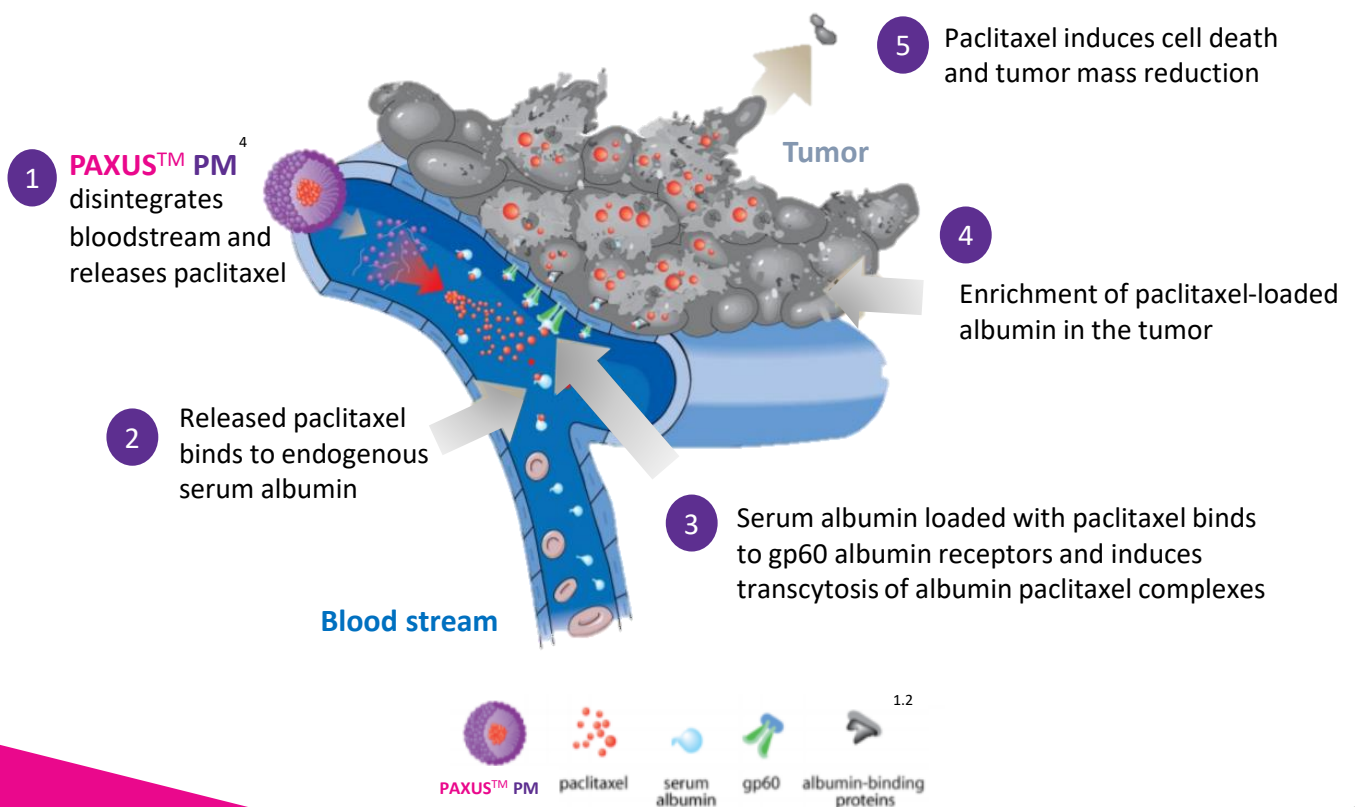




PAXUSTM PM

Paclitaxel - Polymeric Micelle^{1,1}

Approved for Recurrent or Metastatic Breast Cancer as First-line treatment^{3,1}



An Open-Label, Randomized, Parallel,
Phase III Trial Evaluating the Efficacy and Safety of
Polymeric Micelle-Formulated Paclitaxel Compared to
Conventional Cremophor EL-Based Paclitaxel



for **Recurrent or Metastatic HER2-Negative Breast Cancer**^{2.1}

Study design

Patients were eligible^{2.2}

- ✓ Confirmed recurrent or metastatic HER2-negative breast cancer
- ✓ Had not been treated with taxane for recurrent or metastatic disease
- ✓ Had not relapsed within 1 year of receiving adjuvant Paclitaxel or Docetaxel treatment
- ✓ ECOG performance status of 0-2 with adequate organ function

