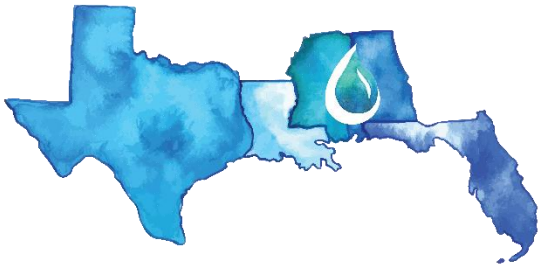
# A salute to the Gulf of Mexico Research Initiative's contribution to the state of science in Mississippi



## Speaker bios

### GoMRI, regional, and national leaders

**RDML Tim Gallaudet, Ph.D., USN Ret., Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy NOAA Administrator**—Rear Admiral Gallaudet is the Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy Administrator of the National Oceanic and Atmospheric Administration (NOAA). From 2017-2019 he served as the Acting Undersecretary of Commerce for Oceans and Atmosphere and NOAA Administrator. Before these assignments, he served for 32 years in the US Navy, completing his service in 2017 as the Oceanographer of the Navy. In his current position, Rear Admiral Gallaudet leads NOAA's Blue Economy activities that advance marine transportation, sustainable seafood, ocean exploration and mapping, marine tourism and recreation, and coastal resilience. He also directs NOAA's support to the Administration's Indo-Pacific Strategy, oversees NOAA's Arctic research, operations, and engagement, and is leading the execution of the NOAA science and technology strategies for Artificial Intelligence, Unmanned Systems, 'Omics, Cloud, and Citizen Science. Rear Admiral Gallaudet has a bachelor's degree from the U.S. Naval Academy and a master's and doctorate degree from Scripps Institution of Oceanography, all in oceanography.

**Rita Colwell, Ph.D., GoMRI Research Board**—Dr. Rita Colwell has held many advisory positions in the U.S. Government, nonprofit science policy organizations, and private foundations, as well as in the international scientific research community. She is currently the GoMRI Research Board Chair and Distinguished Professor at the University of Maryland College Park and Johns Hopkins University Bloomberg School of Public Health. A nationally respected scientist and educator, she has authored or co-authored 17 books and more than 750 scientific publications. Dr. Colwell served as the 11th Director of the National Science Foundation from 1998-2004. More recently, she produced the award-winning film *Invisible Seas* and has served on editorial boards of numerous scientific journals.

**Laura Bowie**, **Gulf of Mexico Alliance**—Laura Bowie serves as the Executive Director for the Gulf of Mexico Alliance, a partnership of the five Gulf states with the goal to significantly increase regional collaboration to enhance the ecological and economic health of the Gulf of Mexico. She began her career in Houston, Texas, at Texas Eastern Pipeline Company and served Continental Airlines as a Senior Manager in the Environmental Affairs Department. Since moving to Mississippi, she has supported local nonprofits spearheading watershed and grant programs. She holds a bachelor's degree in chemistry from Mississippi State University and a master's degree in environmental management from the University of Houston.

**Michael Carron, GoMRI—** Dr. Mike Carron is GoMRI's Program Director. He graduated from the U.S. Naval Academy in 1968 with a B.S. in Oceanography (retiring as a Navy Captain in 1999). He received both an M.A. and Ph.D. in Marine Science from the Virginia Institute of Marine Science of the College of William and Mary and a M.A. in National Security and Strategic Studies at the Naval War College, Newport RI. Dr. Carron served earlier in his career as the head of the Naval Oceanographic Offices' Physical Oceanography Branch and Chief Scientist. From 2001 until 2006, he worked in Italy as a Senior

Scientist at the NATO Undersea Research Centre (NURC) (Now NATO Center for Maritime Research and Experimentation), leading an international team to better understand the behavioral characteristics of whales and dolphins threatened by man-made noises in the Mediterranean Sea. Upon his return to the U.S., Dr. Carron Mike served as the Director of the Northern Gulf Institute, a consortium of Mississippi State University, Louisiana State University, Florida State University, University of Southern Miss and the Dauphin Island Sea Lab, before taking on his current role at GoMRI.

