



2025

# Taipei International Breast Cancer Symposium

台北國際乳癌研討會

Topic:

## **Beyond Cancer-Related Fatigue: Exploring Immunomodulatory Strategies to Reshape Breast Cancer Care**

Abstract

Cancer-related fatigue (CRF) is one of the most prevalent and distressing symptoms experienced by breast cancer patients, often persisting throughout their disease journey and significantly impact on daily function and quality of life. While pharmacological interventions- such as Astragalus polysaccharides (APS, PG2 Lyo. Injection™) are recommended for moderate to severe CRF, growing evidence suggests that PG2 may offer benefits beyond fatigue relief.

PG2™, approved in Taiwan for the treatment of CRF and reimbursed by National Health Insurance (NHI) since March 2021 for stage IV breast cancer patients, has demonstrated efficacy not only in fatigue reduction but also in immune modulation. Real-world evidence (RWE) from the REBORN study evaluated advanced breast cancer patients (N=204- 261) with moderate to severe CRF. Treatment with six doses of PG2™ resulted in statistically significant reductions in fatigue scores (VAS <4), with ≥30% improvement observed in up to 79% of patients. Notably, enhanced benefits were seen among premenopausal and non-visceral metastasis subgroups. More than 90% of patients reported clinically meaningful improvement, supported by high physician-reported response rates and treatment continuation recommendations.

In addition to fatigue symptom improvement, APS modulates immune activity by affecting macrophage polarization and cytokine profiles, as observed in other cancer settings such as esophageal and colorectal cancers. These immunologic properties suggest potential value in enhancing host-tumor interaction and may reshape integrative treatment strategies for breast cancer.

In summary, APS not only improves cancer-related fatigue in breast cancer patients but also shows promise as an immunomodulatory agent. Its clinical application may extend beyond symptom control toward broader therapeutic support in oncology.