Dolphins and other cetaceans have been in human care since the 1800’s. The first commercial dolphinarium opened to the public in 1938. Since then, humans have been captivated by these charming creatures. With hundreds of dolphins currently in human care, and increasing numbers of stranding events world-wide, the focus of marine mammal medicine turns to the prevention of disease and the social and psychological welfare of these captivating animals in our charge. Preventative medicine strategies ensure the animals’ continued well-being. By evaluating multiple facets, such as nutritional support, social grouping, medicine, diagnostics and training, we gain a complete picture of the animals’ health. We have a responsibility to continue using comparative scientific methods and collaborating with biologists, physiologists and other disciplines to increase our understanding of marine mammal diseases and to advance diagnostic and therapeutic procedures that ultimately improve the overall healthcare of cetaceans both in zoological settings and, ultimately, their wild counterparts.