PAXUS™ PM^{2.3, 4}

260 mg/m²
IV over 3 hours
every 3 weeks
(N = 105)

212 Patients
enrolled
in the study
were randomly
assigned 1:1 to a
treatment group^{2.3}

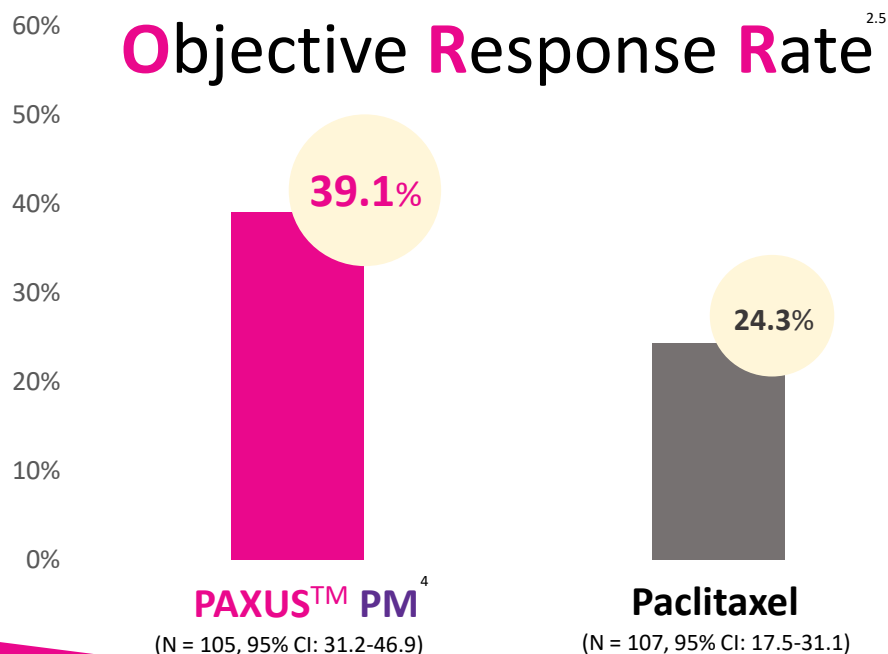
Paclitaxel^{2.3}

175 mg/m²
IV over 3 hours
every 3 weeks
(N = 107)

Primary objective to determine the **objective response rate (ORR)**^{2.4}

Secondary objectives included **progression-free survival (PFS) & overall survival (OS)**^{2.4}

