28AB-ISMS06 **Androprostamine A, a New Antitumor Agent for Castration Resistant Prostate Cancer**

○Yohko YAMAZAKI[1], Tohru MASUDA[1], Isao MOMOSE[1], Manabu KAWADA[1,2], Akio NOMOTO[3], Masakatsu SHIBASAKI[3]

[1]Institute of Microbial Chemistry (BIKAKEN), Numazu, [2]Institute of Microbial Chemistry (BIKAKEN), Laboratory of Oncology, [3]Institute of Microbial Chemistry (BIKAKEN)

Androgen receptor (AR) is a validated target in all clinical stages of prostate cancer. Previously we screened 50,000 cultured broths of microorganisms and isolated a new type of AR inhibitor, androprostamine A (APA), possessing specific cytotoxicity to androgen-dependent proliferation of human prostate cancer LNCaP and VCaP cell lines. Although APA dose not affect AR protein levels, it decreased androgen-mediated PSA expression at both mRNA and protein levels and decreased androgen-mediated KLK-2 and TMPRSS2 gene expression in LNCaP and VCaP cells. Besides, we evaluated the effect of APA on nuclear translocation and transcriptional activity of AR. As a result, APA neither inhibited AR nuclear translocation nor affected AR transcriptional activity. DNA microarray study showed that APA repressed several genes downstream of AR signaling, although the changes of gene expression was different from that of antiandrogen bicalutamide. This result suggests APA has a unique mechanism of action as an AR inhibitor and it is now under investigation.