**David Shaw, Mississippi State University—** Dr. David Shaw is the Provost and Executive Vice President at Mississippi State University and a member of the GoMRI Research Board. He has also served as the President of the MSU Research and Technology Corporation; headed the Thad Cochran Research, Technology, and Economic Development Park; and worked as the Director of the Geosystems Research Institute at Mississippi State University. Dr. Shaw also served as the Director of the Northern Gulf Institute, a NOAA Cooperative Institute led by Mississippi State University, partnering with the University of Southern Mississippi, Louisiana State University, Florida State University, and the Dauphin Island Sea Lab. Honors and awards include MSU's highest distinction as a Giles Distinguished Professor in 1998, the Ralph E. Powe Research Award in 2000, election as a Fellow in the American Association for the Advancement of Science in 2008, the Outstanding Alumnus Award from Cameron University in 1999, and the Grantsmanship Award from the Mississippi Agricultural and Forestry Experiment Station in 1997. He received his Ph.D. from Oklahoma State University, his M.S. from OSU, and his B.S. from Cameron University.

**Denis Wiesenburg, University of Southern Mississippi--** Dr. Denis A. Wiesenburg is a GoMRI Research Board member and a Professor of Marine Science at The University of Southern Mississippi (USM), where he has previously served as the Chair of the Department of Marine Science, the Vice President for Research, and Provost. There he helped establish the nation's only Master of Science degree in Hydrographic Science through a partnership between USM and the United States Naval Oceanographic Office. Dr. Wiesenburg spent six years (1988-2004) as a Research Scientist with the Geochemical and Environmental Research Group at Texas A&M University and was involved in analysis of samples from the Exxon Valdez Oil Spill and the IXTOC-1 well blowout on the Campeche Shelf in the Gulf of Mexico. A Pascagoula, Mississippi native, he holds degrees from Duke University, Old Dominion University, and Texas A&M University. His research interests include the interaction of biological processes in the ocean with the physical environment and dissolved gases in sea water.

**LaDon Swann, Mississippi-Alabama Sea Grant Consortium**—Splitting his time between the Dauphin Island Sea Lab and Gulf Coast Research Lab, Dr. LaDon Swann serves as the executive director of the Mississippi-Alabama Sea Grant Consortium, and as the PI of the oil spill science outreach program. Responsible for implementing practical solutions to coastal issues through competitive research, graduate student training, extension and outreach, and K-12 education, LaDon also conducts research on shellfish aquaculture and habitat restoration. He has over 25 years of experience designing, delivering, and evaluating adult education programs. The Tennessee native worked 10 years with the Illinois-Indiana Sea Grant College Program at Purdue University, where he earned a Ph.D. in curriculum and instruction for adults. He also served as a U.S. Peace Corps volunteer in Togo, West Africa, in the mid-1980s.

## Featured GoMRI-funded principal investigators

**Arne Diercks, University of Southern Mississippi**—Dr. Arne Diercks is an Associate Research Professor at the Division of Marine Science in the School of Ocean Science and Engineering at the University of Southern Mississippi. Dr. Diercks, who has degrees from the University of Hamburg and USM, has spent the last 30 years studying the ocean using instruments that include his first own designs of autonomous sampling platforms to study marine snow particles in a Lagrangian environment, called the Neutrally Buoyant Sediment Trap (NBST); a modern highly advanced deep Explorer class autonomous underwater vehicle (AUV); and moorings hundreds of meters long with time series sediment traps deployed for a year in almost all of the world oceans. He uses these tools to study the fate of marine snow aggregates, as well as the potential for sediments including oil-contaminated sediments, to be re-suspended and redistributed along the seafloor, thus changing the footprint of an oil spill on the seafloor long after the spill has disappeared from the surface.

