This issue of *Veterinary Clinics of North America: Small Animal Practice* is focused on “Advances in Veterinary Neurology.” This is an easy title to give, because there will always be advances, but we feel it is particularly appropriate now, with veterinary neurology experiencing a dramatic and exciting expansion phase. MRI is now a routine diagnostic modality for veterinary neurologists, and our comfort with advanced imaging modalities is being coupled with advances in computer technology to provide additional diagnostic and therapeutic power. In addition, the revolution in genetic techniques has led to an explosion of knowledge of the genetic cause underpinning hereditary neurologic disorders, providing diagnostic tests, and potentially leading to therapeutic interventions for previously untreatable diseases.

The first section of this issue covers neurologic emergencies; as anyone working in small animal practice knows, diseases of the nervous system frequently present on an emergency basis and require accurate assessment and prompt initiation of the appropriate treatment. In four articles, spanning altered mental status, seizures and status epilepticus, spinal cord disease, and neuromuscular disease, logical approaches to these cases are described, and therapeutic algorithms are discussed. The authors have presented up-to-date information on how to assess the patients and highlighted the most recent advances in treatment.

The second section highlights significant novel advances in veterinary neurology; the application of computer technology to medicine continues unabated. There are two examples in this section: the development of new therapies for brain tumors and precise neuronavigation within the CNS. These both rely on the ability to translate computerized images from one “platform” to another and to use computer analysis to provide feedback on the efficacy of various approaches during the period in which treatment is administered. While these techniques are likely to remain the preserve of specialist facilities, they are both likely to become more widely available and pave the way for
an increase in tertiary referral centers. This section also reviews extremely relevant issues for general practitioners, including the use of corticosteroids in neurology; this article was triggered simply from the numerous questions that continue to arise regarding this subject. The final section covers neurogenetics and neurodegenerative diseases, providing a clear summary of how genetic diseases are mapped and how to use genetic testing, in addition to updates on brain aging, and classification and understanding of a variety of different movement disorders.

We asked each author to approach their subjects from a novel standpoint, with the aim that new information and new approaches will be conveyed and therefore lead to different ways of understanding and responding to diseased animals. Many of these advances have been driven by clinical need or the need for new tools to form the basis of research into possible treatments. This insight provides a window into the thinking behind new therapies in veterinary neurology. We hope that veterinarians will find the new information presented both interesting and useful on a daily basis in the clinic.

We would like to thank John Vassallo for inviting us to edit this issue and for providing us with the freedom to cover really novel topics. We are extremely grateful to the authors who generated cutting-edge articles and suffered our questions with grace and good humor. Finally, we are grateful to our families, Unity Jeffery, and Erik and Izzy Jackson, who have tolerated our lapses in attention and failure to provide dinner at a reasonable time.

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