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The Beagle B

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 Springer

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To my wife Marion and our two children, Félix and Marilou, aged 4 and 2, respectively.

Marion, your love, dedication ... and computer skills just made it possible!

Preface

Beagle dogs are commonly used in preclinical research and neuroscience as the preferred canine model for safety studies. The central nervous system is often a target for pharmaceuticals, medical devices, and chemicals, and a deep knowledge of the gross and microscopic anatomy of the beagle brain is mandatory for anatomic pathologists and neuroscience researchers in order to assess the safety of innovative medicinal and industrial chemicals, or to investigate new mechanisms of action.

Very little literature regarding the anatomy of the beagle brain was available to the scientific community in 2008, as most books were out of print or incomplete, and web-based resources only scant. Hence the decision to build an up-to-date reference atlas in this breed with modern tools and illustrations.

The Beagle Brain in Stereotaxic Coordinates was written for neuroscientists, neuroanatomists, neuropathologists, neurosurgeons as well as students, and it provides a comprehensive guide for those – both researchers and undergraduates – who are interested in the dog brain and comparative anatomy. The nomenclature and atlas presentation were inspired from existing reference brain atlases in the dog and in other species.

About the Author



Dr. Xavier Palazzi is a senior veterinary pathologist currently working at Sanofi-Aventis in France where he is in charge of evaluating the preclinical safety of drug candidates. He received his DVM from Lyon veterinary school in 1998 and his French certification in veterinary pathology in 2001. He then became a diplomate of the European College of Veterinary Pathology in 2003. Hired in 2004 by Pfizer Global R&D in Amboise (France), he was in charge of Investigative Pathology until 2007 and published an *Atlas of the Marmoset Brain in Stereotaxic Coordinates* in 2008. He then moved to Biomatech NAMSA, a CRO based near Lyon where he was in charge of evaluating the safety and efficacy of medical devices until 2010. He was then hired by sanofi-aventis as head of pathology in Alfortville (France) and became diplomate of the American Board of Toxicology in 2010. Dr. Xavier Palazzi is the father of two young children and he likes to spend his free time jogging, bicycling, motorbike riding and bee keeping.

About the Reviewers

Marion Palazzi-Clavel

Marion Palazzi-Clavel is a public writer and the owner of a France-based company (Cabinet Clavel) that offers wide services in the field of writing. Her computing skills in handling and formatting the large amount of data enclosed in the atlas proved unvaluable. Marion contributed to the drawings, legends, lists of structures, and abbreviations.



Dr. Catherine Botteron

Dr. Catherine Botteron received her Dr. med vet degree from the University of Berne, Switzerland. She obtained a Ph.D. in pathology and microbiology at the North Carolina State University. After a three year post-doc research position and training in veterinary pathology at the University of Berne, she became diplomate of the European College of Veterinary Pathologists. For several years, she was responsible for diagnosis and research at the NeuroCenter of the VetSuisse Faculty in Berne, which also acts as the Swiss Reference Laboratory for spongiform diseases in animals. She spent two years as senior lecturer in pathology at the Veterinary Faculty of the University of Liverpool, before joining Ricerca Biosciences, a toxicology contract laboratory in France, where she continues to develop her expertise in neuropathology, immunohistochemistry, and general toxicological pathology.

Dr. Catherine Botteron performed an in depth review of the plates from this atlas.



Dr. Robert H. Garman, DVM

Dr. Bob Garman has had over 40 years of experience in veterinary and comparative pathology. After receiving his DVM (Cornell University; 1966), he trained in pathology at the University of Rochester Medical Center where he remained on the faculty for a decade prior to joining a toxicology contract laboratory owned by Carnegie Mellon University in Pittsburgh, PA. After a decade at this lab, Bob started his own consulting company (Consultants in Veterinary Pathology, Inc.) where he has specialized in neuropathology for the past 20 years. Over his lengthy career, Bob has had a variety of academic affiliations and currently collaborates with a number of investigators studying brain injury at the University of Pittsburgh. Dr. Robert H. Garman performed an in depth review of the plates from this atlas.

