Cervical cancer remains the leading cause of cancer deaths among women in the developing world. Despite major advances in prevention, screening, and treatment over the last century, each year approximately 250,000 women die of cervical cancer. The development of more effective treatment of women diagnosed with cervical cancer must remain a high priority. The United States National Cancer Institute (NCI), Gynecologic Cancer Intergroup (GCIG), the American College of Radiology, and the American Society for Radiation Oncology sponsored a cervical cancer “State-of-the-Clinical-Science” meeting September 27-28, 2007 to review current knowledge focused on pretreatment evaluation and prognostic markers in cervical cancer and make recommendations for future research. The participants in this cervical cancer meeting include representatives from ten of the member groups belong to the Gynecologic Cancer Intergroup, members of the NCI’s Gynecologic Cancer Steering Committee and its Cervical Cancer Task Force, investigators in the fields of imaging, translational research, gynecologic, radiation and medical oncology, patient advocates and NCI program staff.

During this meeting, recommendations were made for clinical examination to remain mandatory for staging, evaluation, and measurements of tumor volume. Magnetic resonance imaging was recommended to provide the most accurate imaging measure of tumor volume. In addition, the identification of lymph node (LN) metastasis still remains a high priority. Promising data in FDG PET warrants multicenter validation. Validated prognostic markers include tumor volume, uterine corpus extension, cervical lymph-vascular space invasion, extent of LN metastasis, current tobacco smoking, hemoglobin levels at time of diagnosis, and HPV-16 associated cancer.

Current specimen collections are inadequate for discovery and validation of biomarkers. Current and future trials should mandate collection of fixed tissues as well as DNA/RNA. Effective cross-group collaboration is necessary to permit timely completion of phase III trials. Centers with appropriate expertise and resources in the developing world should be encouraged to participate in the current clinical trials network.