

**December 31, 2022**

**Health and Welfare Assessment of Tokitae (also known as Lolita), killer whale housed at Miami Seaquarium, Miami-Dade County, Florida.**

Report of James McBain, DVM retired, and Stephanie Norman, DVM, PhD  
(Biographical statements below)

At the invitation of Friends of Toki, a non-profit organization formed by Pritam Singh, we are continuing our health and welfare assessments of Tokitae (Toki).

Drs. McBain and Norman completed a site visit to Miami Seaquarium on December 11-13. This visit included collaborative consultations with Toki's primary and consulting veterinarians and with the water quality and enrichment experts to evaluate her state of health since their last site visit in early November.

During the first week of December, Toki's bloodwork continued an improving trend. Shortly thereafter, beginning the next week (~12/12-12/13) her respiratory blow displayed cellular abnormalities consistent with increased number of bacteria. Her white blood cell parameters began to simultaneously decline at this time. Adjustments were made in dosing frequency of her new oral antibiotic, Faropenem, from three to two times daily. Samples of blood and respiratory blow were submitted for both culture and molecular (next-gen sequencing) testing. On the morning of the 14<sup>th</sup> her white blood cell count parameters began to improve. During this time, she has continued to eat.

The last half of December has been medically stable. We have sent serum out for a special antibiotic analysis which should help us if we need to adjust the dosage. We are told to expect results of that testing in mid January. Toki's blood test results have continued to improve in an apparent response to her therapy. So, no change of the current antibiotic dosage is planned. Her appetite and behavior both remain very good. Her trainers have often reported that her appetite is excellent. This is good in light of the fact that her blubber layer remains very healthy. We speculate that decreasing winter water temperature may be stimulating Toki's strong appetite. Her current condition is a testament to the exceptional efforts of her veterinary and trainer team. We continue to look at Toki's medical future with guarded optimism.

We plan a veterinary assessment in early January to repeat ultrasound examination of the lungs, the ovaries, the reproductive tract, and the blubber layer. This is in addition to routine blood, cytology and culture samples.

Respectfully submitted:



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James McBain, DVM retired



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Stephanie Norman, DVM, PhD

**Dr. James McBain**, DVM, Retired Vice President of Corporate Veterinary Services for SeaWorld and Busch Garden Parks. is considered a pioneering expert in marine mammal veterinary medicine. His career at Sea World included serving as senior staff veterinarian corporate director of veterinarian medicine and Vice President of Corporate Veterinary Services. He has authored and coauthored more than 83 scientific papers, books and presentations on marine mammals and is recognized worldwide for his experience and expertise. Dr. McBain is seen by his peers as having fundamentally altered the way in which marine mammal medicine is practiced. Dr. McBain has served as a mentor and trained countless veterinarians seeking his specialized knowledge. In 2009 he received the Distinguished Veterinary Alumni Award for Outstanding Service from Washington State University.

**Dr. Stephanie Norman**, DVM, PhD, veterinary epidemiologist and wildlife veterinarian, received her DVM from Texas A&M University; her Master of Science in epidemiology from the University of Washington, Seattle; and her PhD in wildlife epidemiology from the University of California, Davis. She has been involved in the field of animal health, disease, and conservation for more than 20 years. Dr. Norman has extensive clinical and teaching experience, and has authored or co-authored more than 40 peer-reviewed scientific papers and reports. In addition, she has served as a wildlife epidemiologist for NOAA, National Marine Fisheries Service.