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Nota di contenuto	Chapter 1. The hope and the hype in organoid technology in regenerative medicine (Badrul Hisham Yahaya) -- Chapter 2. Pluripotent stem cell derived and adult-tissue-derived organoid (Tiago G. Fernandes) -- Chapter 3. Generation of human organoid for 3D stem cell culture Hans Clevers -- Chapter 4. Organogenesis in a dish: Organ developmental study using organoid technology (Kursad Tuksen) --

Chapter 5. Disease modelling using patient-derived organoid (Narisorn Kitiyanant) -- Chapter 6. Tumor organoid as a model to study cancer microenvironment (Ahmad Faried) -- Chapter 7. Gene-editing in organoid to improve understanding of human disease (Yinming Liang) -- Chapter 8. Organoid culture as a good model to study lung development (Mitsuru Morimoto) -- Chapter 9. Organoid as good model for respiratory diseases (Badrul Hisham Yahaya).-Chapter 10. In vitro 3D model on reproductive system (Ruttachuk Rungsiwiwut) -- Chapter 11. Modelling of neuronal organoid: The way forward and challenges (Juntang Lin) -- Chapter 12. Generation of cardiac organoid in early heart organogenesis (Tan Jun Jie) -- Chapter 13. Neural Crest-Derived Stem Cells in organoid development for neurodegenerative disease modelling (Darius Widera) -- Chapter 14. Organoid for drug discovery and personalized treatment (Toshio Takahashi) -- Chapter 15. Ethical concern on patient-derived organoid (Phuc Van Pham).

Sommario/riassunto

Organoid Technology for Disease Modelling and Personalised Treatment provides a comprehensive overview of current knowledge of the organoid as a human-organ-in-a-dish, a powerful new technology for studying fundamental aspects of human organ development and disease progression in the search for drugs for personalised treatment. This preclinical tool is extensively being utilised as a model for studying human diseases in a dish, which is critical for accurate predictive modelling in precision medicine. The chapters in this book introduces readers to the numerous applications of organoids in various fields of study, as well as ethical considerations associated with organoids. In stem cell biology and regenerative medicine, where chimaera research, biomaterials for tissue vascularisation, gene-editing technologies, and their use in clinical procedures especially issues related to ethical concern over the use of human organoids have gotten much attention. Organoid Technology for Disease Modelling and Personalised Treatment is an excellent resource for in-depth research on one of the most interesting and significant topics in stem cell and regenerative medicine. This book's chapter collection covers a fresh viewpoint on organoid technology that scholars will require reading.