# YASHWANTRAO BHONSALE COLLEGE OF PHARMACY

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"Understanding the Chemistry & Pharmacology of Antibody-Drug Conjugates in Triple- Negative Breast Cancer with special reference to Exatecan derivatives"
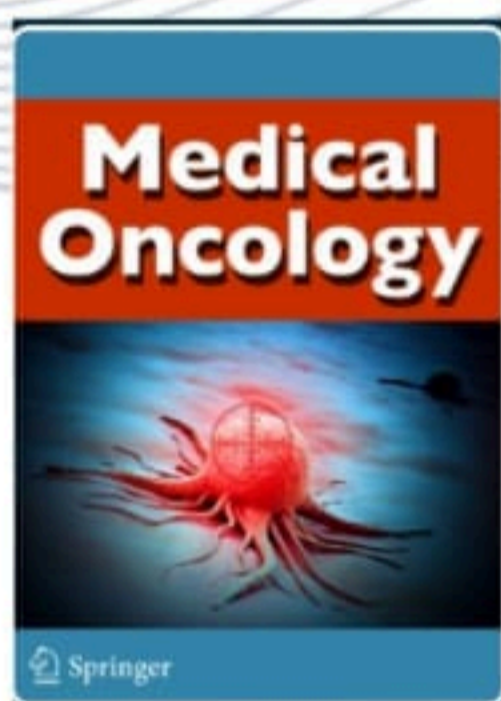
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REVIEW ARTICLE

# Understanding the chemistry & pharmacology of antibody–drug conjugates in triple-negative breast cancer with special reference to exatecan derivatives

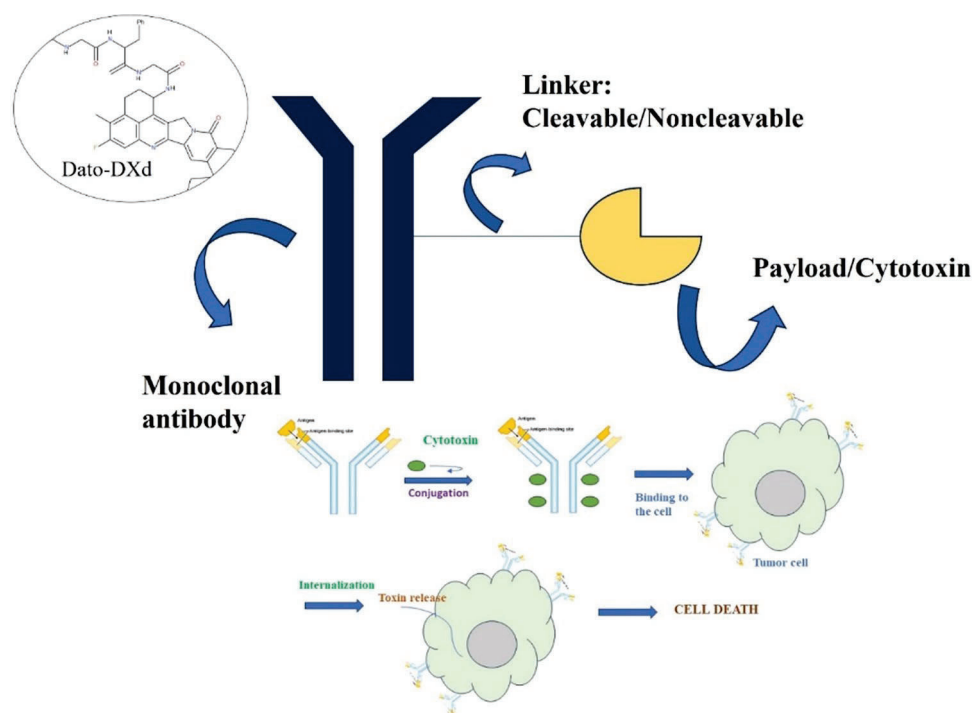Sanjana Sawant[1] · Gaurav Gopal Naik[1] · Alakh N. Sahu[2] · Vijay A. Jagtap[1]

## Abstract
In the spectrum of breast malignancies, triple-negative breast cancer is the most widely spreading subtype of breast cancer due to a low availability of therapeutic remedies. Recently, antibody–drug conjugates dramatically resolved the landscape for the treatment of triple-negative breast cancer. This review mainly focuses on the chemistry, structure, mechanism of action, and role of antibody–drug conjugates in triple-negative breast cancer. Datopotecan Deruxtecan (Dato-DXd) is a new-generation ADC showing encouraging results for TNBC. In this review, we have also emphasized TROP-2-directed Datopotamab deruxtecan ADCs to treat triple-negative breast cancer, its synthesis, mechanism of action, pharmacokinetics, pharmacodynamics, adverse events, and their ongoing clinical trials.

**Graphical abstract**

Extended author information available on the last page of the article

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