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総　説

糖鎖科学による医薬品の差別化

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Development of Next-generation Biologics by Glycoengineering

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Summary

The importance of glycoengineering on biologics development has been realized since the fact that recombinant protein produced by host cells such as *E. coli*., yeast, and even animal cells is not necessary as active as the natural origin. It is still a very important and challengeable issue for biopharmaceuticals to adequately control the post-translation modification of glycosylation. Currently, the company that has developed the technology for glycosylation of the biologics is expected to make a new big market of next-generation biologics and biogeneric as well in near future. In biopharmaceutical filed, new competitive trend based on glycoengineering has now started for providing a new benefit of human beings.

Key words

糖鎖制御技術 (glycoengineering), バイオ医薬品 (biologics), フコース修飾されていない抗体医薬 (non-fucosylated therapeutic antibody), ポテリジェント (Potelligent®), 次世代抗体医薬 (next-generation therapeutic antibody), 抗体依存性細胞傷害活性 (antibody-dependent cellular cytotoxicity; ADCC)