



BIOCON LTD. – A BIOTECHNOLOGY CASE STUDY

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Domain: Biotechnology

Batch: 1/11/25 to 30/11/25

OVERVIEW

- Introduction
- Key product portfolio
- Insulin innovation
- application
- Biotechnology Innovation
- technology and R&D strength
- market impact
- Challenges faced
- future planned
- conclusion

INTRODUCTION

Founded in 1978; India's largest biopharmaceutical company.

HQ: Bengaluru, India

Focus areas: Biosimilars, Insulins, Oncology, Immunology, Enzymes

Mission: Deliver affordable, high-quality biologics globally.



BIOCON INNOVATION

1. Biosimilar Insulins (Affordable diabetes therapy)
2. Monoclonal Antibody Biosimilars
3. Novel fermentation technologies
4. Biologics manufacturing using mammalian cell culture
5. Global collaborations (Mylan/Viatris, Sandoz)

KEY PRODUCT PORTFOLIO

Biosimilar Trastuzumab – Breast cancer therapy

Biosimilar Pegfilgrastim – For chemotherapy-induced neutropenia

Insulin Glargine, Lispro, Aspart

Biologics for oncology & immunology

FOCUS ON INSULIN INNOVATION

Biocon is one of the largest insulin manufacturers globally.

1/5th of the world's insulin-dependent population uses Biocon insulin.

Goal: \$1 insulin for low-income countries.

TECHNOLOGY AND R&D



State-of-the-art Biocon Biologics R&D center.

Expertise in:

Recombinant DNA technology

Mammalian cell culture

Purification & bioprocess engineering

Strong IP portfolio (>1200 patents).

APPLICATION OF BIOCON'S PRODUCT

Diabetes management (affordable insulin)

Cancer treatment

Autoimmune disorders therapy

Chemotherapy support

Global healthcare accessibility

MARKET IMPACT

Biocon biosimilars approved in 100+ countries.

Affordable alternatives to expensive biologics.

Major impact in low- and middle-income countries.

Biocon Biologics valued as a global biosimilar leader.

CHALLENGES FACED

Strict regulatory approval (FDA, EMA).

High R&D and manufacturing cost.

Competition from global giants.

Supply chain issues post-COVID.

FUTURE PLAN

Expansion in US & EU biosimilar markets.

More partnerships with global pharma companies.

Novel biologics pipeline (antibodies & fusion proteins).

Increasing insulin affordability worldwide.

CONCLUSION

Biocon represents India's success in global biotechnology.

Leading producer of cost-effective biosimilars.

Strong impact on diabetes and cancer treatment.

A model biotech company combining innovation + affordability.

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THANK YOU

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