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Nota di contenuto	1. Introduction to 3D printing in medicine / Uday Kiran Roopavath and Deepak M. Kalaskar -- 2. 3D printing families : laser, powder, nozzle based techniques / Elena Provaggi and Deepak M. Kalaskar -- 3. Materials for 3D printing in medicine : metals, polymers, ceramics, hydrogels / Gowsihan Poologasundarampillai and Amy Nommeots-Nomm -- 4. Computational analyses and 3D printed models : a combined approach for patient-specific studies / Claudio Capelli and Silvia Schievano -- 5. Patient specific in situ 3D printing : Dana Akilbekova and Damel Mektepbayeva -- 6. 3D printed in vitro disease models / Shibu Chameettachal and Falguni Pati -- 7. 3D printers for surgical practice / Subha N. Rath and Sharanya Sankar -- 8. 3D printed pharmaceutical products / Simon Gaisford -- 9. High-resolution 3D printing for healthcare underpinned by small-scale fluidics / Feihuang Fang [and three others] -- 10. Four dimensional printing in healthcare / Rohit G. Jadhav and Apurba K. Das.
Sommario/riassunto	3D Printing in Medicine examines the emerging market of 3D-printed biomaterials and its clinical applications. With a particular focus on both commercial and premarket tools, the book looks at their applications within medicine and the future outlook for the field. The book begins with a discussion of the fundamentals of 3D printing,

including topics such as materials, and hardware. Chapters go on to cover applications within medicine such as computational analysis of 3D printed constructs, personalized 3D printing and 3D cell and organ printing. The concluding chapters in the book review the applications of 3D printing in diagnostics, drug development, 3D-printed disease models and 3D printers for surgical practice. With a strong focus on the translation of 3D printing technology to a clinical setting, this book is a valuable resource for scientists and engineers working in biomaterial, biomedical, and nanotechnology based industries and academia. Provides a comprehensive and authoritative overview of all the medical applications of 3D printing biomaterials and technologies Focuses on the emerging market of 3D printed biomaterials in clinical applications Reviews both commercial and under development materials, tools, their applications, and future evolution
