Preface

Vaccinology and Immunology: Current Knowledge, New Discoveries, and Future Directions

Although the way ahead (for Immunology) is full of pitfalls and difficulties, this is indeed an exhilarating prospect. There is no danger of a shortage of forthcoming excitement in the subject. Yet, as always, the highlights of tomorrow are the unpredictabilities of today.


Immunology is a comparatively young scientific field that seems to advance with exhausting speed and complexity. It is also a fundamental discipline in veterinary medical science and clinical veterinary medicine. The pace with which it inexorably evolves and the explosion of the growth in the scientific literature can make it difficult for the academician studying these new discoveries, veterinary specialists translating research into practice, and certainly for the general practitioner to keep current with the latest information and pertinent findings. It is enigmatic, if not disheartening, that even in the face of the astonishing success of vaccination in controlling infectious diseases and saving lives throughout the world that there still appears to be residual public skepticism about the science and scientists underlying it. And yet its conjoining with pharmacotherapeutics represents medicine’s greatest hope for the emergence of a new armament of chemical and biological weapons to fight infectious and even noninfectious disease.

As editors, we began contemplating this issue of Veterinary Clinics of North America: Small Animal Practice by wanting to cover topics about vaccinology and immunology that colleagues across our profession want and need to know more about. We want to
challenge the reader to think beyond vaccination as a tool to prevent infectious disease in small animal general practice. We want veterinarians to understand the spectrum of research underlying vaccination recommendations and protocols. In addition, we hope to provide information that will give veterinarians a fundamental understanding of how vaccines work the way that they do as well as new directions for vaccine technologies.

In our attempt to meet our above wants and goals, we have compiled a unique selection of original, carefully reviewed articles in this issue of *The Veterinary Clinics of North America: Small Animal Practice*. We certainly visit concepts and controversies about vaccination technology and vaccination response (both intended and adverse); however, we also managed to encompass articles about oncologic immunotherapies, vaccination in group/shelter settings, microbiota’s regulation of immunity, and newly emerging autoimmune diseases. While we did not manage to cover all of the topics we initially sought to, we certainly covered an impressive array.

We would like to thank our talented authors for their time and efforts to keep our understanding of veterinary immunology and vaccinology current and accurate. Each of them brought unique and provocative perspectives and critical thinking to this issue and to these concepts. It has been a privilege for us to edit this distinctive issue.

Amy E.S. Stone, BS, DVM, PhD
Small Animal Clinical Sciences
PO Box 100116
Gainesville, FL 32610, USA

Philip H. Kass, DVM, MPVM, MS, PhD
Department of Population Health and Reproduction
School of Veterinary Medicine
Department of Public Health Sciences
School of Medicine
University of California, Davis
1089 Veterinary Medicine Drive
Davis, CA 95616, USA

E-mail addresses:
stonea@ufl.edu (A.E.S. Stone)
phkass@ucdavis.edu (P.H. Kass)