Evaluation of Active Hexose Correlated Compound (AHCC) for the Prevention or Delay of Tumor Growth in Human Cervical Cancer Xenograft Model

Judith A. Smith ^{1, 2, 3}, Lata Mathew ¹, Anjali Gaikwad ², Mona Jaffari ¹, Michael Frumovitz ^{2, 3}, OLarissa Meyer ¹

² Department of Gynecologic Oncology, The University of Texas

M.D. Anderson Cancer Center, Houston, USA

The University of Texas Health Science Center Medical School, Houston, USA

Active Hexose Correlated Compound (AHCC) has potential to eradicate HPV with potential benefit for prevention of cervical cancer. In clinical studies AHCC has demonstrated numerous immunomodulating and potential restorative effects on natural killer (NK) cells, macrophages and cytokines. The objective of this study was to determine the role of daily treatment with AHCC in combination with cisplatin in treatment of cervical tumor growth using human cervical cancer orthotopic mouse model. Two cell lines were selected, SiHa (HPV+) and C33a (HPV-), and mice were treated with cisplatin 10 mg/kg *iv* once weekly × 6 weeks and daily AHCC 50 mg/kg by gastric gavage once daily × 6 weeks. These studies, again confirmed previous findings that expression of HPV was eradicated with once daily AHCC dosing. The combination of AHCC+ cisplatin did delay tumor growth as well. In conclusion, these data suggest daily dosing of AHCC will eradicate HPV 16/18 infections and the addition of AHCC to primary treatment regimens for cervical cancer may have a potential to improve response rates and prevent recurrence. Confirmatory clinical studies are warranted.

Study was sponsored by a research grant from Amino Up Chemical Co., Ltd. (Sapporo, Japan).

¹ Division of Pharmacy, The University of Texas M.D. Anderson Cancer Center, Houston, USA

³ Department of Obstetrics, Gynecology and Reproductive Sciences,