

# FOREWORD

The crucial role of animals in advancing the medical research enterprise is indisputable, primarily ascribable to the close anatomic, physiological and genomic similarities of animals, especially non-human primates, and the *Homo sapiens* species. Hence, the utility of animal models for: (i) understanding the molecular basis of human disease processes, (ii) developing new therapies, and (iii) discovering drug toxicities prior to undertaking clinical investigation. Large animals are particularly useful for the pursuit of preclinical studies involving surgical and other interventional procedures, medical devices, drugs and prostheses.

The biomedical research landscape in Singapore is evolving rapidly, as highlighted by the government's recent announcement of the Biomedical Science Phase 2 initiative. A key aim of this laudable drive is to strengthen substantively our translational and clinical research capabilities along with the associated regulatory framework. Exemplary of the latter is the newly enacted legislature governing the care and use of animals for experimentation and teaching purposes. This progressive legislature requires institutions to obtain a license to conduct animal research and researchers themselves to receive formal training in handling research animals, thus helping to alleviate potential public concern regarding the proper conduct of animal research.

I am delighted to see that the Department of Experimental Surgery, Singapore General Hospital (SGH) and the SingHealth IACUC have been proactive in offering high-quality training courses to prepare individual investigators to launch their animal studies in a safe and technically sound manner. It is also refreshing to learn that the introductory course material is being updated and expanded in this *Primer*, which will undoubtedly serve as a valuable information source in the future.

It is both a pleasure and a privilege to write a foreword for this timely training manual. The contributors are experts in their respective areas and I thank them for giving generously of their knowledge and time. I wish all new researchers the very best in their future endeavors in animal investigation. May your studies prove to be both stimulating and rewarding, and bring credit to you, to your institution and, above all, to the nation as Singapore embarks on a well-funded program to conduct world-class translational and clinical research in order to advance the health and wealth of the island state.

**Professor Malcolm Paterson**  
*Chairman, Division of Clinical Research*  
*SingHealth*