Considerable effort has been and is being expended in the development of screening assays, particularly as a response to the need for the evaluation of large numbers of samples in HTS and the expectation that many new targets will be identified in the wake of genome sequencing projects. High-throughput screening involves the robotic handling of very large numbers of candidate samples, the registering of appropriate signals from the assay system, and data management and interpretation. However, the advent of HTS, whereby lead discoveries may be identified in a matter of days from libraries of 103–105 compounds, may be limited by the provision of sufficient quantities of the assay components. The development of surrogate hosts, such as enzyme inhibition, receptor binding, and cell function assays, provides possible means of alleviating such bottlenecks.

A large number of drugs manufactured through recombinant methods are coming off patents, creating markets for biogeneric medicines.

WEB REFERENCES

1. Eder J, Herrling PL, Trends in modern drug discovery. *Handb Exp Pharmacol*. 2016;232:3–22. https://www.ncbi.nlm.nih.gov/pubmed/26330257.
2. Top 7 trends in pharmaceutical research in 2018, April 25, 2018. https://www.biopharmatrend.com/post/60-top-7-trends-in-pharmaceuticalresearch-in-2018-and-beyond/.
3. Nielson, K, Emerging Trends in Healthcare and Drug Development.
4. Trends in Drug Development.
5. Drug Discovery Market 2017. Latest trend, Demand, Development Status, Size, Share & 2022 Global Industry Growth Analysis Report.
6. Better Market Intelligence. https://offer.alpha-sense.com/better-market-intelligence-whitepaper-pharma?utm_campaign=Better%20Market%20Intelligence%20With%20Smart%20Search&utm_source=FiercePharma&utm_medium=Display&utm_term=WPv1&utm_content=Roller.

BIBLIOGRAPHY

Ahn K. The worldwide trend of using botanical drugs and strategies for developing global drugs. *BMB Rep*. 2017;50(3):111–116.

Amoroso L, Haupt R, Garaventa A, Ponzoni M. Investigational drugs in phase II clinical trials for the treatment of neuroblastoma. *Expert Opin Investig Drugs*. 2017;26(11):1281–1293.

Awad A, Trenfield SJ, Goyanes A, Gaisford S, Basit AW. Reshaping drug development using 3D printing. *Drug Discov Today*. 2018;23(8):1547–1555.

Berry BJ, Smith AST, Young JE, Mack DL. Advances and current challenges associated with the use of human induced pluripotent stem cells in modeling neurodegenerative disease. *Cells Tissues Organs*. 2018:1–19.

Brunetti J, Falciani C, Bracci L, Pini A. Models of in-vivo bacterial infections for the development of antimicrobial peptide-based drugs. *Curr Top Med Chem*. 2017;17(5):613–619.

Cal PM, Matos MJ, Bernardes GJ. Trends in therapeutic drug conjugates for bacterial diseases: A patent review. *Expert Opin Ther Pat*. 2017;27(2):179–189.

Cuykx M, Rodrigues RM, Laukens K, Vanhaecke T, Covaci A. In vitro assessment of hepatotoxicity by metabolomics: A review. *Arch Toxicol*. 2018;92(10):3007–3029.