. "These research efforts will inform the state and its future management actions on analytical

methods and the potential impacts of these ubiquitous pollutants. Reducing the impacts of marine plastics pollution is one of the Ocean Protection Council's top priorities and this research will fill critical knowledge gaps on microplastics.”

Funding for SSINP comes from a one-time \$3 million state appropriation to CSU for COAST for research that supports the state of California’s science needs. “We are thrilled to fund these projects,” said Dr. Krista Kamer, COAST Director. “Not only will our researchers provide key scientific information to the state, but our students will be provided immense learning opportunities.”

###

About the CSU and the Council on Ocean Affairs, Science & Technology

The [California State University](#) is the largest system of four-year higher education in the country, with 23 campuses, 53,000 faculty and staff and 482,000 students. Created in 1960, the mission of the CSU is to provide high-quality, affordable education to meet the ever-changing needs of California. One in every 20 Americans holding a college degree is a graduate of the CSU and our alumni are 3.8 million strong.

The CSU [Council on Ocean Affairs, Science & Technology \(COAST\)](#) promotes research and education that advance the knowledge of marine and coastal resources and the processes that affect them. COAST has roughly 500 members from all 23 CSU campuses including natural scientists, engineers, and social scientists.