1. **No.**

   FP01801015

2. **Title**

   Newly developed surveillance system for the smoking related carcinogenesis of the uterus by using liquid-based cytology specimens

3. **Period**

   2017-2019

4. **Summary**

   Continuing to examine the accuracy and usefulness of cervical cancer screening method and surveillance method using uterine cervical liquid-based cytology (LBC), to provide a more useful test method to be spread are the purpose of this study. In Japan, as the spread of uterine cervical liquid-based cytology (LBC) itself has been delayed, the utilization of morphology-based assisting devices for LBC using liquid-based cytology (LBC) has been further delayed. Eventually, the revision of the Japanese health insurance fee triggered an increase in the number of facilities adopting the uterine cervical liquid-based cytology (LBC), which promoted the introduction of morphology-based assisting devices for LBC like "Focal point" and "Imager system". The uterine cervical liquid-based cytology (LBC) using morphology-based assisting devices was expected to be high specificity, and an auxiliary test such as HPV test or LC-1000 test was suggested to supplement sensitivity of the cytology. In the near future, as a surveillance method for the cervical cancer high risk groups due to environmental factors such as genetic predisposition and/or smoking, it seemed to be most practical to use them together.

   In uterine endometrial cancer, the purpose of this study was to show that using liquid-based cytology (LBC) enables standardization of both interpretaion and reporting formats for cytology, which improve the accuracy and usefulness of endometrial cancer screening and surveillance. We have demonstrated both inside and outside Japan, that an endometrial liquid-based cytology (LBC) is not inferior in sensitivity and specificity as compared with the endometrial aspiration biopsy to detect endometrial malignancies. As for the surveillance method for high risk groups due to environmental factors such as genetic predispositions and/or smoking, it is suggested that the exfoliated-cell analyzer (LC-1000) can be used as an auxiliary test in addition to the accurate endometrial liquidl-based cytology (LBC).