**Biographical Sketch Isabel R. Dias**

Maria Isabel Ribeiro Dias was born on May 22, 1966, in Lisbon, Portugal. IR Dias is graduated in Veterinary Medicine at the Faculty of Veterinary Medicine (FMV) of the University Technical of Lisbon (UTL) (Portugal) in February 1991. She obtained her PhD in Veterinary Sciences at the University of Trás-os-Montes e Alto Douro (UTAD) (Portugal) in June 2004 and the Habilitation title in Veterinary Sciences – Clinic also at the FMV-UTL in May 2012.She is Assistant Professor with Habilitation of Small Animal Surgery in the Department of Veterinary Sciences from UTAD. She has taught at UTAD for 29 years, also serving and developing other responsibilities as responsible of the Surgery Service of the Teaching Veterinary Hospital (2005 – present), as Vice-Director of the Department of Veterinary Sciences from UTAD (2006 – 2007) and as director of the Teaching Veterinary Hospital (October 2013 – September 2019). In simultaneity, she assisted the Teaching Veterinary Hospital in continuance during these 29 years (1991 – present) as a member of the surgical team, helping the students to develop their practical surgical skills and knowledge, also assisting the general community as a practical clinic of the Teaching Veterinary Hospital and contributing to realize profit for UTAD.

IR Dias incorporated the 3B’s Research Group from University of Minho, Portugal, in 2007 as a member of the academic staff, where she develops and is involved in numerous research studies in the Regenerative Medicine and Engineering of Bone and Cartilage field, namely performing *in vivo* studies to evaluate the biocompatibility and functionality of hybrids substitutes for bone and cartilage tissues and developing large animal models (sheep, goat) for orthopedic research. She is also a collaborator research member of the Centre for Research and Technology of Agro-Environmental and Biological Sciences (CITAB) from UTAD. In this 1st scientific field, she was involved in two research projects supported by the Portuguese Foundation for Science and Technology (FCT): “VivoTissue – *In vivo* functionality and criopreservation of cells-materials constructs aimed at the regeneration of bone and cartilage defects” (PTDC/CVT/67677/2006) and “MaxBone – Maxillofacial Reconstruction using Regenerative Therapies: from Stem Cells to Pre-Clinical Trials” (PTDC/SAU-ENB/115179/2009). She has authored two book chapters from Woodhead Publishing Limited and Springer, and several scientific papers, namely in *Biomaterials*, *Acta Biomaterialia*, *Journal of Tissue Engineering and Regenerative Medicine*, *Cythotherapy*, *Cells Tissues Organs* and *Tissue Engineering*. In this scientific field, she was also involved in the supervision of two postdoctoral fellows and one a PhD student and in numerous other studies that are being performed and/or being prepared for publication.

A 2nd scientific field of interest is referred to the behavior of bone tissue to fracture. In this scientific field, IR Dias is member of the research team of three research projects supported by FCT: “Fracture behavior of cortical bone tissue” (PTCP/EME-PME/71273/2006), “Fracture behavior of cortical bone under mixed-mode I+II loading” (PTDC/EME-PME/119093/2010) and “Development of an innovative composite system for stabilizing comminuted bone fractures” (PTDC/EME-SIS/28225/2017) and she is involved in scientific papers published in the *Journal of the Mechanical Behavior of Biomedical Materials, Engineering Fracture Mechanics* and *Materials Science and Engineering C*, among others international journals.

A 3rd scientific field of interest is studying the pathophysiology of fracture bone healing process developed in a pre-clinical large animal model (sheep) and in clinical studies in Small Animals Traumatology and Orthopaedics (dog) with resource to assessment of the variation of formation and resorption of bone turnover biomarkers (BTMs) and bone histomorphometry analysis during bone fracture healing and osteoporotic bone. In these studies we try to evaluate if the serum values of BTMs could be of value in research and to provide complementary non-invasive information on the bone healing process, particularly with regard to obtaining an early prognosis of fracture healing, by permitting an assessment of the dynamic process of bone healing, and providing a foundation for early decisions in the treatment of bone fractures, namely to avoid fracture complications as the development of delay or non-union processes. In this research field, IR Dias has received the *Pfizer Award in Clinical Research 2007*, she supervised one MSc thesis and one PhD thesis and she was also involved in the supervision of another PhD student, and she has also authored and co-authored scientific papers in this scientific field, namely in *Laboratory Animals (UK)*, *Lab Animal (NY)*, *Anais da Academia Brasileira de Ciências*, *Injury* and *BMC Veterinary Research*.

Finally, the 4th scientific field in which IR Dias is involved relates to numerous studies in veterinary dentistry and oral surgery, namely in the periodontal disease in dog. In this scientific field, she has received the *Pfizer Award in Veterinary Sciences 2005*, she participates in several studies which are being performed and/or being prepared for publication, and she has co-authored in numerous scientific papers, namely in *Gene*, *Veterinary Journal*, *Molecular Biology Reports* and *Parasites & Vectors*.

On the whole, she is author or co-author 5 book chapters, of more than 75 scientific papers and 180 oral and poster communications in national and international meetings. She supervised 2 PhD thesis and 28 MSc dissertations. She is also a member of several scientific societies, namely of the *European Society of Veterinary Orthopaedics and Traumatology* (ESVOT).