Preface

Nutraceuticals and other biologic therapies

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Guest Editor

The purpose of this issue of the *Veterinary Clinics of North America: Small Animal Practice* is to present the veterinary profession with current information on the theories and scientific studies concerning the cellular effects and application of nutraceuticals, antioxidants, and botanical and other biological therapies. The issue is controversial—as it should be. As would be expected, the authors have differing opinions on the clinical relevancy of these agents. Some are very skeptical and others less so. One thing is commonly understood—the body is a very complex system of biochemical reactions influenced by many events; therefore, it is extremely difficult to acknowledge something you cannot easily prove. Many practitioners may unwittingly credit nutritional supplementation without significant proof simply because of the body’s response from illness. This credit is in contrast to pharmaceutical therapy, where proof is evident because drug therapy can be measured by blood and tissue studies as well as direct clinical evidence. In addition, the source of evidence comes from both independent scientific and clinical studies as well as corporate-funded research; therefore, equally important mechanisms can be both over-estimated and underestimated with regard to their clinical benefits. Additionally, there is not an exact science to evaluate such therapies. We have a long way to go before scientific knowledge and effectiveness of individual or combinations of nutrients is known. This issue is a beginning.

Most of us are familiar with the damaging effects of oxygen-free radicals. The rationale for the application of many antioxidant supplements involve the free radical theory of aging and disease. Several authors discuss the
relevancy of this theory and some do not. Most of us are also familiar with many of the botanicals and herbs mentioned herein and how they claim to impact our health. Nature has put these chemicals in many different forms that appear to compliment their biological function. Processing these compounds from natural sources tends to concentrate one chemical in lieu of others that may have promoted additional synergy. While the effectiveness of individual compounds can be concentrated manyfold, it may lack the completeness of the intended natural source. In addition, there is a relative paucity of clinical applications of these botanical supplements. As more practitioners incorporate these supplements into their practices, more information regarding their clinical effectiveness will be known. We hope to see more scientific and clinical studies result from this increased interest by practitioners.

The information in this issue excited me and enhanced my own opinions about nutraceuticals and antioxidants. This enthusiasm is tempered by some of the authors who have more clinical experience and knowledge in their specialties than I do, and rightly so. We should not jump from theory to clinical relevancy in one leap. Cellular effects may or may not equate with clinical healing. The body’s reaction to supplementation is quite complicated, and we need to learn more about these cellular reactions; this issue initiates that process.

I would like to commend the superb authors who contributed articles to this issue; they are daring and progressive educators and veterinarians who undertook this task not knowing what to expect. There is no doubt that the clinical relevancy of nutritional supplements needs more “hard science” and less anecdotal information to substantiate clinical applications. I would especially like to thank Paul Pion for all his input and skepticism that kept me grounded in reality. In addition, I thank Nick Larkin for all his assistance and his superb efforts in editing several of the articles and John Vassallo, Associate Publisher, for being exceptionally patient in allowing us extra time to complete this issue. Finally, I thank my wife and children for putting up with an invisible husband and father for the 18 months it took to research, organize, and publish this issue.

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