Advancing biotechnology with CRISPR/Cas9: recent applications and patent landscape - DTU Orbit (16/11/2018)

Advancing biotechnology with CRISPR/Cas9: recent applications and patent landscape
Clustered regularly interspaced short palindromic repeats (CRISPR) is poised to become one of the key scientific discoveries of the twenty-first century. Originating from prokaryotic and archaeal immune systems to counter phage invasions, CRISPR-based applications have been tailored for manipulating a broad range of living organisms. From the different elucidated types of CRISPR mechanisms, the type II system adapted from Streptococcus pyogenes has been the most exploited as a tool for genome engineering and gene regulation. In this review, we describe the different applications of CRISPR/Cas9 technology in the industrial biotechnology field. Next, we detail the current status of the patent landscape, highlighting its exploitation through different companies, and conclude with future perspectives of this technology.

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