

Osta Biotechnologies Inc.
Press Release
For Immediate Distribution

OSTA ANNOUNCES PROMISING HUMAN PROSTATE TISSUE BIOPSY PATHOLOGY RESULTS

RESULTS TO BE PRESENTED AT THE UPCOMING 2009 AMERICAN ASSOCIATION FOR CANCER RESEARCH 100th ANNUAL MEETING IN DENVER, COLORADO –APRIL 18 - 22

MONTREAL, QC – March 24, 2009 - Osta Biotechnologies Inc. today announced the results of a prostate cancer tissue biopsy study on its target for prostate cancer. Data from this study showed statistically significant elevation in the HO-1 levels in tumor biopsy samples from patients with advanced hormone refractory prostate cancer (HRPCA) compared to those with benign or localized prostate cancer (PCA). These results identify HO-1 as a potential biomarker and therapeutic target for advanced HRPCA and hold promise that Osta's novel HO-1 inhibitors, used alone or in combination with other chemotherapeutic agents such as taxol, could become the treatment of choice for treating advanced HRPCA in humans.

These findings represent an important milestone in Osta's plan to develop novel chemotherapeutic agents for the treatment of highly metastatic, aggressive and drug resistant tumors and provide an important advancement towards generating sufficient pre-clinical data in order for the company to advance towards IND filing.

Results of the Clinical Study

The clinical study was conducted in collaboration with Dr. Moulay Alaoui-Jamali, a Professor of Medicine at McGill University and the Group Leader of Drug Discovery at the Segal Cancer Centre of the Jewish General Hospital. The study cohort consisted of over 96 patients with benign, PCA and HRPCA. Tissue samples were obtained from transurethral resection of prostate tissue from patients, and HO-1 expression was evaluated by immunohistochemistry using a high-throughput tissue microarray from PCA cases composed of benign prostate, localized PCA and HRPCA. The normalized mean epithelial expression of HO-1 in HRPCA was 1.88 ± 0.99 , which was significantly higher than localized PCA (0.82 ± 0.95 ; $p < 0.05$) and benign prostate tissue (0.65 ± 0.88) ($p < 0.01$). Unlike epithelial cancer cells, HO-1 expression in stromal cells surrounding the cancer tissue was not significantly different between benign tissue, localized PCA and HRPCA.

Dr. Alaoui-Jamali commented "These results are exciting as they support our earlier basic molecular studies in preclinical models where HO-1 was found to play a rate-limiting step in the biology of prostate cancer progression and could represent a novel therapeutic target for HRPCA. Indeed, we have noticed that silencing of the HO-1 gene in HRPCA cancer cells decreased HO-1 activity, oxidative stress, and activation of several kinases hyperactivated in cancer. This coincided with reduced cell proliferation, cell survival, cell migration and invasion *in vitro*, as well as inhibition of prostate tumor growth and lymph node and lung metastases induced by human prostate cancer transplanted into mouse prostate. The impact of HO-1 silencing on these oncogenic features was mimicked by exposure of cells to one of the Osta lead HO-1 inhibitors, OB-24."

Dr. Ajay Gupta, Chairman & CEO of Osta commented "We are quite excited with these results and are continuing to further scale up our pre-clinical study in this aggressive and metastatic prostate cancer model. The successful development of OB-24 either alone or in combination with drugs such as taxol for the treatment of drug resistant and metastatic prostate cancer would represent a major breakthrough in the treatment of this devastating disease."

Osta Biotechnologies Inc.

Osta is a biopharmaceutical company listed on the TSX Venture Exchange (TSXV: OBI) dedicated to developing novel diagnostics and therapeutics for the aging population particularly in the areas of Cancer, Alzheimer's disease, Osteoporosis, Osteoarthritis and XLH.

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