

List of Grants and Funding History

Mystic Aquarium has an annual operating budget of over \$22 million for its renowned Aquarium, international research program, and robust educational outreach operations. Further, it has an established track record of managing federally funded, large-scale, and nationally focused research and education projects. Mystic Aquarium has successfully managed NOAA Prescott grants for its Animal Rescue Program awarded in 2007-2010, 2012, and 2014-2018, as well as an Emergency Prescott grant award in 2014. Additionally, Mystic has successfully managed five federal grants from the U.S. Department of Justice Office of Juvenile Justice Delinquency Prevention for its STEM Mentoring programs, totaling \$11.5 million, serving thousands of youth from 36 states across the country and Puerto Rico. Mystic Aquarium had a proven track record for consistent grant funding for research. *Examples of grants and contracts awarded specifically to PI Romano and the Research Department are listed below.*

- Grant from the Office of Naval Research – 07/04/18 – 07/02/20 \$237,530
“Further investigation of blow or exhaled breath condensate as a non-invasive tool to monitor the physiological response to stressors in cetaceans”
- Grant from the National Science Foundation – 03/01/17-02/28/20 \$284,000 "REU Site Mystic Aquarium: Collaborative Research: Investigating the Consequences of Global Change on Marine Animals and their Ecosystems"
- Grant from the Sea World Conservation Fund – 08/01/18 – 7/31/19 \$10,000 Molecular Biomarkers of Immune System Health in Beluga Blow.
- Grant from the Sea World Conservation Fund – 09/01/16 – 03/31/18 \$12,000 "Continued Validation of Blow for Interpretation of Hormones"
- Grant from the AZA Conservation Grants Fund – 10/01/18 – 09/30/10 \$16,318
“Monitoring of Health and Welfare of the Endangered African Penguin through Fecal Glucocorticoid and Microbiome Analysis”
- Contract from Georgia Aquarium - 06/01/18-05/31/18 \$37,210 “Mystic Aquarium’s Activities in Support of The Indian River Lagoon Health and Risk Assessment (HERA) of Bottlenose Dolphin Populations Project-2018”
- Contract from the North Slope Borough – 10/01/17 – 11/30/18 - \$27,000 “Educational and Cultural Exchange Program”
- Grant from the Office of Naval Research – 06/01/14 – 04/30/17 \$213,493 "Investigation of the Molecular Response of Belugas to Stressors to Aid in Assessing the Impact of Environmental and Anthropogenic Challenges on Health"
- Grant from the Office of Naval Research – 03/18/15 – 3/31/17 \$185,222 “Evaluation of Non-lethal Effects of N2 Bubbles on Marine Mammal Health and the Potential Role of Immune Activity in Facilitating the Development of Dive Related injury”
- Contract from Marine Life Park, Singapore- (P.I.) 04/01/15 – 04/30/16 \$74,400 “Dolphin Immune Assessment and Research”
- Contract from Florida Atlantic University- (P.I.) 05/01/15 – 04/30/16 \$18,624 “Contributions of immunology to live capture release studies of wild bottlenose dolphins in the Indian River Lagoon”
- Grant from The Bernice Barbour Foundation, Inc. – (P.I.) 11/01/13

\$51,700.00 “In support of a D6 Flow Cytometer, CFlow Plus Software and Workstation Computer and installation for Research Assessing Environmental and Anthropogenic Challenges on Marine Health”

