



2024

# Taipei International Breast Cancer Symposium

## 台北國際乳癌研討會

### Speech Abstract

Topic:

#### **The Current Role of combination chemotherapy in metastatic breast cancer treatment**

Abstract

Eribulin (Halaven®), a synthetic analog of halichondrin B, is a microtubule-targeting agent with a unique mechanism that disrupts microtubule dynamics. This molecule also has several non-mitotic effects on tumor biology, including impacts on epithelial-mesenchymal transition (EMT) and modulation of the tumor microenvironment.

Pre-clinical and translational studies have demonstrated that eribulin (Halaven®) can reverse EMT, alleviate tumor hypoxia, and reduce TGF-beta levels. These distinctive mechanisms are believed to enhance the drug's activity and reshape the tumor microenvironment, increasing the potential benefit of subsequent treatments after progression on eribulin (Halaven®). Given its unique action and effects on the tumor microenvironment, eribulin (Halaven®) is considered an excellent partner for combination therapy in metastatic breast cancer (MBC).

Survival rates among women with metastatic breast cancer (MBC) and advanced breast cancer (ABC) vary by age and site of metastases. Patients with visceral metastases generally face a poorer prognosis compared to those with non-visceral metastases. Anthracyclines and taxanes are key chemotherapeutic agents for breast cancer in both adjuvant and metastatic settings; however, no standard therapy has been established for MBC requiring early-line treatment. Recent studies, including the EMERALD study, which is the first to demonstrate the non-inferiority of eribulin compared to a taxane when used in combination with dual HER2 blockade as first-line systemic treatment for HER2-positive MBC, have shown that these approaches can significantly prolong both survival and progression-free survival (PFS) in MBC patients.

Gene expression heterogeneity within the MBC population may guide therapeutic decisions and lead to new targeted options. This talk aims to analyze comprehensive evidence on eribulin (Halaven®) use in MBC, including preclinical studies, interventional and observational clinical trials. Additionally, data from real-world settings and emerging evidence supporting the rationale for combination therapy with other agents will be discussed.