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Oncopeptides presents pre-clinical melflufen data at the AACR Annual Meeting 2020 that further validates the technical platform, PDC

STOCKHOLM — May 15, 2020 — Oncopeptides AB (Nasdaq Stockholm: ONCO) announces today that new pre-clinical data evaluating the potential of the lead candidate melflufen (melphalan flufenamide) have been selected for presentation at the American Association for Cancer Research (AACR). The poster presentations are now available online.

Melflufen is a first-in-class anticancer peptide-drug conjugate that rapidly delivers an alkylating payload into tumor cells. Melflufen is in late stage clinical development as a potential treatment of patients with relapsed refractory multiple myeloma (RRMM).

“The annual AACR meeting is an important forum to present and discuss early-stage data, and we are very pleased that three posters highlighting new data and important insights from our pre-clinical program have been accepted,” said Fredrik Lehmann, EVP and CMC at Oncopeptides. “As we continue to evaluate melflufen as a potential treatment for multiple myeloma, and broaden our research to evaluate its potential, we are pleased to highlight data that further evaluate the therapeutic peptide-drug conjugate platform.”

Below is a brief description of the three abstracts accepted for poster presentations at this year’s AACR Annual Meeting including highlights from the presentations. The full AACR Annual Meeting 2020 abstracts can be found here. <https://www.abstractsonline.com/pp8/#!/9045>

1. Title: Prognostic significance of esterase gene expression in multiple myeloma

Presenter: Romika Kumari, MD, Institute for Molecular Medicine Finland (FIMM), Helsinki Institute of Life Science, University of Helsinki, Helsinki, Finland

Esterases may play a role in multiple myeloma biology. Their expression levels are dysregulated during disease progression from NDMM to RRMM and several esterases are identified as prognostic markers in myeloma patients.

2. Title: Melflufen efficacy in multiple myeloma cell lines with TP53 aberrations

Presenter: Ana Slipicevic, Oncopeptides AB, Stockholm, Sweden

Melflufen can trigger myeloma cell death regardless of cells TP53 status and overcome the p53-deficiency-mediated melphalan resistance. Melflufen response rate in the del 17p patient subpopulation from the phase 2-study HORIZON is comparable to the general RRMM population suggesting that melflufen might be a therapeutic option for these difficult-to-treat patients.

3. Title: Melflufen, a peptide-conjugated alkylator, shows efficacy in breast cancer cell lines

Presenter: Alexander Schepsky, MD, University of Iceland

Melflufen shows high efficacy and selectivity in breast cancer cells compared to their normal derived isogenic counterparts. Efficacy is facilitated by multiple aminopeptidases including CD13, LAP3 and DPP7. This model indicates that melflufen, a peptide drug-conjugate, has an impact on malignantly transformed cells, which cannot be seen in their non-malignant, physiological normal counterpart.

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About melflufen

Melflufen (melphalan flufenamide) is a first-in-class anti-cancer peptide-drug conjugate that rapidly delivers an alkylating payload into tumor cells. Melflufen is rapidly taken up by myeloma cells due to its high lipophilicity and is immediately cleaved by peptidases to deliver an entrapped hydrophilic alkylator payload. Peptidases play a key role in protein homeostasis and feature in cellular processes such as cell-cycle progression and programmed cell death. In vitro, melflufen is 50-fold more potent in myeloma cells than the alkylator payload itself due to the increased intracellular alkylator concentration. Melflufen displays cytotoxic activity against myeloma cell lines resistant to other treatments, including alkylators, and has also demonstrated inhibition of DNA repair induction and angiogenesis in preclinical studies.

About Oncopeptides

Oncopeptides is a pharmaceutical company focused on the development of targeted therapies for difficult-to-treat hematological diseases. The company is focusing on the development of the lead product candidate melflufen, a first-in-class anti-cancer peptide-drug conjugate that rapidly delivers an alkylating payload into tumor cells. Melflufen is in development as a new treatment for the hematological cancer multiple myeloma and is currently being evaluated in multiple clinical studies including the pivotal phase 2 HORIZON study and the ongoing phase 3 OCEAN study. Oncopeptides' headquarters is in Stockholm, Sweden with U.S. headquarters in Boston, Mass. The company is listed in the Mid Cap segment on Nasdaq Stockholm with the ticker ONCO.

More information is available on www.oncopeptides.com.