**Pat Fitzpatrick, Texas A & M University, Corpus Christi/Mississippi State University**—Dr. Pat Fitzpatrick is an Atmospheric Science Program Coordinator at Texas A&M University-Corpus Christi, consultant, weather forecaster, legal expert witness, owner of weatherclasses.com, and author of the reference book *Hurricanes*. His consultant work includes interactions with companies such as WorldWinds, Baron, Taylor Engineering, Woods Hole Group, and GulfStream, as well as interactions with the Naval Research Laboratory. Dr. Fitzpatrick received his degrees from the atmospheric science programs at Texas A&M University and Colorado State University. His GoMRI-funded research, conducted while he was on faculty at Mississippi State University, incorporated meteorological and ocean data to help understand what factors influence oil movement.

**Joe Griffitt, University of Southern Mississippi**-- Dr. Joe Griffitt is Director of the School of Ocean Science and Engineering at The University of Southern Mississippi, where he also holds the rank of Associate Professor. Prior to his current position he was the Associate Director of the Coastal Sciences Division of SOSE located in Ocean Springs, MS. Dr. Griffitt holds an MS in Marine Science and a PhD in Environmental Science, both from the University of South Carolina. He has published over 45 peer-reviewed articles in his emphasis area of Toxicology including a first author paper that garnered over 800 citations by other papers. Dr. Griffitt has received a total of $6.5 million in research support and received the 2014 Don Drapeau Mentorship Award from the University of Southern Mississippi Center for Undergraduate Research. He is an active member of SETAC and serves on numerous committees within the University.

**Jerry Wiggert, University of Southern Mississippi**—Dr. Jerry Wiggert is an Associate Professor in the Division of Marine Science, the Associate Director of the School of Ocean Science & Engineering, and the Principal Investigator of CONCORDE. He holds a B.S. in Mechanical Engineering from Case Western Reserve University, a M.S. and E.A.E. in Aerospace Engineering from the University of Southern California (USC), and a Ph.D. in Earth Sciences also from USC, and previously held positions at USC, the University of Maryland, and Old Dominion University. Dr. Wiggert's research interests include biogeochemical and ecological response to physical variability over the full range of time and space; determination of the impact of wind on nutrient deposition, marine primary production, export fluxes, and carbon cycling ; effect of freshwater river input and associated dissolved materials on the physical and biogeochemical processes of adjacent coastal waters; impact of seasonally developing extreme hypoxia on nitrogen cycling in estuaries and the coastal ocean; prediction of harmful algal blooms using

biological and chemical fields obtained from an estuarine model; and biological and chemical response of the ocean to extreme, episodic forces.

## Featured early career scientists

**Kemal Cambazoglu, University of Southern Mississippi**—Dr. Mustafa Kemal Cambazoglu is currently an assistant professor of Ocean Engineering in the Division of Marine Science within the School of Ocean Science and Engineering at the University of Southern Mississippi. He received his Ph.D. in Civil and Environmental Engineering with an emphasis on Coastal Engineering and minor in Oceanography from Georgia Institute of Technology. He joined The University of Southern Mississippi as a research scientist in 2009, working simultaneously at the U.S. Naval Research Laboratory as a post-doctoral researcher on a parallel grant. He began his work with CONCORDE as a post-doc and later became a co-PI on the CONCORDE-II project. Dr. Cambazoglu develops coastal ocean modeling frameworks that synthesize ocean model products with remote sensing imagery and in-situ measurements that can be applied to various coastal engineering problems.

**Stephan O'Brien, Deakin University—**Dr. Stephan O'Brien is the Deakin/iXblue Industry Postdoctoral Research Fellow at Deakin University in Australia. He discovered hydrography as an undergraduate at the University of the West Indies and obtained his Hydrographic Science master's at the University of Southern Mississippi. Dr. O'Brien obtained his PhD at USM as a designated GoMRI scholar from the CONCORDE consortium. His work focuses on seabed mapping to acquire baseline geomorphological data and the effects of wind, waves and ocean currents on sediment transport in nearshore waters.

