1. Record Nr. UNINA9911129202103321

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Titolo	Bioengineering Design Methodology : A Tutorial Handbook for Training Engineers in Industrial Design Practice
Pubbl/distr/stampa	Cham : , : Springer, , 2026 ©2026
ISBN	9783032339409
Edizione	[1st ed.]
Descrizione fisica	1 online resource (462 pages)
Collana	Engineering Series
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Bioengineering Design Methodology -- Preface -- Contents -- 1. The Purpose of Bioengineering Design Training -- 2. Fundamentals in Bioengineering Design -- 3. Methodology for Bioengineering Design -- 4. Bioengineering Design Training -- 5. Design Cases for Training -- 6. Case 1: Cost-Efficient Production of a Human Growth Hormone Biosimilar -- 7. Case 2: Design of an Integrated Bioprocess for a Therapeutic Monoclonal Antibody -- 8. Case 3: Using a Xenograft Zebrafish Model for Evaluation of Oncogenic Drug Candidates -- 9. Case 4: Microfluidic Chip for Pharmacological Studies of Organotypic Teeth and Liver Cells -- 10. Case 5: Production of Ventricular Progenitors from Induced Pluripotent Stem Cells -- 11. Case 6: Cultured Meat as Novel Food Supply -- 12. Case 7: Design of a Point-of-Care Diagnostic Device for SARS-CoV-2 Infections -- 13. Case 8: A Bedside Sensor for Blood Glucose Testing of Diabetic Patients -- 14. Case 9: Design of a Novel Hemodialysis System -- Index.
Sommario/riassunto	This book teaches readers about the design of bioproducts where technical principles and methods are applied in combination with biological systems, which brings new challenges for design engineering thinking and for training bioengineers.