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Edited by Bachir Taouli

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Preface

Powered by the tremendous advances in technology over the last few years, MR imaging has the potential to go beyond morphology and provide functional information on organs and tumors. One of the most promising techniques is diffusion-weighted MRI (DWI), which has been routine in brain imaging since the early nineties, and is now applied more and more often in body imaging. I developed an interest in DWI when I was a resident; I thought it was fascinating to provide a different “dimension” to morphology. In the last few years, diffusion image quality outside the brain has improved tremendously, as major vendors and many research groups have focused their interest on this technique. While certain clinical applications of DWI – such as tumor detection and characterization – are more or less established and adopted by many academic and non-academic centers, DWI is

still in its infancy, and other applications such as diffuse liver and renal disease and tumor treatment response have to be established in larger confirmatory studies. I am pleased to serve as the editor of this book, compiling the most recent information on DWI applied to the body by world-renowned experts in the field. The text is divided by organ, thus making it more easily searchable, and will serve beginners as well as more advanced diffusion users. With this book, we hope to attract more researchers into body diffusion imaging, which has enormous potential particularly in oncology.

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