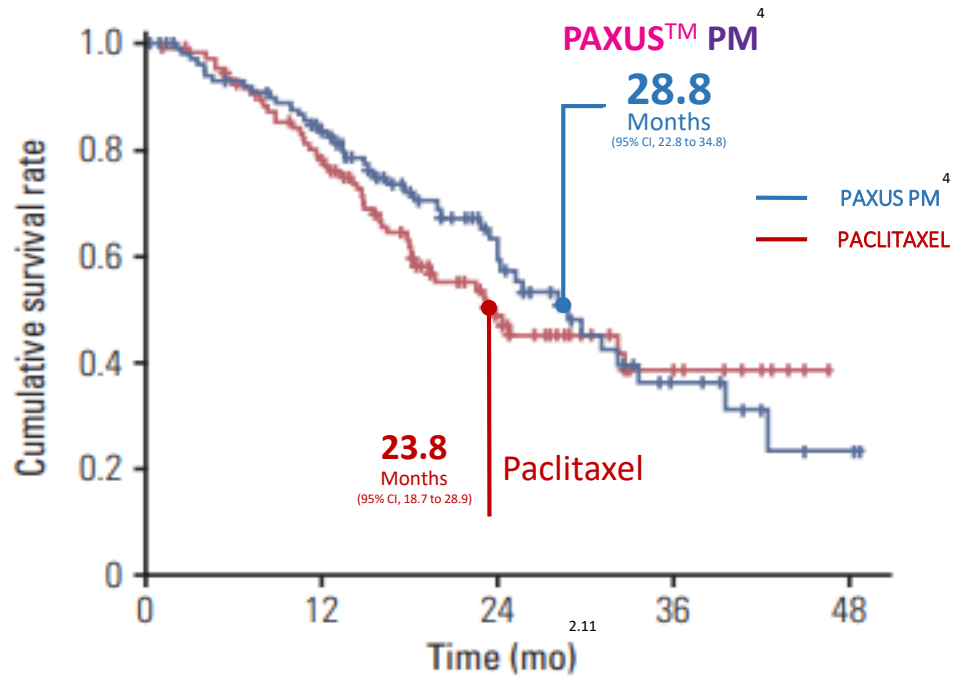
Objective Response Rate^{2.5}



A significantly
**higher response
rate of Paxus-PM**
compared to
Paclitaxel^{2.6, 4}

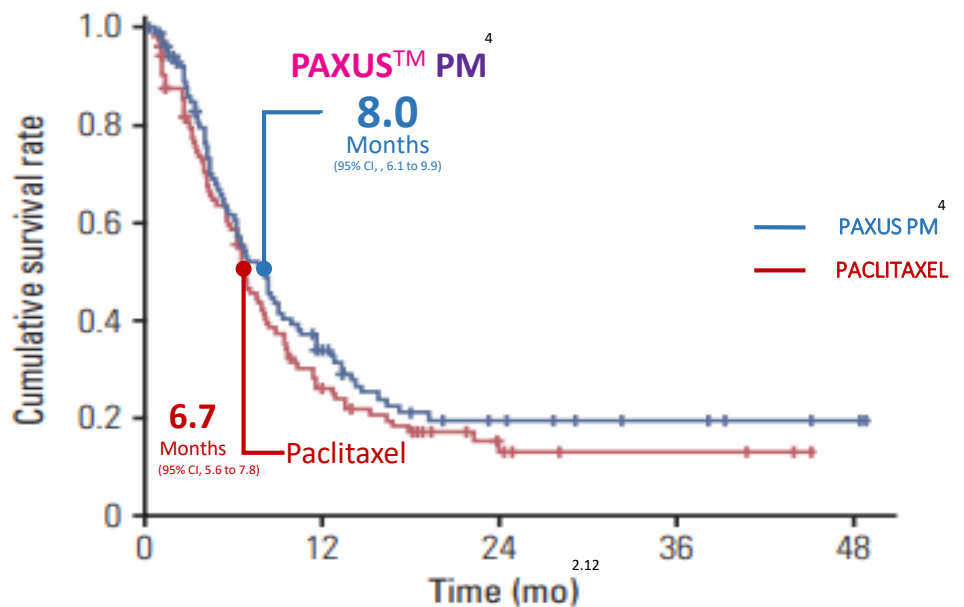
Overall Survival^{2.7}

Paxus PM⁴ has **prolonged OS** to 28.8 months



Progression Free Survival^{2.8}

Longer median PFS in Paxus PM⁴ group than the Paclitaxel group



Safety

Using different solubilizer make Paxus-PM safely administer higher doses of paclitaxel but show similar safety profiles to conventional paclitaxel^{2.9, 2.10, 4}

Paxus PM enhance the efficacy while limiting toxicities^{2.10, 4}

Dosage^{3.2}

The recommend regimen for PAXUS PM is 300 mg/m² administered by intravenous infusion over 3 hours every 3 weeks

