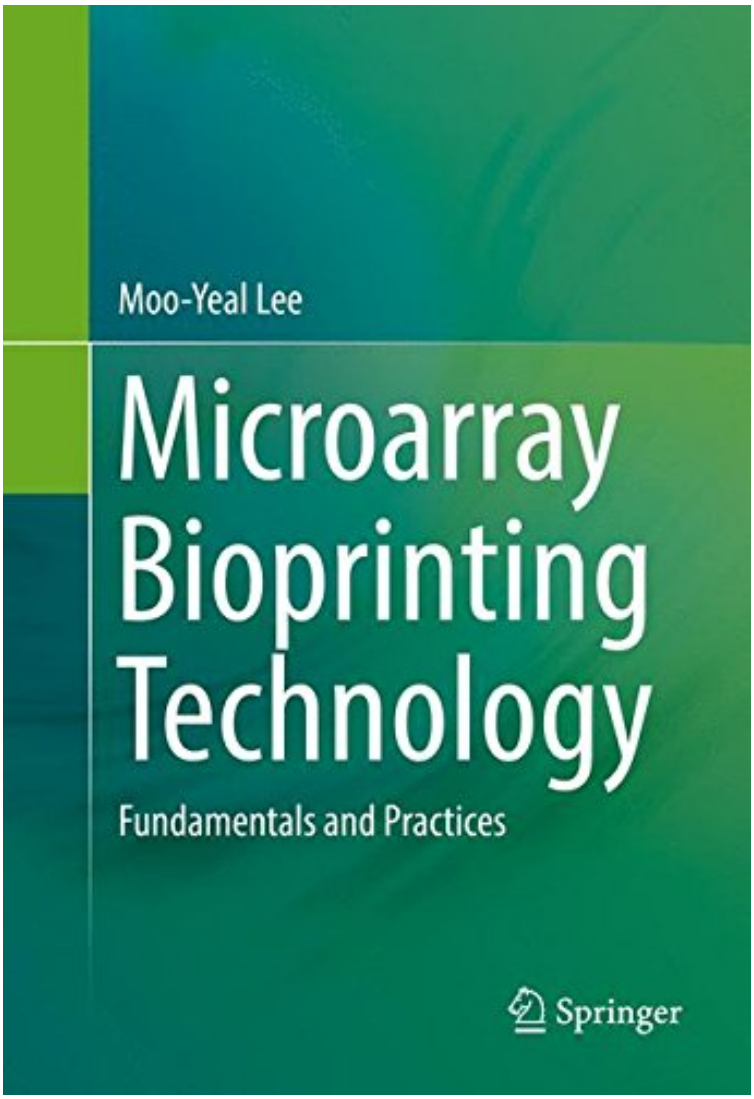
Microarray Bioprinting Technology: Fundamentals and Practices (Springerbriefs in Bioengineering)



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From Springer : Microarray Bioprinting Technology: Fundamentals and Practices (Springerbriefs in Bioengineering) before purchasing it in order to gage whether or not it would be worth my time, and all praised Microarray Bioprinting Technology: Fundamentals and Practices (Springerbriefs in Bioengineering):

This book introduces key fundamentals of microarray bioprinting, including the required chip platforms and associated

instruments/devices, experimental protocols for cell printing and biochemical- and cell-based assays, and several example applications. Various bioprinting approaches that allow for the rapid testing of hundreds of different cell culture conditions in combinations on a single chip are discussed in detail. Also covered is high-content, 3D cell-based imaging assays of tissue functions on miniaturized tissue constructs for high-throughput, predictive screening of drug efficacy and toxicity. This is an ideal book for graduate and postgraduate students in the field of biomedical engineering as well as scientists in the pharmaceutical industry. This book also: Broadens readers understanding of the principles of microarray bioprinting, chip platforms and associated instruments/devices, and surface chemistry for micropatterning of cells on the chip platformCovers the latest developments in printing cells in hydrogels and methods of gelation as well as printing other biological samples in aqueous solutionsIllustrates the complete process for cell staining and high-content imaging of 3D cells on the chip and predicting human metabolism and toxicology on the chip

From the Back CoverThis book introduces key fundamentals of microarray bioprinting, including the required chip platforms and associated instruments/devices, experimental protocols for cell printing and biochemical- and cell-based assays, and several example applications. Various bioprinting approaches that allow for the rapid testing of hundreds of different cell culture conditions in combinations on a single chip are discussed in detail. Also covered is high-content, 3D cell-based imaging assays of tissue functions on miniaturized tissue constructs for high-throughput, predictive screening of drug efficacy and toxicity. This is an ideal book for graduate and postgraduate students in the field of biomedical engineering as well as scientists in the pharmaceutical industry. This book also: Broadens readers understanding of the principles of microarray bioprinting, chip platforms and associated instruments/devices, and surface chemistry for micropatterning of cells on the chip platformCovers the latest developments in printing cells in hydrogels and methods of gelation as well as printing other biological samples in aqueous solutionsIllustrates the complete process for cell staining and high-content imaging of 3D cells on the chip and predicting human metabolism and toxicology on the chipAbout the AuthorDr. Moo-Yeal Lee is an Assistant Professor at Cleveland State University in theDepartment of Chemical Biomedical Engineering.