

Translational Research Methods for the Metabolic Continuum

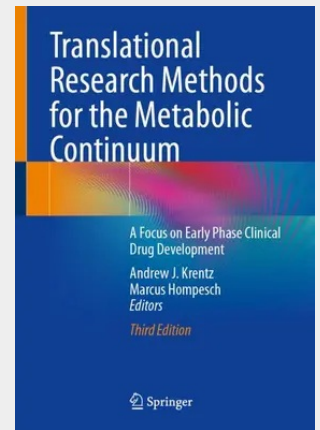
A Focus on Early Phase Clinical Drug Development

In this 3 edition, we position metabolic fatty liver disease (MAFLD) more prominently both as a component and driver of a *metabolic continuum* of non-communicable disorders. These include obesity, diabetes, cardiovascular, and renal disease. All share common risk factors and are interconnected via complex – and often bidirectional – pathological processes.

The pivotal position of MAFLD reflects increasing awareness in recent years of (a) intersections between metabolic liver disease and the broader spectrum of cardiometabolic disorders and (b) the unmet need for effective new pharmacotherapies.

Evidence from clinical trials of medications originally developed to treat obesity and diabetes points to the need for practical non-invasive methods for quantifying therapeutic effects on hepatic steatosis. An intense drug development effort continues aimed at the clinically important subtype of non-alcoholic steatohepatitis (NASH) which carries an increased risk of fibrosis, cirrhosis, and hepatocellular carcinoma. Moreover, MAFLD/NASH is recognized as a multisystem disease with myriad extrahepatic manifestations. The 3 edition will update all chapters with particular emphasis on expanding the chapters on hepato-cardio-renal and functional imaging; the chapter on isotopic tracer methodology will also be strengthened. Relevant new chapters in a new section will address the future prospects for biomarkers to include proteomics, metabolomics, and genomics. The potential of computational modeling in translational research will be covered alongside the value of real-world data in drug development and strategies for personalized precision management of diseases in the metabolic continuum. The book will continue our objective – established in the earlier editions – to remain at the forefront of clinical science that facilitates paradigm changes and provides leadership in translational research for cardiometabolic disorders.

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