Product packaging^{3.4}



30 mg/5ml
1 vial/box^{3.4}

PAXUS™ PM

Active ingredient^{3.3}

Paclitaxel
30 mg or 100 mg

Description^{3.3}

Lyophilized powder
for injection



100 mg/16.7ml
1 vial/box^{3.4}

Paxus PM (Paclitaxel 30 mg., 100 mg.) for injection **Active ingredient:** Each vial of Paxus PM for injection includes Paclitaxel (USP) 30 mg. or 100 mg. **Description:** Paxus PM is supplied as a white to yellowish, lyophilized powder for reconstitution before administration. **Indications:** 1. First-line treatment of metastatic or recurrent breast cancer 2. First-line treatment of locally advanced or metastatic non-small cell lung cancer (NSCLC) **Dosage and Administration:** **Breast Cancer** The recommend regimen for Paxus PM is 300 mg/m² administered by intravenous infusion over 3 hours every 3 weeks. **Non-small Cell Lung Cancer** The recommend regimen for Paxus PM is 230 mg/m² administered by intravenous infusion over 3 hours followed by cisplatin 60 mg/m² intravenous infusion every 3 weeks. Paxus PM therapy does not require premedication to prevent hypersensitivity reactions. However, premedication may be given approximately 30 minutes prior to Paxus PM administration in order to minimize the possibility of severe hypersensitivity reactions. **Contraindications:** 1. Paxus PM should not be administered to patients who have history of severe hypersensitivity reactions to paclitaxel 2. Paxus PM should not be used in patients with severe myelosuppression 3. Paxus PM should not be used in patients who accompany infection and 4. Paxus PM should not be used in pregnant women or child-bearing potential women. **Adverse reactions:** divided into hematological and non-hematological adverse events. **Hematological toxicity** which is bone marrow suppression (Neutropenia, Leukopenia, Thrombocytopenia, and Anemia) **Non-hematological toxicities** which are Peripheral neuropathy, Myalgia, Arthralgia, gastrointestinal toxicities, Alopecia, hepatotoxicity, and injection site reaction. **Pharmacology properties: Pharmacodynamic properties** Paxus PM for injection is polymeric micelle formulation of Paclitaxel. Paclitaxel is an antimicrotubule agent that promotes the assembly of microtubules from tubulin dimmers and stabilizes microtubules by preventing depolymerization. This stability results in the inhibition of the normal dynamic reorganization of the microtubule network that is essential for vital interphase and mitotic cellular functions. In additional, Paclitaxel induces abnormal arrays or "bundles" of microtubules throughout the cell cycle and multiple asters of microtubules during mitosis. **Pharmacokinetic properties** The maximum plasma Paclitaxel concentrations were observed between 1.45 and 3.22 hours after the start of the infusion. Mean values of C_{max} of Paclitaxel ranged from 714 ng/mL (at the dose 85 mg/m²) to 6,567 ng/mL (at the dose 390 mg/m²) in Paxus PM infusion. Mean values of the Paclitaxel half-life after the administration of Paxus PM ranged from 11.0 to 17.9 hours. Mean values of the total area under the curve (AUC_{inf}) ranged from 2,790 to 27,491 ng-hr/mL in the dose range tested. The mean values of total systemic clearance of Paclitaxel following 3-hour infusion of Paxus PM were 12.1-33.3 l/hr/m. The mean V_d of Paclitaxel in the terminal elimination phase following Paxus PM infusion ranged from 328 to 897 l/m². The metabolism of Paclitaxel is catalyzed by CYP2C8 and CYP3A4. Thus, caution should be exercised when administering Paxus PM concomitantly with known substrates or inhibitors of CYP2C8 and CYP3A4. **Storage and Handling:** Store in original cartons at 2-25°C and retain in the original package to protect from light. **Registration number:** 1C 1/64 (BF)³

References

- Hwang L., Douglass C., Nam D., et al. (2014, March). IG-001 Phase 4 Data in Korea: Safety and Efficacy. Paper presented at 31st Annual Miami Breast Cancer Conference, March 6-9, 2014, Miami Beach, FL.
- Park IH, Sohn JH, Kim SB, et al. An Open-Label, Randomized, Parallel, Phase III Trial Evaluating the Efficacy and Safety of Polymeric Micelle-Formulated Paclitaxel Compared to Conventional Cremophor EL-Based Paclitaxel for Recurrent or Metastatic HER2-Negative Breast Cancer. *Cancer Res Treat.* 2017;49(3):569-577. doi:10.4143/crt.2016.289
- Product insert of Paxus PM
- Declaration letter on product name from Samyang

"Please refer to the Summary of Product Characteristics for full details of Prescribing Information"