



## **PharmaMar's Novel Antibody-Drug Conjugate (ADC) demonstrates anticancer activity in HER2-expressing Tumors**

*Madrid and Boston, November 6, 2015:* PharmaMar (MSE:PHM), a world-leading biopharmaceutical company in the discovery and development of innovative marine-derived anticancer drugs, announced today that its novel Antibody-Drug Conjugate (ADC) demonstrates strong anticancer activity *in vitro* and *in vivo* against tumors expressing HER2 derived from breast, gastric and ovarian cancers. The novel ADC MI130004 consists of a new marine-derived tubulin inhibitor (PM050489) that is covalently bound to the HER2 antibody trastuzumab via a non-hydrolysable linker. The results have been presented today in a poster presentation during the Therapeutic Agents - Biological session at the AACR-NCI-EORTC International Conference "Molecular Targets and Cancer Therapeutics" taking place in Boston, November 5-9.

When tested in a panel of tumor cells expressing the receptor HER2 in their surface (HCC-194, SK-BR3 and BT-747) or tumor cells that do not express it (MCF-7 and MDA-MB-231), MI13004 demonstrated strong potency in those cells expressing the receptor. The authors found that the ADC MI130004 impairs tubulin polymerization, causing disorganization of the microtubule network leading to mitotic failures and halting cell division in cells expressing HER2, similar to the effect of the payload PM50489.

In the study, HER2-expressing tumor cells from breast, gastric and ovarian cancers were subcutaneously implanted into immunosuppressed mice to develop tumors up to certain volume (about 114 mm<sup>3</sup>). Upon treatment with MI130004 at different doses once a week over a course of 5 weeks, mice treated with the highest dose showed substantial tumor shrinkage with complete tumor remissions in all the mice implanted with BT747 breast tumor cells that lasted up to 120 days. MI130004 was shown to induce complete remissions in some of, but not all, the mice implanted with the breast tumor cells JIMT-1, the two gastric cancer cells Gastric-008 and N87 and the two ovarian cancer cells SK-OV-3 and A2780cis. Complete tumor remissions lasted even 385, 354 and 341 days in mice implanted with SK-OV-3, Gastric-008 and A2780cis, respectively.



The effect of MI130004 in all HER2-expressing tumors was confirmed 24h after treatment by showing mitotic aberrations in tumor cells indicating an anticancer activity mediated by microtubule inhibition and blockade of cell division.

Title: MI130004, a new ADC with a payload of marine origin shows outstanding activity against HER2-expressing tumors (Abstract A147).

Session Start/End Time and location: Friday, Nov 06, 12:15 PM - 3:15 PM, session A, Hall C-D.

#### **About PharmaMar**

Headquartered in Madrid, PharmaMar is a world-leading biopharmaceutical company in the discovery and development of innovative marine-derived anticancer drugs. The company has an important pipeline of drug candidates and a robust R&D oncology program. PharmaMar develops and commercializes YONDELIS® in Europe and has other three clinical-stage programs under development for several types of solid and hematological cancers, PM1183, plitidepsin, and PM60184. PharmaMar is a global biopharmaceutical company with subsidiaries in Germany, Italy, France, Switzerland, United Kingdom and the United States. PharmaMar fully owns other companies: GENOMICA, Spain's leading molecular diagnostics company; Sylentis, dedicated to researching therapeutic applications of gene silencing (RNAi); and two other chemical enterprises, Zelnova and Xylazel. To learn more about PharmaMar, please visit us at [www.pharmamar.com](http://www.pharmamar.com).

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