- Grant from the Office of Naval Research- (P.I.) 08/13-09/14 \$90,100 “Evaluating the Effects of Stressors on Immune Function During Simulated Dives in Marine Mammals”
- Grant from the Bulrush Foundation- (P.I.) 03/12-03/13 \$15,000 “Pilot Study to Investigate the Impact of Climate Change on Belugas”
- Contract from NOAA (P.I.) 9/12-3/13 \$19,268 “Bristol Bay Beluga Health Assessment Project”
- Grant from the National Fish & Wildlife Foundation, Alaska Fish & Wildlife, (P.I.) 10/11-9/13 \$75,000 “Baseline Health Measurements in Wild Belugas”
- Grant from the Office of Naval Research, (P.I.) 02/06-06/07 \$125,000 “Investigation of Neuro-Immune Profiling, Transcriptomics and Proteomics as Clinical Tools in Assessing Navy Dolphin Health”
- Grant from the Bernice Barbour Foundation, 12/06-11/07 \$30,000 Laboratory equipment to investigate the presence of pathogens in marine Mammals.
- Subcontract from the Medical Univ. of South Carolina, (P.I.) 07/05-05/07 \$68,594 “Medical University of South Carolina’s Activities in Support of the Charleston Health and Risk Assessment (HERA) of Bottlenose Dolphin Populations”
- Contract from Harbor Branch Oceanographic Institute, (P.I.) 06/06-05/07 \$28,650 “Mystic Aquarium Activities in Support of the Indian River Lagoon Health and Risk Assessment (HERA) of Bottlenose Dolphins Populations Project”
- Grant from National Oceanic Atmospheric Administration, (Co-P.I.) 8/05-8/06 \$18,000 “Establishing a National Resource of Marine Mammal Cell Lines for Toxicological, Infectious Disease, and other Biomedical Research.
- Grant from National Oceanic Atmospheric Administration, (P.I.) 08/05-08/06 \$50,000 “Continuation of Pilot Project to Initiate Investigations of the Potential Use of Skin in Contributing to Health Information in the North Atlantic Right Whale”
- Grant from the Bernice Barbour Foundation, (P.I.) 12/04-12/05 \$30,000 “Equipment Proposal to the Bernice Barbour Foundation”.
- Subcontract from the Medical Univ. of South Carolina, (P.I.) 03/04-03/06 \$66,255 “Medical University of South Carolina’s Activities in Support of the Charleston Health and Risk Assessment (HERA) of Bottlenose Dolphin Populations”
- Grant from the Office of Naval Research, (P.I.) 10/99-09/05 \$1,038,197 “Investigation of Immune Competence in Navy Marine Mammals: Implications for Health, Viability and Mission Readiness”
- Grant from National Oceanic Atmospheric Administration, (P.I.) 9/03-6/04 \$24,948 “A Pilot Project to Initiate Investigations of the Potential Use of Skin in Contributing to Health Information in the North Atlantic Right Whale”
- Subcontract from the Medical Univ. of South Carolina, (P.I.) 11/02-05/03 \$42,712 “Medical University of South Carolina’s Activities in Support of the Charleston Health and Risk Assessment (HERA) of Bottlenose Dolphin Populations Project”

- Grant from the Office of Naval Research through the Medical University of South Carolina, (P.I.) 04/03 -03/04 \$27,000; 04/02 – 03/03 \$26,000
“A Functional Genomics Approach to Understanding and Evaluating Health in Navy Dolphins”
- Grant from the Florida Fish and Wildlife Conservation Commission through Mote Marine Laboratory (P.I.) 11/02 – 06/03 \$5833.00 “Diagnostic Indicators of Manatee Immune Function”
- Grant from National Marine Fisheries Service, (P.I.) 01/01-12/02 \$80,000
“Investigation of Lymphoid Organs Collected During Necropsy of Dolphins Killed in the ETP Tuna Purse-Seine Fishery and Development of Reagents for Assessing Immunocompetence in Dolphins”
- Defense Univ. Research Instrumentation Program, (P.I.) 03/00-03/01 \$161, 250 “Flow Cytometry: Technology to Advance Research and Clinical Assessment of Health in Navy Marine Mammals”
- Grant from the Office of Naval Research, (P.I.) 6/96-9/99 \$300,000 “Investigation of Immune Function in Navy Marine Mammals”
- Grant from the National Science Foundation, (Co-P.I.) 6/94-6/98 \$339,918 “Neural-Immune Interactions in the Beluga, *Delphinapterus leucas*”

The following are pending or are sources that will be applied to:

- Office of Naval Research \$193,974 Characterization of Beluga (*Delphinapterus leucas*) Skin Transcriptome: Identification of Genes Involved in the Physiological Response to Stressors
- Office of Naval Research \$332,103 “Importance of Coagulation Pathways in Determining the Impact of Nitrogen Bubbles in Dive and Non-Dive Adapted Mammals”
- Alaska Fish and Wildlife Fund
- North Pacific Research Board
- National Oceanic and Atmospheric Association
- National Science Foundation