consensus guideline using MR images. The goal of the current project is to expand on the previous atlas by including CT-based contours without and with PET±MRI registrations, to add common and complex scenarios, and to ask about simulation and treatment planning techniques.

**Methods**
28 experts contoured 3 cases, first on a non-contrast CT simulation scan, then with registered diagnostic images. The cases included (1) FIGO IIIC1 with a bulky tumor and a vaginal metastasis, (2) FIGO IIB with calcified uterine fibromas, and (3) FIGO IIIC2 with large lymph nodes. The contours were analyzed for consistency using an expectation-maximization algorithm for simultaneous truth and performance level estimation (STAPLE) with kappa statistics as a measure of agreement.

**Results**
Analysis of the contours showed considerable agreement between experts in each of the cases with kappa statistics of 0.67–0.72. For each case, use of diagnostic PET±MRI was associated with an increase in volume. The largest increase was in the CTV primary for Case 2 (20% increase in average volume, 64% increase in STAPLE estimate volume), which may be due to variance in registration priorities. For the third case, 92.9% of participants increased their CTVs based on the addition of the PET scan.

**Conclusion/Implications**
Here we show the value as well as the challenges of using co-registered diagnostic imaging. The main areas of variance remain determining the superior extent of CTV coverage, coverage of the mesorectum, simulation and planning protocols.

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**EP060/#474 POTENTIAL ANTI-HUMAN PAPILLOMAVIRUS THERAPEUTICS: MECHANISM AND ACTION OF COMBINATION THERAPY IN CERVICAL CANCEL CELLS**

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**Introduction**
Cervical cancer is the most common malignancy among women caused due to persistent high-risk human papillomavirus (HR-HPV) infection. The carcinogenesis of HPV is attributed to its early viral onco-proteins E6/E7, which increase cellular proliferation and survival mechanisms by interacting with cellular survival pathways including AKT/mTOR kinases, and activator protein-1 (AP-1; Jun/Fos) and E2F transcription factors. Cervical cancer cells become addicted to E6/E7 expression and undergo apoptosis when E6/E7 are disrupted. Previously, we demonstrated functional synergism between the HSP70-inhibitor SHetA2 and the CDK4/6-inhibitor palbociclib in cervical cancer. However, this synergism’s mechanism was not explored with respect to targeting HPV E6/E7 onco-proteins. Hence, the objective of this study was to evaluate the impact of SHetA2 and palbociclib alone,
A POTENTIAL THERAPEUTIC METHOD FOR EFFICACY OF INTERSTITIAL BRACHYTHERAPY LESS THAN WHOLE UTERUS IRRADIATION FOR UTERINE CERVICAL CANCER

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Introduction Current consensus guidelines for definitive cervical cancer intensity modulated radiation therapy (IMRT) recommend inclusion of the entire uterus within the clinical target volume, however this is controversial. We aimed to evaluate outcomes of patients with cervical cancer who were treated with less than whole uterus irradiation.

Methods We identified 112 patients with FIGO Stage IB-IVA cervical cancer treated definitively with concurrent chemoradiation, including IMRT and brachytherapy, from 2010 to 2022 at a single institution where the practice was to include the gross cervix tumor plus additional margin. Local, regional, and distant recurrences were analyzed using competing risk methods, and a Wilcoxon rank sum test was performed to assess differences in bowel dose based on the proportion of the uterus included in the planning target volume (PTV).

Results With a median follow up time of 30.1 months, the 2-year cumulative incidence of local recurrence was 5%. Compared with patients who had >90% of the uterus included in the PTV (n=35), patients who had <90% (n=77) of the uterus included in the PTV had significantly lower bowel D200cc (p<0.01). The cumulative incidence of locoregional failure was not significantly different between the two groups. Only one patient experienced an isolated local failure and their PTV included ≥90% of the uterus.

Conclusion/Implications Including less than the whole uterus for definitive cervix cancer IMRT does not compromise locoregional control. Less than whole uterus irradiation should be considered for cervix cancer patients to decrease bowel dose and treatment-related toxicity.