A Study of RO5217790 (HPV Targeted Immunotherapy) in Patients With High Grade Cervical Intraepithelial Neoplasia Associated With High Risk HPV Infection

Diane M Harper, MD, MPH[1,2,3], George D. Harris, MD, MS[1],Todd Shaffer, MD, MBA[1], Jeffrey Wall, MD[2],
Michelle Gabriel, PharmD[4], Jennifer Santee, Pharm D[4],
[1]Department of Community and Family Medicine, [2]Department of Obstetrics and Gynecology, [3]
Department of Informatics and Personalized Medicine, School of Medicine, University of Missouri-Kansas City
[4]School of Pharmacy, University of Missouri-Kansas City

Background and Purpose

Infection with Human Papillomavirus (HPV) is an essential cause of cervical cancer

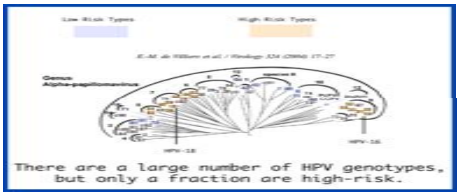
Of the ~100 HPV genotypes known, 13-16 are considered so-called high risk due to their disproportionate association with cervical cancer

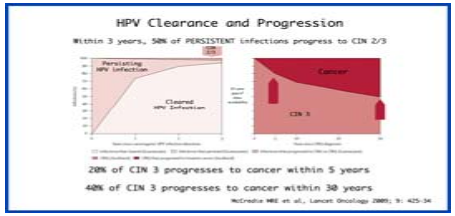
Of the high risk genotypes, HPV16 is the most prevalent

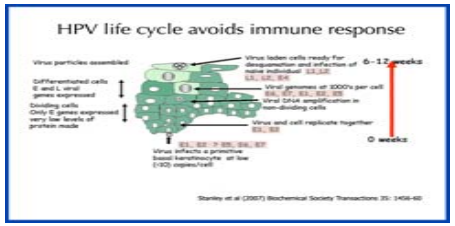
Cervical intraepithelial neoplasia is the precursor to cervical cancer

Surgical treatment with LEEP or conization is effective but there are complications such as preterm labor, premature rupture of membranes, and low birthweight

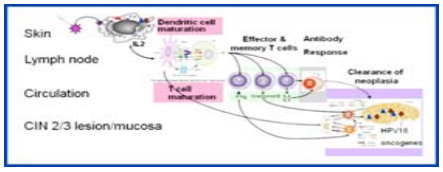
There is potential for a non-surgical intervention provided it delivers sufficient efficacy and is safe and convenient to use





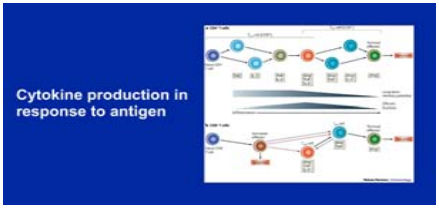


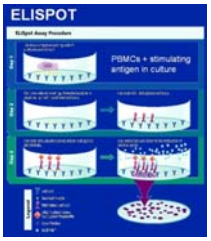
Targeted Immunotherapy



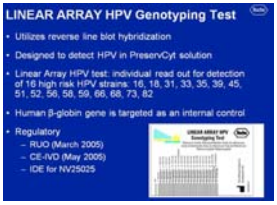
Biomarkers Used in Study

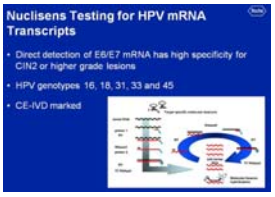
T cell responses





HPV Detection





Primary Outcome Measures

- Histologic resolution of CIN 2/3 lesion

Secondary Outcome Measures

- Viral clearance
  - Roche HPV genomic testing
- Immunological response to HPV antigens
- Safety and tolerability

Randomization to Intervention Arms:

received SC on days 1, 8 and 15

Experimental Drug:
RO5217790 in 0.5 mL buffer solution

VS

Placebo Comparator Drug:
Placebo 0.5 mL buffer solution

Eligibility Criteria

Inclusion Criteria:

Females >/= 18 years of age
Diagnosis of CIN 2/3 w/in 2 mo prior to study entry confirmed by colposcopy-directed bx
Patients must have at least 1 quadrant of residual CIN 2/3 disease remaining after bx
Single or multiple HR-HPV types at screening by Roche HPV genomic testing

Exclusion Criteria:

Colposcopically visible CIN 2/3 disease extending over more than 2 quadrants
Previous excisional or ablative surgical treatment for CIN
Any anatomical variant interfering with future surveillance of CIN
Vulvar(VIN) or vaginal (VaIN) intraepithelial neoplasia
Atypical endometrial or glandular cells or evidence of carcinoma on bx
Proven or suspected immunosuppressive disorder or autoimmune disease

ClinicalTrials.gov identifier: NCT01022346