1. Record Nr. UNINA9911019379603321 Autore Malviya Rishabha Titolo 3D Printing in Healthcare: Novel Applications Pubbl/distr/stampa Newark:,: John Wiley & Sons, Incorporated,, 2024 ©2024 **ISBN** 9781394234233 1394234236 9781394234219 139423421X 9781394234226 1394234228 Edizione [1st ed.] Descrizione fisica 1 online resource (308 pages) Altri autori (Persone) SharmaRishav Soggetti Three-dimensional printing Medical technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Cover -- Series Page -- Title Page -- Copyright Page -- Contents --Foreword -- Preface -- Chapter 1 Introduction to 3D Printing in Healthcare -- 1.1 Introduction -- 1.2 The Revolutionary Rise of 3D Printing Technology -- 1.3 3D Printing Revolution Engineering --1.4 3D Printer Types for Additive Manufacturing -- 1.5 3D Printing in the Healthcare Industry -- 1.6 Early-Phase Drug Development -- 1.7 Customized Drugs -- 1.8 Advanced Pharmacological Treatments --1.9 Community Medicine -- 1.10 Clinical Pharmacy Practice -- 1.11 3D Printing Process and Product Variable Optimization -- 1.12 Recent Trends in 3D Printing Regulation -- 1.13 Conclusion -- References -- Chapter 2 3D Printing in Medical Science -- 2.1 Introduction --2.2 Present Clinical Applications -- 2.3 3D-Printed Models in CHD --2.4 Cardiovascular Disease Models in 3D Printing -- 2.5 Tumor in 3D-Printed Models -- 2.6 3D-Printed Models in the Development of CT

Sommario/riassunto

Scanning Procedures -- 2.7 Pharmaceutical 3D-Printing Technologies

This book explores the innovative applications of 3D printing

technology in the healthcare sector. It delves into various aspects such as the development of customized implants, prosthetics, and advanced drug delivery systems. The book also examines the role of 3D printing in surgical planning and the fabrication of tissue-engineering scaffolds. By highlighting recent trends and regulatory challenges, the authors aim to provide a comprehensive overview of how 3D printing is revolutionizing medical science. Primarily intended for professionals and researchers in the medical and pharmaceutical fields, this work serves as an insightful resource for understanding the potential and limitations of 3D printing in healthcare.