INTRODUCTION

The Companion Animal Symposium titled “Living Beyond 20: Discoveries in Geriatric Companion Animal Biology” was held at the Joint Annual Meeting of the American Society of Animal Science and the American Dairy Science Association on July 10 to 14, 2011, in New Orleans, Louisiana. The objectives of this symposium were 1) to explore the scientific discoveries specific to the quality of life, nutrition, and well-being of geriatric companion and exotic animals and 2) to promote future research related to these growing animal populations. Both companion and exotic animals are managed for longevity and conservation, as opposed to production purposes; therefore, both animal populations were included in the symposium.

The landscape of the animal science community has evolved over the past several decades to include not only those animals managed for end product value but also those animals with value unrelated to production. Companion animals have become increasingly valued in homes for companionship and service, whereas exotic animals in zoological institutions are managed for species conservation, education, and research programs. It is estimated that more than 25% of the dog and cat population in the United States is over the age of 7 yr, and many exotic species live longer in zoological institutions compared with their wild counterparts as a result of improved disease management, nutrition, genetics, and husbandry practices that have largely been developed from traditional animal science inquiry. As these populations continue to grow, so does the need for advancements in all areas of animal science research and education.

The first presentation by George Fahey Jr. (Faber and Fahey, 2011) established the historical landscape and shift that departments of animal sciences have observed regarding companion animals and their inclusion in departmental research and teaching programs. He discussed further how feeding strategies and diet formulation for companion animals were not focused on production and end product value but rather on supplying appropriate nutrients throughout the entire life cycle of the animal. The importance of proper nutrition begins for animals in utero and is affected by the nutritional status of the dam. Supplying breeding animals with optimal nutrition during breeding and gestation is paramount to building strong nutritional foundations in offspring that support longevity and health throughout life. Traditional animal sciences have provided an array of comparative research demonstrating the necessity of proper nutrition to lactating females for optimal growth and development. Current companion animal research is focused heavily on understanding the link with nutrition of growing animals, brain development, learning, and cognition. This focus is just one highlighting the shift away from feed efficiency to the improvement of lifelong health and well-being of the animal both physically and mentally. Although Fahey discussed the relevance of nutrition throughout the life cycle, the importance of nutrition throughout adult and senior years was the main focus of the presentation, specifically in relation to changes in metabolism, such as reduced energy requirements and enzymatic activities, along with increased physiological demands for essential nutrients such as antioxidants, fatty acids, and protein. These particular physiological changes make it necessary to provide geriatric animals with highly digestible diets formulated with high-quality ingredients. The research efforts in this field are providing a solid base for pet food companies to develop special-