**Sabrina Parra, Johns Hopkins University**— Dr. Sabrina Parra is a Physical Oceanographer at the Applied Physics Laboratory at Johns Hopkins University. She received her Ph.D. in Coastal and Oceanographic Engineering from the University of Florida studying coastal and estuarine physical processes as well as turbulence at submarine springs. Dr. Parra previously served as an American Society for Engineering Education Postdoctoral Fellow at the U.S. Naval Research Laboratory, where she studied mixing and turbulence at river plume fronts in the Gulf of Mexico using a variety of instrumentation with the CONCORDE consortium.

## Featured target audience members

**Ryan Bradley, Mississippi Commercial Fisheries United, Inc**.—Ryan Bradley is a fifth-generation commercial fisherman from Long Beach, MS. As the Director of Mississippi Commercial Fisheries United, he works to protect the common interests of Mississippi's commercial fishing industry; promote sustainable fisheries through leadership in stewardship; and advocate on behalf of commercial fishermen, fishing businesses and consumers of the resources the industry provides.

**Jessie Kastler, University of Southern Mississippi**— New Orleans native Dr. Jessie Kastler serves as the Marine Education Center Interim Director and Coordinator of Program Development, as well as CONCORDE's Outreach Coordinator. Her goal is to design experiences where members of the public learn that science is a trustworthy process by which people learn about the natural world. Dr. Kastler works with audiences of all ages and diverse educational backgrounds in resident, teacher, and student-centered workshops, field events, presentations, websites, and social media. She also coordinates citizen scientist initiatives with various adult audiences, including the regional fishing community and to help individuals understand their role in making responsible choices based on science. She particularly

enjoys helping teachers and scientists incorporate student-active methods of scientific inquiry into their classrooms.

**Cheryl Lassitter, NOAA**—Cheryl Lassitter currently serves as the Lead Chemist for the National Seafood Inspection Laboratory, NOAA, NMFS in Pascagoula, MS. She has a Bachelors in Geology with minors in Chemistry, Physics, and Biology; Master's in environmental chemistry; and two-plus years' work toward her Ph.D. in Physics and remote sensing. Cheryl is a former Ph.D.-candidate Research Fellow for the Engineering and Science Directorate at NASA's Stennis Space Center. She's a United States Marine Corps veteran and former laboratory shift supervisor for Degussa-Evodnik Corporation in Mobile, AL.

## Sea Grant moderators

**Missy Partyka, Mississippi-Alabama Sea Grant Consortium**— Based in Mobile, Alabama, with the Mississippi-Alabama Sea Grant Consortium, Dr. Missy Partyka is an outreach specialist on a Gulf-wide team addressing oil spill science questions of audiences around the Gulf. Dr. Partyka has a record of using her advanced degrees in integrated ecology to work closely with the public to research and explain complex environmental issues, particularly those relating to water quality and food safety.

**Steve Sempier, Mississippi-Alabama Sea Grant Consortium**—Based in Ocean Springs, Mississippi, Dr. Steve Sempier serves as the Outreach and Deputy Director of the Mississippi-Alabama Sea Grant Consortium and Oil Spill Science Outreach Manager. Dr. Sempier has worked on several Gulf-wide issues, including the Gulf of Mexico Research Plan and a Gulf of Mexico hydrological restoration program through a partnership with the NOAA Restoration Center. In the GoMRI partnership, he coordinates the overall outreach effort and oversees the synthesized results.

**Tara Skelton**, **Mississippi-Alabama Sea Grant Consortium**—Based in Ocean Springs, Mississippi, Ms. Skelton is the communicator for the oil spill science outreach program. She supports the oil spill specialists in the development of outreach products, oversees technology for online events, and manages the website. She has previously served as a science writer for GoMRI and CONCORDE.