

Χαρακτηριστικά:

- Covers synthetic biology applications widely used in the healthcare sector
- Provides insights into advancements in novel vaccine and drug delivery systems and its effective uses for the management of various types of diseases
- Shares recent perspectives and challenges towards the diagnosis and management of diseases like cancer, diabetes, antibiotic resistance bacterial infection, using synthetic biological approaches

Περιεχόμενα:

1. An introduction of synthetic biology and important milestones
Subhajit Das and Ayan Chatterjee
2. Applications of genome synthesis and editing in synthetic biology
Himel Mondal, Shaikat Mondal, Sairavi Kiran Biri and Shreya Sharma
3. Application of xenonucleotide in synthetic biology
Rajdip Goswami, Sourin Saha, Nilanjan Sarkar, Arvind Kumar, Kalyan Roy and Mainak Chakraborty
4. Application of cell-free system in synthetic biology
Bhupendra Prajapati, Neelakanta Sarvashiva Kiran, Chandrashekar Yashaswini and Ankita Chatterjee
5. Application of computational methods and artificial intelligence in synthetic biology
Naga Bhushana Rao Karampudi
6. Application of synthetic biology in bioactive peptide designing
Rupsha Karmakar, Atasi Hazra, Souradip Basu, Mahashweta Mitra Ghosh and Sayak Ganguli
7. Application of synthetic biology in vaccine development
Ayon Dutta, Dipanjana Ash, Biswajit Basu and Bhupendra Prajapati
8. Application of synthetic biology in novel drug delivery system
Rajdip Goswami, Saikat Santra, Meghamouli Rana, Bhaskar Pal, Mainak Chakraborty, Biswajit Basu and Bhupendra Prajapati
9. Application of synthetic biology in engineered therapeutic antibodies
Neeraj Soni, Deepika Trakroo, Madhurjya Protim Borah and Mithu Baidya
10. Application of synthetic biology in mammalian cell-based therapies and cancer
Krishnendu Adhikary, Riya Dey, Prity Chatterjee, Sucheta Chatterjee, Baisakhi Mukherjee and Farzad Taghizadeh-Hesary
11. Application of synthetic biology in infectious and communicable diseases
Sayantan Kundu, Shilpa Chatterjee, Biswajit Basu and Bhupendra Prajapati
12. Application of synthetic biology in genetic disorder
Reyed M. Reyed, Riya Patel, Shivani Patel and Bhupendra Prajapati
13. Application of synthetic biology in lifestyle disease
Piyali Khamkat, Bramhajit Chatterjee, Vivek Barik, Swarupananda Mukherjee, Biswajit Basu and Bhupendra Prajapati
14. Application of synthetic biology in age-related and neurodegenerative disease
Sourav Ghosh, Sayantan Kundu, Riya Jana, Biswajit Basu and Bhupendra Prajapati
15. Application of synthetic biology in biosynthesized pharmaceuticals
Dipanjana Ash, Ayon Dutta, Biswajit Basu and Bhupendra G. Prajapati

16. Application of synthetic biology in biosensors
Subhadip Chakraborty